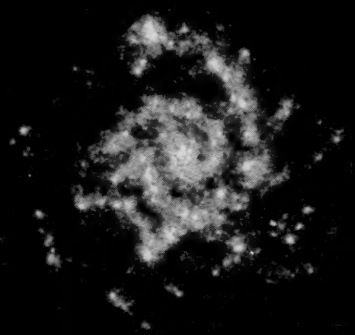
Annual Index
1993



Part One
SUBJECT

Volume 31
1993
N93-10001 to N93-32425

The NASA STI Program ... in Profile

Since its founding, NASA has been dedicated to the advancement of aeronautics and space science. The NASA Scientific and Technical Information (STI) Program plays a key part in helping NASA maintain this important role.

The NASA STI Program provides access to the NASA STI Database, the largest collection of aeronautical and space science STI in the world. The Program is also NASA's institutional mechanism for disseminating the results of its research and development activities.

Specialized services that help round out the Program's diverse offerings include creating custom thesauri, translating material to or from 34 foreign languages, building customized databases, organizing and publishing research results ... even providing videos.

For more information about the NASA STI Program, you can:

- **Phone** the NASA Access Help Desk at (301) 621-0390
- **Fax** your question to the NASA Access Help Desk at (301) 621-0134
- **E-mail** your question via the **Internet** to help@sti.nasa.gov
- **Write** to:

NASA Access Help Desk
NASA Center for AeroSpace Information
800 Elkridge Landing Road
Linthicum Heights, MD 21090-2934

Scientific and Technical Aerospace Reports



Scientific and Technical Aerospace Reports (STAR), is published each month as a major product of the International Aerospace Database, managed by the NASA Scientific and Technical Information (STI) Program.

Inside this issue you will find:

Front Matter
A typical citation and abstract sample explaining the standard format, which includes codes for ordering reports.

An Abstract Section
Citations and abstracts of reports and publications that provide comprehensive coverage of worldwide aerospace-related topics including aeronautics and space science technology. *STAR* lists published and publicly available reports entered into the NASA STI Database during the four weeks preceding publication of this issue. These citations and abstracts are listed by subject categories.

An Index Section
- Subject
- Personal author
- Corporate source
- Contract number
- Report number.

Appendix
A guide for ordering cited reports, registering with the NASA STI Program, and using the available products and services. Additionally, price schedules, phone numbers, and addresses are included in this information packed section.

NASA also sponsors companion journals, *International Aerospace Abstracts (IAA)*, and *NASA Open Volumes on Aerospace (NOVA)*. They list abstracts of the open literature on aerospace subjects available worldwide. IAA is available from the American Institute of Aeronautics and Astronautics (AIAA), and *NOVA* is for internal NASA use only, available from the NASA Center for AeroSpace Information (CASI).

Reports found in *STAR* are also available through the NASA online retrieval service, RECON, and the Aerospace Database through DIALOG.

The NASA STI Program gathers information through national and international agreements and exchanges and makes this information available to the NASA community and to the public in many forms through various outlets.

For additional information on the NASA STI Program, call the NASA Access Help Desk at (301) 621-0390, or write to:

NASA Center for AeroSpace Information
800 Elkridge Landing Road
Linthicum Heights, Maryland 21090-2934

US ISSN 0036-8741

SPECIAL NOTICE

The abstract sections of the monthly *STAR* journals can be bound separately. Individual abstracts can be located readily by means of the page numbers given at each entry, e.g., p 3181. To assist the user in binding *STAR* Volume 31, two (2) title pages are included in the back of Part 1 of the Annual Index.

This publication was prepared by the NASA Center for AeroSpace Information, 800 Elkridge Landing Road, Linthicum Heights, MD 21090-2934, (301) 621-0390.

For sale by the U.S. Government Printing Office
Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328
ISBN 0-16-043136-0

VOLUME 31 NUMBERS 1-12

Scientific and Technical Aerospace Reports

Annual Index (Part I) **January – December 1993**

TABLE OF CONTENTS

PART I Page

Introduction v
Subject Index A-1

PART II

Introduction v
Personal Author Index B-1
Corporate Source Index C-1
Contract Number Index D-1
Report Number Index E-1

INTRODUCTION

WHAT STAR ANNUAL INDEXES ARE

This Annual Index is an edited consolidation of the indexes to the individual issues of *Scientific and Technical Aerospace Reports (STAR)* for the calendar year 1993 (Volume 31 Numbers 1 through 12). For the convenience of the user, it is divided into two parts, each bound separately. Part I contains the Subject Index. Part II contains the Personal Author Index, Corporate Source Index, Contract Number Index, and Report Number Index. The Annual Index supersedes the monthly indexes previously issued during 1993.

Each entry in this index includes a group of identifying numbers in the following form: 10 p. 3133 N93-27685. The first two digits (10) identify the issue in which the document was announced. The "p" and the four digits that follow (3133) refer to the page number, in the designated issue, on which the abstract of the document appears. The next group of numbers (N93-27685) is the NASA Accession Number, a unique identification number assigned by NASA to each document that was acquired, indexed, and announced in *STAR* during the year.

In addition to these identifying numbers each entry in the Subject Index contains a title, or title and title extension. Each entry in the Personal Author and Corporate Source Indexes contains the title.

At the beginning of each index in this cumulation, a typical listing is illustrated with each of its elements identified to assist the reader in using the different types of index entries.

HOW TO USE THE SUBJECT INDEX

Subject terms in this cumulative index are arranged alphabetically, and are supplemented with cross-references which are intended to serve as directions that will enable the user to modify, enlarge, or narrow his search in accordance with his specific interest. The subject headings have been selected from the latest revision of the *NASA Thesaurus*. Two types of cross-references are used:

1. Use (U) references direct the user to alternate headings under which materials on the subject may be found. For example:

   ANNULAR JETS
   U ANNULAR FLOW
   U JET FLOW
   COLUMBIUM
   U NIOBIUM

2. Narrower Term (NT) references refer the user to more specific headings in the same subject area, under which additional material on the subject may be found. For example:

   EMISSION
   NT ELECTRON EMISSION
   NT NEUTRON EMISSION
   NT THERMAL EMISSION

Finally, a searcher should use the titles or title and title extensions in the index to narrow further his quest for particular items. This is because subject terms can readily refer to more than one class of document. For example:

CATHODES
Cesium plasma cathodes as sources of high intensity electron beams
Cathode material testing in electrochemical half cells

This illustrates a case where two references on different topics are listed under the same subject term.

HOW TO USE THE PERSONAL AUTHOR INDEX

All personal authors identified in the abstract section citations in the individual *STAR* issues appear in this index. Differences in transliteration schemes may require multiple searching of the index for variants of an author's name. For example:

EMELIANOV, M. D.
and
YEMELYANOV, M. D.

HOW TO USE THE CORPORATE SOURCE INDEX

The corporate source index entries are abridged versions of the corporate sources used in the abstract section citations in the individual issue supplements. The corporate source supplementary (organizational component) does not appear in the index. For example:

PRINCETON UNIV., N.J. DEPT. OF CHEMICAL ENGINEERING
(Source citation entry)
PRINCETON UNIV., N.J.
(Source index entry)

HOW TO USE THE CONTRACT NUMBER INDEX

All contract numbers that are identified in the abstract section citations in the individual *STAR* issues appear in this index. Changes by agencies in the style in which contract numbers are presented may require multiple searching for variants. For example:

AF 33(615)-67-C-1758
F33615-67-C-1758

HOW TO USE THE REPORT NUMBER INDEX

All report numbers that have been assigned by the corporate source, monitoring agency or cataloging activity appear in this index. Variations in initial input may result in different report number series. For example:

TP-924
ONERA-TP-924

A COMPREHENSIVE INFORMATION SERVICE

The National Aeronautics and Space Administration makes the results of worldwide research and development activities in aeronautics, space, and supporting disciplines promptly available to participants in its program. NASA's scientific and technical information system now contains over three million documents, which are abstracted, indexed, and obtained through retrieval and dissemination services. These services which include the abstract journal, *Scientific and Technical Aerospace Reports (STAR)*, are described fully in a bulletin, *The NASA Scientific and Technical Information System...and How to Use It*, available at no charge from the NASA Center for AeroSpace Information, 800 Elkridge Landing Road, Linthicum Heights, MD 21090-2934, phone: (301) 621-0390, through the Internet: help@sti.nasa.gov, or fax: (301) 621-0134.

AVAILABILITY OF DOCUMENTS

Information concerning the availability of documents announced in the *STAR* issues covered in this index can be found in a current issue.

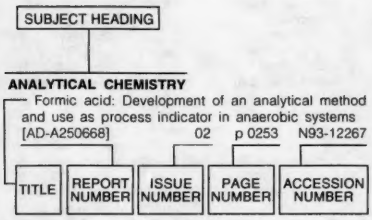
FEDERAL DEPOSITORY LIBRARY PROGRAM

In order to provide the general public with greater access to U.S. Government publications, Congress established the Federal Depository Library Program under the Government Printing Office (GPO), with 53 regional depositories responsible for permanent retention of material, inter-library loan, and reference services. At least one copy of nearly every NASA and NASA-sponsored publication, either in printed or microfiche format, is received and retained by the 53 regional depositories. A list of the regional GPO libraries, arranged alphabetically by state, appears on the inside back cover. These libraries are *not* sales outlets. A local library can contact a Regional Depository to help locate specific reports, or direct contact may be made by an individual.

PUBLIC COLLECTIONS OF NASA DOCUMENTS

An extensive collection of NASA and NASA-sponsored publications is maintained by the British Library Lending Division, Boston Spa, Wetherby, Yorkshire, England for public access. The British Library Lending Division also has available many of the non-NASA publications cited in *STAR*. European requesters may purchase facsimile copy or microfiche of NASA and NASA-sponsored documents, those identified by both the symbols # and * from ESA–Information Retrieval Service European Space Agency, 8-10 rue Mario-Nikis, 75738 CEDEX 15, France.

Typical Subject Index Listing



The subject heading is a key to the subject content of the document. Titles, issues, page numbers, report numbers, and accession numbers of pertinent documents are provided under each subject heading. When the title is insufficiently descriptive of the document content, a title extension is added, separated from the title by three hyphens. The report number helps to indicate the type of document cited (e.g., NASA report, NASA translation, NASA contractor report). The issue and page identify the *STAR* issue in which the document was announced and the page number on which the citation appears. The accession number denotes the number by which the citation is identified on that page. The titles, with title extensions if present, are arranged under each subject heading in ascending accession number order. The subject headings have been selected from the latest revision of the *NASA Thesaurus*.

A

A STARS
A catalog of moderately distant galaxy clusters
03 p0749 N93-13011
The galactic center stellar population in the near infrared 10 p3204 N93-28080
Precision optical interferometry in space
[NASA-CR-193264] 11 p3630 N93-29163

A-6 AIRCRAFT
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451

A-7 AIRCRAFT
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Software requirements for the A-7E aircraft
[AD-A255746] 04 p0946 N93-15052

ABEL FUNCTION
Most monothetic extensions are rank-1
[REPT-93-05] 12 p3813 N93-31546

ABERRATION
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Polarization analysis of a balloon-borne solar magnetograph
[NASA-CR-191270] 05 p1167 N93-16458
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors
09 p2604 N93-24723
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Harmonic oscillator states in aberration optics
10 p3143 N93-27331
Aberration correction of unstable resonators
[NASA-CASE-NPO-18662-1-CU]
10 p3148 N93-28428

ABILITIES
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276

ABIOGENESIS
Self-programming of matter and the evolution of proto-biological organizations
[DE92-015244] 01 p0129 N93-10628

ABLATED NOSETIPS
U PANT PROGRAM

ABLATION
NT LASER ABLATION
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Nanorecording 06 p1539 N93-18467
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records
06 p1703 N93-19137
Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206
Altitude compensating ablative stiffening band for rocket motor nozzles
[NASA-CASE-MFS-28728-1] 11 p3288 N93-28950
Ablative shielding for hypervelocity projectiles
[NASA-CASE-MSC-21884-1] 11 p3331 N93-29088
Ablation problems using a finite control volume technique
[DE93-009861] 11 p3549 N93-29187

ABLATIVE MATERIALS
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Laser-ablation processes
[DE92-011226] 02 p0322 N93-12250
Ablative thermal protection structure design of ballistic reentry spacecraft
[AD-A256908] 05 p1087 N93-16027
SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Thermal protection systems for aerobrakes
08 p2176 N93-22110

ABNORMALITIES
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
Energetic material response to abnormal environments 11 p3350 N93-30095

ABORT APPARATUS
Booster rocket range safety system
[AD-D015363] 02 p0221 N93-11428

ABORT TRAJECTORIES
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055

ABRASION
Degradation of radiator performance on Mars due to dust 04 p0823 N93-15616

ABRASION RESISTANCE
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
[NASA-TM-105943] 08 p2206 N93-22586
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971

ABRASIVES
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123
Ultrasonic polishing 09 p2670 N93-25580
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940

ABSORBENTS
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units
[AD-A262504] 11 p3594 N93-29138
Ordered molecular arrays as templates: A new approach to synthesis of mesoporous materials
[AD-A264631] 11 p3570 N93-30540

ABSORBERS
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171

ABSORBERS (MATERIALS)
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures
[ONERA-NT-1992-3] 06 p1501 N93-18190
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453

ABSORPTANCE
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Protective coating development for Space Station Freedom at McDonnell Douglas
07 p1849 N93-20820

ABSORPTION
Dermal exposure assessment: Principles and applications
[PB92-205665] 01 p0131 N93-10438
Measurement of absorbed dose to water for medium energy x rays
[NPL-RSA(EXT)-33] 02 p0436 N93-11412
Operational strategies for contamination control of composite materials 04 p0822 N93-15614

Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
A Fokker-Planck operator for the emission and absorption of electron plasma waves in a magnetized plasma
[DE93-009579] 11 p3584 N93-28598
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676

ABSORPTION BANDS
U ABSORPTION SPECTRA

ABSORPTION COEFFICIENT
U ABSORPTIVITY

ABSORPTION COOLING
Heat transfer additives for absorption cooling system fluids
[PB92-190354] 01 p0169 N93-10249
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087

ABSORPTION CROSS SECTIONS
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Absolute absorption cross sections of ozone at 300 K, 228 K and 195 K in the wavelength region 185-240 nm
[NASA-CR-191267] 03 p0645 N93-13274
High resolution absolute absorption cross sections of NO2 at 295, 573, and 673 K at visible wavelengths: Comprehensive data tables
[AD-A255261] 04 p0839 N93-14530
Low-energy measurements of electron capture by multicharged ions from excited hydrogen atoms
[DE93-001642] 05 p1292 N93-17345
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991] 08 p2558 N93-24637
Neutral hydrogen at the present epoch: A constraint on the evolution of high redshift systems
10 p3181 N93-26763
Probing the extent and content of low ionization gas in galaxies: QSO absorption and HI emission
10 p3181 N93-26766
Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905
Geometric model from microscopic theory for nuclear absorption
[NASA-TP-3324] 12 p3822 N93-32369

ABSORPTION SPECTRA
NT FRAUNHOFER LINES
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800
X pulse radiation around the critical surface
02 p0318 N93-12027
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma 02 p0320 N93-12041
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements
03 p0647 N93-13723
Laser spectroscopy of rare earth ions
03 p0808 N93-13846
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702
X ray spectra of bright BL Lacertae objects observed with ROSAT 05 p1361 N93-17126
COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
Spectroscopy of D-type asteroids
06 p1697 N93-19158
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595
In-situ determination of optical properties of sea water and particle characteristics in the Corfu Sea (Mediterranean): Report on the first joint campaign of the Mito project
[BCRS-92-04] 07 p2018 N93-20741
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Can quasars photoionize the intergalactic medium at high redshift? 10 p3179 N93-26756
HST/FOS spectra of PG 1351+64: An intrinsic absorber at low redshift 10 p3180 N93-26761
Testing the pressure-confined Ly alpha cloud model
10 p3181 N93-26764
On the evolution of Lyman alpha clouds based upon the Minihalo model 10 p3181 N93-26765
Probing the extent and content of low ionization gas in galaxies: QSO absorption and HI emission
10 p3181 N93-26766
Interstellar Mg II and C IV absorption by 1 1/2 galaxies along the sightline to MrK 205 10 p3182 N93-26770
The reionization of the universe: The feedback of galaxy formation on the intergalactic medium
10 p3182 N93-26771
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
Absorption spectra of Q 0000-263 and Q 1442+101
10 p3182 N93-26773
Pruning the Lyman alpha forest of Q1331+170
10 p3182 N93-26774
A re-analysis of the spectrum of 2206-199
10 p3182 N93-26775
The Lyman alpha forest of the high-z quasar 0000-263
10 p3203 N93-26890
Powering the superwind in NGC 253
10 p3203 N93-26893
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy
11 p3318 N93-30073
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CO2 and H2O
[DE93-007391] 11 p3474 N93-30504
Pulsed laser photoacoustic spectrometer for study of solid materials
[DE93-605290] 11 p3441 N93-31023
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars
12 p3862 N93-31936

ABSORPTION SPECTROSCOPY
Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma 02 p0320 N93-12041
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Spectroscopy for remote sounding of the atmosphere
03 p0659 N93-14054
P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
Studies of cosmic dusts using synchrotron radiation
08 p2549 N93-23390
X ray absorption spectroscopy of dense, shock compressed, laser plasma 08 p2496 N93-23497
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
Microwave absorption measurements and interference: Effects for a liquid fuel between 2.5 and 18 GHz
[AD-A260607] 09 p2675 N93-25635
The Lyman alpha forest of the high-z quasar 0000-263
10 p3203 N93-26890
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949
Femtosecond laser studies of excited state dynamics
[AD-A263708] 11 p3439 N93-29918
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

ABSORPTIVE INDEX
U ABSORPTIVITY

ABSORPTIVITY
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Optical model analysis of gravity wave-critical layer interaction 03 p0658 N93-13888
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Optical properties of slags: Data for refractive indices and absorption coefficients
[NPL-DMM(A)-73] 08 p2486 N93-22453
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381

ABSTRACTS
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-009] 02 p0220 N93-11169
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
Air Force engineering research initiation grants (1990-1991)
[AD-A255004] 03 p0774 N93-12706

NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
Advanced energy projects FY 1992 research summaries
[DE92-040442] 03 p0637 N93-13001
Abstract and index collection in the Research Information Center of the National Institute of Standards and Technology
[PB92-217587] 03 p0738 N93-13415
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
Arctic science, engineering, and education. Directory of awards, fiscal year 1991
[NSF-92-60] 03 p0775 N93-13713
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
Abstracts of papers presented at the annual meeting of the Society of General Physiologists
[AD-A257718] 06 p1596 N93-18211
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
International geodetic bibliography
07 p1974 N93-20995
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, January to March 1992, with 1992/1993 EEEL events calendar
[PB93-120715] 07 p1893 N93-21256
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, October to December 1991, with 1992/1993 EEEL events calendar
[PB93-120723] 07 p1893 N93-21257
Publications of the National Institute of Standards and Technology 1991 catalog
[PB92-217579] 07 p2091 N93-21344
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
NASA Automated Rendezvous and Capture Review. Executive summary
[NASA-TM-108597] 07 p1812 N93-21407
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
NASA SBIR abstracts of 1990 phase 1 projects
[NASA-TM-108145] 07 p2087 N93-21794
COSMIC software catalog, 1993
[NASA-CR-191005] 08 p2434 N93-22205
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576
NASA SBIR abstracts of 1991 phase 1 projects
[NASA-TM-108240] 11 p3609 N93-29323
The 2nd International symposium on electrochemical impedance spectroscopy (extended abstracts)
[AD-A262994] 11 p3312 N93-29462
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
Scientific research abstracts in the Republic of China, 1991 (science and technology)
11 p3670 N93-30911

ABUNDANCE
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Atoms and molecules in supernova 1987A
03 p0699 N93-13851
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Abundance of He-3 and other solar-wind-derived volatiles in lunar soil 10 p3209 N93-26692
Heavy element abundances and massive star formation 10 p3172 N93-26709
Chemical abundances in low surface brightness galaxies: Implications for their evolution
10 p3178 N93-26748
Metal abundances at z = 3.4
10 p3179 N93-26757
Constraints on chemical evolution models from QSOALS abundances 10 p3182 N93-26769
Multiwavelength studies of classical nova shells
11 p3636 N93-30412

AC (CURRENT)
U ALTERNATING CURRENT

AC GENERATORS
A theoretical study of the performance of a small permanent magnet, three-phase alternator when driving a purely resistive load via a full-wave rectification circuit
[RAE-TR-84009] 02 p0289 N93-11434
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215

ACCELERATED LIFE TESTS
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Corrosion of metal particle and metal evaporated tapes 04 p0883 N93-15039
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Brush seal bristle flexure and hard-rub characteristics
[NASA-TM-105864] 06 p1547 N93-18321
Air Force Ni-Cd cell qualification program update
07 p1984 N93-20505
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846

ACCELERATION
Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout
[AD-A258852] 06 p1534 N93-19367
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587

ACCELERATION (PHYSICS)
NT ANGULAR ACCELERATION
NT DECELERATION
NT ELECTRON ACCELERATION
NT HIGH ACCELERATION
NT IMPACT ACCELERATION
NT PARTICLE ACCELERATION
NT PLASMA ACCELERATION
NT SPIN REDUCTION
NT TRANSVERSE ACCELERATION
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis
03 p0699 N93-13907
A proposal to determine properties of the gravitropic response of plants in the absence of a complicating g-force (GTHRES)
[NASA-CR-192219] 06 p1593 N93-19377
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
Acceleration levels on the KC-135
07 p1784 N93-21124
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem
09 p2603 N93-24718
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
Acceleration Studies
[NASA-CR-192547] 10 p2947 N93-26948
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053

ACCELERATION STRESSES (PHYSIOLOGY)
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400

ACCELERATION TOLERANCE
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

ACCELERATORS
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Investigation of starting transients in the thermally choked ram accelerator 10 p2995 N93-27136
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator
10 p2985 N93-27138
Transient simulation of ram accelerator flowfields
10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554

ACCELEROMETERS
NT STRAIN GAGE ACCELEROMETERS
Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Accuracy improvement of linear estimated motion using differential type sensors
[NAL-TR-1135] 02 p0314 N93-12365
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Study of precision accelerometers and fractal aggregates in microgravity, phase 2
[CTN-93-60616] 05 p1130 N93-16426
Study of precision accelerometers and fractal aggregates in microgravity
[CTN-93-60622] 05 p1168 N93-16935
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Analysis of Space Shuttle accelerometer data
[NLR-TP-90141-U] 07 p1821 N93-20744

Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
Apparatus for determining the attitude of a vehicle
[AD-D015667] 09 p2710 N93-26092
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
Modal testing using a full instrumentation technique
[DE93-009635] 10 p3046 N93-28373
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765

ACCEPTABILITY
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6 07 p1793 N93-20434
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930

ACCEPTANCE
U ACCEPTABILITY

ACCEPTOR MATERIALS
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Determination of Fe(sup 2+) and Fe(sup 3+) concentrations of semi-insulating InP:Fe
[DE92-017119] 02 p0469 N93-12316
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589

ACCESS CONTROL
A simple, effective media access protocol system for integrated, high data rate networks 02 p0279 N93-11119
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Reviews of computing technology: Securing network applications, Kerberos, and RSA
[DE92-019928] 03 p0690 N93-13620
A deadlock-free communication system for a transputer network
[AD-A256473] 04 p0959 N93-15319
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
Universal channel network, or combining the best of token ring and slotted ring
[MEMO-INF-92-41] 08 p2449 N93-24630
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
Minimum security requirements for multi-user operating systems
[PB93-185999] 11 p3522 N93-30832
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049
Blocking probabilities in a loss system with arrivals in geometrically distributed batches and heterogeneous service requirements
[MEMO-1074] 12 p3812 N93-32392

ACCESS TIME
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934

ACCIDENT INVESTIGATION
NT AIRCRAFT ACCIDENT INVESTIGATION
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653
Human factors in aircraft accident investigation 06 p1422 N93-19654
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
The influence of individual sensivity to stress on the behavior (attitude and performance) of avoidance of an accident 06 p1430 N93-19705
Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident 07 p1820 N93-20036
Austrian contributions to reactor safety research
[OEFZS-4622] 10 p3139 N93-28203
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828
Reportable accidents to UK registered aircraft, and to foreign registered aircraft in UK airspace, 1990
[CAP-600] 12 p3674 N93-31730

ACCIDENT PREVENTION
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653
How do we investigate the human factor in aircraft accidents? 06 p1422 N93-19655
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Underlying causes of accidents: Casual networks 06 p1422 N93-19658
Aid in investigation by figure animation 06 p1422 N93-19659
Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Towards an integrated approach to proactive monitoring and accident prevention 06 p1429 N93-19700
The influence of individual sensivity to stress on the behavior (attitude and performance) of avoidance of an accident 06 p1430 N93-19705
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708
Effectiveness of birthdate biorhythm theory on flight accidents 06 p1431 N93-19710
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545
Maglev guideway and route integrity requirements
[PB93-154870] 12 p3736 N93-32086

ACCIDENT PRONENESS
Accident proneness: A research review
[DOT/FAA/AM-93/9] 11 p3498 N93-28622

ACCIDENTS
NT BIRD-AIRCRAFT COLLISIONS
NT LOSS OF COOLANT
Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident 07 p1820 N93-20036
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
HERO resistant semiconductor bridge igniter 09 p2627 N93-26024
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Near miss reporting in the chemical process industry
[ISBN-9-03-860181-6] 12 p3714 N93-31539
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

ACCLIMATIZATION
NT ALTITUDE ACCLIMATIZATION

ACCOMMODATION
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644

ACCOMMODATION COEFFICIENT
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor
[ONERA-P-1990-3] 11 p3313 N93-30109

ACCOUNTING
An interactive office accounting program written in UNIX and C
[AD-A255077] 03 p0683 N93-12740
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Information systems strategies for public financial management
[PB93-186948] 12 p3842 N93-32167

ACCRETION
U DEPOSITION

ACCRETION DISKS
Encounters with protostellar disks 03 p0754 N93-13727
The black hole candidate binary A0620-00 04 p1015 N93-14148
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176
Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611
The spectra of accretion discs in active galactic nuclei 05 p1368 N93-17111
Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background 05 p1368 N93-17112
UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data 05 p1368 N93-17113
The nonthermal model of disc accretion onto a magnetosphere 05 p1368 N93-17115
Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714
The stability of thick, self-gravitating disks in protostellar systems 08 p2551 N93-24185
Line formation and the Poynting-Robertson effect in accretion discs 09 p2847 N93-25355
Diskoseismology: Probing relativistic accretion disks 09 p2894 N93-25622
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds 10 p3201 N93-26878
IUE observations of cataclysmic variable
[NASA-CR-193188] 11 p3629 N93-28634
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766

ACCUMULATIONS
The many disguises of accumulation
[TR-91-26] 05 p1237 N93-16369
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470

ACCUMULATORS
NT ACCUMULATORS (COMPUTERS)
NT DUST COLLECTORS
NT SOLAR COLLECTORS
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Nozzle diffuser for use with an open test section of a wind tunnel
[NASA-CASE-LAR-14424-1-SB] 09 p2598 N93-25996
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745

ACCUMULATORS (COMPUTERS)
A fast pipelined inner product unit
[REPT-92-025] 02 p0411 N93-11594

The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372

ACCURACY
NT GEODETIC ACCURACY
NT GEOMETRIC ACCURACY
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
Construction of a geodesic strapdown inertial navigation system for point determination
[SER-C-367] 02 p0205 N93-11344
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
Accurate and efficient layout extraction
[ISBN-90-9004806-5] 05 p1147 N93-16499
Precision and resolution in spectroscopic model fitting
[ISBN-90-6275-756-6] 05 p1104 N93-16582
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
Investigation of the real-time accuracy of the DGPS method
[AD-A257692] 07 p1780 N93-21222
Comparison of mapping with different satellite images 08 p2348 N93-23540
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991 09 p2835 N93-25006
Classifying multispectral data by neural networks 09 p2825 N93-25976
Guidelines for evaluating and expressing the uncertainty of NIST measurements results
[PB93-159465] 09 p2830 N93-26318
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
The effect of clock, media, and station location errors on Doppler measurement accuracy 11 p3246 N93-29588
Issues, concepts, and standard techniques in assessing accuracy of coordinate measuring machines
[PB93-184331] 11 p3354 N93-29666
Performance analysis of subspace methods
[AD-A263984] 11 p3530 N93-29865
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575
Accuracy estimation for digitizing 12 p3745 N93-31265
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
The application of phase tracking GPS for flight test trajectory determination
[NLR-TP-91349-U] 12 p3678 N93-32337

ACETALDEHYDE
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Spectroscopic investigation of the vibrational quasi-continuum arising from internal rotation of a methyl group
[DE92-040509] 05 p1104 N93-16586
Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments
[ITN-93-85183] 05 p1105 N93-16854
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475

ACETATES
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
Rheology of YBa2Cu3O(7-x) precursors
[DE93-007285] 09 p2863 N93-25362

ACETIC ACID
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134

ACETONE
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526

ACETONITRILE
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685

ACETYLENE
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Study of multi jet burner for gases
[INPE-5416-TDI/480] 07 p1846 N93-20320
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497

ACHIEVEMENT
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341

ACHONDRITES
NT NAKHLITES
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
On the weathering of Martian igneous rocks 12 p3862 N93-31941
Aqueous geochemistry on Mars: Possible clues from salts and clays in SNC meteorites 12 p3863 N93-31944

ACID BASE EQUILIBRIUM
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574

ACID RAIN
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
NATO Advanced Research Workshop on Non-Thermal Plasma Techniques for Pollution Control
[AD-A258477] 06 p1665 N93-18323
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Summary report for the National Atmospheric Deposition Program National Trends Network (NADP/NTN) site visitation program
[PB92-219823] 07 p1991 N93-21494
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
The 111th Meeting for Research of Safety Engineering
[DE93-753679] 08 p2388 N93-24046
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206

ACIDITY
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
The Martian ocean: First acid, then alkaline 12 p3866 N93-31958

ACIDOSIS
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796

ACIDS
NT ACETIC ACID
NT AMINO ACIDS
NT ASCORBIC ACID
NT CARBONIC ACID
NT CARBOXYLIC ACIDS
NT CHROMIC ACID
NT CITRIC ACID
NT DEOXYRIBONUCLEIC ACID
NT DICARBOXYLIC ACIDS
NT FORMIC ACID
NT HISTIDINE
NT HYDRAZOIC ACID
NT HYDROCHLORIC ACID
NT HYDROCYANIC ACID
NT HYDROFLUORIC ACID
NT LACTIC ACID
NT NITRIC ACID
NT OXIDASE
NT PHOSPHORIC ACID
NT RIBONUCLEIC ACIDS
NT SULFONIC ACID
NT SULFURIC ACID
Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551

ACOUSTIC ATTENUATION
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Co-channel speaker separation
[AD-A256443] 04 p0861 N93-15317
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842

ACOUSTIC COMBUSTION
U COMBUSTION STABILITY

ACOUSTIC COUPLING
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682

Active control of aeroacoustic coupings by means of adaptive systems
[ECL-91-18] 02 p0214 N93-11576
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications
05 p1085 N93-15780
Contribution to the study of airbreathing burner combustion instabilities
[ONERA-NT-1992-2] 06 p1482 N93-18189
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Theoretical and experimental study of thermoacoustic engines
[AD-A261934] 11 p3561 N93-28995

ACOUSTIC DETECTION
U SOUND DETECTING AND RANGING

ACOUSTIC DUCTS
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170

ACOUSTIC EMISSION
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
Diagnostic of material defects found in pipelines made of 13 HMF steel on the basis of acoustic emission
03 p0623 N93-12989
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB]
06 p1559 N93-19329
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668

ACOUSTIC EXCITATION
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
An experimental investigation into flow induced acoustic resonances in an annular cascade
[PNR-90959] 02 p0433 N93-11322
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Fluid/structure interactions. Internal flows
07 p1905 N93-20629
Observation of impulsive acoustic events and the excitation of solar oscillations
[AD-A259788] 08 p2557 N93-23454
Initial streamwise vorticity formation in a two-stream mixing layer 09 p2579 N93-25752
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
Modal measurements and propeller field excitation on acoustic full scale mockup of SAAB 340 aircraft
[FFA-TN-1992-08] 12 p3815 N93-31051
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672

ACOUSTIC FATIGUE
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154

ACOUSTIC FREQUENCIES
NT AUDIO FREQUENCIES
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Boundary element analysis of low frequency cavity acoustical problems
[MATHS-REPT-A-158] 04 p0974 N93-15073
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems
05 p1165 N93-16786
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815

ACOUSTIC GENERATORS
U SOUND GENERATORS

ACOUSTIC IMAGING
NT ACOUSTICAL HOLOGRAPHY
Method of acoustic processing for acoustic image classification
[AD-D015454] 05 p1282 N93-16460
An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701

ACOUSTIC IMPEDANCE
Sound propagation over rigid porous layers
02 p0432 N93-11179
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
The acoustical impedance at the junction of non-coaxial cylindrical ducts
[MATHS-REPT-A-157] 08 p2477 N93-24123
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

ACOUSTIC INSTABILITY
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914
Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer
03 p0494 N93-13521

ACOUSTIC LEVITATION
Motion measurement of acoustically levitated object
[NASA-CASE-NPO-18191-1-CU]
08 p2135 N93-24601

ACOUSTIC MEASUREMENT
NT NOISE MEASUREMENT
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
Review of progress in quantitative NDE
[DE92-018814] 03 p0620 N93-13071
Acoustic device and method for measuring gas densities
[NASA-CASE-NPO-18155-1-CU]
03 p0700 N93-13421
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Developments on high temperature fiber optic microphone 03 p0601 N93-13680
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment
[ONERA-RT-18/3641-PY] 04 p0975 N93-15130
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
Innovative techniques for studying new materials and new developments in solid state physics
[AD-A256394] 04 p0996 N93-15465
The use of reverberant-room acoustic testing for spacecraft structures and their payloads
05 p1085 N93-15786
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Method and apparatus for acoustically measuring rainfall
[AD-D015450] 05 p1213 N93-16457
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB]
06 p1559 N93-19329
System for determining the angle of impact of an object on a structure
[NASA-CASE-LAR-14817-1] 07 p1906 N93-20569
Fluid/structure interactions. Internal flows
07 p1905 N93-20629
Embedded fiber optic acoustic sensors
[AD-D015568] 07 p2060 N93-21249
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084
External acoustical noise measurements for aviation systems
[AD-A263138] 11 p3562 N93-29480
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865
Instrumentation for in-flight acoustic measurements in an engine inlet duct of a Fokker 100 aircraft
[NLR-TP-91200-U] 12 p3680 N93-32332

ACOUSTIC PROPAGATION
Sound propagation over rigid porous layers
02 p0432 N93-11179
Acoustic tomographic monitoring of the atmospheric boundary layer 03 p0651 N93-13143

Acoustic radiation from a point excited infinite bilaminar plate
03 p0531 N93-13144
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams
04 p0973 N93-14145
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggles, acoustic streaming effects in standing waves, and spark-source lithotripter pulses
[AD-A256289] 04 p0974 N93-14458
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment
[ONERA-RT-18/3641-PY] 04 p0975 N93-15130
Multi-discipline Arctic oceanography and acoustics program: The Geodesic Underice Tramway System (GUTS)
[AD-A258323] 06 p1589 N93-18254
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
Sonic boom problem for future highspeed aircraft
[ONERA-NT-1990-3] 11 p3241 N93-30020
Practical flow duct acoustic modelling
[ISVR-TR-213] 12 p3726 N93-31838

ACOUSTIC PROPERTIES
NT ACOUSTIC IMPEDANCE
NT ACOUSTIC INSTABILITY
NT ACOUSTIC SCATTERING
NT ACOUSTIC VELOCITY
NT REVERBERATION
NT SOUND INTENSITY
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
Acoustical evaluation of the NASA Lewis 9 by 15 foot low speed wind tunnel
[NASA-TP-3274] 02 p0218 N93-12016
Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599
Acoustic modes in fluid networks
03 p0586 N93-13398
An analysis of the effect of acoustic non-linearities in wide bandwidth acousto-optic bragg cells
[AD-A256579] 04 p0973 N93-14269
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

ACOUSTIC RADIATION
U SOUND WAVES

ACOUSTIC SCATTERING
NT REVERBERATION
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Visualization of scattering strength of elastic bodies in a fluid
[AD-A254535] 03 p0899 N93-12601
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams
04 p0973 N93-14145
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggles, acoustic streaming effects in standing waves, and spark-source lithotripter pulses
[AD-A256289] 04 p0974 N93-14458
Experimental investigation of scattering from randomly rough plastic cylinders
[AD-A256018] 04 p0975 N93-15259
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111
Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564
Solution of the Helmholtz-Poincare Wave Equation using the coupled boundary integral equations and optimal surface eigenfunctions
[DE93-005300] 08 p2470 N93-24038
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation
[AD-A262237] 10 p3130 N93-27933
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Evaluation of the scattered pressure due to infinite rigid cylinders, infinite elastic cylindrical shells, and rigid spheres in the presence of an ambient noise field
[AD-A264835] 11 p3563 N93-30899
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

ACOUSTIC SIMULATION
Enhancement of audio localization cue synthesis by adding environmental and visual cues
[AD-A259041] 06 p1652 N93-19001

ACOUSTIC SOUNDING
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815

ACOUSTIC STABILITY
U FREQUENCY STABILITY

ACOUSTIC STREAMING
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021

ACOUSTIC VELOCITY
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Experimental and theoretical studies of dense fluid mixtures
[DE93-006070] 09 p2695 N93-24976
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Propagation of finite amplitude sound in a waveguide with a parabolic sound velocity profile
[ARL-TR-92-11] 09 p2846 N93-26179
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193

ACOUSTIC VIBRATIONS
U SOUND WAVES

ACOUSTICAL HOLOGRAPHY
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159

ACOUSTICS
NT AEROACOUSTICS
NT BIOACOUSTICS
NT ELECTROACOUSTICS
NT GEOMETRICAL ACOUSTICS
NT MAGNETOACOUSTICS
NT UNDERWATER ACOUSTICS
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
Publications on acoustics research at the Langley Research Center, January 1987 - September 1992
[NASA-TM-107674] 02 p0435 N93-12080
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggles, acoustic streaming effects in standing waves, and spark-source lithotripter pulses
[AD-A256289] 04 p0974 N93-14458
Program auralization: Sound enhancements to the programming environment 04 p0953 N93-15539
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
Acoustic and thermal testing of the Titan/Centaur upper stage 04 p0814 N93-15621
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Acoustic tests structural predictions
05 p1081 N93-15750
Acoustically induced vibration of platform mounted equipment containing printed circuit boards
05 p1082 N93-15762
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586

An experimental examination of the thermal and acoustic environments on runway joint seals
[AD-A257965] 05 p1073 N93-17734
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Acoustophoresis separation method
[NASA-CASE-LAR-13388-2] 07 p1846 N93-20570
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances
09 p2626 N93-26015
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
Structural acoustics: A general form of reciprocity principles in acoustics
[AD-A261515] 09 p2846 N93-26376
Optical fiber for acoustic sensor applications
[AD-A261580] 09 p2857 N93-26515
Cumulative reports and publications
[NASA-CR-191440] 10 p3090 N93-27063
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
Acoustic charge transport technology investigation for advanced development transponder
11 p3386 N93-29602
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

ACOUSTO-OPTICS
A study of the CO2 laser near threshold
02 p0316 N93-11720
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
Acousto-optic devices and applications
03 p0712 N93-14100
An analysis of the effect of acoustic non-linearities in wide bandwidth acousto-optic bragg cells
[AD-A256579] 04 p0973 N93-14269
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
Acousto-optic frequency excision
06 p1523 N93-18460
Polarimetric multispectral imaging technology
11 p3434 N93-28774
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-26781
Modified Acousto-Optic Adaptive Processor (Mod-AOAP)
[AD-A261983] 11 p3381 N93-28997
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Acousto-optic time-integrating correlators for processing wideband digital data 11 p3360 N93-30253

ACQUIRED IMMUNODEFICIENCY SYNDROME
HIV infection in the nineties 02 p0377 N93-11290
AIDS/HIV in the US Military 02 p0377 N93-11291
HIV variability and perspectives of a vaccine
02 p0378 N93-11294
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations
02 p0379 N93-11297
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736

ACQUISITION
NT DATA ACQUISITION
NT TARGET ACQUISITION
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
Streamlined acquisition handbook
[NASA-TM-108133] 04 p1002 N93-14719
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000

ACRYLATES
High energy cast explosives based on dinitropropylacrylate
[AD-D015340] 02 p0273 N93-11045
Spirobislactone acrylate polymers
[AD-D015443] 04 p0850 N93-14802
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021

ACRYLIC RESINS
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Spirobislactone acrylate polymers
[AD-D015443] 04 p0850 N93-14802

ACRYLONITRILES
NT POLYACRYLONITRILE
Radical ion formation in polymers as a mechanism for laser eye protection
[AD-A255992] 04 p0850 N93-15111
Surface epoxidation of elastomers
[AD-D015457] 05 p1123 N93-16436
Dielectric and dynamic mechanical properties of ATBN-containing thermosets
[DREA-CR-91-444] 08 p2239 N93-23725

ACTINIDE SERIES
NT AMERICIUM 241
NT CALIFORNIUM ISOTOPES
NT FERMIUM
NT NEPTUNIUM ISOTOPES
NT PLUTONIUM
NT PLUTONIUM 239
NT THORIUM
NT TRANSURANIUM ELEMENTS
NT URANIUM
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Calculation of binary phase diagrams between the actinide elements, rare earth elements, and transition metal elements
[DE92-019119] 02 p0249 N93-11801
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes
09 p2769 N93-25571
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

ACTINIDE SERIES COMPOUNDS
NT THORIUM COMPOUNDS
NT URANIUM CARBIDES
NT URANIUM COMPOUNDS
NT URANIUM FLUORIDES
NT URANIUM OXIDES
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105

ACTINOMETERS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
NT INFRARED DETECTORS
NT INFRARED RADIOMETERS
NT INFRARED SCANNERS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
NT MICROWAVE RADIOMETERS
NT PYRANOMETERS
NT RADIOMETERS
NT SOLAR SPECTROMETERS
NT SPECTROHELIOGRAPHS
NT SPECTROPHOTOMETERS
NT SPECTRORADIOMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT ULTRAVIOLET DETECTORS
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
NT X RAY DETECTORS

ACTIVATED CARBON
Activated carbon fibers in composites, chemically protective clothing and air purification
07 p1837 N93-21152
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Kinetics of adsorption from liquid phase on activated carbon
[ETN-93-94042] 12 p3703 N93-31521

ACTIVATION
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274

ACTIVATION ANALYSIS
NT NEUTRON ACTIVATION ANALYSIS
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322

ACTIVATION ENERGY
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
Comments on 'Kinetic Study on the Hexacelsian-Celsian Phase Transformation'
[NASA-TM-105917] 04 p0850 N93-14886
Relaxation of radiation damages in a-Si:H layers
[MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Modelling of microgravity ignition phenomena
09 p2664 N93-25465
Asymptotic studies of gravity-driven reacting coating flows and pultrusion processes
09 p2704 N93-25683
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596

Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

ACTIVE CONTROL

Numerical simulation of large actively controlled space structures 01 p0013 N93-10308

Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319

Reduction of propeller noise by active noise control 01 p0152 N93-10692

Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158

Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930

Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439

Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367

Method and apparatus for minimizing multiple degree of freedom vibration transmission between two regions of a structure
[NASA-CASE-LAR-14508-1-CU] 03 p0626 N93-13420

An investigation of dynamic stress reduction of multi-body aircraft using active gust control 03 p0505 N93-13916

Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111

Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353

Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573

Active control of foundation transmissibility using magnetostrictive actuators
[AD-A257135] 05 p1145 N93-16078

Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513

Actively controlled shaft seals for aerospace applications
[NASA-CR-191901] 06 p1547 N93-18371

Active control of stall and surge 06 p1530 N93-18725

A numerical approach to controller design for the ACES facility 06 p1462 N93-18823

Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835

The Middeck Active Control Experiment (MACE) 06 p1457 N93-18936

Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941

CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944

An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998

Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339

Study of magnetic bearings with high temperature superconductors, phase 3
[NASA-CR-192229] 06 p1551 N93-19378

Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210

Autonomous prealignment of a docking mechanism 08 p2137 N93-22238

Precursor SSF utilization: The MODE experiments 08 p2188 N93-22633

Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034

Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377

Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484

Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589

Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067

Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118

Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428

Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness 09 p2701 N93-25483

In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649

Active control of NITINOL-reinforced structural composites
[AD-A261062] 09 p2638 N93-25780

MIT Space Engineering Research Center
[NASA-CR-192879] 09 p2821 N93-25833

Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834

The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE) 09 p2599 N93-25835

MIT's interferometer CST testbed 09 p2609 N93-25836

Study of plate-fin heat exchanger and cold plate for the active thermal control system of Space Station 09 p2619 N93-26064

Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335

Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165

Magnetic bearings: Fifty years of progress 10 p2959 N93-27556

Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561

Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569

Advanced actuators for the control of large space structures 10 p2962 N93-27572

High efficiency magnetic bearings 10 p2962 N93-27574

The Middeck Active Control Experiment (MACE) 10 p3059 N93-27896

The middeck active control experiment: Gravity and suspension effects 10 p3010 N93-27897

The Middeck Active Control Experiment (MACE): Identification for robust control 10 p3059 N93-27898

Active impedance matching of complex structural systems 10 p3060 N93-28169

The application of controlled structures technology to adaptive optics 10 p3060 N93-28170

Inhibiting multiple mode vibration in controlled flexible systems 10 p3061 N93-28172

The Middeck Active Control Experiment (MACE) 10 p3061 N93-28173

Intelligent structures technology 10 p3061 N93-28176

Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248

Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700

NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702

Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977

Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436

A theoretical and computational study on active wake control 11 p3243 N93-30892

Active damping in a flexible manipulator 12 p3689 N93-31452

Vibration isolation 12 p3690 N93-31458

Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138

Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221

Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310

ACTIVE GALACTIC NUCLEI

Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992
[PB92-154913] 02 p0477 N93-11769

A closer look at active galactic nuclei: The great engines of the Universe
[PB92-184464] 02 p0485 N93-11807

The emission-line properties of quasars 03 p0753 N93-13487

Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176

A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228

Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611

Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686

ROSAT all-sky survey on the Einstein EMSS sample
[NASA-CR-191627] 04 p1013 N93-15340

X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094

X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096

Observational constraints on AGN models 05 p1360 N93-17097

Hard x ray observations of active galactic nuclei with SIGMA 05 p1360 N93-17100

Chaotic behaviour of x ray lightcurves of AGN? 05 p1366 N93-17101

First results from the Compton Observatory 05 p1366 N93-17102

Observing AGN and DXRB with Xspect/Sodart 05 p1360 N93-17103

Ginga results of type 2 AGN's and their contributions to the cosmic x ray background 05 p1367 N93-17105

An introduction to the pair-reflection model of X-ray spectra in AGN's 05 p1367 N93-17110

The spectra of accretion discs in active galactic nuclei 05 p1368 N93-17111

Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background 05 p1368 N93-17112

UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data 05 p1368 N93-17113

ROSAT observations of AGN 05 p1361 N93-17116

A deep ROSAT observation of the highly variable AGN 1E1403+5439 or ROSAT non-detection of the weak AGN 1E1403+5439 05 p1361 N93-17122

Time variability of extragalactic sources in the ecliptic pole regions 05 p1370 N93-17123

Preliminary results on the properties of the EMSS AGN's as derived from the ROSAT all sky survey 05 p1362 N93-17129

Preliminary results from the ROSAT WFC all sky survey: A sample of low galactic column density AGN's 05 p1362 N93-17131

The central engine of AGN's and its cosmological evolution 05 p1372 N93-17138

The evolution of AGN's at x ray wavelengths 05 p1372 N93-17141

The hard x ray luminosity function and evolution of AGN 05 p1373 N93-17142

Energy spectrum of the cosmic x ray background: Some considerations based on the Ginga results 05 p1373 N93-17143

Origin of the cosmic x ray background radiation 05 p1373 N93-17146

The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151

Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154

Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155

AGN and the x ray background: Concluding remarks 05 p1375 N93-17160

Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709

The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713

IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007

IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015

Active galactic nuclei: The view from space 08 p2534 N93-23886

ROSAT observations of active galactic nuclei 08 p2534 N93-23888

Very high energy gamma ray astrophysics
[DE93-007625] 08 p2551 N93-24453

A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721

Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828

Infrared coronal emission lines and the possibility of their maser emission in Seyfert nuclei 10 p3196 N93-26853

Influence of the active nucleus on the multiphase interstellar medium in NGC 1068 10 p3196 N93-26854

Quasars in rich galaxy clusters 10 p3197 N93-26856

IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858

Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
Photoerosion in astrophysical environments 10 p3205 N93-28450
Infrared spectroscopy and imaging of starburst galaxies and AGNs
[MPE-PREPRINT-229] 11 p3632 N93-30643

ACTIVE GALAXIES
NT MARKARIAN GALAXIES
NT RADIO GALAXIES
NT SEYFERT GALAXIES
Physical properties of extended emission-line regions in active and cooling-flow galaxies 04 p1018 N93-14461
Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284
ROSAT-IUE All Sky Survey (RIASS): First results on active galaxies 05 p1369 N93-17117
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007
Dissolution of tidally limited star clusters in galaxies by passing giant molecular clouds or other massive objects
[MITT-SER-A-232] 07 p2097 N93-21301
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
Two searches for primeval galaxies 10 p3172 N93-26714
Evolution of luminous IRAS galaxies: Radio imaging 10 p3184 N93-26786
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870

ACTIVE GLACIERS
U GLACIERS

ACTIVE MAGNETO PARTICLE TRACER EXPLORERS
U AMPTE (SATELLITES)

ACTIVE SATELLITES
NT SYNCOM SATELLITES

ACTIVE VOLCANOES
U VOLCANOES

ACTIVITY (BIOLOGY)
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293

ACTIVITY CYCLES (BIOLOGY)
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997

ACTS
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429
MODIS algorithm development and data visualization using ACTS
[NASA-CR-191940] 05 p1191 N93-16759
Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382
Lewis Research Center battery overview 07 p1983 N93-20493
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134
Proceedings of the 16th NASA Propagation Experimenters Meeting (NAPEX 16) and the Advanced Communications Technology Satellite (ACTS) Propagation Studies Miniworkshop
[NASA-CR-192800] 09 p2682 N93-26463
Opening remarks 09 p2682 N93-26464
The ACTS propagation program 09 p2683 N93-26465
Large scale rainfall diversity and satellite propagation 09 p2683 N93-26466
OLYMPUS/ACTS scintillation experiment at the Lewis Research Center 09 p2685 N93-26481
ACTS propagation terminal update 09 p2685 N93-26484
The Advanced Communications Technology Satellite (ACTS): Five new technologies 10 p3022 N93-26643
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195

ACTUATOR DISKS
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016

ACTUATORS
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Control of panel flutter at high supersonic speed 01 p0009 N93-10900
Open-loop characteristics of magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TP-3229] 02 p0277 N93-11613
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Method and apparatus for minimizing multiple degree of freedom vibration transmission between two regions of a structure
[NASA-CASE-LAR-14508-1-CU] 03 p0626 N93-13420
Fastening apparatus having shape memory alloy actuator
[NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Smart materials for Army structures
[AD-A254925] 04 p0836 N93-15218
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353
Three position power cylinder
[AD-D015393] 04 p0894 N93-15461
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
Active control of foundation transmissibility using magnetostrictive actuators
[AD-A257135] 05 p1145 N93-16078
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Self-actuating slide valve system
[AD-D015456] 05 p1177 N93-16435
The global second level trigger for ZEUS
[ETN-92-92816] 05 p1297 N93-16479
High temperature smart sensors and actuators
[AD-A256985] 05 p1158 N93-16517
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757
Development of magnetostrictive active members for control of space structures
[NASA-CR-190846] 06 p1460 N93-18322
Smart patch piezoceramic actuator issues 06 p1462 N93-18822
A numerical approach to controller design for the ACES facility 06 p1462 N93-18823
The JPL Phase B interferometer testbed 06 p1464 N93-18834
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms 06 p1465 N93-18839
A Darwinian approach to control-structure design 06 p1465 N93-18840
CSI Flight Computer System and experimental test results 06 p1465 N93-18841
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931
Model reduction in integrated controls-structures design 06 p1468 N93-18935
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results 06 p1469 N93-18940
Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Determination of pyrotechnic functional margin 07 p1863 N93-20134
Pyrotechnically actuated systems database and applications catalog 07 p1864 N93-20136
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components 07 p1865 N93-20149
Pyrotechnic modeling for the NSI and pin puller 07 p1866 N93-20153
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Polynomial solution of the direct geometric problem of a parallel spherical manipulator 07 p1918 N93-20718
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Autonomous pre-alignment of a docking mechanism 07 p1814 N93-21418
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence
[NASA-TM-103926] 08 p2294 N93-23417
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
Actuator stroke requirements based on a Zernike decomposition of atmospheric turbulence
[DE93-007393] 08 p2516 N93-24449
Microelectronic and micromechanical sensors and actuators in CMOS technology: A novel scheme toward s regularization and integration
[ISBN-0-315-60192-2] 08 p2305 N93-24609
Handbook of actuators and edge alignment sensors
[NASA-CR-193203] 09 p2620 N93-25317
Firmware development improves system efficiency 09 p2807 N93-25606
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771

MIT's interferometer CST testbed
09 p2609 N93-25836
Design of flexible rods with embedded SMA actuators
[AD-A260742] 09 p2729 N93-25846
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Parametric motion control of robotic arms: A biologically based approach using neural networks
09 p2822 N93-25964
Pneumatic actuator with hydraulic control
[AD-D015652] 09 p2719 N93-26244
Structural load control during construction
09 p2669 N93-26409
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112
Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165
Magnetic suspension actuator concepts and applications 10 p2959 N93-27555
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561
Design considerations for ultra-precision magnetic bearing supported slides 10 p2960 N93-27562
Advanced actuators for the control of large space structures 10 p2962 N93-27572
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Superconducting linear actuator
10 p2962 N93-27577
Magnetic Actuators and Suspension for Space Vibration Control
[NASA-CR-193038] 10 p3057 N93-27594
Evaluation of actuators for the SDOF and MDOF active microgravity isolation systems 10 p3057 N93-27595
High-voltage pulse generator capable of 200 J at 5 kV
[AD-A262111] 10 p3031 N93-27673
Sensor and actuator technology development
10 p3047 N93-27900
Flexible control techniques for a lunar base
10 p3111 N93-27981
Extended task space control for robotic manipulators
[NASA-CASE-NPO-18902-1-CU]
10 p3052 N93-28129
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Evaluation of actuator energy storage and power sources for spacecraft applications
[NASA-CR-193226] 11 p3288 N93-29091
Single acting translation/rotational brake
[NASA-CASE-LAR-14738-1] 11 p3443 N93-29175
The design and modelling of a comb-drive-based microengine for mechanism drive applications
[DE93-009826] 11 p3443 N93-29185
Strategic avionics technology definition studies. Subtask 3-1A: Electrical Actuation (ELA) systems
[NASA-CR-193237] 11 p3271 N93-29215
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843
Attitude stabilization of a rigid spacecraft using two momentum wheel actuators 11 p3280 N93-29990
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode
11 p3280 N93-29992
Efficient reorientation of a deformable body in space: A free-free beam example 11 p3280 N93-29994
Materials for adaptive structural acoustic control, volume 1
[AD-A264619] 11 p3562 N93-30121
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
Electropneumatic actuator, phase 1
[PB93-174951] 12 p3720 N93-31876
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

ACUITY
NT VISUAL ACUITY
Interpupillary and vertex distance effects on field-of-view and acuity with ANVIS
[AD-A261259] 09 p2802 N93-26265

ADA (PROGRAMMING LANGUAGE)
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11928
Design of an Ada expert system shell for the VHSIC avionic modular flight processor
02 p0397 N93-11947
COMPASS: An Ada based scheduler
02 p0397 N93-11950
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164
The 1992 Summer SIGAda AIWG Workshop applications experiences and lessons learned panel message from the panel chair
[AD-A256188] 04 p0962 N93-14519
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
Object-oriented programming with mixins in Ada
05 p1245 N93-17171
Software Engineering Laboratory Ada performance study: Results and implications
05 p1245 N93-17172
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
Formal development of Ada programs using Z and Anna: A case study
[AD-A235698] 06 p1623 N93-18847
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852
Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855
Ada implementation of an object data repository
[AD-A259144] 07 p2087 N93-20002
Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
Transforming AdaPT to Ada9x
[NASA-CR-193117] 11 p3526 N93-29026
Reactive integration for traditional programming languages
[AD-A263986] 11 p3531 N93-29866
Estimating Ada system size during development
[AD-A263880] 11 p3532 N93-30022
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547

ADAPTATION
NT ALTITUDE ACCLIMATIZATION
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Bone loss and human adaptation to lunar gravity
03 p0676 N93-14002
Adaptation to transient postural perturbations
[NASA-CR-190959] 05 p1227 N93-16699
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Adaptive decision support systems: Concepts, characterization, and an application
09 p2876 N93-25475
Evolving information systems: Beyond temporal information systems
[TR-92-04] 10 p3167 N93-27886
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
Adaptive defuzzification for fuzzy systems modeling
11 p3512 N93-29532
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879

ADAPTERS
Cable connector/adapter support for multi-terminal data processors
[AD-D015572] 07 p1889 N93-20309

ADAPTIVE CONTROL
NT ACTIVE CONTROL
NT MACHINE LEARNING
NT MODEL REFERENCE ADAPTIVE CONTROL
Active control of aeroacoustic couplings by means of adaptive systems
[ECL-91-18] 02 p0214 N93-11576
Advanced control for the design of STT missile autopilot
[REPT-921-320-102] 02 p0215 N93-11585
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
A PID auto-tuning algorithm based on relay feedback
[REPT-92-019] 02 p0421 N93-11667
Self mobile space manipulator project
02 p0331 N93-11973
Adaptive neural network models for intelligent computations
[AD-A254689] 02 p0421 N93-12226
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Adaptive control of nonlinear nonminimum phase systems 04 p0961 N93-14470
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
Adaptive active noise control using multiple-model approaches
[ISVR-TR-210] 04 p0974 N93-14734
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148

Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687
Adaptive structures for precision controlled large space systems 05 p1078 N93-15730
Ground test validation for precision structures 05 p1085 N93-15785
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Parameter identification and adaptive control of cooperating robots
[AD-A256984] 05 p1259 N93-16256
Weld pool oscillation during gas tungsten arc welding
[ETN-92-92796] 05 p1177 N93-16568
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Methodologies of automatic control including fuzzy logic
[LAAS-92257] 06 p1631 N93-17814
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Adaptive control of robotic manipulators 06 p1640 N93-19031
The effect of an adaptive optical system's spatio-temporal response on imaging performance
[AD-A258848] 06 p1663 N93-19069
Nonlinear robust controller design for multi-robot systems with unknown payloads 06 p1552 N93-19462
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
Adaptive autonomous target cuer 06 p1612 N93-19784
A contribution to the adaptive control of servo-drives with direct current motor
[ETN-93-92562] 07 p2047 N93-20876
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Robust controller design: A bounded-input-bounded-output worst-case approach
[AD-A259367] 07 p2047 N93-21246
Adaptive control with an expert system based supervisory level
[NASA-CR-192742] 07 p2048 N93-21372
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Adaptive fuzzy system for 3-D vision 08 p2451 N93-22216
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle 08 p2451 N93-22217
Adaptive meshing in solids
[DE93-003238] 08 p2287 N93-22331
Advanced telerobotic control using neural networks 08 p2455 N93-22364
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
The ASLOTS concept: An interactive, adaptive decision support concept for Final Approach Spacing of Aircraft (FASA). FAA-NASA Joint University Program 08 p2105 N93-22563
Adaptive control of a flexible manipulator 08 p2458 N93-23201
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Modeling and control of flexible manipulators 08 p2318 N93-24182
Adaptive control of uncertain systems
[ISBN-0-315-54485-6] 08 p2464 N93-24622
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333
Adaptive control of nonlinear flexible systems
[AD-A261676] 09 p2826 N93-26365
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Adaptive control strategies for flexible robotic arm
[NASA-CR-193111] 10 p3050 N93-27159
Correction and simplification to the order of a stabilizing regulator is sufficient a priori information for adaptive stabilization
[MEMO-1070] 10 p3110 N93-28155
The dynamic behavior of constrained adaptive array sensor processors
[AD-A262402] 11 p3541 N93-28494
Description of the Joint Damping Experiment (JDX) 11 p3263 N93-28703
Adaptive structures flight experiments 11 p3263 N93-28704
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm 11 p3512 N93-29535
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
Materials for adaptive structural acoustic control, volume 1
[AD-A264619] 11 p3562 N93-30121
Division by polynomial matrix and its application to multivariable linear systems 11 p3357 N93-30233
An information theoretic approach to stochastic adaptive control application to manipulators with active inertia 11 p3359 N93-30247
An adaptive controller for a class of MIMO non-minimum phase systems with disturbance rejection design 11 p3359 N93-30248
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385
Adaptive array processing in uncertain inhomogeneous media 1992-1993
[AD-A265256] 12 p3717 N93-31794
Set-membership identification for robust control design
[AD-A265669] 12 p3800 N93-32197

ADAPTIVE CONTROL SYSTEMS
U ADAPTIVE CONTROL

ADAPTIVE FILTERS
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
QR decomposition based algorithms and architectures for least-squares adaptive filtering
[RSRE-MEMO-4562] 02 p0408 N93-11390
The design and implementation of radar clutter modelling and adaptive target detection techniques 02 p0283 N93-11913
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Fast training of a high-speed voice and data modem receiver
[ACTA-POLYTEC-SCAND-EL-67] 05 p1140 N93-17632
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Adaptive filters for monitoring localized brain activity from surface potential time series
[DE93-003795] 08 p2420 N93-22774
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Adaptive filtering methods: On methods to use a priori information in order to reduce complexity while maintaining convergence properties
[ISBN-90-9005143-0] 10 p3121 N93-28109
The dynamic behavior of constrained adaptive array sensor processors
[AD-A262402] 11 p3541 N93-28494
Realization of high speed adaptive FIR digital filters 11 p3355 N93-30222
Synchronization of the LAPTV adative filter with input statistics 11 p3358 N93-30242
Adaptive filtering for clutter suppression in high frequency radar 11 p3377 N93-30355
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879

ADAPTIVE OPTICS
Ground/space co-operation for interferometry 01 p0178 N93-10946
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements 04 p0914 N93-14641
Adaptive optics for laser power beaming 05 p1305 N93-17307
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Increasing the corrected field of view of an adaptive optical telescope
[AD-A258816] 06 p1663 N93-18995
The effect of an adaptive optical system's spatio-temporal response on imaging performance
[AD-A258848] 06 p1663 N93-19069
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Handbook of actuators and edge alignment sensors
[NASA-CR-193203] 09 p2620 N93-25317
Development of laser guide stars and adaptive optics for large astronomical telescopes
[DE93-007511] 09 p2888 N93-25320
Feasibility experiment for sodium-layer laser guide stars at the Lawrence Livermore National Laboratory
[DE93-007115] 09 p2715 N93-26503
The application of controlled structures technology to adaptive optics 10 p3060 N93-28170
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
SWAT 2 overview
[AD-A262905] 11 p3578 N93-29139
SWAT laboratory test results
[AD-A262906] 11 p3578 N93-29140
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE93-009543] 11 p3630 N93-29785
Prospects for Earth-based interferometry 12 p3845 N93-31755
Exploring the limits of adaptive wavefront compensation for ground based astronomical interferometers 12 p3849 N93-31782
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990

ADDERS (CIRCUITS)
U ADDING CIRCUITS

ADDING CIRCUITS
CMOS circuit technique for integrated Viterbi decoders
[ETN-93-92568] 07 p1892 N93-20882
Description of an adder board
[TR-92-09] 10 p3027 N93-27904

ADDITION RESINS
NT ACRYLIC RESINS

ADDITION THEOREM
Description of an adder board
[TR-92-09] 10 p3027 N93-27904

ADDITIVES
NT ANTIKNOCK ADDITIVES
NT ANTIOXIDANTS
NT OIL ADDITIVES
NT PLASTICIZERS
NT PROPELLANT ADDITIVES
NT PROPELLANT BINDERS
NT SOLID ROCKET BINDERS
Heat transfer additives for absorption cooling system fluids
[PB92-190354] 01 p0169 N93-10249
Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU] 02 p0458 N93-11056
Overcharge and overdischarge protection of ambient temperature secondary lithium cells
[NASA-CASE-NPO-18343-1-CU] 02 p0290 N93-11456
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787

The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Determination of Fe(sup 2+) and Fe(sup 3+) concentrations of semi-insulating InP:Fe
[DE92-017119] 02 p0469 N93-12316
Laser densification and doping of sol-gel glasses
[AD-A254566] 03 p0604 N93-12644
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Relaxation of radiation damages in a-Si:H layers
[MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Bias-annealing experiments for doped a-Si:H layers
[MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968
Electrical characterization of conducting polymers and polymeric semiconductor devices
[ACTA-POL-SCAND-PH-178] 08 p2238 N93-23006
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
Investigation of multiply alkylated cyclopentane synthetic oil and lead naphthenate additive under boundary contact interactions
[ATR-93(8361)-1] 10 p2995 N93-27602
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Microscopic origin of marginal Fermi-liquid in strongly correlated spin systems
[DE93-608697] 12 p3827 N93-31163

ADDUCTS

X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199

ADENINES

Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703

ADENOSINE TRIPHOSPHATE

Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736

ADENOSINES

NT ADENOSINE TRIPHOSPHATE

ADHEROMETERS

U ADHESION TESTS

ADHESION

The development of computational methods of adhesion and adhesive science and technology
[AD-A253758] 01 p0092 N93-10740
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
EURECA
[ESA-F-26] 03 p0522 N93-12964
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
Tribology of magnetic storage systems 04 p1002 N93-14772
Adhesion in atomic scale metal contacts
[AD-A257137] 05 p1121 N93-16142
Progress report on conductive paints, 3 August - 30 September 1992
[DE93-001353] 06 p1494 N93-18530
Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
Adhesion and corrosion behavior of Al-Zn and TiN/Ti/TiN coatings on a DU-0.75 wt. percent Ti alloy
[MTL-TR-92-56] 09 p2658 N93-26433
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846

ADHESION TESTS

Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832

ADHESIVE BONDING

Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity 01 p0053 N93-10515
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction 01 p0054 N93-10516
The development of computational methods of adhesion and adhesive science and technology
[AD-A253758] 01 p0092 N93-10740
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Preliminary design of composite joints
[DLR-MITT-92-05] 04 p0835 N93-15076
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952
A micromechanical fastening system and its applications 06 p1550 N93-19059
Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373
Viscoelastic analysis of bonded connections 07 p1929 N93-20638
Numerical finite element analysis of damage using Monte Carlo techniques 07 p1842 N93-21522
Rust transformation/rust compatible primers 08 p2244 N93-22182
A new method of impact tension testing of adhesively-bonded joints 08 p2212 N93-23939
A fracture mechanics approach to failure load predictions of structural adhesive joints 08 p2212 N93-23940
Designing for damage tolerant composite repairs
[AD-A260094] 08 p2214 N93-24053
The environmental and impact resistance of adhesively bonded thermoplastic fibre composites
[AD-A263202] 10 p2992 N93-28383
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628

ADHESIVES

NT TETRAETHYL ORTHOSILICATE
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications 01 p0015 N93-10006
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
The development of computational methods of adhesion and adhesive science and technology
[AD-A253758] 01 p0092 N93-10740
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258[illegible]] 06 p1455 N93-18300
Method of processing composites on a latex base (Description of an invention for an author's certificate)
[AD-A258455] 06 p1478 N93-18423
Survey and review on adhesives 07 p1799 N93-20475
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
Performance of thermal adhesives in forced convection 11 p3293 N93-30974

ADI METHODS

U ALTERNATING DIRECTION IMPLICIT METHODS

ADIABATIC CONDITIONS

Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring 03 p0664 N93-13643
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689
Dissipation in adiabatic shear bands
[DE93-002280] 07 p1856 N93-20025
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Numerical analysis of the thermoelastic effects in laminated structures and its use in the identification of defects 07 p1841 N93-21511
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148

The galaxy velocity field and CDM models
10 p3176 N93-26737
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls
10 p2936 N93-27458
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

ADIABATIC EQUATIONS
On the measurement of time-dependent quantum phases
[DE92-630206] 01 p0170 N93-10387
Chaotic dynamics in accelerator physics
[DE93-004600] 08 p2515 N93-22766
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083
Three-neutrino oscillations in matter and topological phases
[DE93-608386] 12 p3813 N93-31290
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805

ADIABATIC FLOW
Adiabatic two-phase flow in a test section with partial flow blockages
[DE92-016360] 04 p0877 N93-14816
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148

ADIPOSE TISSUES
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498

ADJOINTS
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU]
05 p1261 N93-17276

ADJUSTING
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory
[DE92-040026] 04 p0893 N93-15278
Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components
09 p2804 N93-25923
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059
CATS EYES adjustment procedures
[AD-A264069] 11 p3508 N93-29924

ADJUSTMENT
U ADJUSTING

ADMINISTRATION
U MANAGEMENT

ADMITTANCE
U ELECTRICAL IMPEDANCE

ADRENERGICS
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820

ADRIATIC SEA
Surface circulation in the Adriatic Sea as observed by AVHRR
07 p1964 N93-21634
Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques
09 p2747 N93-24831

ADSORBENTS
Adsorption and diffusion of fluids in well-characterized adsorbent materials
[DE92-040160] 04 p0843 N93-15414
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209

ADSORPTION
NT CHEMISORPTION
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
The adsorption of C60 and the co-adsorption of C60 and H2O on (alpha)-Al2O3 (1 -1 0 2)-(2x1)
[DE92-018002] 02 p0465 N93-12093
The deposition characteristics of copper(I) compounds for CVD by FT-IR spectroscopy
[DE92-010778] 02 p0467 N93-12134
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
Acousto-optic devices and applications
03 p0712 N93-14100
Final Report, 1 November 1988 - 31 October 1991 --- spectroscopy of adsorbed and photodissociated molecules
[AD-A255979] 04 p0976 N93-14424
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Adsorption and diffusion of fluids in well-characterized adsorbent materials
[DE92-040160] 04 p0843 N93-15414
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects
[AD-A256660] 05 p1101 N93-15913
Theory of field adsorption of hydrogen
[AD-A257139] 05 p1102 N93-15996
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Adsorption of a binary gas mixture which laterally interacts on a random heterogeneous surface
[DE93-000706] 05 p1103 N93-16227
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Interaction of hydrogen and water with diamond (100): Infrared spectroscopy
[AD-A258535] 07 p1846 N93-20052
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Wetting of fibers measured by LPR-90 equipment
07 p1835 N93-21139
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Adsorption kinetics at liquid-liquid interfaces in microgravity conditions. Experimental approach and theoretical background
08 p2248 N93-22843
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres
[AD-A260304] 08 p2223 N93-24235
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Theoretical studies of surface reactions on metals and electronic materials
[DE93-009761] 09 p2650 N93-25502
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
A numerical simulation of adsorption onto a crystalline surface
[AD-A261079] 09 p2866 N93-25781
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403
Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Kinetics and dynamics of reacting systems
[AD-A264046] 11 p3313 N93-30030
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627

Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814
Kinetics of adsorption from liquid phase on activated carbon
[ETN-93-94042] 12 p3703 N93-31521
Effect of purity on adsorption capacities of a Mars-like clay mineral at different pressures
12 p3863 N93-31945
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

ADVANCED COMMUNICATIONS TECHNOLOGY SAT
U ACTS

ADVANCED LAUNCH SYSTEM (STS)
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
Space Transportation Booster Engine Configuration Study. Volume 3: Program Cost estimates and work breakdown structure and WBS dictionary
[NASA-CR-184458] 02 p0233 N93-12088
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Optimal guidance law development for an advanced launch system
[NASA-CR-192189] 07 p1820 N93-20313
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Advanced Launch System (ALS) test requirements
[MCR-91-5004] 09 p2610 N93-26181
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642

ADVANCED SOLID ROCKET MOTOR (STS)
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
ASRM design philosophy and modelling challenges
09 p2627 N93-26022
Determination of burn rate requirements from ASRM performance specifications 09 p2627 N93-26023
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

ADVANCED TEST REACTORS
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102

ADVANCED VERY HIGH RESOLUTION RADIOMETER
Automatic pattern recognition techniques for geometrical correction on satellite data
03 p0687 N93-13913
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755
Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073
Navigation of AVHRR/NOAA images: Operational procedure for SUN workstation
[INPE-5354-RPQ/654] 06 p1686 N93-18231
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data
07 p1954 N93-21576
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data
07 p1956 N93-21590
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
Lake remote sensing for global climate research
07 p1958 N93-21602
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies
07 p1959 N93-21608
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions
07 p1963 N93-21630
A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632
Surface circulation in the Adriatic Sea as observed by AVHRR 07 p1964 N93-21634
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
Observation in the East China Sea
08 p2335 N93-22126
Estimation of partial cloud cover within a pixel
08 p2335 N93-22127
Vegetation index for Europe 08 p2340 N93-22443
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data
08 p2340 N93-22445
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain)
09 p2738 N93-24780
Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data
09 p2742 N93-24801
Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring
09 p2750 N93-24853
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland)
11 p3458 N93-28926
Derivation of conductive heat transfer in mountains from AVHRR data 11 p3458 N93-28927
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886

ADVANCED X RAY ASTROPHYSICS FACILITY
U X RAY ASTROPHYSICS FACILITY

ADVANCING GLACIERS
U GLACIERS

ADVANCING SHORELINES
U BEACHES

ADVECTION
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing
01 p0124 N93-10318
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
Fitting microphysical observations to a numerical model through an optimal control theory technique
04 p0924 N93-15100
Propagation of dissolution/precipitation waves in porous media
[DE92-017348] 05 p1154 N93-15851
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
On regional surface fluxes over partly forested areas
[MPIM-82] 08 p2397 N93-23858
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217
Tests on semi-Lagrangian transport and interpolation
[CWI-NM-R921M] 12 p3756 N93-32393

AERATION
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089

AERIAL IMAGERY
U AERIAL PHOTOGRAPHY

AERIAL PHOTOGRAPHY
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
Comparative analysis of the indices of vegetation in urban areas obtained from the TM-Landsat and HRV-Spot data: City of Taubate
[INPE-5418-TDI/482] 06 p1575 N93-19831
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography
[BCRS-91-44] 07 p1968 N93-20740

Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
Applicability of satellite remote sensing for slope instability hazard zonation 08 p2368 N93-23817
A method for sequential image analysis of hazard areas 09 p2743 N93-24810
SPOT satellite mapping of Ice Stream B 12 p3760 N93-31887
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344

AERIAL RECONNAISSANCE
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
A new ground test for determining the resolution of pushbroom sensors
[AD-A257193] 05 p1189 N93-16002
The Geological Research Center's aerial geological measuring system 06 p1569 N93-19875
Commercial applications multispectral sensor system 09 p2758 N93-25615
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187

AEROACOUSTICS
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction 01 p0149 N93-10674
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Active control of aeroacoustic couplings by means of adaptive systems
[ECL-91-18] 02 p0214 N93-11576
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 2: Tests with the closed circuit
[NASA-CR-191672] 04 p0780 N93-14738
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Theory for noise of propellers in angular inflow with parametric studies and experimental verification
[NASA-CR-4499] 09 p2844 N93-25094
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975
Contribution to the study of the interaction between acoustic waves and coherent structures induced by a prismatic cylinder in a rectangular cavity
[ONERA-NT-1990-10] 11 p3314 N93-30203
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221

AEROASSIST
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
Robust approximate optimal guidance strategies for aeroassisted orbital transfer missions 05 p1074 N93-16518
Improved methods for reusable aeroclassified orbital transfer vehicle optimization
[DLR-FB-91-41] 06 p1454 N93-18785
Flexible thermal protection materials for entry systems 08 p2177 N93-22111
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166

AEROBES
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Utilization of the graded universal testing system to increase the efficiency for assessing aerobic and anaerobic capacity 09 p2794 N93-26077

AEROBRAKING
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Mars transfer vehicle studies 08 p2173 N93-22088
Aerobraking technology studies 08 p2173 N93-22089
Nuclear concepts/propulsion 08 p2174 N93-22093
Thermal protection systems for aerobrakes 08 p2176 N93-22110
Some materials perspectives for space transportation systems 08 p2177 N93-22115
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475

AEROCAPTURE
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720

AERODYNAMIC AXIS
U AERODYNAMIC BALANCE

AERODYNAMIC BALANCE
Pitch control trimming system for canard design aircraft
[CA-PATENT-APPL-SN-2013236] 01 p0010 N93-10374
Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
An integrated finite-state model for rotor deformation, nonlinear airloads, inflow, and trim 09 p2588 N93-25538

AERODYNAMIC BRAKES
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT TRAILING EDGE FLAPS
NT WING FLAPS

AERODYNAMIC BUZZ
U FLUTTER

AERODYNAMIC CENTER
U AERODYNAMIC BALANCE

AERODYNAMIC CHARACTERISTICS
NT AERODYNAMIC BALANCE
NT AERODYNAMIC DRAG
NT AERODYNAMIC STABILITY
NT LIFT
NT ROTOR LIFT
NT STATIC AERODYNAMIC CHARACTERISTICS
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Numerical study of advanced rotor blades 02 p0199 N93-11899
Measured data for the Sandia 34-meter vertical axis wind turbine
[DE92-019807] 02 p0348 N93-12075
An experimental investigation of the flow in a diffusing S-duct
[NASA-TM-105809] 02 p0213 N93-12077
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503
X-29 linear aerodynamic perturbation model
[AD-A254810] 03 p0500 N93-12752
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method
[NASA-CR-191216] 03 p0503 N93-12903

Test techniques for engine/airframe integration
03 p0577 N93-13200
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
A laboratory investigation of raindrop oscillations
03 p0666 N93-13790
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Special publication of National Aerospace Laboratory
[DE93-716195] 05 p1053 N93-15949
Modeling and control study of the NASA 0.3-meter transonic cryogenic tunnel for use with sulfur hexafluoride medium
[NASA-CR-189737] 05 p1157 N93-16379
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds
[ESDU-92039] 05 p1055 N93-16634
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140] 06 p1404 N93-17880
Beyond the frequency limits of time-linearized methods
[NLR-TP-91216-U] 06 p1405 N93-17929
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis computer program user's manual
[NASA-CR-187127] 06 p1449 N93-18702
Stall in axial flow aero engine compressors
06 p1530 N93-18723
A study of stall in a low hub/tip ratio fan
06 p1531 N93-18729
Numerical investigation of performance degradation of wings and rotors due to icing
[NASA-CR-192233] 06 p1440 N93-18783
System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806
Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center
[NASA-CR-191885] 07 p1762 N93-21562
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
An approximate method for estimating the lifting characteristics of thin bodies of non-circular cross-section
[CRANFIELD-AERO-9006] 08 p2108 N93-22395
Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration
[NASA-TM-4439] 08 p2108 N93-22558
Selected OAST/OSSA space experiment activities in support of Space Station Freedom
08 p2189 N93-22636
Aerodynamic sensitivity analysis in the transonic regime 08 p2109 N93-22667
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
A two-dimensional spoiler of arbitrary chordwise position in a low speed flow 08 p2127 N93-24211
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings
09 p2574 N93-24772
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Structural and aerodynamic optimization of joined-wing aircraft 09 p2588 N93-25526
Tangential fuselage blowing on an ogive cylinder
09 p2578 N93-25545
Structural dynamic analysis of bearingless rotor blade
09 p2590 N93-25719
Experimental study of the effect of helical grooves on an infinite cylinder
[AD-A260890] 09 p2676 N93-25912
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093
Experimental investigation of turbine disk cavity aerodynamics and heat transfer
[NASA-CR-193831] 10 p2943 N93-27115
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0
10 p2927 N93-27221
Aerodynamic forces on maglev vehicles
[PB93-154813] 10 p2930 N93-27413
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Dynamic System Coupler Program (DYSCO 4.1). Volume 1: Theoretical manual
[AD-B131156L] 10 p3098 N93-27531
Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589
Dynamic System Coupler Program (DYSCO 4.1). Volume 3: User's manual supplement
[AD-B131158L] 10 p3099 N93-27590
Effect of canard wing positions on aerodynamic characteristics of swept-forward wing
[AD-A262373] 11 p3238 N93-28493
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Experimental evaluation of a cooled radial-inflow turbine
[NASA-TM-106230] 11 p3251 N93-28697
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade
11 p3258 N93-29958
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119
Low-speed wind tunnel study of the direct side-force characteristics of a joined-wing airplane with an upper fin
[DE93-767966] 12 p3672 N93-31189
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733
Development of a method to predict transonic limit cycle oscillation characteristics of fighter aircraft
[NLR-TP-91359-U] 12 p3679 N93-32338
Panel methods for aerodynamic analysis and design
[NLR-TP-91404-U] 12 p3674 N93-32357

AERODYNAMIC CHORDS
U AIRFOIL PROFILES
U CHORDS (GEOMETRY)

AERODYNAMIC COEFFICIENTS
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Harmonic analysis of the aerodynamic forces on a Darrieus rotor 01 p0006 N93-10551
Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858
Lift coefficient of a randomly oscillating hydroplane
[DRA/MAR-TM(MTH)-91320] 02 p0197 N93-11377
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control
09 p2576 N93-25274
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil
10 p2933 N93-27440
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166

AERODYNAMIC CONFIGURATIONS
NT WAVERIDERS
NT WING NACELLE CONFIGURATIONS
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113

Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
New methods for predicting nonlinear lift, center of pressure, and pitching moment on missile configurations
[AD-A255078] 03 p0492 N93-12741
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
Flight termination systems commonality standard
[AD-A255349] 04 p0789 N93-14517
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885] 05 p1235 N93-16288
Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567
The F-92 RELIANT: Air transport system design simulation
[NASA-CR-192050] 06 p1440 N93-18386
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Aerodynamic surface tip vortex attenuation system
[AD-D015606] 07 p1760 N93-20017
Computational analysis of hypersonic flows past generalized cone-derived waveriders 07 p1761 N93-20288
Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
A two-dimensional spoiler of arbitrary chordwise position in a low speed flow 08 p2127 N93-24211
Separated flow past smooth slender bodies 08 p2298 N93-24213
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
A computational aerodynamic design optimization method using sensitivity analysis 09 p2589 N93-25552
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840

AERODYNAMIC DRAG
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Hypersonic propulsion system force accounting 03 p0503 N93-13229
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Propelling force and resistance 06 p1403 N93-19003
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151
Aerodynamic forces on maglev vehicles
[PB93-154813] 10 p2930 N93-27413
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil 10 p2933 N93-27440
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
Reynolds and Mach number effects on multielement airfoils 10 p2934 N93-27446
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Modeling the effects of drop drag and breakup on fuel sprays
[AD-A263650] 11 p3445 N93-29388
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model 11 p3243 N93-29778
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151

AERODYNAMIC FORCES
NT AERODYNAMIC DRAG
NT AERODYNAMIC INTERFERENCE
NT AERODYNAMIC LOADS
NT BLAST LOADS
NT GUST LOADS
NT HYPERSONIC FORCES
NT LIFT
NT ROTOR LIFT
NT WING LOADING
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Propelling force and resistance 06 p1403 N93-19003
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Fluid/structures interactions. Aircraft considerations 07 p1787 N93-20628
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
Prediction of forces and moments for hypersonic flight vehicle control effectors
[NASA-CR-193033] 09 p2595 N93-24762
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control 09 p2576 N93-25274
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0 10 p2927 N93-27221
Aerodynamic forces on maglev vehicles
[PB93-154813] 10 p2930 N93-27413
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151

AERODYNAMIC HEAT TRANSFER
NT HYPERSONIC HEAT TRANSFER
NT SUPERSONIC HEAT TRANSFER
Leading edge film cooking heat transfer including the effect of mainstream turbulence 02 p0199 N93-11886
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Experimental investigation of turbine disk cavity aerodynamics and heat transfer
[NASA-CR-193831] 10 p2943 N93-27115
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937

AERODYNAMIC HEATING
NT SHOCK HEATING
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Active cooling from the sixties to NASP 02 p0208 N93-12458
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation
[NASA-CR-192517] 09 p2631 N93-26053
The infrared measurement for the reentry-body-translation
[AD-A263100] 11 p3278 N93-29134
Ablation problems using a finite control volume technique
[DE93-009861] 11 p3549 N93-29187

AERODYNAMIC INTERFERENCE
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874

A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Hypersonic propulsion system force accounting 03 p0503 N93-13229
Aerodynamic aspects of offshore structures
[NLR-TP-91188-U] 06 p1405 N93-17928
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
A break-down of sting interference effects
[NLR-TP-91220-U] 12 p3684 N93-31042

AERODYNAMIC LIFT
U LIFT

AERODYNAMIC LOADS
NT BLAST LOADS
NT GUST LOADS
Performance parameters and assessment 01 p0077 N93-10052
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
An investigation of dynamic stress reduction of multi-body aircraft using active gust control 03 p0505 N93-13916
Hypersonic panel flutter in a rarefied atmosphere 03 p0505 N93-13928
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions 03 p0496 N93-13929
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889
Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660
Beyond the frequency limits of time-linearized methods
[NLR-TP-91216-U] 06 p1405 N93-17929
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind
[DE93-004480] 08 p2375 N93-22045
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
An integrated finite-state model for rotor deformation, nonlinear airloads, inflow, and trim 09 p2588 N93-25538
Hypersonic panel flutter in a rarefied atmosphere
[NASA-CR-4514] 10 p2929 N93-27084
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft 11 p3249 N93-29775
NASTRAN analysis for the Airmass Sunburst model 'C' Ultralight Aircraft 11 p3249 N93-29777
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model 11 p3243 N93-29778
Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine 12 p3697 N93-31584

AERODYNAMIC MOMENTS
U STABILITY DERIVATIVES

AERODYNAMIC NOISE
NT BLADE SLAP NOISE
NT PROPELLER NOISE
Non-propulsive aerodynamic noise 01 p0149 N93-10673
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction 01 p0149 N93-10674
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Reduction of propeller noise by active noise control 01 p0152 N93-10692
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692
Computation of far-field helicopter rotor tone noise
[ONERA-P-1990-5] 11 p3562 N93-30110

AERODYNAMIC STABILITY
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
Active control of aeroacoustic couplings by means of adaptive systems
[ECL-91-18] 02 p0214 N93-11576
Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622
X-29 linear aerodynamic perturbation model
[AD-A254810] 03 p0500 N93-12752
The Orbiter Stability Experiment on STS-40 03 p0508 N93-13159
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Stall and surge in axial flow compressors 06 p1530 N93-18724
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
Stability of elastically tailored rotor systems
[AD-A260550] 08 p2132 N93-24241
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444
Airfoil stability in turbulent flow 10 p2926 N93-27212

AERODYNAMIC STALLING
A comparative study of semi-empirical dynamic stall models 01 p0005 N93-10544
Harmonic analysis of the aerodynamic forces on a Darrieus rotor 01 p0006 N93-10551
The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157
Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336
Axial Flow Compressors, volume 1
[VKI-LS-1992-02-VOL-1] 06 p1530 N93-18721
Stall in axial flow aero engine compressors 06 p1530 N93-18723
Stall and surge in axial flow compressors 06 p1530 N93-18724
Active control of stall and surge 06 p1530 N93-18725
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor 06 p1531 N93-18727
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
A study of stall in a low hub/tip ratio fan 06 p1531 N93-18729
Axial Flow Compressors, volume 2
[VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Determination of the zone of the stall cell by means of the baroclinic wave theory 06 p1531 N93-18733
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
Stall departure resistance enhancer
[NASA-CASE-LAR-14221-1] 06 p1447 N93-19023
Characterization of stall inception in high-speed single-stage compressors
[AD-A258973] 06 p1449 N93-19093
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
X-31A high angle of attack and initial post stall flight testing 06 p1443 N93-19911
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations 10 p2935 N93-27451

Dynamic airfoil stall investigations
10 p2935 N93-27453
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates 10 p2936 N93-27456
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack
11 p3260 N93-28851
Requirements for pilot assistance in a thrust-vectoring combat aircraft 11 p3504 N93-28870
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369

AERODYNAMIC VEHICLES
U AIRCRAFT

AERODYNAMICS
NT AEROTHERMODYNAMICS
NT HYPERSONICS
NT ROTOR AERODYNAMICS
NT SUPERSONICS
NT UNSTEADY AERODYNAMICS
Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056
Aeronautical engineering: A continuing bibliography with indexes (supplement 276)
[NASA-SP-7037(276)] 01 p0001 N93-10073
Aeronautical engineering: A continuing bibliography with indexes (supplement 279)
[NASA-SP-7037(279)] 01 p0001 N93-10074
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 274)
[NASA-SP-7037(274)] 01 p0001 N93-10351
Aeronautical engineering: A continuing bibliography with indexes (supplement 281)
[NASA-SP-7037(281)] 01 p0001 N93-10352
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304
Formulation and validation of high-order mathematical models of helicopter flight dynamics
03 p0501 N93-13821
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Aeronautical engineering: A continuing bibliography with indexes (supplement 282)
[NASA-SP-7037(282)] 04 p0777 N93-14604
Aeronautical engineering: A continuing bibliography with indexes (supplement 284)
[NASA-SP-7037(284)] 04 p0777 N93-14605
Flight testing: Past, present, and future
04 p0777 N93-14615
Subsonic aerodynamic research laboratory
[AD-A256060] 04 p0780 N93-14661
Aeronautical engineering: A continuing bibliography with indexes (supplement 283)
[NASA-SP-7037(283)] 04 p0778 N93-14732
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
Flight dynamics system software development environment (FDS/SDE) tutorial
[NASA-TM-108580] 04 p0952 N93-15502
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
1991 research and technology
[NASA-TM-103924] 05 p1402 N93-16652
National Aeronautics and Space Administration
05 p1358 N93-17091
Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB] 05 p1057 N93-17568
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
Hypersonic reconnaissance aircraft
[NASA-CR-192049] 05 p1064 N93-17804
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
Aeronautical engineering: A continuing bibliography with indexes (supplement 285)
[NASA-SP-7037(285)] 06 p1403 N93-18109
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
Identification of system dynamics of a high incidence research model
[RR-407] 06 p1440 N93-18507
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
A technique for predicting aircraft flow-field effects upon an unguided bomb ballistic trajectory and comparison with flight test results 06 p1417 N93-19922
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
Aeronautical engineering: A continuing bibliography with indexes (supplement 286)
[NASA-SP-7037(286)] 07 p1759 N93-21026
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 287)
[NASA-SP-7037(287)] 08 p2107 N93-23038
Aeronautical engineering: A continuing bibliography with indexes (supplement 288)
[NASA-SP-7037(288)] 08 p2107 N93-23039
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
Bank-to-turn missiles and autopilot design
[ETN-93-93486] 08 p2131 N93-23373
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors
09 p2606 N93-24733
Applied aerodynamics: Challenges and expectations
[NASA-TM-103963] 09 p2575 N93-25091
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
A computational aerodynamic design optimization method using sensitivity analysis
09 p2589 N93-25552
Numerical simulation of hypersonic aerodynamics and the computational needs for the design of an aerospace plane
[AD-A260681] 09 p2580 N93-25894
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Cumulative reports and publications
[NASA-CR-191440] 10 p3090 N93-27063
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
Hypersonics revisited 10 p2919 N93-27167
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
The Fifth Symposium on Numerical and Physical Aspects of Aerodynamic Flows
[NASA-CR-193000] 10 p2931 N93-27427
Aerodynamics of a finite wing with simulated ice
10 p2932 N93-27437
High-lift aerodynamics: Prospects and plans
10 p2933 N93-27442
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model
11 p3243 N93-29778
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
Aeronautical engineering: A continuing bibliography with indexes (supplement 292)
[NASA-SP-7037(292)] 12 p3671 N93-32375

AEROELASTIC RESEARCH WINGS
The unified method of aeroelasticity
06 p1450 N93-18143

AEROELASTICITY
NT AEROSERVOELASTICITY
Navier-Stokes dynamics and aeroelastic computations for vortical flows, buffet and aeroelastic applications
[NASA-CR-190692] 01 p0002 N93-10098
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
Hypersonic panel flutter in a rarefied atmosphere
03 p0505 N93-13928
A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Aeroelastic stability and response of rotating structures
[NASA-CR-191803] 05 p1068 N93-16560
Developing a control system for ARES 2
05 p1069 N93-16769
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563
Algorithm development with applications to aerodynamics and aeroelasticity
06 p1529 N93-18566
Structural dynamics branch research and accomplishments to FY 1992
[NASA-TM-105824] 07 p1925 N93-20368
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Fluid/structures interactions. Aircraft considerations
07 p1787 N93-20628
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades
[NASA-TM-4448] 08 p2125 N93-22486
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671

Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034
Algorithm and code development for unsteady three-dimensional Navier-Stokes equations
[NASA-CR-192760] 08 p2292 N93-23234
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
An integrated finite-state model for rotor deformation, nonlinear airloads, inflow, and trim
09 p2588 N93-25538
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
Strain actuated aeroelastic control
10 p3059 N93-27899
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
Transonic flows on an oscillating airfoil and their effect on the flutter-boundary
[DLR-FB-92-08] 11 p3238 N93-29006
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
On the dynamics of aeroelastic oscillators with one degree of freedom
[REPT-92-96] 12 p3815 N93-31653

AEROEMBOLISM
Complement proteins and decompression sickness susceptibility
[AD-A254448] 03 p0674 N93-12905
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428

AEROGELS
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263

AEROLOGY
Atmospheric measurements taken from an aeroplane
06 p1569 N93-19876

AEROMAGNETO FLUTTER
U FLUTTER

AEROMANEUVERING
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512

AERONAUTICAL ENGINEERING
Aeronautical engineering: A continuing bibliography with indexes (supplement 276)
[NASA-SP-7037(276)] 01 p0001 N93-10073
Aeronautical engineering: A continuing bibliography with indexes (supplement 279)
[NASA-SP-7037(279)] 01 p0001 N93-10074
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 274)
[NASA-SP-7037(274)] 01 p0001 N93-10351
Aeronautical engineering: A continuing bibliography with indexes (supplement 281)
[NASA-SP-7037(281)] 01 p0001 N93-10352
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP)
[NASA-CR-190995] 02 p0219 N93-11754
NASA Mission: The Universe
[NASA-NP-141] 03 p0508 N93-12891
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Aeronautical engineering: A continuing bibliography with indexes (supplement 282)
[NASA-SP-7037(282)] 04 p0777 N93-14604
Aeronautical engineering: A continuing bibliography with indexes (supplement 284)
[NASA-SP-7037(284)] 04 p0777 N93-14605
Aeronautical engineering: A continuing bibliography with indexes (supplement 283)
[NASA-SP-7037(283)] 04 p0778 N93-14732
Review of aeronautical fatigue investigation activities developed in Alenia-GAT during the period May 1990 - March 1991
[ETN-92-92884] 05 p1061 N93-16287
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
Aeronautical Engineering Group publications: 1950 - present
[AERO-REPT-9108] 05 p1355 N93-16563
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
Aeronautical engineering: A continuing bibliography with indexes (supplement 285)
[NASA-SP-7037(285)] 06 p1403 N93-18109
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
LES turbulence modeling using DNS data base
06 p1409 N93-19274
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Numerical computations using multi-domain technique
06 p1409 N93-19277
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Aeronautical engineering: A continuing bibliography with indexes (supplement 286)
[NASA-SP-7037(286)] 07 p1759 N93-21026
Modelisation and computation of composite materials
07 p1842 N93-21518
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 287)
[NASA-SP-7037(287)] 08 p2107 N93-23038
Aeronautical engineering: A continuing bibliography with indexes (supplement 288)
[NASA-SP-7037(288)] 08 p2107 N93-23039
JPRS report: Central Eurasia. Aviation and cosmonautics, no. 9, September 1992
[JPRS-UAC-93-003] 09 p2574 N93-26325
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-007] 11 p3353 N93-28635
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-006] 11 p3353 N93-28636
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-010] 11 p3353 N93-28674
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-008] 11 p3353 N93-28675
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-003] 11 p3353 N93-28691
Proceedings of the Seventh Annual Summer Conference. NASA/USRA: University Advanced Design Program
[NASA-CR-192962] 11 p3227 N93-29712
Project summary 11 p3227 N93-29714
Preliminary design studies of an advanced general aviation aircraft 11 p3228 N93-29717
Aeronautical engineering: A continuing bibliography with indexes (supplement 292)
[NASA-SP-7037(292)] 12 p3671 N93-32375

AERONAUTICS
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
Directory of factual and numeric databases of relevance to aerospace and defence R and D
[AGARD-R-777] 02 p0476 N93-11710
Coordinating Council. Fourth Meeting: NACA Documents Database Project
[NASA-TM-108017] 03 p0734 N93-12671
Coordinating Council. Sixth Meeting: Who Are Our Key Users?
[NASA-TM-108021] 03 p0734 N93-12672
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
Aeronautical engineering: A continuing bibliography with indexes (supplement 282)
[NASA-SP-7037(282)] 04 p0777 N93-14604
Aeronautical engineering: A continuing bibliography with indexes (supplement 284)
[NASA-SP-7037(284)] 04 p0777 N93-14605
Calendar of selected aeronautical and space meetings, July 1991 onwards
[AGARD-CAL-91/2] 06 p1683 N93-19639
The 1992 Research/Technology report
[NASA-TM-105924] 07 p1759 N93-20902
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
JPRS report: Central Eurasia. Aviation and cosmonautics, no. 9, September 1992
[JPRS-UAC-93-003] 09 p2574 N93-26325
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732

AERONOMY
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP
03 p0518 N93-13922
Visible Airglow Experiment data analysis
[NASA-CR-192119] 06 p1577 N93-18361
Aeronomy of auroral and airglow emissions
06 p1584 N93-18496
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609

AEROPHYSICS
U ATMOSPHERIC PHYSICS

AEROSERVOELASTICITY
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811

AEROSOLS
NT FOG
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar
03 p0653 N93-13614
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646

Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Infrared spectroscopy of size resolved fine aerosol 03 p0647 N93-13758
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
Ethane ice haze in the upper atmosphere of Uranus 04 p1023 N93-14212
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Optimization of a Counterflow Virtual Impactor (CVI) for studying aerosol effects on cloud droplet number 04 p0914 N93-14861
On the role of water growth in atmospheric aerosol 04 p0922 N93-14875
Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877
An analytic phase function for cylindrical particles
[AD-A255750] 04 p0977 N93-15054
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
Aerosol and light extinction databases for North America and Europe
[AD-A256710] 05 p1213 N93-16169
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Aerosol transport and global models
[DE93-001618] 05 p1209 N93-16969
Generation of aerosolized particulate contamination by the wear of stainless steels
[DE93-000742] 05 p1115 N93-17047
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
High-energy laser-particle interaction 06 p1543 N93-18469
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19887
Aerosol chemistry in GLOBE 07 p2009 N93-20102
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Aerosol phase transformation in the atmosphere
[DE93-001903] 08 p2384 N93-22936
Studies of the formation chemical reactivity and properties of small clusters application to an understanding of aerosol formation and heterogeneous chemistry
[DE93-005920] 08 p2221 N93-23309
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors 09 p2772 N93-25535
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
Ocean aerosol measurements and models in the straits of Florida (The KEY-90 experiment)
[AD-A264777] 11 p3487 N93-29659
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831

AEROSPACE ENGINEERING
NT AERONAUTICAL ENGINEERING
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 41)
[NASA-SP-7039(41)-SECT-1] 01 p0171 N93-10078
Reliability assurance requirements for ESA space systems
[ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Neutron diffraction residual stress studies for aero-engine component applications
[PNR-90908] 02 p0334 N93-11014
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
The changing nature of design
[PNR-91011] 02 p0206 N93-11334
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Directory of factual and numeric databases of relevance to aerospace and defence R and D
[AGARD-R-777] 02 p0476 N93-11710
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
Air Force engineering research initiation grants (1990-1991)
[AD-A255004] 03 p0774 N93-12706
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
NASA Mission: The Universe
[NASA-NP-141] 03 p0508 N93-12891
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-006] 03 p0508 N93-13151
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Highlights 92/2 03 p0775 N93-13474
Recent developments in the NL-Soar garden path theory
[AD-A255889] 03 p0688 N93-13944
Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991
[NASA-TM-108156] 05 p1353 N93-16233
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403
1991 research and technology
[NASA-TM-103924] 05 p1402 N93-16652
The F-18 systems research aircraft facility
[NASA-TM-4433] 05 p1072 N93-16753
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
National Aeronautics and Space Administration 05 p1358 N93-17091
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
The 1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191266] 06 p1679 N93-18033
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 42)
[NASA-SP-7039(42)-SECT-1] 06 p1685 N93-18110
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 42)
[NASA-SP-7039(42)-SECT-2] 06 p1686 N93-18410
Transportation and platforms perspective 06 p1453 N93-18636
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452

Aerospace engineering educational program
06 p1681 N93-19457
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 27: Knowledge diffusion and US government technology policy: Issues and opportunities for sci/tech librarians
[NASA-TM-108680] 07 p2088 N93-20110
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111
Metals combustion in normal gravity and microgravity
07 p1854 N93-20211
The 1992 Research/Technology report
[NASA-TM-105924] 07 p1759 N93-20902
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
How to get on board Space Station Freedom
08 p2183 N93-22611
Space technology research plans
08 p2184 N93-22613
Space Station Freedom as an engineering experiment station: An overview 08 p2187 N93-22631
Precursor Space Station Freedom experiments
08 p2188 N93-22632
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Selected OAST/OSSA space experiment activities in support of Space Station Freedom
08 p2189 N93-22636
Center for Space Microelectronics Technology
[NASA-CR-192799] 08 p2279 N93-22812
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-001] 08 p2153 N93-23103
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Pre-college education 08 p2516 N93-23142
College education 08 p2516 N93-23143
Underrepresented groups 08 p2517 N93-23146
Pipeline issues 08 p2517 N93-23148
State and local governments
08 p2517 N93-23149
Focusing educational initiatives
08 p2517 N93-23150
University-industry interaction
08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
NASA's strategic plan for education. A strategy for change, 1993-1998
[NASA-EP-289] 08 p2517 N93-23174
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
Research activities and highlights of the University of Maryland's Department of Aerospace Engineering
08 p2571 N93-24478
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
Former Soviet Republic capabilities in space and science
[DE93-007613] 09 p2598 N93-25322
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
MIT Space Engineering Research Center
[NASA-CR-192879] 09 p2821 N93-25833
Space research in Sweden, 1990-1991
09 p2888 N93-25887
Aeronautics in NACA and NASA
[NASA-NP-156] 09 p2574 N93-26422
AGARD membership, 1993
[AGARD-MEMB-93] 09 p2873 N93-26428
Power management and distribution technology
10 p2983 N93-26978
Radiator technology 10 p2983 N93-26979
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
1991 NASA Life Support Systems Analysis workshop
[NASA-CR-4466] 10 p3085 N93-27100
1992 NASA Life Support Systems Analysis workshop
[NASA-CR-4467] 10 p3085 N93-27101
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
NASA SBIR product catalog, 1991
[NASA-TM-108080] 10 p3163 N93-27591
Technology for Space Station Evolution. Volume 2: Data Management System/Environmental Control and Life Support Systems
[NASA-TM-108725] 10 p2963 N93-27704
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Technology for Space Station Evolution. Executive summary and overview
[NASA-TM-108724] 10 p2972 N93-27854
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-007] 11 p3353 N93-28635
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-006] 11 p3353 N93-28636
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-010] 11 p3353 N93-28674
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-008] 11 p3353 N93-28675
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-003] 11 p3353 N93-28691
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Proceedings of the Seventh Annual Summer Conference. NASA/USRA: University Advanced Design Program
[NASA-CR-192962] 11 p3227 N93-29712
Design study to simulate the development of a commercial transportation system
11 p3228 N93-29718
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 30: The electronic transfer of information and aerospace knowledge diffusion
[NASA-TM-109223] 11 p3616 N93-30036
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
OAST space research and technology applications: Technology transfer successes
11 p3625 N93-30693
Technology coordination 11 p3626 N93-30706
NASA space research and technology overview (ITP)
11 p3628 N93-30722
Space research and technology overview
11 p3628 N93-30723
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 43)
[NASA-SP-7039(43)-SECT-1] 12 p3839 N93-31923
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 43)
[NASA-SP-7039(43)-SECT-2] 12 p3842 N93-32376
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

AEROSPACE ENVIRONMENTS

NT CISLUNAR SPACE
NT DEEP SPACE
NT EARTH ORBITAL ENVIRONMENTS
NT INTERPLANETARY SPACE
NT INTERSTELLAR SPACE
The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads 03 p0509 N93-13165
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
G254 undergraduate experiment
03 p0511 N93-13174
The VTRE Program: An overview
03 p0512 N93-13182
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Report of the Working Group on Space/Lunar Tradeoffs 03 p0747 N93-13599
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7
03 p0657 N93-13830
Occupational ergonomics in space
03 p0680 N93-14013
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Manned testing in a simulated space environment
04 p0820 N93-15602
Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
Study of high energy particles and protective layers for materials
[CTN-93-60613] 05 p1124 N93-16545
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Space environmental effects on polymers and composites 05 p1128 N93-17302
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
Space is a different place
[AD-A258336] 06 p1453 N93-18219
Hydrogen leak detection in the Space Shuttle
06 p1457 N93-19392
Contamination signatures observed during the CIRRIS-1A mission
[AD-A258596] 07 p1820 N93-19982
Radiological assessment for Space Station Freedom
[NASA-TM-104758] 07 p2022 N93-20303
An overview of space qualification requirements for new materials 07 p1830 N93-20815
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Flight project data book
[NASA-TM-108657] 08 p2152 N93-22870
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Ecosystems on Earth and in space (the possible utilization of artificial ecosystems for space life support systems) 08 p2167 N93-24406

Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
EnviroNET 09 p2886 N93-26398
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Chemical analyses of provided samples
[NASA-CR-193211] 10 p2993 N93-27077
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56
[NASA-TM-107560] 10 p2956 N93-27538
Rectenna thermal model development
10 p3022 N93-27986
LDEF: 69 Months in Space. Part 3: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-3] 10 p3219 N93-28254
Oxygen isotopes implanted in the LDEF spacecraft
10 p2997 N93-28256
Surface analyses of composites exposed to the space environment on LDEF 10 p2993 N93-28268
Spectral infrared hemispherical reflectance measurements for LDEF tray clamps
10 p3149 N93-28270
Selected results for LDEF thermal control coatings
10 p3008 N93-28279
Handbook for the USAF space environment standard (MIL-STD-1809)
[AD-A262799] 10 p3074 N93-28379
Combined space environment on spacecraft engineering materials
[NASA-CR-192536] 10 p2996 N93-28407
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554
The Optical Properties Monitor (OPM): A multipurpose optical laboratory in space 11 p3266 N93-28729
Low Earth orbital mission aboard the Space Test Experiments Platform (STEP-3)
11 p3267 N93-28732
High-performance visible/UV CCD focal plane technology for spacebased applications
11 p3434 N93-28771
Advanced engine study program
[NASA-CR-187217] 11 p3287 N93-28946
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
LDEF: 69 Months in Space. Part 1: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-1] 11 p3660 N93-29621
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
LDEF: 69 Months in Space. Part 4: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-4] 11 p3665 N93-29682
Degradation of optical components in a space environment 11 p3582 N93-29692
Effects of long term space environment exposure on optical substrates and coatings (S0050-2)
11 p3582 N93-29694
LDEF space optics handbook
11 p3582 N93-29695
Holographic data storage crystals for the LDEF
11 p3435 N93-29697
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF
11 p3583 N93-29699
Final results of space exposed experiment developed for students 11 p3492 N93-29702
Continued results of the seeds in space experiment
11 p3492 N93-29703
LDEF archival system plan 11 p3624 N93-29704
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
Future radiation measurements in low Earth orbit
11 p3654 N93-29708
Effects of device scaling and geometry on MOS radiation hardness assurance
[DE93-009832] 11 p3413 N93-30516
Prometheus in space: Survey report of Research Committee on Functional New Material
12 p3710 N93-31728
Protein requirements in hypoxia or hypokinesia
12 p3778 N93-32244

AEROSPACE INDUSTRY
NT AIRCRAFT INDUSTRY
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307
Aerospace Industries Association of Canada
[CTN-92-60345] 01 p0192 N93-10640
Aerospace Industries Association of Canada
[CTN-92-60590] 01 p0001 N93-10644
Aerospace industry profile, 1990-1991
[CTN-92-60513] 01 p0001 N93-10651
Aerospace and defence-related industries statistical survey report, 1991
[CTN-92-60514] 01 p0002 N93-10652
The technology advantage: A guide to science, technology, and innovation in Manitoba
[CTN-92-60571] 01 p0192 N93-10654
The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned
02 p0472 N93-11163
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
Space education: A self-perservation strategy for the Canadian space industry 04 p0808 N93-14937
Special publication of National Aerospace Laboratory
[DE93-716195] 05 p1053 N93-15949
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
The future of management: The NASA paradigm
05 p1350 N93-16859
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Space education: Deriving benefits from industrial consortia
[NASA-TM-108593] 06 p1679 N93-18358
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Industrial aerospace activities
06 p1404 N93-19007
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111
Activities of the Seibersdorf Research Center
[ETN-93-92597] 07 p2103 N93-20857
Coatings on composites: New developments and applications in the aerospace industry
[MBB-Z-0443-92-PUB] 07 p1840 N93-21404
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
National security and national competitiveness: Open source solutions; NASA requirements and capabilities
[NASA-TM-4458] 08 p2523 N93-23030
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Outreach and public service 08 p2517 N93-23147
State and local governments
08 p2517 N93-23149
University-industry interaction
08 p2517 N93-23151
Communications 08 p2517 N93-23153
Industry perspectives 08 p2154 N93-23162
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Future of the US space industrial base: A task group report
[PB93-139954] 08 p2522 N93-24585
Applied aerodynamics: Challenges and expectations
[NASA-TM-103963] 09 p2575 N93-25091
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
Space business indicators 09 p2886 N93-26158
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
NASP technology transfer 11 p3627 N93-30713
Technology transfer between the government and the aerospace industry 11 p3628 N93-30716
French aerospace equipment
12 p3883 N93-31734
Automated Assembly Center (AAC)
12 p3686 N93-32123
Applications of structural optimization methods to fixed-wing aircraft and spacecraft in the 1980s
[NASA-TM-103939] 12 p3740 N93-32212

AEROSPACE MEDICINE
NT AVIATION PSYCHOLOGY
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Space flight and immune system
02 p0376 N93-11284
Relating cognitive function to military aviator performance in early HIV infection
02 p0379 N93-11298
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
Allergy screening and follow-up in student pilots of the Belgian Air Force (BAF) 02 p0383 N93-11316
Allergic and nonallergic rhinitis in Greek pilots
02 p0383 N93-11317
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
Postmortem alcohol production in fatal aircraft accidents
[AD-A255766] 03 p0498 N93-14026
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s
[AD-A255691] 04 p0933 N93-14103
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3
[AD-A255849] 04 p0881 N93-14105
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
Night vision manual for the flight surgeon
[AD-A257059] 05 p1227 N93-15710

Operational use of contact lenses by military aircrew
[AGARD-AG-334] 05 p1224 N93-15824
Adaptation to transient postural perturbations
[NASA-CR-190959] 05 p1227 N93-16699
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
A computer-based visual analog scale
[AD-A258152] 06 p1597 N93-18280
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
The Proceedings of the Hypobaric Decompression Sickness Workshop
[AD-A257612] 06 p1597 N93-18362
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990
[NASA-CR-4475] 06 p1598 N93-18376
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653
An improved anthropometric test device
06 p1424 N93-19670
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges
06 p1429 N93-19696
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703
Neuroscience discipline science plan
[NASA-TM-108041] 06 p1600 N93-19882
Regulatory physiology discipline science plan
[NASA-TM-108038] 06 p1594 N93-19891
Musculoskeletal discipline science plan
[NASA-TM-108039] 06 p1600 N93-19892
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition
[NASA-TP-3297] 07 p2026 N93-20319
Bibliography of scientific publications 1977-1991
[AD-A259084] 07 p2090 N93-20393
Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Guide for aviation medical examiners
[PB92-219690] 07 p2024 N93-21047
Environmental health discipline science plan
[NASA-TM-108042] 07 p2024 N93-21369
Space human factors discipline science plan
[NASA-TM-108023] 07 p2026 N93-21370
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Life sciences utilization of Space Station Freedom
08 p2185 N93-22622
Life sciences recruitment objectives
08 p2186 N93-22623
Biomedical Monitoring and Countermeasures Facility
08 p2186 N93-22624
Crew health 08 p2187 N93-22630
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828
Bibliography of the Biosciences Division: 1986 to present
[DCIEM-92-20] 08 p2419 N93-23343
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
Tobacco and health of the pilot
[ETN-93-93693] 08 p2421 N93-23414
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
Selection of astronauts for European space missions
08 p2156 N93-24345
Mir '92 project 08 p2157 N93-24350
Mir 1992: Scientific program and payload
08 p2157 N93-24351
Physiological experiments within the project AustroMir
08 p2157 N93-24354
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions
08 p2165 N93-24398
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214
Space biology research development
[NASA-CR-192830] 09 p2792 N93-25242
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-022] 09 p2795 N93-25407
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
The use of extended wear contact lenses in the aviation environment: An Army-wide study
[AD-A260938] 09 p2795 N93-26218
Space Station Freedom biomedical monitoring and countermeasures: Biomedical facility hardware catalog
[NASA-CR-193156] 10 p3081 N93-26700
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Index of international publications in aerospace medicine
[AD-A262908] 10 p3084 N93-28306
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924
Nutrition, Metabolic Disorders and Lifestyle of Aircrew
[AGARD-CP-533] 12 p3777 N93-32240
Portable equipment developed to estimate energy expenditure by simultaneous recording of heart rate and body position 12 p3778 N93-32243
Protein requirements in hypoxia or hypokinesia
12 p3778 N93-32244
Idiopathic Reactive Hypoglycemia in a population of healthy trainees of an Italian Air Force military school
12 p3779 N93-32248
Lipidemic profile of Hellenic Airforce officers
12 p3774 N93-32250
Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces
12 p3775 N93-32254
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259
Changes in some lifestyle parametres in Norwegian pilots as students, and after 6 and 12 years of service
12 p3781 N93-32261
Survey of smoking habits in the Spanish Air Force
12 p3781 N93-32262
Health maintenance facility system effectiveness testing
[NASA-TM-104737] 12 p3783 N93-32328
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility
[NASA-CR-193304] 12 p3774 N93-32364

AEROSPACE PLANES

NT X-30 VEHICLE
A configuration development strategy for the NASP
01 p0009 N93-10011
Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
Active cooling from the sixties to NASP
02 p0208 N93-12458
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
An inverse dynamics approach to trajectory optimization for an aerospace plane
[NASA-CR-191277] 03 p0500 N93-13305
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
National Aeronautics and Space Administration
05 p1358 N93-17091
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
National Aero-Space Plane: Restructuring future research and development efforts. Report to Congressional requesters
[GAO-NSIAD-93-71] 06 p1442 N93-19845
The National Aero-Space Plane program: A revolutionary concept 06 p1443 N93-19908
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235
Research on HOPE 07 p1791 N93-20423
HOPE information system review
07 p1791 N93-20425
Research on heat-resistance technology for HOPE
07 p1791 N93-20426
Research on HOPE flight control technology
07 p1787 N93-20427
Research on combined HOPE navigation technology
07 p1792 N93-20428
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Research on HOPE actuator power unit
07 p1792 N93-20430
Research on HOPE heat sink device
07 p1792 N93-20431
Materials and structures technologies for hypersonics
08 p2177 N93-22116
New launch technologies and American competitiveness 08 p2153 N93-23157

Saenger: A space transportation system for the 21st century
[ETN-93-93696] 08 p2126 N93-23363
Usage of small-sized aerospace plane in the infrastructure of space research of the Earth
08 p2362 N93-23781
The effect of missions and payload performance on the configuration of an orbital injection system design
08 p2156 N93-24349
Trajectory optimization for the National aerospace plane
[NASA-CR-192954] 09 p2589 N93-25670
Numerical simulation of hypersonic aerodynamics and the computational needs for the design of an aerospace plane
[AD-A260681] 09 p2580 N93-25894
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
Hypersonics revisited 10 p2919 N93-27167
Technology transfer: Potential of BMFT concept for hypersonics
[MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640

AEROSPACE SAFETY
Preparing safety data packages for experimenters using the Get Away Special (GAS) carrier system
03 p0512 N93-13186
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Occupational ergonomics in space
03 p0680 N93-14013
Human safety in the lunar environment
05 p1229 N93-16867
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
Nuclear safety for the space exploration initiative
[NASA-CR-189180] 06 p1659 N93-18032
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Debris about asteroids: Where and how much?
06 p1703 N93-19136
A safety-based decision making architecture for autonomous systems
[NASA-CR-191864] 06 p1641 N93-19362
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
Implementation of the recommendations of the Presidential Commission on the Space Shuttle Challenger Accident
[NASA-TM-108646] 07 p1820 N93-19990
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions
07 p1853 N93-20192
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
Safety validation test equipment operation
07 p1801 N93-20487
Review on safety validation test
07 p1802 N93-20488
Future space transportation systems. Part 1: Safety aspects. Part 2: Technical aspects
[MBB-UK-0180-90-PUB-PT-1-2]
07 p1821 N93-20847
Report of the SSME assessment team
[NASA-TM-108217] 07 p1830 N93-21645
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
Space technology research plans
08 p2184 N93-22613
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
EVA and telerobot interaction
10 p2967 N93-27792
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Risk-based spacecraft fire safety experiments
11 p3267 N93-28738
SPECS: Orbital debris removal
11 p3234 N93-29754
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

AEROSPACE SCIENCES
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Coordinating Council. Sixth Meeting: Who Are Our Key Users?
[NASA-TM-108021] 03 p0734 N93-12672
NASA Mission: The Universe
[NASA-NP-141] 03 p0508 N93-12891
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
International Space University
04 p0808 N93-14938
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991
[NASA-TM-108156] 05 p1353 N93-16233
1991 research and technology
[NASA-TM-103924] 05 p1402 N93-16652
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
The 1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191266] 06 p1679 N93-18033
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108590] 06 p1564 N93-18070
Teaching, learning, and planetary exploration
[NASA-CR-192000] 06 p1734 N93-18569
Improving NASA's technology for space science
[NASA-CR-192331] 06 p1695 N93-19389
Calendar of selected aeronautical and space meetings, July 1991 onwards
[AGARD-CAL-91/2] 06 p1683 N93-19639
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Space science overview 07 p1802 N93-21071
Space life sciences overview
07 p1802 N93-21074
COSMIC software catalog, 1993
[NASA-CR-191005] 08 p2434 N93-22205
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-001] 08 p2153 N93-23103
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Pre-college education 08 p2516 N93-23142
College education 08 p2516 N93-23143
The use of continuing adult education
08 p2516 N93-23144
Publicity and public relations
08 p2516 N93-23145
Underrepresented groups 08 p2517 N93-23146
Pipeline issues 08 p2517 N93-23148
State and local governments
08 p2517 N93-23149
Focusing educational initiatives
08 p2517 N93-23150
University-industry interaction
08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
The Eighth National Space Symposium
[ISBN-0-9616962-5-7] 08 p2153 N93-23156
NASA's strategic plan for education. A strategy for change, 1993-1998
[NASA-EP-289] 08 p2517 N93-23174
Annual bibliography, 1989
[ISBN-951-22-0488-6] 08 p2526 N93-23424
The role of planetariums in promoting space sciences
08 p2170 N93-23627
The tropical school for atmospheric and space sciences: An international project proposal
08 p2369 N93-23828
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
NASA scientific and technical publications: A catalog of special publications, reference publications, conference publications, and technical papers, 1991-1992
[NASA-SP-7063(06)] 08 p2529 N93-24654
JPRS report: Science and technology. Japan. 30th National Aerospace Laboratory Conference
[JPRS-JST-93-009] 09 p2901 N93-25418
Applied Information Systems Research Program (AISRP). Workshop 2: Meeting Proceedings
[NASA-CR-193096] 09 p2877 N93-25792
The Space and Earth Science Data Compression Workshop
[NASA-CP-3183] 09 p2803 N93-25921
Aeronautics in NACA and NASA
[NASA-NP-156] 09 p2574 N93-26422
Space Science Laboratory Publications and Presentations
[NASA-TM-108402] 09 p2884 N93-26562
Acronym dictionary
[NASA-CR-193218] 10 p3164 N93-26900
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
The prehistory of ESRO, 1959 - 1960
[ESA-HSR-1] 11 p3660 N93-29500
Technology coordination 11 p3626 N93-30706
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
The Israel Space Agency 1993
12 p3883 N93-31590
The 1992 Langley Aerospace Research Summer Scholars (LARSS) program
[NASA-CR-193371] 12 p3833 N93-32229
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

AEROSPACE SYSTEMS
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
An approach to integrating and creating flexible software environments 02 p0396 N93-11946
Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034

Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision 06 p1618 N93-18225
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Atmospheric dynamics and coupling 06 p1584 N93-18495
The National Aero-Space Plane program: A revolutionary concept 06 p1443 N93-19908
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
The future of the US Space Industrial Base 07 p1789 N93-20044
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
NASA pyrotechnically actuated systems program 07 p1863 N93-20133
Determination of pyrotechnic functional margin 07 p1863 N93-20134
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 6: Controls and guidance
[NASA-TM-108654] 07 p2085 N93-20774
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Space Station ECLSS integration analysis
[NASA-CR-192470] 07 p2027 N93-22002
Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
Space assembled entry systems certification 08 p2176 N93-22106
Failure environment analysis tool applications 08 p2322 N93-22170
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 5: Human Support
[NASA-TM-108653] 08 p2518 N93-22465
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
The Telecommunications and Data Acquisition Report
[NASA-CR-192887] 09 p2671 N93-24659
An application of machine learning to the organization of institutional software repositories 09 p2825 N93-25981
Assured crew return vehicle man-systems integration standards
[NASA-CR-193065] 09 p2614 N93-26329
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
Parameter identification for nonlinear aerodynamic systems
[NASA-CR-193072] 10 p2930 N93-27282
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Tactical satellites 11 p3284 N93-29893
Spacecraft and launch systems for TACSAT applications 11 p3284 N93-29904
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
OAST space research and technology applications: Technology transfer successes 11 p3625 N93-30693
Technology transfer from the viewpoint of a NASA prime contractor 11 p3626 N93-30701
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
NASA aerospace pyrotechnically actuated systems: Program plan
[NASA-TM-109226] 12 p3712 N93-31308
Workshop on Fuzzy Control Systems and Space Station Applications
[NASA-CR-193202] 12 p3688 N93-31439
Probabilistic load simulation: Code development status 12 p3694 N93-31564
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center 12 p3696 N93-31574
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

AEROSPACE TECHNOLOGY TRANSFER

AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
Legal and political issues raised by the International Asteroid Mission 03 p0514 N93-13555
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
The 1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191266] 06 p1679 N93-18033
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
Development of first generation aerospace NiMH cells 07 p1986 N93-20520
Development of nickel-metal hydride cell 07 p1986 N93-20521
Space science overview 07 p1802 N93-21071
Communications 08 p2517 N93-23153
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
JPRS report: Science and technology. Japan. 30th National Aerospace Laboratory Conference
[JPRS-JST-93-009] 09 p2901 N93-25418
NASA SBIR product catalog, 1991
[NASA-TM-108080] 10 p3163 N93-27591
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
OAST space research and technology applications: Technology transfer successes 11 p3625 N93-30693
White House/OSTP perspective 11 p3625 N93-30696
Technology transfer 11 p3626 N93-30699
Technology transfer to the broader economy 11 p3628 N93-30719
Strategic directions and mechanisms in technology transfer 11 p3628 N93-30720
Workshop conclusions: Technology transfer and the civil space program 11 p3628 N93-30721
Technology transfer in the NASA Ames Advanced Life Support Division 11 p3628 N93-30724
A research experiment on facilitation and formation of joint research and development programs between government, industry, and universities: Overview, preliminary findings, and observations 11 p3628 N93-30725
Technology transfer: Potential of BMFT concept for hypersonics
[MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045

AEROSPACE VEHICLES

NT AEROSPACE PLANES
NT FLEXIBLE SPACECRAFT
NT X-30 VEHICLE
Predicted and tested performance of durable TPS 02 p0228 N93-12454
Advanced two-phase heat transfer systems 02 p0229 N93-12459
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
Multidisciplinary design optimization using response surface analysis 05 p1065 N93-16796
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-192180] 06 p1503 N93-18580
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Entry systems technology assessment 08 p2177 N93-22118
Computer Aided Control System Design (CACSD) 08 p2107 N93-22572
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Geometric modeling for computer aided design
[NASA-CR-192891] 09 p2808 N93-24750
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
Maneuvering a reentry body via magneto-gasdynamic forces 09 p2615 N93-25207
Aerospace vehicle model simplification for feedback control 09 p2596 N93-25292
Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry
[AD-A260794] 09 p2639 N93-25918
Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643

Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

AEROSTATS
U AIRSHIPS

AEROTHERMOCHEMISTRY
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2] 05 p1054 N93-16470
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011

AEROTHERMODYNAMICS
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Leading edge film cooking heat transfer including the effect of mainstream turbulence
02 p0199 N93-11886
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles
02 p0229 N93-12460
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles
04 p0817 N93-14632
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
Aerothermodynamic flow phenomena of the airframe-integrated supersonic combustion ramjet
[NASA-TM-4376] 04 p0827 N93-15528
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Smaller expendable turbojets
05 p1067 N93-17621
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739] 06 p1525 N93-18093
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127
Improved methods for reusable aeroclassified orbital transfer vehicle optimization
[DLR-FB-91-41] 06 p1454 N93-18785
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 8: Aerothermodynamics Automation and Robotics (A/R) systems sensors, high-temperature superconductivity
[NASA-TM-108655] 07 p2085 N93-20775
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100
Entry systems technology assessment
08 p2177 N93-22118
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475
Instrumentation for hypersonic aerodynamics research with tethered satellites
[NASA-CR-191435] 08 p2442 N93-24539
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
Heat transfer .n high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947
Aero-thermal design of a cooled transonic NGV and comparison with experimental results
11 p3257 N93-29957
Overview of aerothermodynamic loads definition study
12 p3697 N93-31583

AFC (CONTROL)
U AUTOMATIC FREQUENCY CONTROL

AFCS (CONTROL SYSTEM)
U AUTOMATIC FLIGHT CONTROL

AFFINITY
NT ELECTRON AFFINITY
NT NEGATIVE ELECTRON AFFINITY
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment
03 p0752 N93-13469

AFRICA
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Urban climatology in Africa. Special issue of the African urban quarterly, volume 5, numbers 1 and 2, February and May, 1990
[WCASP-19] 06 p1587 N93-18592
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633
Global Change Data Base Pilot (Diskette) Project for Africa. Dase base documentation version 1.1
[PB93-117927] 07 p2000 N93-21686
System design for ARTEMIS environmental monitoring
08 p2349 N93-23545
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques
08 p2355 N93-23578
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871

AFTERBODIES
Calculation of nozzle/aftbody flowfield interactions
02 p0302 N93-11722
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
Fabrication of the V-22 composite AFT fuselage using automated fiber placement 11 p3302 N93-30443

AFTERBURNERS
U AFTERBURNING

AFTERBURNING
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877

AFTERGLOWS
NT OXYGEN AFTERGLOW
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467

AGB STARS
U ASYMPTOTIC GIANT BRANCH STARS

AGE DETERMINATION
U CHRONOLOGY

AGE FACTOR
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
Age 60 Project: Consolidated database experiments
[HS-TR-8025-3C(R2)] 10 p3087 N93-27851

AGE HARDENING
U PRECIPITATION HARDENING

AGENA ROCKET VEHICLES
Report of the Seasat Failure Review Board
09 p2619 N93-24693

AGENTS
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287

AGGLOMERATION
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Study of precision accelerometers and fractal aggregates in microgravity, phase 2
[CTN-93-60616] 05 p1130 N93-16426
Study of precision accelerometers and fractal aggregates in microgravity
[CTN-93-60622] 05 p1168 N93-16935
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
Agglomeration of fractals in simulated reduced gravity
07 p1806 N93-21093
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue
08 p2164 N93-24394
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013

AGGLUTINATION
The Apollo 17 regolith 06 p1737 N93-18799

AGGREGATES
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
The physics of pattern formation at liquid interfaces
[DE92-016971] 02 p0462 N93-11747
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
Ordering of aggregating particle suspensions undergoing simple shear 07 p1805 N93-21092
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Experimental and theoretical studies of reverse micelles in dense gases
[PB93-141901] 08 p2222 N93-24143
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998

AGING (BIOLOGY)
AFRRI reports
[AD-A254581] 03 p0674 N93-12649

AGING (MATERIALS)
NT AGING (METALLURGY)
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
Chronorheological characterization of elastomers
01 p0046 N93-10476
Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-000537] 05 p1121 N93-16192

Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176
Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
A study into the effects of electric fields and currents on the aging and quench hardening of steels
[AD-A260228] 08 p2233 N93-24098
Control of environmental and clock parameters in Time and Frequency Standards Laboratory 09 p2835 N93-25007
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856

AGING (METALLURGY)
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel
[DE93-001373] 05 p1116 N93-17479
Probabilistic methods in nuclear power plant component ageing analysis
[VTT-PUBS-94] 06 p1660 N93-18696
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856
Ageing aircraft research in the Netherlands
[NLR-TP-91443-U] 12 p3679 N93-32203

AGREEMENTS
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974

AGRICULTURE
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472
Satellite navigation in agriculture 08 p2124 N93-23528
Image treatment and geographical information systems at the service of the Common Agricultural Policy 08 p2351 N93-23555
Application of remote sensing and GIS. Technology to natural resources management: Selecting rice fields in Vietnam 08 p2353 N93-23569
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
The photointerpretation of the area taken over from agriculture by intense urbanization at Villabate (Palermo, Italy) 09 p2742 N93-24800
Remote sensing applied to agriculture state of the art and new trends 09 p2745 N93-24818
Toward a satellite based crop information system in Hungary 09 p2750 N93-24849
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635
Sustainable agriculture and the environment in the humid tropics
[PB93-173920] 10 p3068 N93-27402
Remote sensing of agricultural vegetation: Status and perspectives 11 p3458 N93-28922
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agricultural fields and forests
[BCRS-92-06] 11 p3460 N93-29320

AGROCLIMATOLOGY
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795

AGROMETEOROLOGY
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465

AH-64 HELICOPTER
Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260692] 09 p2651 N93-25895

AIDS (DISEASE)
U ACQUIRED IMMUNODEFICIENCY SYNDROME

AILERONS
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514

AIR
NT COMPRESSED AIR
NT HIGH TEMPERATURE AIR
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
The production and use of aeroponically grown inocula of VAM fungi in the native plant nursery
[PB92-204973] 04 p0933 N93-15208
Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures 09 p2583 N93-24886
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Methods for preparation of mixtures of gases in air at the parts-per-billion to parts-per-million concentration range for calibration of monitors
[DE92-642433] 11 p3317 N93-30982

AIR BAG RESTRAINT DEVICES
US Army helicopter inertia reel locking failures 06 p1427 N93-19689
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691

AIR BEARINGS
U GAS BEARINGS

AIR BREATHING ENGINES
NT DUCTED FAN ENGINES
NT GAS TURBINE ENGINES
NT INTEGRAL ROCKET RAMJETS
NT JET ENGINES
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Development testing of throttleable ducted rockets 05 p1092 N93-17610
Aerodynamic engine/airframe integration for high performance aircraft and missiles 05 p1065 N93-17618
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
Contribution to the study of airbreathing burner combustion instabilities
[ONERA-NT-1992-2] 06 p1482 N93-18189
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets 09 p2625 N93-26012
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
Conceptual design of a two-stage-to-orbit vehicle 11 p3228 N93-29716

AIR CARGO
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652

AIR CONDITIONING
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Applications of CFD and visualization techniques 03 p0584 N93-13386
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
Compatibility of refrigerants and lubricants with elastomers
[DE93-006429] 08 p2216 N93-22057
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Heat pump technology: Responding to new opportunities
[DE93-005939] 08 p2379 N93-22978
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814

International Energy Agency Solar Heating and Cooling Program
[DE93-010175] 12 p3750 N93-32282
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292

AIR CONDITIONING EQUIPMENT
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049
Manned lunar surface site 10 p2951 N93-28033
Lightweight passive microclimate cooling device
[AD-A262262] 10 p3087 N93-28112
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206

AIR COOLING
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Effects of cooling-air injection on secondary flows and losses in a turbine cascade
[NAL-TR-1121T] 02 p0307 N93-12382
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Experimental evaluation of a cooled radial-inflow turbine
[NASA-TM-106230] 11 p3251 N93-28697
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946
Impingement/effusion cooling 11 p3257 N93-29954
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647

AIR CURRENTS
NT JET STREAMS (METEOROLOGY)
NT MERIDIONAL FLOW
NT VERTICAL AIR CURRENTS
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924

AIR DATA SYSTEMS
Discussion for the ideal AIMS 04 p0793 N93-15153
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154
FDAMS: An extendable and reconfigurable solution for avionics data management systems 04 p0794 N93-15157
The Orbiter Experiments (OEX) program 11 p3266 N93-28731
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

AIR DEFENSE
NT ANTIMISSILE DEFENSE
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Combat aircraft noise: The operator's perspective 01 p0148 N93-10669
Air Force Office of Scientific Research
[AD-A255331] 04 p1051 N93-14523
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Versatile attack weapon 08 p2256 N93-22027
Detection of active emitters using triangulation and trilateration techniques: Theory and practice 08 p2267 N93-23612
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765
Planning for air to air combat 11 p3501 N93-28852
Computer assisted evaluation for air close combat based on time interval characterization 11 p3504 N93-28868
Requirements for pilot assistance in a thrust-vectoring combat aircraft 11 p3504 N93-28870

AIR DUCTS
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940

AIR FILTERS
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters
[NASA-TM-108375] 02 p0375 N93-12174
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
Evaluation and optimization of a flexible filtration system for respiratory protection system 21
[AD-A262467] 11 p3493 N93-28758
Biological treatment of porous off-gases
[VTT-JULK-766] 12 p3752 N93-31853

AIR FLOW
NT AIR CURRENTS
NT JET STREAMS (METEOROLOGY)
NT MERIDIONAL FLOW
NT VERTICAL AIR CURRENTS
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
A general introduction tc aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Tributary and gap nighttime air flow comparisons
[DE92-018875] 03 p0662 N93-13075
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Applications of CFD and visualization techniques 03 p0584 N93-13386
Generation of aerosolized particulate contamination by the wear of stainless steels
[DE93-000742] 05 p1115 N93-17047
Single-station integral measures of atmospheric stagnation, ventilation, and recirculation
[DE93-001554] 05 p1203 N93-17050
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390
Indoor ozone concentrations: Ventilation rate impacts and mechanisms of outdoor concentration attenuation
[DE93-000633] 05 p1205 N93-17576
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step 06 p1415 N93-19316
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
On regional surface fluxes over partly forested areas
[MPIM-82] 08 p2397 N93-23858
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
Method of measuring cross-flow vorti..es by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB] 09 p2706 N93-26000
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF) 09 p2598 N93-26006
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model
[DOT/FAA/CT-89/25] 10 p2941 N93-28055
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Jet mixer noise suppressor using acoustic feedback
[NASA-CASE-LEW-15170-1] 11 p3561 N93-28953
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

AIR FREIGHT
U AIR CARGO

AIR INLETS
U AIR INTAKES

AIR INTAKES
NT ENGINE INLETS
NT HYPERSONIC INLETS
NT INLET AIRFRAME CONFIGURATIONS
NT SUPERSONIC INLETS
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
A numerical simulations of inner flow of scramjet 06 p1415 N93-19318
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975

AIR JETS
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221

AIR LAND INTERACTIONS
Climate sensitivity study with energy balance models 03 p0666 N93-13817

Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars
[NASA-CR-191638] 05 p1377 N93-16630
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Effects of Taiwan orography on the motion and structure of typhoons
[AD-A261819] 09 p2786 N93-26270
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
A hierarchical framework for coupling surface fluxes to atmospheric general circulation models: The homogeneity test
[DE93-004804] 10 p3072 N93-27612
Modeling land-surface/atmosphere dynamics for CHAMMP
[DE93-008520] 11 p3476 N93-28677

AIR LAUNCHING
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018

AIR LOCKS
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015

AIR MASSES
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors
09 p2772 N93-25535
Airmass modification by vertical motion: Discussion and case study
[PB93-160596] 10 p3079 N93-28134
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

AIR NAVIGATION
NT AREA NAVIGATION
NT NAP-OF-THE-EARTH NAVIGATION
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Future FAA telecommunications plan
[AD-A249133] 02 p0283 N93-11760
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
Current and planned use of the Navstar Global Positioning System by NASA
[NASA-TM-108190] 07 p1779 N93-21190
Effect of personal and situational variables on noise annoyance: With special reference to implications for en route noise
[NASA-CR-189676] 07 p2060 N93-21317
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
Precise flight navigation by integration of global positioning system and inertial measurement units
08 p2124 N93-23523
Towards global satellite navigation
08 p2124 N93-23529
On-line health monitoring: An integrity improvement for the civil use of GPS and GLONASS
08 p2125 N93-23535
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
Satellite communications for aeronautical and navigation service 10 p3023 N93-26648
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description
[NASA-CR-191457] 11 p3250 N93-28621
Engineering management consideration for an integrated aeronautical mobile satellite service
11 p3374 N93-30337
Adapting system engineering principles to the Canadian Airspace System 11 p3247 N93-30338

AIR PIRACY
Air piracy and terrorism directed against U.S. Air carriers
[AD-A264120] 11 p3244 N93-30194

AIR POLLUTION
NT GLOBAL AIR POLLUTION
NT INDOOR AIR POLLUTION
The current and future environmental role of atmospheric methane: Model studies and uncertainties
[NASA-CR-190662] 01 p0104 N93-10256
Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
United States/Canada Air Quality Agreement
[PB92-228030] 02 p0356 N93-12525
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Infrared spectroscopy of size resolved fine aerosol
03 p0647 N93-13758
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Radical reactions of atmospheric importance
03 p0659 N93-14053
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas
04 p0909 N93-14118
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991]
04 p0911 N93-15460
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Aerosol and light extinction databases for North America and Europe
[AD-A256710] 05 p1213 N93-16169
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
Generation of aerosolized particulate contamination by the wear of stainless steels
[DE93-000742] 05 p1115 N93-17047
Single-station integral measures of atmospheric stagnation, ventilation, and recirculation
[DE93-001554] 05 p1203 N93-17050
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
NATO Advanced Research Workshop on Non-Thermal Plasma Techniques for Pollution Control
[AD-A258477] 06 p1665 N93-18323
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
State air pollution control programs: A profile report
[PB93-122364] 07 p1990 N93-21216
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Summary report for the National Atmospheric Deposition Program National Trends Network (NADP/NTN) site visitation program
[PB92-219823] 07 p1991 N93-21494
Atlanta ozone precursor monitoring study data report
[PB92-220656] 07 p1991 N93-21495
Human exposure assessment for airborne pollutants: Advances and opportunities
[PB92-223247] 07 p1991 N93-21496
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547

Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Technical comparison between Hytnane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
The 111th Meeting for Research of Safety Engineering
[DE93-753679] 08 p2388 N93-24046
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226
Enabling document for regulations governing compliance extensions for early reductions of hazardous air pollutants
[PB93-147007] 08 p2390 N93-24584
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
The AFTAC model integration project
[DE93-003334] 09 p2761 N93-25122
AQUIS: A PC-based air inventory and permit manager
[DE93-003006] 09 p2761 N93-25143
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144
A study of mass size distributions and particle deposition velocities in ambient air 09 p2763 N93-25263
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25298
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
National air pollutant emission estimates
[PB93-157808] 09 p2765 N93-25850
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Emissions and fuel economy of Federal alternatively fueled fleet vehicles
[PB93-167195] 10 p3067 N93-26622
Southern global change program. Determining the relationships between air pollutants, climate change, and southern forests
[PB93-176246] 10 p3069 N93-27410
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
Study to determine the nature and extent of ozone and ozone precursor transport in selected areas of California
[PB93-184828] 11 p3470 N93-29669
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
Two new gas standards programs at the National Institute of Standards and Technology
[PB93-191427] 12 p3751 N93-31816
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926
Climatic effects of turbofan emissions in the stratosphere and the higher troposphere 12 p3753 N93-31927
Effects of commercial flight pollution on human health 12 p3753 N93-31931
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators
[PB93-191393] 12 p3754 N93-32088
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189
Atmospheric dispersion of air pollutants in Umea (Sweden)
[FOA-C-40300-4.5] 12 p3756 N93-32424

AIR PURIFICATION

Lunar base CELSS: A bioregenerative approach 03 p0680 N93-13993
Activated carbon fibers in composites, chemically protective clothing and air purification 07 p1837 N93-21152
Zero-G life support for Space Station Freedom 08 p2189 N93-22640
Integrated oxygen recovery system
[NASA-CR-192343] 08 p2426 N93-22663
Integrated oxygen recovery system
[NASA-CR-192982] 09 p2801 N93-26088
Manned lunar surface site 10 p2951 N93-28033
Biological treatment of porous off-gases
[VTT-JULK-766] 12 p3752 N93-31853

AIR QUALITY

Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
United States/Canada Air Quality Agreement
[PB92-228030] 02 p0356 N93-12525
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas 04 p0909 N93-14118
A low emission vehicle procurement approach for Washington state
[DE92-040561] 05 p1176 N93-16406
S/EV 92 (Solar and Electric Vehicles): Proceedings, volume 1
[DE93-001501] 05 p1180 N93-17577
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Survey of protocols for conducting indoor air quality investigations in large buildings
[PB93-119865] 07 p2026 N93-21215
Technical comparison between Hythane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Numerical simulations of the transport and diffusion during the 1991 Winter Validation Study along the front range in Colorado
[DE93-002684] 08 p2396 N93-23674
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
AQUIS: A PC-based air inventory and permit manager
[DE93-003006] 09 p2761 N93-25143
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25298
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008

Case study of Frontal Boundary Study Mission 03
[DE93-007176] 11 p3473 N93-30183
Environment and safety research
[PB93-188860] 12 p3751 N93-31142
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators
[PB93-191393] 12 p3754 N93-32088
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

AIR SAMPLING
Parametric study of air sampling cyclones
04 p0779 N93-14173
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Extraction, transportation and processing of explosives vapor in detection systems 07 p1772 N93-21907
Vapor sampling using controlled heating
07 p1772 N93-21908
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer
07 p1773 N93-21915
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators
[PB93-191393] 12 p3754 N93-32088
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

AIR SEA ICE INTERACTIONS
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989
03 p0663 N93-13446
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860

AIR SEA INTERACTIONS
U AIR WATER INTERACTIONS

AIR SICKNESS
U MOTION SICKNESS

AIR TO AIR MISSILES
Potential missile flight performance gains from improvements to the propulsion system
05 p1092 N93-17609
Plume: Instructions for use and description of a missile plume visibility program
[AD-A258201] 06 p1473 N93-18201
Laser-initiated ordnance for air-to-air missiles
07 p1864 N93-20139
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing
11 p3501 N93-28853

AIR TO AIR REFUELING
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11
[AGARD-AG-300-VOL-11] 07 p1781 N93-21305

AIR TO AIR ROCKETS
U AIR TO AIR MISSILES

AIR TO SURFACE MISSILES
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067
Comparison of performances of different circular intakes 05 p1067 N93-17616
Versatile attack weapon 08 p2256 N93-22027
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669

AIR TRAFFIC
Upgrade Precision Runway Monitor (PRM) Operational Test and Evaluation (OT/E) test plan
[DOT/FAA/CT-TN92/13] 02 p0217 N93-11616
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841
Proceedings of the AIAA/FAA Joint Symposium on General Aviation Systems
[AD-A257780] 05 p1053 N93-17732
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
Domain engineering validation case study: Synthesis for the air traffic display/collision warning monitor domain version 01.00.03
[AD-A259407] 07 p1780 N93-21671
Advanced air traffic management
08 p2107 N93-22571
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Multipath runway exits and taxiways
[DOT/FAA/CT-92/19] 08 p2134 N93-23217
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-192920] 09 p2585 N93-26052
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925

AIR TRAFFIC CONTROL
NT AUTOMATED EN ROUTE ATC
NT RADAR APPROACH CONTROL
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
A description of the Mode Select beacon system (Mode S) and its associated benefits to the National Airspace System (NAS)
[DOT/FAA/SE-92/6] 01 p0007 N93-10738
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-190811] 02 p0204 N93-11139
Activities report of the German Institute for Flight Safety
[ETN-92-92272] 02 p0203 N93-11375
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Upgrade Precision Runway Monitor (PRM) Operational Test and Evaluation (OT/E) test plan
[DOT/FAA/CT-TN92/13] 02 p0217 N93-11616
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1
[DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2
[DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Implementing system simulation of C3 systems using autonomous objects
[NASA-CR-190845] 02 p0283 N93-11716
Airport stand assignment model
[TT-9104] 02 p0218 N93-11728
Future FAA telecommunications plan
[AD-A249133] 02 p0283 N93-11760
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Prototype stop bar system evaluation at John F. Kennedy International Airport
[AD-A258667] 03 p0506 N93-12902
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698
Terminal area traffic management
[LR-684] 05 p1058 N93-16213
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Proceedings of the AIAA/FAA Joint Symposium on General Aviation Systems
[AD-A257780] 05 p1053 N93-17732
NARSIM and EFMS: Tools for research on integrated ATM
[NLR-TP-89336-U] 06 p1432 N93-17954
National Airspace System flight planning operational concept NAS-SR-131
[PB93-124659] 06 p1418 N93-18031
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
En route air traffic controllers use of flight progress strips: A graph-theoretic analysis
[AD-A259062] 06 p1433 N93-18927
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
National Airspace System: Air traffic control and airspace management operational concept NAS-SR-132
[DOT/FAA/SE-92/5] 07 p1779 N93-20164
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Data Multiplexing Network (DMN). Phase 3: Equipment Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/49] 07 p1779 N93-20612
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
Definitional mission for civil aviation master plan for Poland
[PB92-213974] 07 p1760 N93-21713

Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
Terrain Referenced Information and Guidance Systems (TRIGS)
[MBB-FE-315-S-PUB-0494] 08 p2119 N93-22390
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Advanced air traffic management 08 p2107 N93-22571
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
Controller evaluation of initial terminal data link ATC services: Mini study 3
[DOT/FAA/CT-92/18] 08 p2262 N93-23046
Multipath runway exits and taxiways
[DOT/FAA/CT-92/19] 08 p2134 N93-23217
Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514
The future role of satellite communications in an improved air traffic management 08 p2275 N93-23518
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213
Runway Visual Range (RVR) Operational Test and Evaluation (OT&E) integration and OT&E operational test report
[DOT/FAA/CT-TN92/37] 09 p2584 N93-25243
Design of a cooperative problem-solving system for enroute flight planning: An empirical study of its use by airline dispatchers
[NASA-CR-192709] 09 p2585 N93-25330
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-192920] 09 p2585 N93-26052
Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment
[NASA-TM-107748] 09 p2585 N93-26087
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
Satellite communications for aeronautical and navigation service 10 p3023 N93-26648
Next Generation Weather Radar (NEXRAD) Principal User Processor (PUP) Operational Test and Evaluation (OT&E) operational test plan
[DOT/FAA/CT-TN93/22] 10 p3027 N93-28054
Results of DATAS investigation of ATCRBS environment at the Los Angeles International Airport
[DOT/FAA/CT-93/6] 11 p3245 N93-28625
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
Classification of radar clutter in an air traffic control environment 11 p3246 N93-30299
Evolution of radar data processing in the French air traffic control system 11 p3247 N93-30325
Engineering management consideration for an integrated aeronautical mobile satellite service 11 p3374 N93-30337
Adapting system engineering principles to the Canadian Airspace System 11 p3247 N93-30338
Issues of ATC conflict resolution under real-time constraints 11 p3247 N93-30350
National Airspace System Performance Analysis Capability (NASPAC) simulation model 11 p3247 N93-30351
Enhancing availability, performance, and flexibility of air traffic control air-ground services 11 p3247 N93-30353
Changing role of telecommunications management in air traffic control in the FAA 11 p3247 N93-30354
Airspace Design Expert System (ADES), a 2D/3D mapping and modelling tool incorporating an expert system for use in instrument approach design 11 p3247 N93-30357
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance 12 p3676 N93-31276
Testing of an experimental FMS 12 p3676 N93-31277
Testing concept of a taxiing control system, summary 12 p3676 N93-31278
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409
Evaluation of the flyability of MLS curved approaches for wide-body aircraft
[NLR-TP-91396-U] 12 p3680 N93-32416

AIR TRAFFIC CONTROLLERS (PERSONNEL)

A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459
Performance of color-dependent tasks of air traffic control specialists as a function of type and degree of color vision deficiency
[AD-A256614] 04 p0788 N93-14275
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
En route air traffic controllers use of flight progress strips: A graph-theoretic analysis
[AD-A259062] 06 p1433 N93-18927
Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213
Conversion of the CTA, Inc., en route operations concepts database into a formal sentence outline job task taxonomy
[AD-A261410] 09 p2586 N93-26447
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
The air traffic controller's mental model and it's implications for equipment design and trainee selection 11 p3372 N93-30322
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611

AIR TRANSPORTATION

Report to Congress: State Block Grant Program
[AD-A254569] 03 p0507 N93-13882
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
Hermes CX-7: Air transport system design simulation
[NASA-CR-192082] 06 p1437 N93-18056
Arrow 227: Air transport system design simulation
[NASA-CR-192053] 06 p1437 N93-18063
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
JEFF: Air transport system design simulation
[NASA-CR-192069] 06 p1439 N93-18350
The F-92 RELIANT: Air transport system design simulation
[NASA-CR-192050] 06 p1440 N93-18386
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
Definitional mission for civil aviation master plan for Poland
[PB92-213974] 07 p1760 N93-21713
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561
An investigation of air transportation technology at the Massachusetts Institute of Technology, 1991-1992 08 p2105 N93-22562
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
Investigation of air transportation technology at Princeton University, 1991-1992 08 p2106 N93-22570
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
Design study to simulate the development of a commercial transportation system 11 p3228 N93-29718
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
Air piracy and terrorism directed against U.S. Air carriers
[AD-A264120] 11 p3244 N93-30194

AIR WATER INTERACTIONS

NT AIR SEA ICE INTERACTIONS
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Deep convection and its relation to the large-scale circulation in the tropical Pacific 03 p0654 N93-13725
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
The assimilation of marine surface data into the Navy operational global atmospheric prediction system
[AD-A255559] 03 p0667 N93-13877
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Sensitivity of the Yoshida jet to the parameterization of vertical mixing: Do easterly winds imply equatorial upwelling? 04 p0922 N93-14864
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668

SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
A modeling study of marine boundary layer clouds
07 p2010 N93-20105
Geostationary earth climate sensor: Scientific utility and feasibility, phase A
[NASA-CR-191919] 07 p1996 N93-20248
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Remote sensing of latent heat fluxes at the air-sea interface 07 p1959 N93-21603
Air/sea latent heat flux measurements with microwave radiometers 07 p1959 N93-21604
Remote sensing: Environmental effects of surface films
[AD-A258571] 07 p1980 N93-21754
Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions
08 p2393 N93-23207
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
[MPIM-76] 08 p2396 N93-23635
The joint normal modes of the coupled atmosphere-ocean system observed from 1967 to 1986
[MPIM-78] 08 p2396 N93-23637
On the cold start problem in transient simulations with coupled atmosphere-ocean models
[MPIM-83] 08 p2397 N93-23859
Airborne studies of ocean-particle-cloud interactions
[AD-A259874] 08 p2415 N93-23958
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
Simulation and prediction of tropical SST with a coupled ocean-atmosphere model 09 p2789 N93-25469
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
An investigation into the causative mechanisms for explosive cyclone development over the Atlantic
[AD-A261831] 09 p2786 N93-26273
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422
The 17th Annual Climate Diagnostics Workshop
[PB93-183895] 11 p3483 N93-29664
A preliminary review of global CO2 exchange between ocean and atmosphere
[AD-A264019] 11 p3472 N93-30015
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
A numerical study of seasonal wind forcing effects on the California current system
[AD-A264951] 12 p3770 N93-32075
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173
A study of capillary and capillary-gravity wind waves: Their structures, distributions, and energy balances
12 p3771 N93-32215
Coupled ocean-atmosphere GCM simulation of Southern Oscillation phenomena
[DE93-012583] 12 p3766 N93-32297

AIRBORNE EQUIPMENT
NT AIRBORNE/SPACEBORNE COMPUTERS
NT TERCOM
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
Airborne Wind Shear Detection and Warning Systems. Fourth Combined Manufacturers' and Technologists' Conference, part 2
[NASA-CP-10105-PT-2] 04 p0783 N93-14844
Two micron laser development for atmospheric remote sensing at NASA Langley Research Center
04 p0784 N93-14845
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans
04 p0784 N93-14847
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
Systems issues in airborne Doppler radar/LIDAR certification 04 p0785 N93-14855
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Example of statistical techniques applied to analysis of measurements of the landing airborne manoeuvre. (Multiple linear regression with two independent variables and one dependent variable.)
[ESDU-92022] 05 p1062 N93-16636
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives
06 p1418 N93-19591
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
NASA experimental airborne doppler radar and real time processor for wind shear detection
06 p1420 N93-19607
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871
Business development considerations for the imaging spectrometer project 06 p1569 N93-19873
Microwave instruments 06 p1569 N93-19874
The Geological Research Center's aerial geological measuring system 06 p1569 N93-19875
Atmospheric measurements taken from an aeroplane
06 p1569 N93-19876
Experience of the Finnish National Scientific Research Center (VTT) in the interpretation of AVIRIS spectrometric image 06 p1570 N93-19879
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
07 p2011 N93-20281
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
Airborne system for detection and location of radio interference sources 08 p2269 N93-23622
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers
09 p2738 N93-24776
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Commercial applications multispectral sensor system
09 p2758 N93-25815
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620
A concluding study of the altitude determination deficiencies of the Service Aircraft Instrumentation Package (SAIP)
[AD-A263515] 11 p3250 N93-29971
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

AIRBORNE LASERS
Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

AIRBORNE RADAR
NT AIRBORNE SURVEILLANCE RADAR
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Doppler radar results 06 p1419 N93-19595
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514

Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883

AIRBORNE SURVEILLANCE RADAR

Radar beam effects for a flight simulator using signal processor based hardware 11 p3373 N93-30328

AIRBORNE/SPACEBORNE COMPUTERS

Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960

The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957

A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958

Rewritable optical disk: Application to flight recording 04 p0794 N93-15160

DAR-2: On-board data acquisition system for aircraft engines 04 p0795 N93-15166

Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171

Output data formatter for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4432] 04 p0871 N93-15529

CSI Flight Computer System and experimental test results 06 p1465 N93-18841

Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187

Environmental assessment for the brilliant pebbles tether test at the Nevada test site
[DE93-003869] 07 p1952 N93-21839

Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240

Onboard navigation rendezvous expert system 08 p2144 N93-22280

DataMir: A PC-based computer system for application at Space Station Mir 08 p2158 N93-24358

Data compression opportunities in EOSDIS 08 p2430 N93-24545

Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft 09 p2601 N93-24705

Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709

Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732

Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618

Avionics systems architectures 10 p2919 N93-27169

Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650

Spacecraft computer technology at Southwest Research Institute 11 p3522 N93-28813

SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058

A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409

Airborne data acquisition using a front-end processor architecture 11 p3373 N93-30329

Space Generic Open Avionics Architecture (SGOAA) reference model technical guide
[NASA-CR-188246] 11 p3285 N93-31032

Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642

Advanced Transport Operating System (ATOPS) utility library software description
[NASA-CR-191469] 12 p3680 N93-32218

AIRBUS

U EUROPEAN AIRBUS

AIRCRAFT

Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100

Bogie-gripping transfer device
[CA-PATENT-APPL-SN-024586] 08 p2135 N93-24643

Wheeled transfer device for moving an aircraft
[INT-PATENT-CLASS-B64F-1/10] 08 p2135 N93-24644

Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232

AIRCRAFT ACCIDENT INVESTIGATION

Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471

Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193

Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489

Aircraft accident report: Britt Airways, Inc., d/b/a, Continental Express Flight 2574, in-flight structural breakup, EMB-120RT, N33701, Eagle Lake, Texas, September 11, 1991
[PB92-910405] 03 p0498 N93-13426

Postmortem alcohol production in fatal aircraft accidents
[AD-A255766] 03 p0498 N93-14026

Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577

Human factors in aircraft accident investigation 06 p1422 N93-19654

A method for investigating human factor aspects of military aircraft accidents 06 p1422 N93-19656

The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657

Underlying causes of accidents: Casual networks 06 p1422 N93-19658

Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660

737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661

Can injury scoring techniques provide additional information for crash investigators? 06 p1423 N93-19663

Computer aided methods for simulating occupant response to impact using OASYS DYNA3D 06 p1424 N93-19666

F-16 accidents: The Norwegian experience 06 p1425 N93-19674

Category A F-16 accidents in the Belgian Air Force 06 p1425 N93-19675

Air accidents in the French Air Force 06 p1425 N93-19676

Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677

Underlying causes of human error in US Army rotary wind accidents 06 p1425 N93-19678

Epidemiology of United States Air Force spatial disorientation accidents: 1990-1991 06 p1425 N93-19679

Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case 06 p1426 N93-19681

Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682

Royal Naval helicopter ditching experience 06 p1426 N93-19684

Canadian Forces helicopter ditchings: 1952-1990 06 p1426 N93-19685

Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686

Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687

Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688

The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691

Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents 06 p1428 N93-19693

Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695

27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696

Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697

Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698

Towards an integrated approach to proactive monitoring and accident prevention 06 p1429 N93-19700

Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701

Prediction of success from training 06 p1430 N93-19702

Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709

Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086

Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827

The use of multiple models in case-based diagnosis 09 p2823 N93-25969

Aircraft accident report: Takeoff stall in icing conditions. USAIR Flight 405 FOKKER F-28, N485US, LaGuardia Airport, Flushing, New York, 22 March 1992
[PB93-910402] 10 p2940 N93-27034

Aircraft accident report: Controlled collision with terrain GP Express Airlines, Inc., Flight 861, A Beechcraft C99, N118GP, Anniston, Alabama, 8 June 1992
[PB93-910403] 10 p2940 N93-27035

AIRCRAFT ACCIDENTS

NT BIRD-AIRCRAFT COLLISIONS

UK airmisses involving commercial air transport, May-August 1991
[ETN-92-92260] 02 p0203 N93-11357

UK airmisses involving commercial air transport, January-April 1991
[ETN-92-92261] 02 p0298 N93-11358

Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471

Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193

The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612

Aircraft accident report: Britt Airways, Inc., d/b/a, Continental Express Flight 2574, in-flight structural breakup, EMB-120RT, N33701, Eagle Lake, Texas, September 11, 1991
[PB92-910405] 03 p0498 N93-13426

Aircraft accident/incident summary report: Controlled flight into terrain, Bruno's Inc., Beechjet, N25BR, Rome, Georgia, December 11, 1991
[PB92-910404] 03 p0498 N93-13470

Postmortem alcohol production in fatal aircraft accidents
[AD-A255766] 03 p0498 N93-14026

Aviation accidents, incidents, and violations: Psychological predictors among US pilots 04 p0783 N93-14693

Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016

Taxonomy of flight variables 04 p0787 N93-15022

Embedded ADM reduces helicopter human error accidents 04 p0787 N93-15024

Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577

Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834

Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653

How do we investigate the human factor in aircraft accidents? 06 p1422 N93-19655

A method for investigating human factor aspects of military aircraft accidents 06 p1422 N93-19656

The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657

Aid in investigation by figure animation 06 p1422 N93-19659

Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660

737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661

Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662

Can injury scoring techniques provide additional information for crash investigators? 06 p1423 N93-19663

Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident? 06 p1423 N93-19664

Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665

Computer aided methods for simulating occupant response to impact using OASYS DYNA3D 06 p1424 N93-19666

Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667

Improving manikin biofidelity 06 p1424 N93-19668
An improved anthropometric test device 06 p1424 N93-19670
F-16 accidents: The Norwegian experience 06 p1425 N93-19674
Category A F-16 accidents in the Belgian Air Force 06 p1425 N93-19675
Air accidents in the French Air Force 06 p1425 N93-19676
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Underlying causes of human error in US Army rotary wind accidents 06 p1425 N93-19678
Epidemiology of United States Air Force spatial disorientation accidents: 1990-1991 06 p1425 N93-19679
Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case 06 p1426 N93-19681
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Canadian Forces helicopter ditchings: 1952-1990 06 p1426 N93-19685
Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents 06 p1428 N93-19693
Fires on board aircraft: Toxicological risk in flight 06 p1428 N93-19694
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698
An epidemiological study in SAF's pilots ejections 06 p1429 N93-19699
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)? 06 p1430 N93-19704
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
Effectiveness of birthdate biorhythm theory on flight accidents 06 p1431 N93-19710
T-38 forward windshield development and performance demonstration report [AD-A259240] 07 p1781 N93-20579
The effectiveness of hand-held fire extinguishers on cargo container fires [DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
Optimal recovery from microburst wind shear 08 p2107 N93-22574
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992 [PB92-910406] 08 p2117 N93-23086
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988 [PB92-917008] 08 p2117 N93-23187
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991 [PB92-910407] 08 p2117 N93-23191
Modeling the heat release rate of aircraft cabin panels [DOT/FAA/CT-92/3] 08 p2118 N93-23222
The annual probability of an aircraft crash on the US Department of Energy reservation in Oak Ridge, Tennessee [DE93-005171] 08 p2118 N93-23325
The consequence of joint failures 08 p2212 N93-23941
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992 [PB93-910401] 09 p2583 N93-25827
A review of civil aviation propeller-to-person accidents: 1980-1989 [AD-A260695] 09 p2583 N93-25896
The use of multiple models in case-based diagnosis 09 p2823 N93-25969
Annual review of aircraft accident data: US general aviation calendar year 1989 [PB93-160687] 10 p2940 N93-27033
Aircraft accident report: Takeoff stall in icing conditions. USAIR Flight 405 FOKKER F-28, N485US, LaGuardia Airport, Flushing, New York, 22 March 1992 [PB93-910402] 10 p2940 N93-27034
Aircraft accident report: Controlled collision with terrain GP Express Airlines, Inc., Flight 861, A Beechcraft C99, N118GP, Anniston, Alabama, 8 June 1992 [PB93-910403] 10 p2940 N93-27035
Autogenic-feedback training improves pilot performance during emergency flying conditions [NASA-TM-104005] 10 p2940 N93-27076
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations [DOT/FAA/AM-93/8] 10 p3083 N93-27158
Age 60 Project: Consolidated database experiments [HS-TR-8025-3C(R2)] 10 p3087 N93-27851
World commercial aircraft accidents [DE93-010892] 11 p3243 N93-28571
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information [AD-A263874] 11 p3507 N93-29888
Reportable accidents to UK registered aircraft, and to foreign registered aircraft in UK airspace, 1990 [CAP-600] 12 p3674 N93-31730

AIRCRAFT ANTENNAS

Modeling and control of a trailing wire antenna towed by an orbiting aircraft [AD-A256450] 04 p0859 N93-14610
Experimental study of the effect of helical grooves on an infinite cylinder [AD-A260890] 09 p2676 N93-25912
Models for performance assessment of HF antennas on the CH-135/Twin Huey helicopter 11 p3366 N93-30291
Coupling gain computation between antennas on circular cylinders at SHF/EHF frequencies 11 p3369 N93-30309
Installations and methods for measurement of aircraft radio components and systems 12 p3677 N93-31284

AIRCRAFT APPROACH SPACING

An investigation of air transportation technology at the Massachusetts Institute of Technology, 1991-1992 08 p2105 N93-22562
The ASLOTS concept: An interactive, adaptive decision support concept for Final Approach Spacing of Aircraft (FASA). FAA-NASA Joint University Program 08 p2105 N93-22563
Visual approach data collection at St. Louis Lambert Field (STL) [DOT/FAA/CT-TN93/2] 09 p2584 N93-24948
The dependent converging instrument approach procedure: An analysis of its safety and applicability [DOE/FAA/RD-93/6] 09 p2585 N93-25456
Developing automation for terminal air traffic control: Case study of the imaging aid 11 p3247 N93-30356

AIRCRAFT BASES

U MILITARY AIR FACILITIES

AIRCRAFT BRAKES

NT LEADING EDGE SLATS
NT TRAILING EDGE FLAPS
NT WING FLAPS
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport [PB92-221605] 07 p1991 N93-21501
Soft-ground arresting system for commercial aircraft [DOT/FAA/CT-TN93/4] 08 p2133 N93-22797

AIRCRAFT CABINS

U AIRCRAFT COMPARTMENTS

AIRCRAFT CARRIERS

The future of carrier aviation [AD-A254043] 02 p0430 N93-12260
A database approach to aircraft carrier airplan production [AD-A257737] 05 p1053 N93-17666
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm [AD-A258156] 06 p1602 N93-18294
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A [AD-A258873] 06 p1433 N93-19078
Follow-on operational test and evaluation of the NAVSTAR global positioning system air integration/installation program [AD-A263067] 10 p2941 N93-27925

AIRCRAFT COMMUNICATION

The development of the speaker independent ARM continuous speech recognition system [RSRE-MEMO-4473] 02 p0280 N93-11383
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1 [DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2 [DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Advances in speech processing 06 p1517 N93-19771
OSI applied to aeronautical satellite mobile communications in EURATN 08 p2276 N93-23525
Satellite communications for aeronautical and navigation service 10 p3023 N93-26648
Tactical satellites for air command and control 11 p3284 N93-29898
Design issues and initial performance of an adaptive air/ground/air HF communication system 11 p3375 N93-30342
Enhancing availability, performance, and flexibility of air traffic control air-ground services 11 p3247 N93-30353

AIRCRAFT COMPARTMENTS

Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation [AD-A256616] 04 p0783 N93-14277
A model study of the aircraft cabin environment resulting from in-flight fires [DOT/FAA/CT-90/22] 07 p1764 N93-21557
The effectiveness of hand-held fire extinguishers on cargo container fires [DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
Modeling the heat release rate of aircraft cabin panels [DOT/FAA/CT-92/3] 08 p2118 N93-23222
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter [AD-A260689] 09 p2845 N93-25649
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model [DOT/FAA/CT-89/25] 10 p2941 N93-28055
Longitudinal acceleration test of overhead luggage bins in a transport airframe section [DOT/FAA/CT-92/9] 12 p3674 N93-31652

AIRCRAFT CONFIGURATIONS

A configuration development strategy for the NASP 01 p0009 N93-10011
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
DESAID (the development of an expert system for aircraft initial design) 04 p0790 N93-14448
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers [AD-A256038] 04 p0878 N93-15187
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue [AD-A257704] 05 p1228 N93-17697
The design of a long range megatransport aircraft [NASA-CR-192077] 05 p1064 N93-17711
Open airscrew VTOL concepts [NASA-CR-177603] 06 p1403 N93-17883
The S.T.o.R.M. (tm): Air transport system design simulation [NASA-CR-192070] 06 p1439 N93-18349
Identification of system dynamics of a high incidence research model [RR-407] 06 p1440 N93-18507
Apparatus and method for improving spin recovery on aircraft [NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed [MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed [PB93-136406] 08 p2405 N93-23232
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver [NASA-CR-4490] 08 p2127 N93-24108
Structural and aerodynamic optimization of joined-wing aircraft 09 p2588 N93-25526

An approach to configuration design synthesis of subsonic transport aircraft using artificial intelligence techniques 09 p2589 N93-25692
High-altitude reconnaissance aircraft 11 p3227 N93-29713
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration [NASA-TP-3355] 12 p3673 N93-31733

AIRCRAFT CONSTRUCTION
U AIRCRAFT STRUCTURES

AIRCRAFT CONSTRUCTION MATERIALS
NT AIRFRAME MATERIALS
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs [NASA-TM-105807] 02 p0331 N93-10963
Materials: Toward the non-metallic engine [PNR-90915] 02 p0209 N93-11019
Corrosion protection of materials for aircraft using ion beam processes. Corrosion and bonding strength examinations. Physical analysis of laser composition [MBB-Z-0405-91-PUB] 02 p0255 N93-11026
Surface protection in the aircraft industry [MBB-Z-0432-92-PUB] 02 p0255 N93-11027
Aero engine ceramics: The vision, the reality, and the progress [PNR-90983] 02 p0264 N93-11066
Advanced materials in gas turbine engines: An assessment [PNR-90946] 02 p0211 N93-11105
Present and future trends in turbine blade material and manufacture technology [PNR-90960] 02 p0255 N93-11111
Fatigue in single crystal nickel superalloys [AD-A254603] 02 p0260 N93-12237
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Compression strength of composite primary structural components [NASA-CR-190949] 03 p0624 N93-13019
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications [AD-A256126] 04 p0846 N93-15189
Fiber reinforced composites: A new class of glass and glass ceramic materials for thermomechanical applications [REPT-921-430-104] 04 p0838 N93-15490
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum [AD-A256317] 05 p1097 N93-16403
Fatigue in single crystal nickel superalloys [AD-A258038] 05 p1117 N93-17704
Supersonic transport: Which material for the engine [DS-2023] 07 p1786 N93-21459
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment [MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479
Practical problems related to flammability and combustion in space 08 p2226 N93-22839
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST [NASA-CR-192354] 08 p2230 N93-23193
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989 [ETN-93-93702] 08 p2126 N93-23401
Non-chromated surface pretreatments for aluminum [AD-A260130] 08 p2232 N93-23704
Airframe materials [ISBN-0-919086-32-2] 08 p2211 N93-23935
Fiber-metal laminates: A solution to weight, strength, and fatigue problems 08 p2211 N93-23938
Automated manufacturing of continuous fibre composite structures for aerospace applications 08 p2212 N93-23942
A review of design and manufacturing methodologies for stiffened composite panels used in aircraft 08 p2128 N93-23943
Research projects [NRC-LTR-ST-1883] 08 p2571 N93-24652
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
Fatigue in single crystal nickel superalloys [AD-A261742] 09 p2652 N93-26282
Structural tailoring of aircraft engine blade subject to ice impact constraints [NASA-TM-106033] 10 p3055 N93-26999
A demonstration of simple airfoils: Structural design and materials choices [DE93-007882] 11 p3238 N93-28662
Nonlinear analyses of composite aerospace structures in sonic fatigue [NASA-CR-193124] 11 p3451 N93-29154
Advanced technology composite aircraft structures [NASA-CR-190420] 11 p3248 N93-29498
Static and dynamic large deflection flexural response of graphite-epoxy beams [NASA-CR-4118] 11 p3454 N93-30374
Composites: A viable option 11 p3300 N93-30429
Advanced composite structural concepts and material technologies for primary aircraft structures 11 p3300 N93-30430
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process 11 p3301 N93-30435
Lessons learned for composite structures 11 p3302 N93-30444
First NASA Advanced Composites Technology Conference, part 2 [NASA-CP-3104-PT-2] 11 p3303 N93-30841
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Development of resins for composites by resin transfer molding 11 p3305 N93-30853
Advanced fiber/matrix material systems 11 p3305 N93-30854
Mechanical and analytical screening of braided composites for transport fuselage applications 11 p3305 N93-30855
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Aircraft structures in 2000: A technological challenge? [MBB-LME-202-S-PUB-0485] 12 p3679 N93-31058
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft [NASA-CR-4517] 12 p3705 N93-31643
Fatigue in single crystal nickel superalloys [AD-A265451] 12 p3706 N93-31795

AIRCRAFT CONTROL
NT HELICOPTER CONTROL
Pitch control trimming system for canard design aircraft [CA-PATENT-APPL-SN-2013236] 01 p0010 N93-10374
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft [NASA-TM-103872] 01 p0011 N93-10741
Flight-determined stability analysis of multiple-input-multiple-output control systems [NASA-TM-4416] 02 p0214 N93-11178
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle [AD-A247261] 02 p0208 N93-12053
Neural network models of air combat maneuvering [AD-A254653] 02 p0421 N93-12096
Modeling and model simplification of aeroelastic vehicles: An overview [NASA-TM-107691] 02 p0215 N93-12216
Computational nonlinear control [AD-A253547] 02 p0422 N93-12258
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments [NASA-TM-4402] 02 p0215 N93-12304
Analysis of fault-tolerant neurocontrol architectures [NASA-TM-105898] 02 p0215 N93-12305
DYNAC: A computer program for analyzing the dynamical stability of aircraft [REPT-B-31] 02 p0216 N93-12415
Application of concurrent engineering methods to the design of an autonomous aerial robot [AD-A254968] 03 p0609 N93-12555
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts [AD-A254381] 03 p0677 N93-12860
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method [NASA-CR-191216] 03 p0503 N93-12903
The Second NASA Formal Methods Workshop 1992 [NASA-CP-10110] 03 p0684 N93-12957
A stochastic optimal feedforward and feedback control methodology for superagility [NASA-CR-4471] 03 p0694 N93-13370
Ideal aircraft handling quality models: Longitudinal axis [NAL-PD-FC-9203] 03 p0504 N93-13566
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems [NASA-CR-182268] 03 p0504 N93-13735
Sequential quadratic programming solutions to related aircraft trajectory optimization problems 03 p0505 N93-13926
An examination of wing rock for the F-15 [AD-A256613] 04 p0802 N93-14252
Unmanned aerial vehicles: More testing needed before production of short-range system [AD-A256296] 04 p0790 N93-14440
Adaptive control of nonlinear nonminimum phase systems 04 p0961 N93-14470
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures [AD-A256444] 04 p0802 N93-14608
Multi-disciplinary optimization of aeroservoelastic systems [NASA-CR-191255] 04 p0901 N93-14766
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles [NASA-CR-189702] 04 p0802 N93-14811
F/A-18 controls released departure recovery flight test evaluation [AD-A256522] 04 p0803 N93-15396
Propulsion system performance resulting from an integrated flight/propulsion control design [NASA-TM-105874] 04 p0801 N93-15525
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1 [AD-A253388] 05 p1068 N93-16036
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed [ESDU-92031] 05 p1055 N93-16522
Design of robust suboptimal controllers for a generalized quadratic criterion [AD-A257746] 05 p1069 N93-17670
Design of the advanced regional aircraft, the DART-75 [NASA-CR-192044] 06 p1435 N93-17972
MM-122: High speed civil transport [NASA-CR-192011] 06 p1435 N93-17974
Identification of system dynamics of a high incidence research model [RR-407] 06 p1440 N93-18507
Automated control of aircraft in formation flight [AD-A259020] 06 p1450 N93-19102
Longitudinal-control design approach for high-angle-of-attack aircraft [NASA-TP-3302] 06 p1451 N93-19108
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system [AD-A259286] 06 p1442 N93-19849
Experimental results in aerodynamic stability and control of a TSTO configuration [MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
Controller partitioning for integrated flight/propulsion control implementation [NASA-TM-105804] 07 p1787 N93-21197
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missiles 08 p2255 N93-22026
A neural based intelligent flight control system for the NASA F-15 flight research aircraft 08 p2132 N93-22368
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades [NASA-TM-4448] 08 p2125 N93-22486
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
Trial maneuver generation and selection in the Paladin tactical decision generation system [NASA-TM-107722] 08 p2131 N93-23088
A simulation of the Boeing B-747 aircraft [CRANFIELD-AERO-9202] 08 p2127 N93-24074
Prediction of forces and moments for hypersonic flight vehicle control effectors [NASA-CR-193033] 09 p2595 N93-24762
Robust nonlinear control of vectored thrust aircraft [NASA-CR-192727] 09 p2596 N93-25199
Control and optimization of aircraft trajectories 09 p2596 N93-25543
Robustness enhancement of neurocontroller and state estimator [NASA-TM-106028] 10 p2946 N93-26907
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings [NASA-CR-193130] 10 p2930 N93-27150
Low bandwidth robust controllers for flight [NASA-CR-193085] 10 p2946 N93-27156
New adaptive controllers for aircraft 10 p2921 N93-27180

Robust crossfeed design for hovering rotorcraft
[NASA-CR-193107] 10 p2942 N93-27241
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack 11 p3260 N93-28851
Low-speed wind tunnel study of the direct side-force characteristics of a joined-wing airplane with an upper fin
[DE93-767966] 12 p3672 N93-31189
Testing concept of a taxiing control system, summary 12 p3676 N93-31278
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649

AIRCRAFT DESIGN

NT HELICOPTER DESIGN
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
The changing nature of design
[PNR-91011] 02 p0206 N93-11334
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Test techniques for engine/airframe integration 03 p0577 N93-13200
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
DESAID (the development of an expert system for aircraft initial design) 04 p0790 N93-14448
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Pitch control margin at high angle of attack-quantitative requirements (flight test correlation with simulation predictions)
[AD-A257418] 05 p1068 N93-16009
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567
1991 research and technology
[NASA-TM-103924] 05 p1402 N93-16652
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
The F-18 systems research aircraft facility
[NASA-TM-4433] 05 p1072 N93-16753
The NASA High-Speed Research Program 05 p1064 N93-16761
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
A domain-specific design architecture for composite material design and aircraft part redesign 05 p1250 N93-17522
Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564
Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565
The design of a long range megatransport aircraft
[NASA-CR-192077] 05 p1064 N93-17711
Exodus: Prime Mover
[NASA-CR-192051] 05 p1064 N93-17803
Hypersonic reconnaissance aircraft
[NASA-CR-192049] 05 p1064 N93-17804
A manned hypersonic reconnaissance vehicle which does not require airborne fueling 06 p1434 N93-17888
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084] 06 p1435 N93-17893
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
Tesseract: Supersonic business transport
[NASA-CR-192072] 06 p1435 N93-17977
Eagle RTS: A design for a regional transport aircraft
[NASA-CR-192032] 06 p1435 N93-18017
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000
[NASA-CR-192023] 06 p1436 N93-18049
The Edge supersonic transport
[NASA-CR-192074] 06 p1436 N93-18055
Hermes CX-7: Air transport system design simulation
[NASA-CR-192082] 06 p1437 N93-18056
A second-generation high speed civil transport: Stingray
[NASA-CR-192022] 06 p1437 N93-18059
The Trojan --- supersonic transport
[NASA-CR-192013] 06 p1437 N93-18060
Preliminary design of a high speed civil transport: The Opus 0-001
[NASA-CR-192018] 06 p1437 N93-18061
Arrow 227: Air transport system design simulation
[NASA-CR-192053] 06 p1437 N93-18063
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
JEFF: Air transport system design simulation
[NASA-CR-192069] 06 p1439 N93-18350
The F-92 RELIANT: Air transport system design simulation
[NASA-CR-192050] 06 p1440 N93-18386
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Aircraft performance in practice 06 p1403 N93-19004
Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings 06 p1450 N93-19019
Improvements to LQGI/LTR methodology for plants with lightly damped or low frequency poles
[AD-A258841] 06 p1648 N93-19112
On the roles of wind tunnel testing and computational fluid dynamics in the aircraft development 06 p1416 N93-19322
X-31A high angle of attack and initial post stall flight testing 06 p1443 N93-19911
On-line aircraft state and parameter estimation 06 p1446 N93-19929
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
YIDOYU and its application to aircraft design
[AD-A259262] 07 p1781 N93-20605
Fluid/structures interactions. Aircraft considerations 07 p1787 N93-20628
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A] 07 p1783 N93-21401
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
MD-11: When appearances deceive
[ETN-93-93695] 08 p2126 N93-23416
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle 08 p2126 N93-23505
The role of fatigue testing in the design, development, and certification of the ATR 42/72
[ETN-93-93704] 08 p2127 N93-23969
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Use of system identification techniques for improving airframe finite element models using test data
[NASA-CR-192699] 08 p2128 N93-24481
Microwave-powered aircraft
[CA-PATENT-1-295-019] 08 p2128 N93-24591
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
A procedure for defining lightning risk to air vehicles 09 p2583 N93-24885
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
Structural and aerodynamic optimization of joined-wing aircraft 09 p2588 N93-25526
An approach to configuration design synthesis of subsonic transport aircraft using artificial intelligence techniques 09 p2589 N93-25692
ASTOVL combat aircraft design synthesis and optimization 09 p2589 N93-25704
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168
Reynolds and Mach number effects on multielement airfoils 10 p2934 N93-27446
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Design considerations for a night, air-to-surface attack capability on a dual role fighter 11 p3251 N93-28871
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
High-altitude reconnaissance aircraft 11 p3227 N93-29713
Project summary 11 p3227 N93-29714
Project ARES 2: High-altitude battery-powered aircraft 11 p3227 N93-29715
Preliminary design studies of an advanced general aviation aircraft 11 p3228 N93-29717
Design study to simulate the development of a commercial transportation system 11 p3228 N93-29718
Design of a turbofan powered regional transport aircraft 11 p3228 N93-29721
Solar powered multipurpose remotely powered aircraft 11 p3229 N93-29722
Preliminary development of a VTOL unmanned air vehicle for the close-range mission
[AD-A263514] 11 p3354 N93-29969
Sonic boom problem for future highspeed aircraft
[ONERA-NT-1990-3] 11 p3241 N93-30020
Cost studies for commercial fuselage crown designs 11 p3302 N93-30440
A unified approach for composite cost reporting and prediction in the ACT program 11 p3302 N93-30441

Lessons learned for composite structures
11 p3302 N93-30444
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Multi-parameter optimization tool for low-cost commercial fuselage crown designs
11 p3305 N93-30858
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications
11 p3306 N93-30861
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes
11 p3306 N93-30863
Tailored composite wings with elastically produced chordwise camber 11 p3308 N93-30876
Aircraft structures in 2000: A technological challenge?
[MBB-LME-202-S-PUB-0485] 12 p3679 N93-31058
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840
Applications of structural optimization methods to fixed-wing aircraft and spacecraft in the 1980s
[NASA-TM-103939] 12 p3740 N93-32212
Selected experiments in laminar flow: An annotated bibliography
[NASA-TM-103989] 12 p3673 N93-32226
Civil tiltrotor transport point design: Model 940A
[NASA-CR-191446] 12 p3701 N93-32234
Panel methods for aerodynamic analysis and design
[NLR-TP-91404-U] 12 p3674 N93-32357
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

AIRCRAFT DETECTION
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
Aircraft trajectory tracking and prediction
[AD-A259039] 06 p1441 N93-18999
RAFALE: Progress of the program
06 p1442 N93-19905
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168

AIRCRAFT ENGINES
NT HELICOPTER ENGINES
NT J-52 ENGINE
NT VARIABLE CYCLE ENGINES
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft
01 p0152 N93-10690
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Materials: Toward the non-metallic engine
[PNR-90915] 02 p0209 N93-11019
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
Aero engine ceramics: The vision, the reality, and the progress
[PNR-90983] 02 p0264 N93-11066
Advanced three-shaft engines: Configured for reliability, efficiency, and growth
[PNR-90986] 02 p0211 N93-11068
Maintainability of large gas turbine aero engines
[PNR-90987] 02 p0211 N93-11069
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
Integrated engine control and monitoring with experiences derived from OLMOS
04 p0795 N93-15168
Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system
04 p0796 N93-15172
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system
04 p0796 N93-15173
A philosophy for integrated monitoring system design
04 p0796 N93-15174
Modelling the engine temperature distribution between shut down and restart for life usage monitoring
04 p0796 N93-15177
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852
The technological evolution of high thrust turbine engines
[DS-1881] 06 p1448 N93-17882
Control of in-service damage: Application to aircraft engines
[DS-2027] 06 p1448 N93-18151
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Stall in axial flow aero engine compressors
06 p1530 N93-18723
Stall and surge in axial flow compressors
06 p1530 N93-18724
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor
06 p1531 N93-18727
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Propelling force and resistance
06 p1403 N93-19003
What is the progress in propulsion?
06 p1404 N93-19006
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI
06 p1417 N93-19326
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Optimization and sensitivity computations for the conception of internal ventilation system in the aircraft engine
[ETN-93-93375] 07 p1785 N93-20913
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459
Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives. Intelligence programs: New RC-135 aircraft engines can reduce cost and improve performance
[AD-A259283] 08 p2105 N93-22397
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Simulation of aircraft gas turbine engine
09 p2594 N93-25751
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
An analysis of the correlation between the J52 engine component improvement program and improved maintenance parameters
[AD-A262062] 11 p3251 N93-28984
The design of two-stage-to-orbit vehicles
11 p3228 N93-29719
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

AIRCRAFT EQUIPMENT
NT EJECTION SEATS
NT TERCOM
Simulator, Tactical Use, Flare (STUF) project report
[AD-A254890] 02 p0276 N93-12281
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
Definition study PHARUS
[AD-A256560] 04 p0860 N93-14805
Test and integration concept for complex helicopter avionic systems
[MBB-UD-0605-91-PUB] 05 p1065 N93-17547
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
The effectiveness of hand-held fire extinguishers on cargo container fires
[DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
An expert system for the diagnostic and maintenance of various aircraft components
[MBB-FE-363-S-PUB-0499] 08 p2105 N93-22392

Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles
09 p2693 N93-24903
Special tooling disposition for aircraft entering post production support
[AD-A261614] 09 p2573 N93-26168
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464
A new class of mission support for combat air-crew
11 p3501 N93-28854
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Standardization of automatic test equipment in the US Air force
[AD-A262076] 11 p3250 N93-29004
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
High reliability, maintenance-free INS battery development
[AD-A264521] 11 p3412 N93-30406
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272
French aerospace equipment
12 p3883 N93-31734

AIRCRAFT FUEL SYSTEMS
Military standardization handbook: Aircraft refueling handbook
[AD-A261755] 09 p2662 N93-26600

AIRCRAFT FUELS
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253] 08 p2195 N93-24057
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402

AIRCRAFT GUIDANCE
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
Terrain Referenced Information and Guidance Systems (TRIGS)
[MBB-FE-315-S-PUB-0494] 08 p2119 N93-22390
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561
GPS multipath errors in the precision landing environment 08 p2106 N93-22569
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Control and optimization of aircraft trajectories
09 p2596 N93-25543
Image-based ranging and guidance for rotorcraft
[NASA-CR-177608] 09 p2586 N93-26549
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description
[NASA-CR-191457] 11 p3250 N93-28621
Head-steered sensor flight test results and implications 11 p3502 N93-28859
The quest for an integrated flying helmet
11 p3502 N93-28860
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Tactical satellites for air command and control
11 p3284 N93-29898
Evaluation of category 3 MLS designs
11 p3247 N93-30358
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty
11 p3246 N93-31005
Aerial cartography using SICAD NAV-AIR
12 p3744 N93-31258
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

AIRCRAFT HAZARDS
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
Annual review of aircraft accident data: US general aviation calendar year 1989
[PB93-160687] 10 p2940 N93-27033
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269

AIRCRAFT ICING
Developments in icing test techniques for aerospace applications in the RAE Pyestock (England) altitude test facility
[RAE-TM-P-1214] 02 p0207 N93-11485
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816
Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel
[NASA-TM-105968] 04 p0781 N93-14911
Surface roughness due to residual ice in the use of low power deicing systems
[NASA-TM-105971] 04 p0782 N93-15338
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil
[NASA-TM-105975] 04 p0787 N93-15345
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Advancements in the LEWICE ice accretion model
[NASA-CR-191019] 04 p0879 N93-15402
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0788 N93-15522
Numerical investigation of performance degradation of wings and rotors due to icing
[NASA-CR-192233] 06 p1440 N93-18783
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
FAA international conference on airplane ground deicing
[AD-A263617] 11 p3244 N93-29286

AIRCRAFT INDUSTRY
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
Surface protection in the aircraft industry
[MBB-Z-0432-92-PUB] 02 p0255 N93-11027
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
French aerospace equipment
12 p3883 N93-31734
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351

AIRCRAFT INSTRUMENTS
NT APPROACH INDICATORS
NT AUTOMATIC PILOTS
NT FLIGHT RECORDERS
Flight simulator evaluation of D-size liquid crystal flat panel displays
[NAL-TR-1136] 02 p0209 N93-12367
Liquid crystal flat panel display evaluation tests using a flight simulator
[NAL-TR-1122] 02 p0209 N93-12383
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum
[AD-A256319] 05 p1061 N93-16404
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Flight test operations 06 p1418 N93-19592
NASA wind shear flight test in situ results
06 p1418 N93-19593
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Topological approach for the study of electromagnetic coupling
[ONERA-P-1992-2] 07 p1881 N93-20230
Flight experience with lightweight, low-power miniaturized instrumentation systems
[NASA-TM-4463] 08 p2128 N93-23102
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Avionics systems architectures
10 p2919 N93-27169
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Cognitive interface considerations for intelligent cockpits 11 p3503 N93-28865
A concluding study of the altitude determination deficiencies of the Service Aircraft Instrumentation Package (SAIP)
[AD-A263515] 11 p3250 N93-29971
Pallet for helicopter test instrumentation
12 p3676 N93-31279

AIRCRAFT INTERIORS
U AIRCRAFT COMPARTMENTS

AIRCRAFT LANDING
NT CRASH LANDING
NT DITCHING (LANDING)
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Energy method for analysis of measured airspeed change in landing airborne manoeuvre
[ESDU-92020] 06 p1436 N93-18042
Aircraft landing gear shimmy
06 p1441 N93-19029
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
Visual approach data collection at St. Louis Lambert Field (STL)
[DOT/FAA/CT-TN93/2] 09 p2584 N93-24948
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Low bandwidth robust controllers for flight
[NASA-CR-193085] 10 p2946 N93-27156

Coherent systems in the terahertz frequency range: Elements, operation, and examples
10 p3011 N93-27727
A model-based approach for detection of objects in low resolution passive millimeter wave images
[NASA-CR-193161] 10 p2943 N93-28418
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

AIRCRAFT LIGHTS
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301

AIRCRAFT MAINTENANCE
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
Maintainability of large gas turbine aero engines
[PNR-90987] 02 p0211 N93-11069
Rotorcraft health and usage monitoring systems: A literature survey
[DOT/FAA/RD-91/6] 02 p0206 N93-11461
Using NDT techniques in the maintenance of aeronautical products
[REPT-921-430-102] 02 p0332 N93-11587
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
Aircraft accident report: Britt Airways, Inc., d/b/a, Continental Express Flight 2574, in-flight structural breakup, EMB-120RT, N33701, Eagle Lake, Texas, September 11, 1991
[PB92-910405] 03 p0498 N93-13426
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
Bearing servicing tool
[NASA-CASE-MSC-21881-1] 04 p0891 N93-14871
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
The Teledyne controls aircraft condition monitoring system 04 p0793 N93-15155
Ground Support Equipment (GSE) for Aircraft Condition Monitoring System (ACMS) 04 p0778 N93-15158
Detection of technical states with aircraft 04 p0794 N93-15159
Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
Onboard System Evaluation of Rotors Vibration, Engines (OBSERVE) monitoring system
[AD-A255366] 04 p0792 N93-15227
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Usage monitoring in the RNLN Fleet Air Arm (Marine Luchtvaardienst)
[NLR-TP-91070-U] 05 p1062 N93-17394
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device
[NLR-TP-91116-U] 05 p1062 N93-17538
Analysis of consolidation of intermediate level maintenance for Atlantic Fleet T700-GE-401 engines
[AD-A257754] 05 p1067 N93-17695
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
An artificial intelligence-based structural health monitoring system for aging aircraft
08 p2465 N93-22185
An expert system for the diagnostic and maintenance of various aircraft components
[MBB-FE-363-S-PUB-0499] 08 p2105 N93-22392
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Comparative evaluation of a monocular head mounted display device versus a flat screen display device in presenting aircraft maintenance technical data
[AD-A259684] 08 p2427 N93-23660
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Reliability assessment at airline inspection facilities. Volume 1: A generic protocol for inspection reliability experiments
[DOT/FAA/CT-92/12-VOL-1] 09 p2582 N93-25110
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Human Factors in Aviation Maintenance, phase 2
[DOT/FAA/AM-93/5] 09 p2802 N93-26089
An analysis of the reliability and maintainability of the Jian 6 and Jian 7 aircraft and ways to improve them
[AD-A261060] 09 p2574 N93-26238
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398
Performance of gas turbine compressor cleaners
[NLR-TP-91237-U] 12 p3681 N93-31111
Ageing aircraft research in the Netherlands
[NLR-TP-91443-U] 12 p3679 N93-32203
Damage severity of monitored fatigue load spectra
[NLR-TP-92009-U] 12 p3679 N93-32205

AIRCRAFT MANEUVERS
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Neural network models of air combat maneuvering
[AD-A254653] 02 p0421 N93-12096
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
Automated control of aircraft in formation flight
[AD-A259020] 06 p1450 N93-19102
On automated analysis of flight test data 06 p1444 N93-19913
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Dynamic airfoil stall investigations 10 p2935 N93-27453
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack 11 p3260 N93-28851
Planning for air to air combat 11 p3501 N93-28852
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

AIRCRAFT MODELS
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Introduction of electronic pressure scanning at the Royal Aerospace Establishment
[RAE-TM-AERO-2222] 02 p0199 N93-11882
Study of optical techniques for the Ames unitary wind tunnels. Part 4: Model deformation
[NASA-CR-190980] 02 p0219 N93-12349
Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Hermes CX-7: Air transport system design simulation
[NASA-CR-192082] 06 p1437 N93-18056
Arrow 227: Air transport system design simulation
[NASA-CR-192053] 06 p1437 N93-18063
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
Flight experience with lightweight, low-power miniaturized instrumentation systems
[NASA-TM-4463] 08 p2128 N93-23102
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
A computational approach to predicting the extent of arc root damage in CFC panels 09 p2642 N93-24890
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
A demonstration of simple airfoils: Structural design and materials choices
[DE93-007882] 11 p3238 N93-28662
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
RCS of fundamental scatterers in the HF band by wire-grid modelling 11 p3371 N93-30320
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733

AIRCRAFT NOISE
NT BLADE SLAP NOISE
NT JET AIRCRAFT NOISE
NT PROPELLER NOISE
NT SONIC BOOMS
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666

Combat aircraft noise: The operator's perspective
01 p0148 N93-10669
Non-propulsive aerodynamic noise
01 p0149 N93-10673
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction
01 p0149 N93-10674
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Reduction of propeller noise by active noise control
01 p0152 N93-10692
Publications on acoustics research at the Langley Research Center, January 1987 - September 1992
[NASA-TM-107674] 02 p0435 N93-12080
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Air Force procedure for predicting noise around airbases: Noise exposure model (Noisemap)
[AD-A255769] 04 p0910 N93-14655
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Effect of personal and situational variables on noise annoyance: With special reference to implications for en route noise
[NASA-CR-189676] 07 p2060 N93-21317
Calculation of noise emission caused by jet aircraft during takeoff, approach and horizontal flyover
[DLR-MITT-91-15] 07 p2061 N93-21368
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport
[PB92-221605] 07 p1991 N93-21501
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Aircraft overflight study: Effect of aircraft altitude upon sound levels at the ground
[PB93-144194] 08 p2477 N93-24572
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
A prediction model for noise from low-altitude military aircraft
[AD-A262494] 10 p3130 N93-27662
External acoustical noise measurements for aviation systems
[AD-A263138] 11 p3562 N93-29480
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929
Reaction to aircraft noise near general aviation airfields
[DORA-8203] 12 p3817 N93-32377
Transmission of sound through a rotor
[NLR-TP-92014-U] 12 p3683 N93-32386

AIRCRAFT NOISE PREDICTION
U NOISE PREDICTION (AIRCRAFT)

AIRCRAFT PERFORMANCE
NT HELICOPTER PERFORMANCE
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft
01 p0152 N93-10690
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Sequential quadratic programming solutions to related aircraft trajectory optimization problems
03 p0505 N93-13926
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Czechoslovak development and experience in flight data recorder readout and analysis 04 p0794 N93-15162
Real-time in-flight engine performance and health monitoring techniques for flight research application
04 p0795 N93-15169
Example of statistical techniques applied to analysis of measurements of the landing airborne manoeuvre. (Multiple linear regression with two independent variables and one dependent variable.)
[ESDU-92022] 05 p1062 N93-16636
The role of under-determined approximations in engineering and science application
05 p1274 N93-16763
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
Open airscrew VTOL concepts
[NASA-CR-177603] 06 p1403 N93-17883
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Stall in axial flow aero engine compressors
06 p1530 N93-18723
Stall and surge in axial flow compressors
06 p1530 N93-18724
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Aircraft performance in practice
06 p1403 N93-19004
Wind shear hazard determination
06 p1419 N93-19597
AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit
[ESA-TT-1267] 11 p3248 N93-29464
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

AIRCRAFT PILOTS
NT TEST PILOTS
Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
Relating cognitive function to military aviator performance in early HIV infection
02 p0379 N93-11298
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Allergy screening and follow-up in student pilots of the Belgian Air Force (BAF) 02 p0383 N93-11316
Allergic and nonallergic rhinitis in Greek pilots
02 p0383 N93-11317
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Development of measures of crew coordination
[AD-A255384] 04 p0939 N93-14651
Cockpit decision making 04 p0786 N93-15015
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
In-flight field-of-view with ANVIS
[AD-A259905] 08 p2427 N93-23992
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Human visual limitations on suprathreshold contrast perception through ANVIS
[AD-A259970] 08 p2425 N93-24431
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
The use of extended wear contact lenses in the aviation environment: An Army-wide study
[AD-A260938] 09 p2795 N93-26218
Age 60 Project: Consolidated database experiments
[HS-TR-8025-3C(R2)] 10 p3087 N93-27851
Head-steered sensor flight test results and implications 11 p3502 N93-28859
The quest for an integrated flying helmet
11 p3502 N93-28860
The physiological limitations of man in the high G environment 11 p3503 N93-28861

Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
Nutritional assessment of United States tactical air command pilots 12 p3778 N93-32242
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas
12 p3780 N93-32257
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259
Changes in some lifestyle parametres in Norwegian pilots as students, and after 6 and 12 years of service
12 p3781 N93-32261
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266

AIRCRAFT POWER SOURCES
U AIRCRAFT ENGINES

AIRCRAFT POWER SUPPLIES
Air cell — model aircraft power supplies
[CA-PATENT-APPL-SN-2001346]
01 p0072 N93-10368

AIRCRAFT PRODUCTION
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Special tooling disposition for aircraft entering post production support
[AD-A261614] 09 p2573 N93-26168
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056

AIRCRAFT RELIABILITY
Advanced three-shaft engines: Configured for reliability, efficiency, and growth
[PNR-90986] 02 p0211 N93-11068
Rotorcraft health and usage monitoring systems: A literature survey
[DOT/FAA/RD-91/6] 02 p0206 N93-11461
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Embedded ADM reduces helicopter human error accidents 04 p0787 N93-15024
Helicopter flight data recorder and health and usage monitoring system 04 p0797 N93-15178
Helicopter health monitoring: Current practice and future trends 04 p0797 N93-15179
Airbus Industrie TCAS experience
04 p0789 N93-15186
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
An analysis of the reliability and maintainability of the Jian 6 and Jian 7 aircraft and ways to improve them
[AD-A261060] 09 p2574 N93-26238
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force
10 p2926 N93-27210
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Ageing aircraft research in the Netherlands
[NLR-TP-91443-U] 12 p3679 N93-32203

AIRCRAFT SAFETY
Activities report of the German Institute for Flight Safety
[ETN-92-92272] 02 p0203 N93-11375
Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193
Public-sector aviation issues: Graduate research award papers, 1990 - 1991
[PB92-222629] 03 p0498 N93-13787
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277
Measuring risk in single-engine and twin-engine helicopters 04 p0787 N93-15025
The FAIR (Flight Animated and Interactive Reconstruction) tool 04 p0788 N93-15164
Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents
06 p1428 N93-19693
An epidemiological study in SAF's pilots ejections
06 p1429 N93-19699
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
The UK perspective on aviation security
07 p1764 N93-21858
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
An artificial intelligence-based structural health monitoring system for aging aircraft
08 p2465 N93-22185
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
Solar-powered light emitting diode power line avoidance marker design
[AD-A259886] 08 p2381 N93-23983
Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200
Aircraft fire protection system
[CA-PATENT-1-296-970] 08 p2118 N93-24592
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Zoning of aircraft: A review of the definitions
09 p2583 N93-24880
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures
09 p2583 N93-24886
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
Military standardization handbook: Aircraft refueling handbook
[AD-A261755] 09 p2662 N93-26600
Aircraft accident report: Takeoff stall in icing conditions. USAIR Flight 405 FOKKER F-28, N485US, LaGuardia Airport, Flushing, New York, 22 March 1992
[PB93-910402] 10 p2940 N93-27034
Aircraft accident report: Controlled collision with terrain GP Express Airlines, Inc., Flight 861, A Beechcraft C99, N118GP, Anniston, Alabama, 8 June 1992
[PB93-910403] 10 p2940 N93-27035
Protection of taxiing traffic in airports through mode S secondary radar technology
[ETN-93-93455] 10 p2941 N93-28206
FAA international conference on airplane ground deicing
[AD-A263617] 11 p3244 N93-29286
Progress through precedent: Going where no helicopter simulator has gone before 11 p3237 N93-30686
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty
11 p3246 N93-31005
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652
Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

AIRCRAFT SPIN
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039

AIRCRAFT STABILITY
NT HOVERING STABILITY
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
The 13 ft by 9 ft low speed wind tunnel facility at DRA (Aerospace Division) Bedford (England)
[RAE-TM-AERO-2228] 02 p0199 N93-11883
DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11
[AGARD-AG-300-VOL-11] 07 p1781 N93-21305

AIRCRAFT STRUCTURES
NT AIRFRAMES
NT FUSELAGES
NT PLASTIC AIRCRAFT STRUCTURES
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
Magneto-optic imaging inspection of selected corrosion specimens
[DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Hypersonic panel flutter in a rarefied atmosphere
03 p0505 N93-13928
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189

Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings
06 p1450 N93-19019
Lumped mass modelling for the dynamic analysis of aircraft structures 06 p1447 N93-19460
Topological approach for the study of electromagnetic coupling
[ONERA-P-1992-2] 07 p1881 N93-20230
YIDOYU and its application to aircraft design
[AD-A259262] 07 p1781 N93-20605
MSC/NASTRAN structure optimization test module version 67 (preliminary)
[REPT-5-191025] 07 p1945 N93-20907
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A]
07 p1783 N93-21479
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989
[ETN-93-93702] 08 p2126 N93-23401
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Research projects
[NRC-LTR-ST-1883] 08 p2571 N93-24652
Crashworthiness of composite seats for civil aircraft
09 p2582 N93-24773
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260692] 09 p2651 N93-25895
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Advanced technology composite aircraft structures
[NASA-CR-190420] 11 p3248 N93-29498
The Ultra Light Aircraft Testing
[NASA-CR-193043] 11 p3249 N93-29774
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft
11 p3249 N93-29775
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
Composites: A viable option 11 p3300 N93-30429
Advanced composite structural concepts and material technologies for primary aircraft structures
11 p3300 N93-30430
Composites technology for transport primary structure
11 p3300 N93-30431
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process
11 p3301 N93-30435
Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
F-15 composite engine access door
11 p3302 N93-30442
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Advanced fiber/matrix material systems
11 p3305 N93-30854
Multi-parameter optimization tool for low-cost commercial fuselage crown designs
11 p3305 N93-30858
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications
11 p3306 N93-30861
Optimization of composite sandwich cover panels subjected to compressive loadings
11 p3306 N93-30862
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
An overview of the crash dynamics failure behavior of metal and composite aircraft structures
11 p3308 N93-30875
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044
Aircraft structures in 2000: A technological challenge?
[MBB-LME-202-S-PUB-0485] 12 p3679 N93-31058
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739

AIRCRAFT SURVIVABILITY
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898

AIRCRAFT WAKES
NT HELICOPTER WAKES
NT PROPELLER SLIPSTREAMS
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796
Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388

AIRCREWS
U FLIGHT CREWS

AIRDROPS
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654

AIRFIELD SURFACE MOVEMENTS
Protection of taxiing traffic in airports through mode S secondary radar technology
[ETN-93-93455] 10 p2941 N93-28206
Testing concept of a taxiing control system, summary
12 p3676 N93-31278

AIRFIELDS
U AIRPORTS

AIRFOIL CHARACTERISTICS
U AIRFOILS

AIRFOIL OSCILLATIONS
NT WING OSCILLATIONS
A comparative study of semi-empirical dynamic stall models 01 p0005 N93-10544
Stream function-vorticity finite element formulations of unsteady incompressible Navier-Stokes equations
01 p0060 N93-10545
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
Airfoil stability in turbulent flow
10 p2926 N93-27212

AIRFOIL PROFILES
NT WING PROFILES
NT WING SPAN
The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128
Numerical investigation of swirl-airfoil interactions in transonic area
[MPIS-8/1991] 06 p1407 N93-18627
Aerodynamics of a finite wing with simulated ice
10 p2932 N93-27437
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148

AIRFOIL SECTIONS
U AIRFOIL PROFILES

AIRFOIL THICKNESS
U AIRFOIL PROFILES

AIRFOILS
NT AEROELASTIC RESEARCH WINGS
NT AILERONS
NT BEARINGLESS ROTORS
NT CIRCULATION CONTROL AIRFOILS
NT DELTA WINGS
NT FIXED WINGS
NT FLAPS (CONTROL SURFACES)
NT FLEXIBLE WINGS
NT GAW-1 AIRFOIL
NT HORIZONTAL TAIL SURFACES
NT INFINITE SPAN WINGS
NT JET FLAPS
NT JOINED WINGS
NT LAMINAR FLOW AIRFOILS
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT LIFTING ROTORS
NT LOW ASPECT RATIO WINGS
NT MISSION ADAPTIVE WINGS
NT OBLIQUE WINGS
NT PROPELLER BLADES
NT RECTANGULAR WINGS
NT RIGID ROTORS
NT RIGID WINGS
NT RING WINGS
NT ROTARY WINGS
NT SLENDER WINGS
NT SPOILERS
NT SUPERCRITICAL AIRFOILS
NT SUPERCRITICAL WINGS
NT SWEPT FORWARD WINGS
NT SWEPT WINGS
NT SWEPTBACK WINGS
NT TABS (CONTROL SURFACES)
NT THIN AIRFOILS
NT THIN WINGS
NT TILTING ROTORS
NT TRAILING EDGE FLAPS
NT UNSWEPT WINGS
NT WING FLAPS
NT WINGS

Effect of passive flow-control devices on turbulent low-speed base flow
01 p0079 N93-10304
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
Airfoil-vortex interaction and the wake of an oscillating airfoil
03 p0495 N93-13803
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains
03 p0593 N93-14041
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow
04 p0790 N93-14462
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008] 04 p0780 N93-14516
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil
[NASA-TM-105975] 04 p0787 N93-15345
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
Wind tunnel seeding particles for laser velocimeter
05 p1057 N93-16770
Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942
Fatigue in single crystal nickel superalloys
[AD-A258038] 05 p1117 N93-17704
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
Numerical calculations of separating flows around oscillating airfoil
06 p1410 N93-19284
Numerical simulation of unsteady large scale separated flow around oscillating airfoil
06 p1410 N93-19285
Application of the program profile for the design of low-speed, low-observable configuration airfoils
[AD-A258842] 06 p1417 N93-19364
The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018
Fatigue in single crystal nickel superalloys
[AD-A259191] 07 p1856 N93-20275
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
Active control of the separation region on a two-dimensional airfoil
08 p2112 N93-23589
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control
09 p2576 N93-25274
Flow control of low heat load turbine airfoils
[AD-A260941] 09 p2595 N93-26219
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Stability investigations of airfoil flow by global analysis
10 p2932 N93-27436
A composite structured/unstructured-mesh Euler method for complex airfoil shapes
10 p2933 N93-27439
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil
10 p2933 N93-27440
Efficient simulation of incompressible viscous flow over multi-element airfoils
10 p2933 N93-27443
An interactive boundary-layer approach to multielement airfoils at high lift
10 p2934 N93-27445
Reynolds and Mach number effects on multielement airfoils
10 p2934 N93-27446
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements
10 p2934 N93-27448
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations
10 p2935 N93-27451
Dynamic airfoil stall investigations
10 p2935 N93-27453
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates
10 p2936 N93-27456
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
A demonstration of simple airfoils: Structural design and materials choices
[DE93-007882] 11 p3238 N93-28662
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
A parallel implicit incompressible flow solver using unstructured meshes
[AD-A263395] 11 p3424 N93-29851
Keynote address: Unsteady, multimode transition in gas turbine engines
11 p3252 N93-29927
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application)
11 p3255 N93-29941
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts
11 p3243 N93-30979
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197
The influence of variable flow velocity on unsteady airfoil behavior
[DLR-FB-92-22] 12 p3672 N93-31320
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840

AIRFRAME MATERIALS

Fiber reinforced composites: A new class of glass and glass ceramic materials for thermomechanical applications
[REPT-921-430-104] 04 p0838 N93-15490
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535
Damage tolerance behaviour of aluminium-lithium sheet alloys
[NLR-TP-91244-U] 05 p1117 N93-17540

AIRFRAMES

Non-propulsive aerodynamic noise
01 p0149 N93-10673
Contributions to the experimental investigation of rotor/body aerodynamic interactions
01 p0005 N93-10877
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Water tunnel studies of inlet/airframe interference phenomena
03 p0580 N93-13216
Some aspects of intake design, performance and integration with the airframe
03 p0502 N93-13219
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: A government overview
07 p1782 N93-21311
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program : Bell Helicopter Textron accomplishments
07 p1782 N93-21312
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling
07 p1782 N93-21313
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements
07 p1782 N93-21314
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process
07 p1782 N93-21315
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Tip-vortex/airframe interactions
08 p2111 N93-23489
Use of system identification techniques for improving airframe finite element models using test data
[NASA-CR-192699] 08 p2128 N93-24481
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Zoning of aircraft by electric field modelling
09 p2583 N93-24894
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
A unified approach for composite cost reporting and prediction in the ACT program
11 p3302 N93-30441
Fabrication of the V-22 composite AFT fuselage using automated fiber placement
11 p3302 N93-30443

AIRGLOW

NT GEOCORONAL EMISSIONS
NT NIGHTGLOW
NT TWILIGHT GLOW

An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A
02 p0369 N93-11839
Near-infrared oxygen airglow from the Venus nightside
04 p1026 N93-14308
A study of mid-latitude 5577A Cl dayglow emissions
[AD-A255444] 04 p0914 N93-14511
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
Visible Airglow Experiment data analysis
[NASA-CR-192119] 06 p1577 N93-18361
Aeronomy of auroral and airglow emissions
06 p1584 N93-18496
Gravity waves from O2 airglow
09 p2772 N93-25547
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

AIRLINE OPERATIONS

An investigation of ground access mode choice for departing passengers
[TT-9201] 02 p0217 N93-11224

Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Airport stand assignment model
[TT-9104] 02 p0218 N93-11728
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
Public-sector aviation issues: Graduate research award papers, 1990 - 1991
[PB92-222629] 03 p0498 N93-13787
In-service evaluation of wind shear systems 04 p0785 N93-14857
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
The airline quality report, 1992
[NIAR-92-11] 06 p1418 N93-18036
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
Scheduling of an aircraft fleet 06 p1635 N93-18665
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
The international forum on airline quality teaching guide
[NIAR-92-13] 06 p1680 N93-19376
Airline quality issues 1992: Proceedings of the International Forum on Airline Quality
[NIAR-92-10] 07 p1764 N93-21561
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
PFNA technique for the detection of explosives 07 p1765 N93-21865
A pulsed fast-thermal neutron interrogation system 07 p1765 N93-21866
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
Airport testing of a new thermal neutron analysis explosives detection system 07 p1769 N93-21892
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
A systems approach to the explosive detection problem 07 p1778 N93-21942
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
An artificial intelligence-based structural health monitoring system for aging aircraft 08 p2465 N93-22185
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
Activities report of Lufthansa German Airlines
[ETN-93-93465] 08 p2117 N93-23004
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788

AIRPORT BEACONS
NT DISCRETE ADDRESS BEACON SYSTEM

AIRPORT LIGHTS
Prototype stop bar system evaluation at John F. Kennedy International Airport
[AD-A258667] 03 p0506 N93-12902

AIRPORT PLANNING
Airport stand assignment model
[TT-9104] 02 p0218 N93-11728
Report to Congress: State Block Grant Program
[AD-A254569] 03 p0507 N93-13882
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636

AIRPORT SECURITY
Recognition of partially occluded threat objects using the annealed Hopefield network 06 p1612 N93-19466
Criminal acts against civil aviation
[AD-A258760] 06 p1432 N93-19867
Insights into US domestic aviation 07 p1764 N93-21859
Role of advanced technology within a broad security approach 07 p1765 N93-21860
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Detection of objects concealed under persons' clothing using the SECURE system 07 p1767 N93-21879
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Explosive detection for checked luggage by DETEX, a combined x ray and positron-tomograph system 07 p1768 N93-21886
A general protocol for operational testing and evaluation of bulk explosive detection systems 07 p1769 N93-21888
A framework for the objective test and evaluation of explosive detection technology 07 p1769 N93-21890
Airport testing of a new thermal neutron analysis explosives detection system 07 p1769 N93-21892
Radiological safety aspects of TNA deployment 07 p1770 N93-21893
Experience with explosive detection systems in airports 07 p1770 N93-21895
Sampling explosives on airline passengers 07 p1770 N93-21896
Explosives detection by pure N-14 NQR 07 p1770 N93-21897
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Future directions in aviation security 11 p3244 N93-30274

AIRPORT TOWERS
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390

AIRPORTS
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
An investigation of ground access mode choice for departing passengers
[TT-9201] 02 p0217 N93-11224
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
Development of a unified airport pavement analysis and design system 05 p1071 N93-16317
Unified airport pavement design procedure 05 p1071 N93-16318
Three-dimensional stress analysis of multilayered airport pavements: Integral transform approach 05 p1072 N93-16319
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841
Estimating the regional economic significance of airports
[AD-A257658] 05 p1073 N93-17793
Scheduling of an aircraft fleet 06 p1635 N93-18665
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
Calculation of noise emission caused by jet aircraft during takeoff, approach and horizontal flyover
[DLR-MITT-91-15] 07 p2061 N93-21368
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport
[PB92-221605] 07 p1991 N93-21501
Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796
Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799
Insights into US domestic aviation 07 p1764 N93-21859
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
Multipath runway exits and taxiways
[DOT/FAA/CT-92/19] 08 p2134 N93-23217
Visual approach data collection at St. Louis Lambert Field (STL)
[DOT/FAA/CT-TN93/2] 09 p2584 N93-24948
The dependent converging instrument approach procedure: An analysis of its safety and applicability
[DOE/FAA/RD-93/6] 09 p2585 N93-25456
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
Effects of commercial flight pollution on human health 12 p3753 N93-31931
Effects of air traffic on nature and environment in the neighborhood of airports by example of the Munich 2 Airport (Germany) 12 p3753 N93-31932

AIRSHIPS
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753
The International Stratospheric Laboratory for Astrophysics (ISLA): The cosmic microscope 12 p3846 N93-31765

AIRSPACE
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
A simplified numerical procedure to compute the optimal trajectory of an aircraft 02 p0207 N93-11719
National Airspace System: Air traffic control and airspace management operational concept NAS-SR-132
[DOT/FAA/SE-92/5] 07 p1779 N93-20164
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
Airspace Design Expert System (ADES), a 2D/3D mapping and modelling tool incorporating an expert system for use in instrument approach design 11 p3247 N93-30357

AIRSPEED
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities 03 p0501 N93-13807

Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
Energy method for analysis of measured airspeed change in landing airborne manoeuvre
[ESDU-92020] 06 p1436 N93-18042
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739

AIRWORTHINESS
U AIRCRAFT RELIABILITY

AIRWORTHINESS REQUIREMENTS
U AIRCRAFT RELIABILITY

ALABAMA
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286

ALARMS
U WARNING SYSTEMS

ALASKA
Environmental data sets at the University of Alaska 08 p2338 N93-22146
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305

ALBEDO
NT EARTH ALBEDO
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
[NASA-RP-1281] 02 p0367 N93-11168
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Spectroscopy of D-type asteroids 06 p1697 N93-19158
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
End-to-end tests of satellite data 07 p1953 N93-21571
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite
[AD-A260015] 08 p2401 N93-24301
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
Atmospheric correction of LANDSAT-TM-data for forest inventory 11 p3459 N93-28929
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951

ALBUMINS
Amino acid sequences for the binding regions in serum albumin proteins
[NASA-CASE-MFS-28402-1] 11 p3491 N93-28952

ALCOHOLS
NT BISPHENOLS
NT ETHYL ALCOHOL
NT GLYCOLS
NT ISOPROPYL ALCOHOL
NT METHYL ALCOHOL
NT PHENOLS
NT POLYVINYL ALCOHOL
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
Design of a high activity and selectivity alcohol catalyst
[DE93-008100] 08 p2225 N93-24575
Design of a high activity and selectivity alcohol catalyst
[DE93-008101] 09 p2659 N93-25111
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Probe molecule studies: Active species in alcohol synthesis
[DE93-009685] 10 p2993 N93-26616
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429

ALDEHYDES
NT ACETALDEHYDE
NT FORMALDEHYDE
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475

ALDOSTERONE
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014

ALERTNESS
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923
Method of encouraging attention by correlating video game difficulty with attention level
[NASA-CASE-LAR-15022-1] 10 p3085 N93-28128
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267

ALFVEN WAVES
U MAGNETOHYDRODYNAMIC WAVES

ALGAAS
U ALUMINUM GALLIUM ARSENIDES

ALGAE
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824
Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques 09 p2747 N93-24831
Process for selectively recovering algae and protozoa
[NASA-CASE-MFS-26124-1-NPO] 11 p3491 N93-29174
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective 12 p3759 N93-31882

ALGAL BLOOM
U ALGAE

ALGEBRA
NT ADJOINTS
NT AUTOMORPHISMS
NT BANACH SPACE
NT BINOMIAL THEOREM
NT BINOMIALS
NT CANONICAL FORMS
NT CUBIC EQUATIONS
NT CURRENT ALGEBRA
NT DETERMINANTS
NT DUFFING DIFFERENTIAL EQUATION
NT EIGENVALUES
NT EIGENVECTORS
NT GROUP THEORY
NT HERMITIAN POLYNOMIAL
NT HESSIAN MATRICES
NT HILBERT SPACE
NT HOMOMORPHISMS
NT JORDAN FORM
NT LIE GROUPS
NT LINEAR EQUATIONS
NT LINEAR TRANSFORMATIONS
NT MATRICES (MATHEMATICS)
NT MONOIDS
NT NONLINEAR EQUATIONS
NT NONLINEAR EVOLUTION EQUATIONS
NT POLYNOMIALS
NT QUADRATIC EQUATIONS
NT RICCATI EQUATION
NT SOBOLEV SPACE
NT SPINOR GROUPS
NT STATE VECTORS
NT STIFFNESS MATRIX
NT STOKES THEOREM (VECTOR CALCULUS)
NT STRESS TENSORS
NT SUBGROUPS
NT TENSORS
NT VECTOR SPACES
NT VECTORS (MATHEMATICS)
NT VORTICITY
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Algebra-geometric and differential geometric methods in solid geometric modeling
[AD-A253669] 01 p0145 N93-10870
Applying algebraic techniques to microcode compilation
[RSRE-MEMO-4568] 02 p0409 N93-11392
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347
Selecting reusable components using algebraic specifications 02 p0415 N93-12387
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading 03 p0628 N93-13728
A theory of reference graphs in relational databases 03 p0739 N93-13912
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077
Graph rewriting using a single pushout; a comparison
[MEMO-INF-92-28] 04 p0968 N93-15121
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
Normal forms in real time process algebra
[CWI-CS-R9149] 05 p1265 N93-16367
Implementing higher-order algebraic specifications
[CWI-CS-R9150] 05 p1265 N93-16368
Symmetry of wavefunctions in quantum algebras and supersymmetry
[DE92-041129] 05 p1265 N93-16551
A short proof of the decidability of bisimulation for normal BPA processed
[CWI-CS-R9151] 05 p1267 N93-16731
Datatype laws without signatures
[CWI-CS-R9133] 05 p1268 N93-16851
The state operator in real time process algebra
[CWI-CS-R9140] 05 p1269 N93-16852
An algebraic foundation for FORTRAN 90 communication intrinsics
[DE92-040393] 05 p1269 N93-16990
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
Fine-grain incremental implementation of algebraic specifications
[CWI-CS-R9159] 05 p1270 N93-17489
Proceedings of the 2nd International Conference on Algebraic Methodology and Software Technology
[AD-A257487] 05 p1272 N93-17664
Finite type structures within combinatory algebras
[ML-91-06] 05 p1273 N93-17781
A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831
An intrinsic construction of the algebra of quaternions
[REPT-92-31] 06 p1643 N93-17845
Modal frame classes revisited
[ML-91-12] 06 p1643 N93-17869

A modal theory of arrows: Arrows logics 1
[ML-92-04] 06 p1644 N93-17915
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Towards a meta simplifier
[INRIA-RR-1402] 06 p1621 N93-18574
More box codes 06 p1505 N93-18906
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
PAC: Parallel Algebraic Computations: Current researches and perspectives
[RR-876-M] 07 p2044 N93-20949
An order-theoretic model for the algebra of communicating processes
[RUU-CS-92-02] 07 p2054 N93-21034
Sketches and computation
[RR-871-I-IMAG-123-LIFIA] 07 p2041 N93-21451
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Aprepro: An algebraic preprocessor for parameterizing finite element analyses
[DE93-006989] 08 p2466 N93-22527
An algebra of discrete event processes
[NASA-TM-102848] 08 p2469 N93-23413
Data for map algebra 08 p2350 N93-23553
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
From harmonic to anharmonic oscillators
10 p3146 N93-27352
Real time process algebra with prefixed integration
[CWI-CS-R9219] 10 p3114 N93-27362
Termination of term writing by interpretation
[RUU-CS-92-14] 10 p3114 N93-27381
Abstraction in real time process algebra
[CWI-CS-R9144] 10 p3096 N93-27492
Asynchronous communication in process algebra (extended abstract)
[CWI-CS-R9206] 10 p3098 N93-27551
Regular processes with relative time and silent steps
[CWI-CS-R9231] 10 p3101 N93-27995
Specification and generation of a lambda-calculus environment
[CWI-CS-R9233] 10 p3101 N93-27997
A simple proof of confluence for weakly orthogonal combinatory reduction systems
[CWI-CS-R9234] 10 p3119 N93-27998
Congruences and quotients in categories of algebras
[RUU-CS-92-23] 10 p3120 N93-28064
On Zeilberger's algorithm and its q-analogue: A rigorous description
[CWI-AM-R9207] 10 p3101 N93-28086
Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
How to write fast and clear parallel programs using algebra
[DE93-000797] 11 p3524 N93-28640
Deformations of the Lie algebras L1(H(2)) and L1(W(2))
[MEMO-1056] 11 p3547 N93-28667
An algebraic approach to the quantization of constrained systems: Finite dimensional examples
11 p3548 N93-28671
The generic arithmetic of SISYPHE
[INRIA-RT-0136] 11 p3524 N93-28755
Dynamic factorization in large-scale optimization
[AD-A263993] 11 p3528 N93-29345
The general theory of convolutional codes
11 p3385 N93-29595
Turning SOS rules into equations
[CWI-CS-R9218] 11 p3532 N93-30017
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986
Spatial relational algebra: An extended relational algebra for spatial database
[REPT-92-051] 12 p3786 N93-31249
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
Information systems as coalgebras
[ML-92-08] 12 p3838 N93-31481
Q-deformed conformal superalgebra and its Hopf subalgebras
[DE93-608160] 12 p3807 N93-31808
On two-current realization of KP hierarchy
[DE93-609917] 12 p3808 N93-31912
Linear algebra for signal processing
[AD-A264677] 12 p3808 N93-32017
Conference: Three Decades of Numerical Linear Algebra at Berkeley
[AD-A264964] 12 p3809 N93-32076

ALGORITHMS
NT GENETIC ALGORITHMS
NT PARSING ALGORITHMS
NT SIMPLEX METHOD
Numerical simulation of unsteady flow in a nozzle
01 p0016 N93-10008
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Implementation of parallel algorithms
[AD-A253638] 01 p0140 N93-10227
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Improved numerical simulation of Euler equations
01 p0080 N93-10309
Parallel sparse Cholesky factorization algorithms for shared-memory multiprocessor systems
[DE92-016829] 01 p0141 N93-10334
On the evaluation of Bessel functions
[AD-A253129] 01 p0143 N93-10339
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Box counting multifractal analysis
[AD-A253960] 01 p0144 N93-10419
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
Experimental demonstration of offset control with an application to the tethered payload
01 p0014 N93-10521
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis
01 p0061 N93-10554
Numerical considerations for structural system identification from modal information
01 p0063 N93-10564
A boundary element super-element method for coupling with the finite element method of substructures
01 p0064 N93-10566
Partial solution of the generalized eigenvalue problem using the Woodbury transformation
01 p0064 N93-10567
Optimal robot trajectory planning
01 p0065 N93-10570
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
An evidential reasoning approach to the classification of satellite images
[DLR-FB-91-29] 02 p0342 N93-11140
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU]
02 p0324 N93-11177
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197
Numerical solution of inverse problems in mechanics using the boundary element method
02 p0424 N93-11199
Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Authentication algorithm for the universal Authenticated Item Monitoring Systems (AIMS)
[DE92-018826] 02 p0408 N93-11378
QR decomposition based algorithms and architectures for least-squares adaptive filtering
[RSRE-MEMO-4562] 02 p0408 N93-11390
Ten15 developments to support parallelism
[RSRE-MEMO-4545] 02 p0409 N93-11406
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
Object recognition with a robot hand
02 p0420 N93-11457
Dynamic programming and image processing on distributed memory parallel machines
[ETN-92-92174] 02 p0409 N93-11478
Path planning on a ring of processors
02 p0410 N93-11480
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Scattering on a ring of processors
02 p0410 N93-11482
Z-buffer on a transputer-based machine
02 p0410 N93-11483
Reduction operations on a distributed memory machine with a reconfigurable interconnection network
02 p0410 N93-11484
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526

Optimization of expressions involving array classes
[DE92-019421] 02 p0411 N93-11536
Design of a PCM data compressor --- pulse code modulation
[DE92-019469] 02 p0404 N93-11539
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
A computer algorithm for automatic beam steering
[DE92-019338] 02 p0411 N93-11555
Computational aspects of Gaussian beam migration
[DE92-018641] 02 p0431 N93-11567
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
A PID auto-tuning algorithm based on relay feedback
[REPT-92-019] 02 p0421 N93-11667
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
Methodologies for building robust schedules 02 p0397 N93-11949
Model-based vision for space applications 02 p0398 N93-11955
Fault detection and fault tolerance in robotics 02 p0330 N93-11961
Interactive collision detection 02 p0400 N93-11963
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Lunar PMAD technology assessment
[NASA-CR-189225] 02 p0347 N93-12017
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A254320] 02 p0284 N93-12095
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
Multifractal analysis at negative q
[AD-A254370] 02 p0413 N93-12159
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
A genetic algorithm for search route planning
[AD-A254894] 02 p0414 N93-12284
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
An advancing front Delaunay triangulation algorithm designed for robustness
[NASA-CR-189719] 02 p0416 N93-12400
Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
Implementation details of the coupled QMR algorithm
[NASA-CR-191213] 03 p0684 N93-12801
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
Spatial resolution enhancement of SSM/I microwave brightness temperatures and its impact on rainfall retrieval algorithms
[AD-A254382] 03 p0661 N93-12861
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Fast multiresolution algorithms for matrix-vector multiplication
[NASA-CR-189721] 03 p0696 N93-12942
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Solar prediction analysis
[NASA-CR-184422] 03 p0769 N93-13014
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
NOAA Workshop on Climate Scale Operational Precipitation and Water Vapor Products
[NOAA-TR-NESDIS-62] 03 p0662 N93-13066
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
MINT: The multiple error LMS algorithm, and the design of inverse filters for multi-channel sound reproduction systems
[ISVR-TR-211] 03 p0700 N93-13439
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Control of a very flexible robot in gravity 03 p0615 N93-13541
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
Nonholonomic motion of free-flying space robots 03 p0615 N93-13638
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations 03 p0589 N93-13825
High-resolution array with Prony, MUSIC, and ESPRIT algorithms
[AD-A255514] 03 p0566 N93-13868
Non-perturbative studies in quantum electrodynamics 03 p0729 N93-13896
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media 03 p0568 N93-14044
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Dexterous grasp and manipulation 03 p0618 N93-14075
A collision avoidance algorithm for the mobile robot and the robot manipulator in multi-robot system 03 p0618 N93-14094
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
Application of partition matrix methods to solve large eigenproblems in structural dynamics 04 p0896 N93-14188
Manipulation strategies for redundant manipulators 04 p0960 N93-14203
Goals versus algorithms
[AD-A256106] 04 p0942 N93-14237
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
Implementation of the pure pursuit path tracking algorithm
[AD-A255524] 04 p0944 N93-14569
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
A probabilistic approach to anytime algorithm for intelligent real-time problem solving
[AD-A255709] 04 p0945 N93-14654
Using an interior point cutting plane method to solve integer programming problems
[AD-A256041] 04 p0945 N93-14659
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Adaptive active noise control using multiple-model approaches
[ISVR-TR-210] 04 p0974 N93-14734
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
Optimized design of a 5 kW constant frequency series resonant converter for pulsed load space applications 04 p0807 N93-14935
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
A para-functional version of Warshall's algorithm
[MEMO-INF-92-23] 04 p0947 N93-15092
Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096
Data fragmentation for parallel transitive closure strategies
[MEMO-INF-92-17] 04 p0959 N93-15142
Modelling the engine temperature distribution between shut down and restart for life usage monitoring 04 p0796 N93-15177
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Grammatical trigrams: A probabilistic model of link grammar
[AD-A256365] 04 p0947 N93-15206
Implementing the multiprefix operation on parallel and vector computers
[AD-A256367] 04 p0959 N93-15207
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334

Implementation and analysis of NP-complete algorithms on a distributed memory computer
[AD-A256564] 04 p0951 N93-15405
Parallel simulation today
[NASA-CR-189733] 04 p0951 N93-15432
Mathematical software under UNICOS at LCC
[DE93-001828] 04 p0952 N93-15493
Proceedings: Graphics Interface 1992
[ISBN-0-9695338-1-0] 04 p0952 N93-15533
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Fast algorithms for rendering cubic curves 04 p0953 N93-15536
Parameterization in finite precision 04 p0953 N93-15537
An extended cuberille model for identification and display of 3D objects from 3D gray value data 04 p0953 N93-15542
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Performing in-place affine transformations in constant space 04 p0954 N93-15546
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Object space temporal coherence for ray tracing 04 p0955 N93-15554
Parametric height field ray tracing 04 p0955 N93-15556
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
Matrix animation and polar decomposition 04 p0956 N93-15563
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
A two-pass physics-based global lighting model 04 p0957 N93-15570
Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics
[NASA-CR-191781] 04 p1013 N93-15589
A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590
Micrometer FX/DLX: A pedagogic compiler
[AD-A256821] 05 p1232 N93-15684
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods 05 p1077 N93-15722
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations 05 p1154 N93-15802
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Time stability of Monte Carlo device simulation
[DE92-019375] 05 p1275 N93-15884
A timing analysis of level-clocked circuitry
[AD-A256796] 05 p1143 N93-15888
Automatic differentiation bibliography
[DE92-040599] 05 p1263 N93-15944
Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989
On increasing the effective blocking factor of a matrix for a given cache organization
[AD-A257342] 05 p1351 N93-15995
Low sensitivity interpolation using feed-forward neural networks with one hidden layer
[AD-A257306] 05 p1258 N93-16006
Multiparadigm design environments
[AD-A257149] 05 p1231 N93-16031
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Hermite interpolation algorithm for 2D fracture mechanics
[DE92-041266] 05 p1184 N93-16097
Implementation of a parallel stochastic solving method for linearly constrained concave global optimization problems using parallel computing
[AD-A257112] 05 p1255 N93-16119
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor
[AD-A256699] 05 p1212 N93-16153
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Enhancement of multiple target track simulation
[AD-A257224] 05 p1278 N93-16236
Studies in estimation theory, applications, and implementation
[AD-A256964] 05 p1275 N93-16250
Parameter identification and adaptive control of cooperating robots
[AD-A256984] 05 p1259 N93-16256
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272
The binary collision approximation: Background and introduction
[DE92-040887] 05 p1285 N93-16276
Equivalent flexibility modelling for the recursive simulation of robot manipulator dynamics
[NLR-TP-89076-U] 05 p1259 N93-16291
Enhancement of video imagery by modified intensity-dependent spatial summation
[AD-A255689] 05 p1139 N93-16300
Experiments with an incremental closure algorithm
[MEMO-INF-92-33] 05 p1236 N93-16336
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Advanced parallel systems
[AD-A256958] 05 p1255 N93-16434
TOPICS: A contribution to analog design automation
[ISBN-90-9004786-7] 05 p1238 N93-16471
Uniform convergence estimates for multigrid V-cycle algorithms with less than full elliptic regularity
[DE92-041275] 05 p1238 N93-16532
Parallel algorithms for simulating continuous time Markov chains
[NASA-CR-189729] 05 p1238 N93-16550
Scalable problems and memory bounded speedup
[NASA-CR-189726] 05 p1230 N93-16554
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Digital simulation and discrete modelling of a chaotic system
[RR-447] 05 p1279 N93-16561
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
Recognition of fiducial marks applied to robotic systems
[NASA-CR-191857] 05 p1168 N93-16659
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
Open problems in rewriting
[CWI-CS-R9114] 05 p1267 N93-16727
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity
[ITN-93-85180] 05 p1208 N93-16744
The role of under-determined approximations in engineering and science application 05 p1274 N93-16763
Antenna analysis using neural networks 05 p1142 N93-16790
A linear time algorithm for recognizing interval orders
[MEMO-1046] 05 p1242 N93-16846
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713] 05 p1163 N93-16939
Exploratory designs for computational experiments
[DE93-002354] 05 p1243 N93-17040
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU] 05 p1261 N93-17276
An algorithm to quantify the performance of the JOVE program 05 p1254 N93-17306
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
CAD/CAM for assembly planning
[ISBN-90-370-0057-6] 05 p1246 N93-17490
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
Automating the design of scientific computing software 05 p1249 N93-17516
A rewrite approach to polynomial ideal theory
[CWI-CS-R9160] 05 p1271 N93-17536
On solving the Diophantine equation (x cubed) + (y cubed) + (z cubed) = k on a vector computer
[CWI-NM-R9121] 05 p1271 N93-17556
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
A contribution to the theory and practice of multivariate splines
[ISBN-90-9004534-1] 05 p1272 N93-17591
A randomised schema mutator for evolutionary database optimisation
[TR-91-24] 05 p1356 N93-17595
Implementation of the one bit spectral correlation algorithm
[AD-A257748] 05 p1141 N93-17671
Scan-based switching tests
[AD-A257712] 05 p1151 N93-17685
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
A generalized asymptoticity problem in max algebra; the two-dimensional case
[REPT-92-29] 05 p1273 N93-17735
Parallel simulation of stochastic Petri nets using recursive equations
[INRIA-RR-1520] 05 p1257 N93-17738
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
Parallel contraction of binary dags
[REPT-92-36] 06 p1616 N93-17848
Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Theory of algorithm structure and design
[AD-A257948] 06 p1617 N93-18081
Testing superperfection of k-trees
[RUU-CS-92-09] 06 p1645 N93-18196
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Membership generation using multilayer neural network 06 p1618 N93-18227
Possibilistic clustering for shape recognition 06 p1618 N93-18228
An algorithm for the solution of a traveling salesman problem to minimize the average time to demand satisfaction
[AD-A258301] 06 p1645 N93-18302
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
The rudes and the shrewds: An experimental comparison of several evolutionary heuristics applied to the QAP problem
[REPT-91-042] 06 p1620 N93-18325
Reconfiguration schemes for fault-tolerant processor arrays
[AD-A257833] 06 p1520 N93-18365
Forward model and CO retrieval algorithm
[NASA-CR-191306] 06 p1620 N93-18414
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434

Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
Nonlinear circuits and components
06 p1523 N93-18463
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
Identification of system dynamics of a high incidence research model
[RR-407] 06 p1440 N93-18507
A structure detection algorithm for nonlinear dynamic rational models
[RR-439] 06 p1649 N93-18508
Understanding curved detonation waves
[DE93-000799] 06 p1528 N93-18529
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563
Algorithm development with applications to aerodynamics and aeroelasticity
06 p1529 N93-18566
An orthogonal estimation algorithm for complex number systems
[RR-405] 06 p1621 N93-18568
Formulation and error analysis for a generalized image point correspondence algorithm
[NASA-CR-192005] 06 p1621 N93-18570
Robust control of systems with real parameter uncertainty and unmodelled dynamics
[NASA-CR-192008] 06 p1633 N93-18582
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Scheduling of an aircraft fleet
06 p1635 N93-18665
Real-time scheduling using minimum search
06 p1637 N93-18676
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas
06 p1638 N93-18688
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Technology test bed engine real-time failure control
[NASA-CR-192414] 06 p1474 N93-18879
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna
06 p1505 N93-18902
Self-dual (48,24;12) codes 06 p1505 N93-18905
Model reduction in integrated controls-structures design 06 p1468 N93-18935
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results
06 p1469 N93-18940
Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052
X-AAARF: An X window based version of the AFIT Algorithm Animation Research Facility
[AD-A258832] 06 p1625 N93-19065
Plotting the magnitude and direction of waveguide surface currents in three dimensions
[AD-A258872] 06 p1509 N93-19077
A comparison of multiprocessor scheduling methods for iterative data flow architectures
[NASA-CR-189730] 06 p1521 N93-19107
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Locally adaptive vector quantization: Data compression with feature preservation 06 p1513 N93-19425
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580
NASA wind shear flight test in situ results
06 p1418 N93-19593
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Charged particle track reconstruction using artificial neural networks
[DE93-003014] 06 p1658 N93-19630
Discovery of pathways in science
06 p1689 N93-19718
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
Use of the microcomputer to solve large p-median problems
[INPE-5336-PRE/1735] 06 p1628 N93-19786
Algorithims and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
Development and flight testing of the multi-source integration algorithms in the F/A-18 mission computer software 06 p1445 N93-19923
Global rainfall monitoring by SSM/I
07 p2003 N93-20069
Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
Investigation of cloud/water vapor motion winds from geostationary satellite 07 p2008 N93-20094
A finite-difference multigrid algorithm for the direct numerical simulation of transition and turbulence in incompressible flow 07 p1898 N93-20168
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Nonmonotonic temporal reasoning
[AD-A258699] 07 p2032 N93-20377
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391
Kernel Optimum Nearly-analytical Discretization (KOND) algorithm applied to parabolic and hyperbolic equations
[NIFS-191] 07 p2033 N93-20548
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Further developments in shape optimization of stress concentration regions. Part 1: General theory
07 p1927 N93-20630
Further developments in shape optimization of stress concentration regions. Part 2: Applications
07 p1928 N93-20631
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions
07 p1928 N93-20632
Viscoelastic analysis of bonded connections
07 p1929 N93-20638
Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation
07 p1929 N93-20640
Nonlinear analysis of plates by the finite element method 07 p1939 N93-20698
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application
07 p1940 N93-20706
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
Calculation of the Jordan form of a matrix with rational coefficients (using the formal computation system Axiom)
[RR-882-M] 07 p2051 N93-20782
Plane multiflows with a fixed number of demands
[RR-885-M] 07 p2034 N93-20788
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
Evaluation and comparative study of combinatorial optimization algorithms: Application to the problem of process placement
[RR-886-I] 07 p2043 N93-20798
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines
[PAPER-C-1-6] 07 p2035 N93-20829
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
A build-up variant of the path-following method for LP
[REPT-91-47] 07 p2037 N93-20863
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
PAC: Parallel Algebraic Computations: Current researches and perspectives
[RR-876-M] 07 p2044 N93-20949
GGADS: A library independent layout synthesis system for user adaptive gate array master structures
[ETN-93-92571] 07 p1892 N93-21021
An O(n squared) maximal planarization algorithm based on PQ-trees
[RUU-CS-92-03] 07 p2038 N93-21035
Generalized 3D Voronoi diagram: First results
[RR-879-M] 07 p2039 N93-21051
Verification methods of the behavioral specifications: Study and implementation
[ETN-93-92687] 07 p2044 N93-21064
Proximal techniques for convex programming
[RR-877-M] 07 p2039 N93-21167
The Weyl method for simultaneous calculation of polynomial roots (first part)
[RR-881-M] 07 p2055 N93-21169
The complexity of the free space for a robot moving amidst fat obstacles
[RUU-CS-92-05] 07 p1915 N93-21171
Hexagonal grid drawings
[RUU-CS-92-06] 07 p2055 N93-21172
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
Autonomous rendezvous and capture system design
07 p1815 N93-21427
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
Research in models for massively parallel computing
[DE93-003748] 07 p2045 N93-21852
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940

Variational nodal solution algorithms for multigroup criticality problems
[DE93-003462] 07 p2042 N93-21964
Extension of high-resolution schemes for systems to multiple dimensions
[DE93-003734] 07 p2057 N93-21966
Multi-window registration algorithm for automatic detection and tracking of moving targets
08 p2255 N93-22022
Inverting sets and the packing problem
[DE93-003822] 08 p2466 N93-22075
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding
08 p2445 N93-22157
Constraint checking during error recovery
08 p2445 N93-22169
Methods for predicting properties and tailoring salt solutions for industrial processes
08 p2226 N93-22183
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Image based tracking approaches to AR/C at the Johnson Space Center 08 p2140 N93-22256
Automated rendezvous and proximity operations
08 p2141 N93-22257
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
New developments in astrodynamics algorithms for autonomous rendezvous 08 p2144 N93-22279
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
Toward achieving global sole means radionavigation systems 08 p2121 N93-22794
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
GJOIN: A program for merging two or more GENESIS databases
[DE93-007709] 08 p2523 N93-22914
Applications and accuracy of the parallel diagonal dominant algorithm
[NASA-CR-191431] 08 p2438 N93-23173
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
A stochastic learning algorithm for layered neural networks
[DE93-003555] 08 p2458 N93-23288
Bipartitioning of LOTOS specifications
[MEMO-INF-92-50] 08 p2439 N93-23359
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
Precision geocoding demonstrator system
08 p2348 N93-23539
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates
08 p2270 N93-23626
Multiple emitter direction finding from a circular array by single snapshot processing 08 p2270 N93-23627
Digital processing for positioning with one satellite
08 p2270 N93-23629
The WG sequences: Quasi perfect binary sequences
08 p2271 N93-23631
Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Implementation and performance evaluation of a parallel transitive closure algorithm on PRISMA/DB
[MEMO-INF-92-45] 08 p2448 N93-23873
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056
A new conjugate gradient method for optimal control
[MATHS-REPT-A-174] 08 p2462 N93-24077
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
Probability and statistics applied to the theory of algorithms
[AD-A259956] 08 p2473 N93-24248
What makes a good feature?
[AD-A259962] 08 p2463 N93-24249
Permissive planning: A machine-learning approach to planning in complex real-world domains
[AD-A260019] 08 p2521 N93-24303
Neural net architecture for computing structure from motion
[AD-A260526] 08 p2463 N93-24421
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Parallel-vector unsymmetric Eigen-Solver on high performance computers
[NASA-CR-191417] 08 p2433 N93-24491
On essentially non-oscillatory schemes on unstructured meshes: Analysis and implementation
[NASA-CR-191415] 08 p2471 N93-24492
A novel recursive partitioning criterion
[AD-A259921] 08 p2464 N93-24564
A parameter-controlled relaxation algorithm for Bayesian restoration of images using the maximum entropy method (design, analysis, Mach band simulation and parallelization)
[ISBN-0-315-64776-0] 08 p2444 N93-24608
Versatile Reed-Solomon decoders
[ISBN-0-315-64738-8] 08 p2274 N93-24626
A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656
A (72, 36; 15) box code 09 p2671 N93-24663
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Image coding by way of wavelets
09 p2671 N93-24665
Failure monitoring in dynamic systems: Model construction without fault training data
09 p2672 N93-24666
Star tracker operation in a high density proton field
09 p2600 N93-24699
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Rate determination from vector observations
09 p2603 N93-24713
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Optimal message log reclamation for independent checkpointing
[NASA-CR-192886] 09 p2815 N93-24749
Geometric modeling for computer aided design
[NASA-CR-192891] 09 p2808 N93-24750
Satellite altimetry 09 p2734 N93-24930
Algorithms for optimal redundancy allocation
[DE93-005709] 09 p2827 N93-24973
How can millisecond pulsars improve the long term stability of atomic time scales?
09 p2832 N93-24985
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture
09 p2833 N93-24995
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
Use of fuzzy relational information retrieval technique for generating control strategies in resolution-based automated reasoning 09 p2874 N93-25258
Concurrency control in real-time database systems
09 p2874 N93-25271
Toward a parallel recursive spectral bisection mapping tool
[DE93-006632] 09 p2816 N93-25414
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
A software development approach for parallel processing systems integrating object-oriented and functional paradigms 09 p2816 N93-25481
Design and analysis of algorithms for processing queries in database systems 09 p2876 N93-25482
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture
09 p2876 N93-25554
Tree classification software 09 p2814 N93-25591
Automatic detection of seizures with applications
09 p2796 N93-25592
A software package for neural network applications development 09 p2827 N93-25610
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Setting values for TDWR/LLWAS 3 integration parameters
[AD-A260740] 09 p2783 N93-25645
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
High performance compression of science data
09 p2881 N93-25811
Probability and statistics applied to the theory of algorithms
[AD-A261019] 09 p2830 N93-25863
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
Subband coding for image data archiving
09 p2803 N93-25922
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492

Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Parallel solution of high-order numerical schemes for solving incompressible flows
[NASA-TM-4451] 10 p3106 N93-27040
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299
On the treewidth and pathwidth of permutation graphs
[RUU-CS-92-13] 10 p3113 N93-27305
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
Using cached functions and constructors for incremental attribute evaluation
[RUU-CS-92-11] 10 p3094 N93-27369
A tourist guide through treewidth
[RUU-CS-92-12] 10 p3114 N93-27370
Associative matching for linear terms
[CWI-CS-R9224] 10 p3094 N93-27377
Verification of parameterised synchronous concurrent algorithms with OBJ3: The pixel planes architecture revisited
[CWI-CS-R9225] 10 p3095 N93-27378
Finding k disjoint paths in a directed planar graph
[CWI-BS-R9206] 10 p3095 N93-27379
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
User's guide for the algorithm testing system/version 1.1
[PB93-175990] 10 p3096 N93-27408
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
Efficient model-based diagnosis of dynamic systems with state
[MEMO-INF-92-53] 10 p3096 N93-27488
Survey of continuities of curves and surfaces
[CWI-CS-R9202] 10 p3097 N93-27495
More examples in MANIFOLD
[CWI-CS-R9214] 10 p3097 N93-27502
Virtual data structures
[RUU-CS-92-16] 10 p3097 N93-27506
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
A parallel divide and conquer algorithm for the generalized real symmetric definite tridiagonal eigenproblem
[AD-A262297] 10 p3099 N93-27678
The identification of analytical device models
[ISBN-90-6275-764-2/CIP] 10 p3100 N93-27874
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
The set of super-stable marriages forms a distributive lattice
[MEMO-1052] 10 p3125 N93-27907
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
On partitions into unequal squares and related problems
[MEMO-1055] 10 p3120 N93-28003
The LAZYRMS: Avoiding work in the ATMS
[RUU-CS-92-20] 10 p3101 N93-28062
Concurrent data objects in quadratic space
[CS-9112] 10 p3101 N93-28066
On Zeilberger's algorithm and its q-analogue: A rigorous description
[CWI-AM-R9207] 10 p3101 N93-28086
Treewidth and pathwidth of permutation graphs
[RUU-CS-92-30] 10 p3101 N93-28093
A linear time algorithm for finding tree-decompositions of small treewidth
[RUU-CS-92-27] 10 p3102 N93-28103
Adaptive filtering methods: On methods to use a priori information in order to reduce complexity while maintaining convergence properties
[ISBN-90-9005143-0] 10 p3121 N93-28109
The Gribov problem in the frame of stochastic quantization
[SSCL-PREPRINT-740] 10 p3157 N93-28194
Faster Phong shading
[CWI-CS-R9228] 10 p3103 N93-28221
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
Standard families of algorithms
[REPT-92-20] 10 p3104 N93-28389
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441
Using pseudo Kalman-filters in the presence of constraints application to sensing behaviors
[INRIA-RR-1669] 10 p3122 N93-28442
Restoration of incomplete contour images using Markov random fields
[INRIA-RR-1688] 10 p3126 N93-28445
Resource limited reasoning: A study of literature in the context of model-based diagnosis
[MEMO-INF-92-38] 11 p3540 N93-28480
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
Filtering interpolators for image comparison algorithms 11 p3463 N93-28797
Planning for air to air combat 11 p3501 N93-28852
A summary of block schemes for reducing a general matrix to Hessenberg form
[DE93-010621] 11 p3525 N93-28877
A simple parallel prefix algorithm for compact finite-difference schemes
[NASA-CR-191448] 11 p3525 N93-28976
Research in efficient scientific computation
[AD-A262084] 11 p3525 N93-28986
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
An autonomous vision-based mobile robot 11 p3443 N93-29082
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Speech recognition by recursive stochastic modelling
[ISBN-90-9005038-8] 11 p3382 N93-29266
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
Collection-oriented match: Scaling up the data in production systems
[AD-A262755] 11 p3615 N93-29459
Implementation of parallel algorithms
[AD-A263126] 11 p3529 N93-29496
A fuzzy clustering algorithm to detect planar and quadric shapes 11 p3511 N93-29524
A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525
Adaptive defuzzification for fuzzy systems modeling 11 p3512 N93-29532
A model for amalgamation in group decision making 11 p3513 N93-29540
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping 11 p3519 N93-29581
Inference in fuzzy rule bases with conflicting evidence 11 p3519 N93-29583
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
A functional implementation of the Jacobi eigen-solver
[DE93-007349] 11 p3549 N93-29769
Polynomial space polynomial delay algorithms for listing families of graphs
[DE93-010677] 11 p3530 N93-29808
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Class notes: Programming parallel algorithms CS 15-840B (Fall 1992)
[AD-A263549] 11 p3530 N93-29823
Performance analysis of subspace methods
[AD-A263984] 11 p3530 N93-29865
Efficient algorithms for the evaluation of planar network reliability
[AD-A263602] 11 p3531 N93-29916
Turning SOS rules into equations
[CWI-CS-R9218] 11 p3532 N93-30017
Simplified Linear Equation Solvers: User's manual
[DE93-011975] 11 p3550 N93-30140
QR decomposition based least squares lattice algorithm 11 p3358 N93-30239
Feature segmentation using a multiple-stack based chain coding algorithm 11 p3359 N93-30243
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
Efficient algorithms and data structures in geometric design
[AD-A264678] 11 p3534 N93-30544
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
A method for intersection line calculation between parametric surfaces
[ETN-93-94178] 11 p3551 N93-30572
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087
Scheduling data transfers in parallel computers and communications systems 12 p3836 N93-31132
Extracting projective information from single views of 3D point sets
[OUEL-1927/92] 12 p3785 N93-31151
An efficient constrained predictive control algorithm for 2-input systems
[OUEL-1946/92] 12 p3785 N93-31152
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
ALGODESK: An experimental comparison of eight evolutionary heuristics applied to the QAP problem
[REPT-92-052] 12 p3786 N93-31250
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427
Curve interpolation with constrained length
[MEMO-1079] 12 p3804 N93-31467
Optimal solutions to a two-block H infinity problem
[MEMO-1080] 12 p3798 N93-31468
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
Hybrid rendering of scientific data using an h-buffer
[REPT-92-68] 12 p3788 N93-31495
Benchmark solutions for the incompressible Navier-Stokes equations in general coordinates on staggered grids
[REPT-92-67] 12 p3724 N93-31496
The mechanization of lambda calculus
[REPT-92-60] 12 p3805 N93-31499
Performance of scanline-oriented CSG direct display algorithms
[REPT-93-03] 12 p3788 N93-31548
Structural reliability methods: Code development status 12 p3694 N93-31563
System reliability and risk assessment task goals and status 12 p3695 N93-31568
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569

On the selection of an optimal set of secondary indices
[MEMO-INF-92-68] 12 p3789 N93-31617
An ILU smoother for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-91] 12 p3725 N93-31634
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
Primal-dual algorithms for linear programming based on the logarithmic barrier method
[REPT-92-104] 12 p3790 N93-31659
VDM specification of the Secure Hash algorithm
[NPL-DITC-212/92] 12 p3790 N93-31735
Linear algebra for signal processing
[AD-A264677] 12 p3808 N93-32017
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Producing approximate answers to database queries
12 p3843 N93-32150
Mapping robust parallel multigrid algorithms to scalable memory architectures
[NASA-CR-191470] 12 p3793 N93-32359
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361
Introduction to natural algorithms
[REPT-92-058] 12 p3793 N93-32391
Strategic control of reactive behavior in intelligent agents
[AD-A264376] 12 p3801 N93-32413

ALIGNMENT
NT SELF ALIGNMENT
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Method and apparatus for gripping test specimens
[NASA-CASE-LEW-15345-1] 02 p0329 N93-12327
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Magnetic properties of high-T(sub c) superconductors
03 p0726 N93-13905
The effects of mis-alignment and background noise in a low energy gamma ray telescope
04 p1011 N93-14231
Apparatus for checking threaded hole perpendicularity
[NASA-CASE-LEW-15444-1] 04 p0882 N93-14840
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter
[NASA-TM-105994] 06 p1540 N93-18091
Efficient visual grasping alignment for cylinders
[NASA-CR-191863] 06 p1663 N93-19346
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
Optimizing positioning of mechanical parts
[PAPER-C-1-5] 07 p2035 N93-20828
TRAC based sensing for autonomous rendezvous
07 p1813 N93-21412
Autonomous pre-alignment of a docking mechanism
07 p1814 N93-21418
FALCON remote laser alignment system
[DE93-006448] 08 p2309 N93-23693
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592

ALIPHATIC HYDROCARBONS
NT ACETYLENE
NT ALKANES
NT ALKENES
NT BUTANES
NT DIENES
NT ETHANE
NT ETHYLENE
NT HEPTANES
NT METHANE
NT PROPANE
NT PROPYLENE
NT TRIENES
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675

ALKALI HALIDES
NT CESIUM FLUORIDES
NT CESIUM IODIDES
NT SODIUM CHLORIDES
Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619

ALKALI METAL COMPOUNDS
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577

ALKALI METALS
NT CESIUM
NT CESIUM 137
NT LIQUID SODIUM
NT LITHIUM
NT LITHIUM ISOTOPES
NT POTASSIUM
NT RUBIDIUM
NT RUBIDIUM ISOTOPES
NT SODIUM
NT SODIUM VAPOR
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
AMTEC vapor-vapor series connected cells
[NASA-CASE-NPO-18667-1-CU]
06 p1522 N93-19330
The physics of spin polarized gases
[AD-A261396] 09 p2850 N93-26288
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
Atomic supersymmetry 10 p3146 N93-27353
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

ALKALIES
NT LITHIUM HYDROXIDES
NT POTASSIUM HYDROXIDES
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812

ALKALINE BATTERIES
Proper battery system design for GAS experiments
03 p0511 N93-13176
Battery selection for space experiments
03 p0512 N93-13184
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Fuel cell technology for lunar surface operations
10 p3067 N93-27965

ALKALINE EARTH METALS
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

ALKALINE EARTH OXIDES
NT BARIUM OXIDES
NT BERYLLIUM OXIDES
NT CALCIUM OXIDES
NT MAGNESIUM OXIDES

ALKALINITY
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581

ALKALOIDS
NT CAFFEINE

ALKANES
NT BUTANES
NT ETHANE
NT HEPTANES
NT METHANE
NT PROPANE
The contribution of electronically excited states to the radiation chemistry of organic systems
[DE92-040465] 05 p1104 N93-16585
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers
[AD-A263470] 11 p3569 N93-29839

ALKENES
NT ETHYLENE
NT PROPYLENE
NT TRIENES
Thermal conductivity of liquid aliphatic hydrocarbons. Part 2: Alkenes, dienes and trienes
[ESDU-92025] 04 p0839 N93-14542
Features in PO fibre applications
07 p1837 N93-21148
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308

ALKYL COMPOUNDS
NT ALKYLIDENE
NT TRIMETHYL COMPOUNDS
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors
02 p0244 N93-11134
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
Substituted 1,1,1-triaryl 2,2,2-trifluoroethanes and processes for their synthesis
[NASA-CASE-LEW-14345-7] 05 p1095 N93-17412
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers
[AD-A263470] 11 p3569 N93-29839
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

ALKYLIDENE
Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165

ALKYNES
NT ACETYLENE

ALL SKY PHOTOGRAPHY
Preliminary results from the ROSAT WFC all sky survey: A sample of low galactic column density AGN's
05 p1362 N93-17131
Optically selected quasars with Z greater than 4
05 p1363 N93-17158

ALL-WEATHER LANDING SYSTEMS
Coherent systems in the terahertz frequency range: Elements, operation, and examples
10 p3011 N93-27727

ALLERGIC DISEASES
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
Phadiatop: A screening test for inhalant allergy
02 p0383 N93-11313

In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Allergy screening and follow-up in student pilots of the Belgian Air Force (BAF) 02 p0383 N93-11316
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317

ALLOCATIONS
NT RESOURCE ALLOCATION
National Aeronautics and Space Administration Authorization Act, fiscal year 1993
[S-REPT-102-364] 03 p0741 N93-13798
NASA authorization, 1993, volume 2
[GPO-56-943-VOL-2] 03 p0741 N93-13799
NASA's fiscal year 1993 budget
[S-HRG-102-707] 03 p0742 N93-13800
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361

ALLOTROPY
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995

ALLOYING
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Inhibiting corrosion in Gr/Al and Gr/Mg metal matrix composites using nonequilibrium alloying techniques
[AD-A253923] 01 p0034 N93-10752
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
High temperature alloys 07 p1858 N93-20626
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691
Mechanical alloying processing and application to development of structural materials
[AD-A261251] 09 p2652 N93-26264
Fundamental aspects in the design of passive alloys
[DE93-009028] 11 p3320 N93-28545
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
Study on the improvement of the properties of Zr alloys
[DE93-605265] 12 p3706 N93-31827

ALLOYS
NT ALUMINUM ALLOYS
NT ALUMINUM-LITHIUM ALLOYS
NT ANTIMONY ALLOYS
NT ARSENIC ALLOYS
NT AUSTENITIC STAINLESS STEELS
NT BERYLLIUM ALLOYS
NT BINARY ALLOYS
NT BISMUTH ALLOYS
NT BORON ALLOYS
NT BRASSES
NT BRONZES
NT CADMIUM ALLOYS
NT CARBON STEELS
NT CAST ALLOYS
NT CESIUM ALLOYS
NT CHROMIUM ALLOYS
NT CHROMIUM STEELS
NT COBALT ALLOYS
NT COPPER ALLOYS
NT EUTECTIC ALLOYS
NT FERRITIC STAINLESS STEELS
NT GALLIUM ALLOYS
NT GERMANIUM ALLOYS
NT GOLD ALLOYS
NT HASTELLOY (TRADEMARK)
NT HEAT RESISTANT ALLOYS
NT HIGH STRENGTH ALLOYS
NT HIGH STRENGTH STEELS
NT INCONEL (TRADEMARK)
NT INDIUM ALLOYS
NT IRIDIUM ALLOYS
NT IRON ALLOYS
NT KOVAR (TRADEMARK)
NT LEAD ALLOYS
NT LIGHT ALLOYS
NT LIQUID ALLOYS
NT LITHIUM ALLOYS
NT LOW CARBON STEELS
NT MAGNESIUM ALLOYS
NT MANGANESE ALLOYS
NT MANGANIN (TRADEMARK)
NT MARTENSITIC STAINLESS STEELS
NT MOLYBDENUM ALLOYS
NT MONEL (TRADEMARK)
NT MONOTECTIC ALLOYS
NT NICKEL ALLOYS
NT NICKEL STEELS
NT NIOBIUM ALLOYS
NT NITINOL ALLOYS
NT PALLADIUM ALLOYS
NT PERMALLOYS (TRADEMARK)
NT PLATINUM ALLOYS
NT POTASSIUM ALLOYS
NT QUATERNARY ALLOYS
NT RARE EARTH ALLOYS
NT RHENIUM ALLOYS
NT RHODIUM ALLOYS
NT SHAPE MEMORY ALLOYS
NT SILICON ALLOYS
NT SILVER ALLOYS
NT SODIUM ALLOYS
NT SOLDERS
NT STAINLESS STEELS
NT STEELS
NT TANTALUM ALLOYS
NT TELLURIUM ALLOYS
NT TERNARY ALLOYS
NT THALLIUM ALLOYS
NT TIN ALLOYS
NT TITANIUM ALLOYS
NT TUNGSTEN ALLOYS
NT URANIUM ALLOYS
NT VANADIUM ALLOYS
NT WASPALOY
NT WROUGHT ALLOYS
NT ZINC ALLOYS
NT ZIRCALOYS (TRADEMARK)
NT ZIRCONIUM ALLOYS
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Testing and characterisation of metallic materials for structural analysis of high temperature components 05 p1082 N93-15757
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
Tool grinding and spark testing 11 p3291 N93-30954

ALMUCANTAR
U ELEVATION ANGLE

ALOHA SYSTEM
A slotted Aloha satellite channel simulator 11 p3360 N93-30250
Comparison of two random access techniques for the North American MSAT system 11 p3370 N93-30315

ALOUETTE SATELLITES
Canada's role in pushing back the frontiers of space 04 p0806 N93-14928

ALPHA DECAY
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407

ALPHA PARTICLES
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone 02 p0487 N93-11166
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Evidence for alpha-particle chain configurations in Mg-24
[DE92-018790] 03 p0705 N93-13546
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
Effect of alpha particles on radial electric field structure in Torsatron/Heliotron reactor
[NIFS-182] 07 p2071 N93-20265
Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
Collective transport of alpha particles due to Alfven wave instability
[DE93-009578] 11 p3587 N93-29148
Solar wind heavy ions and proton/alpha particle relations observed onboard the Prognoz 7 satellite 12 p3879 N93-31414

ALPHA RADIATION
U ALPHA PARTICLES

ALPHANUMERIC CHARACTERS
NT DIGITS
Source header list. Volume 2: K through Z
[AD-A256001] 04 p1007 N93-15112

ALPINE METEOROLOGY
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
ALPS MOUNTAINS (EUROPE)
SAR shape-from-shading for a populated alpine area 11 p3458 N93-28923
ALS (LAUNCH SYSTEM)
U ADVANCED LAUNCH SYSTEM (STS)
ALTERATION
U REVISIONS
ALTERNATING CURRENT
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Study of magnetic bearings with high temperature superconductors, phase 3
[NASA-CR-192229] 06 p1551 N93-19378
Characterization and snubbing of a bidirectional MCT in a resonant ac link converter
[NASA-CR-192230] 07 p1889 N93-20258
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Growing the Space Station's electrical power plant 10 p2969 N93-27810
Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187
ALTERNATING CURRENT GENERATORS
U AC GENERATORS
ALTERNATING DIRECTION IMPLICIT METHODS
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
ALTERNATIVES
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939
Enhanced Aeronautical Resource Management training alternatives 04 p0786 N93-15019
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Transportation alternatives 92: Alternative fueled vehicles, volume 2
[DE93-001500] 06 p1548 N93-18531
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
Heat pump technology: Responding to new opportunities
[DE93-005939] 08 p2379 N93-22978
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
ALTERNATORS (GENERATORS)
U AC GENERATORS
ALTIMETERS
NT LASER ALTIMETERS
NT RADIO ALTIMETERS
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
ALTIMETRY
NT SATELLITE ALTIMETRY
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
Derivation of surface properties from Magellan altimetry data 04 p1033 N93-14340
Problem footprints in Magellan altimetry data 04 p1039 N93-14362
Scattering properties of Venus' surface 04 p1044 N93-14391
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
ALTITUDE
NT FLIGHT ALTITUDE
NT HIGH ALTITUDE
NT LOW ALTITUDE
NT SEA LEVEL
Altitude compensating nozzle evaluation 01 p0022 N93-10037
A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere 11 p3395 N93-30731
ALTITUDE ACCLIMATIZATION
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894
ALTITUDE CONTROL
A state-based approach to trend recognition and failure prediction for the Space Station Freedom 02 p0230 N93-11925
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Attitude control results
[NASA-CR-192291] 08 p2458 N93-23084
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067
ALTITUDE SICKNESS
The Environmental Symptoms Questionnaire (ESQ): Development and application
[AD-A264127] 11 p3495 N93-30196
ALU (COMPUTER COMPONENTS)
U ARITHMETIC AND LOGIC UNITS
ALUMINA
U ALUMINUM OXIDES
ALUMINATES
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
ALUMINIDES
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
HIP consolidation of aluminum-rich intermetallic alloys and their composites
[NAWCADWAR-92003-60] 04 p0845 N93-14726
The titanium-aluminum phase diagram: A review of the near Ti-50 at. pct. Al phase fields
[AD-A255685] 05 p1112 N93-16299
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014
Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Low temperature environmental embrittlement in ordered intermetallics
[DE93-009711] 11 p3324 N93-29786
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389
ALUMINIZING
U ALUMINUM COATINGS
ALUMINUM
NT ALUMINUM ISOTOPES
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
A computational study of projectile melt in impact with typical Whipple shields
[DE92-017137] 01 p0092 N93-10635
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029

Study of the dynamic degradation under the action of a shock wave induced by pulsed laser
02 p0319 N93-12037
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Gain in a confined aluminum plasma
02 p0320 N93-12043
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum
03 p0544 N93-12779
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667
Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
A study of the Lute Metering Structure
05 p1189 N93-17294
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Novel interconnect deposition technology
06 p1523 N93-18465
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
A solenoid with a low input power and a fast switching time
[DLR-FB-91-39] 08 p2278 N93-22661
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Composite passive damping struts for large precision structures
[NASA-CASE-NPO-17914-1-CU]
08 p2333 N93-24596
Laser initiated corrosion pits on aluminum
09 p2650 N93-25464
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Cosmology with liquid mirror telescopes
10 p3171 N93-26708
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Processing and property evaluation of silver or aluminum matrix YBa2Cu3O(6+x) superconducting materials
[AD-A263382] 11 p3595 N93-29333
Damage areas on selected LDEF aluminum surfaces
11 p3283 N93-29374
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843

ALUMINUM ALLOYS
NT ALUMINUM-LITHIUM ALLOYS
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Corrosion resistant chromate conversion coatings for heat-treated aluminum alloys
[AD-D015366] 02 p0266 N93-11425
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
[DE92-014782] 02 p0256 N93-11519
Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524
The influence of processing atmosphere on twin-roll melt-spinning of aluminum alloys
[DE92-017895] 02 p0257 N93-11595
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269
The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
Ordering energies and mechanisms in beta-phase NiAl
[DE92-040031] 03 p0542 N93-13043
Environmental effects on iron aluminides
[DE92-016341] 03 p0542 N93-13237
FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
Fatigue studies in Al-Mg-Si alloys
03 p0543 N93-13690
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys
[ESDU-92017] 04 p0900 N93-14553
Evaluation of corrosion protection methods for aluminum metal matrix composites
[AD-A255375] 04 p0832 N93-14675
High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812
Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838
Analysis of OSPREY processes and conventional power aluminum alloys
[AD-A255764] 04 p0846 N93-15056
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Effects of high thermal neutron fluences on Type 6061 aluminum
[DE92-040569] 04 p0846 N93-15348
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys
[DE92-040978] 04 p0847 N93-15382
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
Deformation twinning in ordered alloys transformation induced ductility in intermetallics
[DE93-002879] 05 p1111 N93-16148
The titanium-aluminum phase diagram: A review of the near Ti-50 at. pct. Al phase fields
[AD-A255685] 05 p1112 N93-16299
Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641
Fatigue damage study in aluminum-2024 T3 alloys
05 p1118 N93-16767
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Damage tolerance behaviour of aluminium-lithium sheet alloys
[NLR-TP-91244-U] 05 p1117 N93-17540
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17562
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176

Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Characterization and defect analysis of high temperature aluminum-based metal matrix composites 06 p1480 N93-19060
A geometrical description of microstructure with application to Al powder metallurgy processing 06 p1489 N93-19061
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
Dynamic stress-strain behavior in shear of SiCwhisker reinforced aluminum alloy composites 07 p1930 N93-20643
Experimental and theoretical study of the elastic and microplastic properties of particles reinforced metal matrix composites
[ISAL-92-0014] 07 p1833 N93-20942
Grain refinement of Al-Cu-Ti alloys in microgravity 07 p1810 N93-21120
Ripening of immiscible liquid droplets in microgravity with constrained Marangoni drift 07 p1810 N93-21122
Fatigue life prediction for 6261-T6 aluminium alloy I-beams with welded cover plates 07 p1949 N93-21328
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
The surface interaction of oxygen with a gamma TiAl
[DE93-003847] 08 p2227 N93-22517
Fracture properties of 7010 and 7050 aluminium alloys under inert and aggressive environmental conditions
[DLR-FB-91-35] 08 p2228 N93-22658
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009 08 p2231 N93-23588
Design of an ultra-high-strength weldable Al-Cu-Li alloy for space applications 08 p2211 N93-23936
Investigation of gas metal arc welding characteristics of alloy 6013 08 p2211 N93-23937
Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014
Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
Acceptable aluminum additions for minimal environmental effect in iron-aluminum alloys
[DE93-006738] 08 p2234 N93-24329
Effects of processing parameters on the microstructure of a 30 w/o SiCw-2080 aluminum composite
[NRC-IAR-CR-20] 08 p2216 N93-24651
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Dynamic deformations and analysis of a metal matrix composite 09 p2634 N93-25234
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Laser welding of selected aerospace alloys 09 p2718 N93-25435
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
The corrosion of metal matrix composites 09 p2638 N93-25723
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation
[ETN-93-93604] 10 p2999 N93-27877
Surface characterization of selected LDEF tray clamps 10 p3001 N93-28271
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Ordering and displacive transformations in Ni-Al alloys
[DE93-009553] 10 p3001 N93-28371
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799
Mechanical properties of several magnesium and aluminum composites
[AD-A262481] 11 p3299 N93-30137
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
High temperature, oxidation resistant noble metal-Al alloy thermocouple
[NASA-CASE-LEW-15515-1] 12 p3729 N93-31298
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643
Investigation of the electrochemical polarisation behaviour of SiC/6061 Al metal matrix composites
[NPL-DMM(A)-31] 12 p3700 N93-31736
Crack growth prediction models 12 p3682 N93-31747
Accelerated and real-time corrosion testing of aluminum-lithium alloys
[NLR-TP-91203-U] 12 p3707 N93-32385

ALUMINUM ARSENIDES

Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965

ALUMINUM BORON COMPOSITES

Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
Some factors influencing the fatigue properties of boron strengthened aluminum based composite materials 07 p1924 N93-20355
Finite element micromechanics modeling of inelastic deformation of unidirectionally fiber-reinforced composites 09 p2637 N93-25680

ALUMINUM CHLORIDES

Studies of components for thermally regenerative electrochemical systems
[AD-A256124] 04 p0842 N93-14664
The AlCl absorption feature in solid rocket plume radiation
[AD-A256645] 05 p1089 N93-15700
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551

ALUMINUM COATINGS

Polyethylene-terephthalate/aluminum adhesion
[ECL-91-33] 02 p0257 N93-11578
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Protection of Radarsat SAR antenna graphite/epoxy support structure 07 p1848 N93-20819
Protective coating development for Space Station Freedom at McDonnell Douglas 07 p1849 N93-20820
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019

ALUMINUM COMPOUNDS

NT ALUMINATES
NT ALUMINIDES
NT ALUMINUM ARSENIDES
NT ALUMINUM CHLORIDES
NT ALUMINUM NITRIDES
NT ALUMINUM OXIDES
NT ALUMINUM SILICATES
NT CORDIERITE
NT CRYOLITE
NT FELDSPARS
NT MONTMORILLONITE
NT SAPPHIRE
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality 09 p2838 N93-25025
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564

ALUMINUM GALLIUM ARSENIDES

Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210

Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers 03 p0607 N93-13773
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A257419] 05 p1171 N93-15864
Optoelectronic materials center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A257136] 05 p1301 N93-16079
Nonlinear optical studies of resonant systems
[AD-A257001] 05 p1302 N93-16235
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Analysis of transient photoluminescence measurements on GaAs and AlGaAs double heterostructures
[AD-A261154] 09 p2867 N93-25947
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Resonant tunneling diodes as sources for millimeter and submillimeter wavelengths 10 p3018 N93-27772
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471
Infrared rugates by molecular beam epitaxy 11 p3582 N93-28808
Optoelectronic technology consortium
[AD-A263580] 11 p3580 N93-29973
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
Development of ultra-low noise, high sensitivity planar metal grating coupled 3-5 multiquantum well infrared detectors for focal plane array staring IR sensor systems
[AD-A264465] 11 p3599 N93-30536

ALUMINUM GRAPHITE COMPOSITES
Inhibiting corrosion in Gr/Al and Gr/Mg metal matrix composites using nonequilibrium alloying techniques
[AD-A253923] 01 p0034 N93-10752
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
Corrosion resistance of metal matrix composites
[AD-A258370] 06 p1478 N93-18266

ALUMINUM ISOTOPES
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402

ALUMINUM NITRIDES
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
CVD of AlN and SiC using cyclic organometallic precursors
[AD-A246910] 02 p0266 N93-11413
High temperature oxidation protection of carbon/carbon composites
[REPT-921-430-105] 02 p0239 N93-11589
Growth of solid solutions of aluminum nitride and silicon carbide by metalorganic chemical vapor deposition
[AD-A255000] 02 p0254 N93-12518
Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

ALUMINUM OXIDES
NT SAPPHIRE
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A253660] 01 p0041 N93-10779
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
High temperature oxidation protection of carbon/carbon composites
[REPT-921-430-105] 02 p0239 N93-11589
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
Microgravity processing of ceramic composites 07 p1809 N93-21115
Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe 07 p1838 N93-21160
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Measurement of the radiative transport properties of reticulated alumina foams
[DE93-000047] 08 p2231 N93-23672
Dynamic deformations and analysis of a metal matrix composite 09 p2634 N93-25234
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites 09 p2638 N93-25760
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938
Thermal shock and fatigue behavior of ceramic tubes 12 p3739 N93-31139
Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

ALUMINUM SILICATES
NT MONTMORILLONITE
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975

Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

ALUMINUM-LITHIUM ALLOYS
Long cycle life rechargeable lithium batteries
[NASA-CR-190937] 02 p0291 N93-11604
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys
02 p0259 N93-11895
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
National Launch System: Structures and materials
08 p2172 N93-22083
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530

ALVEOLI
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153

AM (MODULATION)
U AMPLITUDE MODULATION

AMAZON REGION (SOUTH AMERICA)
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics
04 p0918 N93-14115
Simulations of the Amazon Basin circulation using the Pennsylvania State University/National Center for Atmospheric Research mesoscale model
04 p0919 N93-14197
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
The structure and energetics of Amazon squall lines
08 p2404 N93-23166
Equatorial atmospheric weather regimes: Their structure and role 08 p2411 N93-24580

AMBIENT TEMPERATURE
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Studies of components for thermally regenerative electrochemical systems
[AD-A256124] 04 p0842 N93-14664
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility
[DE93-004778] 08 p2404 N93-22964
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397

AMBIGUITY
SAR peculiarities, ambiguities and constraints
03 p0563 N93-13051
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240

AMBIPOLAR DIFFUSION
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars
03 p0755 N93-13828
Multi-ion ambipolar diffusion
[AD-A256568] 05 p1283 N93-15659
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179

AMBIT
U FIELD THEORY (PHYSICS)

AMERICAN INDIANS
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166

AMERICIUM
NT AMERICIUM 241

AMERICIUM ISOTOPES
NT AMERICIUM 241

AMERICIUM 241
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335

AMIDES
NT BISMALEIMIDE
NT POLYIMIDES
NT THIOUREAS
NT UREAS
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231

AMINES
NT AMPHETAMINES
NT ANILINE
NT DIAMINES
NT GUANIDINES
NT HISTIDINE
NT NITROSAMINE
NT NOREPINEPHRINE
NT SEROTONIN
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
Diffusion coefficients and heats of mixing in aqueous alkanolamines
[PB93-176212] 11 p3316 N93-30661
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

AMINO ACIDS
NT HISTIDINE
Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480
Amino acid sequences for the binding regions in serum albumin proteins
[NASA-CASE-MFS-28402-1] 11 p3491 N93-28952
Spontaneous regulating mechanisms that may have led to the origin of life
[DE93-603677] 12 p3771 N93-31161

AMINO RADICAL
The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139
P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760

AMMETERS
Investigation of methods for the measurement of small electron bundle currents
[DIGEL-1992-4] 11 p3413 N93-30763
A 250 mA toroid monitor for the measurement of the bundle current in the stretcher mode of AmPS
[DIGEL-1992-1] 11 p3413 N93-30835

AMMONIA
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
A 26 kW arcjet system for on-orbit demonstration
01 p0021 N93-10031
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
[ETN-93-93362] 06 p1498 N93-17811
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814

AMMONIUM CHLORIDES
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495

AMMONIUM COMPOUNDS
NT AMMONIUM CHLORIDES
NT AMMONIUM NITRATES
NT AMMONIUM PERCHLORATES
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Thermal decomposition and stabilization of ammonium dinitramide 09 p2630 N93-26038
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Interactions between tetraalkylammonium ions and silicates
[ETN-93-94057] 12 p3703 N93-31622

AMMONIUM NITRATES
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Thermal decomposition and stabilization of ammonium dinitramide 09 p2630 N93-26038
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Isothermal and shock compression of high density ammonium nitrate and ammonium perchlorate
[DE93-000682] 11 p3315 N93-30209

AMMONIUM PERCHLORATES
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
Atomic force microscopy of ammmonium perchlorate 11 p3349 N93-30091
Microstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate 11 p3319 N93-30092
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Isothermal and shock compression of high density ammonium nitrate and ammonium perchlorate [DE93-000682] 11 p3315 N93-30209
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine [AD-A265513] 12 p3704 N93-31918
AMMUNITION
Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments [DE92-014268] 02 p0367 N93-11236
Characterization of deflagrating munitions by rotating prism high speed photography [MRL-TR-91-43] 02 p0311 N93-11648
Rocket-triggered lightning test of an earth-covered munitions storage bunker [DE92-016790] 02 p0369 N93-11678
Mechanical shielding for electric primer [AD-D015417] 04 p0860 N93-14889
Environmentally compliant thermoplastic powder coating, phase 1 [AD-A257232] 05 p1120 N93-15966
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4 [AD-A261116] 09 p2660 N93-25769
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
AMOR ASTEROID
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
The unusual lightcurve of 1990 TR 06 p1720 N93-19265
AMORPHOUS MATERIALS
NT AMORPHOUS SILICON
The third Workshop on Non-Crystalline Solids, programme and abstracts [AD-A250739] 01 p0036 N93-10244
Development of stable metallization systems [AD-A253569] 02 p0264 N93-11079
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers [AD-A253568] 02 p0264 N93-11150
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x) [DE92-016302] 02 p0462 N93-11706
Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques [ETN-92-92271] 02 p0269 N93-11983
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation [DE92-017114] 02 p0466 N93-12127
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte [AD-A254918] 03 p0545 N93-12651
Theory of the electronic and structural properties of solid state oxides [DE92-040499] 04 p0993 N93-14909
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains [DE92-040211] 04 p0843 N93-15283
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics [DE92-040233] 04 p0852 N93-15320
Morphological analysis of ionomers [DE92-040162] 04 p0852 N93-15415
Interaction in polysilazane/SiC powder systems [DE92-041178] 05 p1119 N93-15957
Ion implantation effects in silicon carbide [DE92-041306] 05 p1097 N93-16090
Rapid texturing of high temperature superconductors from amorphous precursors [DE93-001217] 05 p1319 N93-16360
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
Anode for rechargeable ambient temperature lithium cells [NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Ion-beam modification of Gd2Ti2O7 [DE93-001514] 05 p1328 N93-17652
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser [AD-A257551] 06 p1491 N93-17966
Picosecond studies of space optical materials 06 p1664 N93-18475
Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers [DE93-002324] 06 p1674 N93-18521
Short range order in amorphous polycondensates [DE93-001650] 06 p1494 N93-18708
Ion produced cometary organic crust 06 p1701 N93-19122
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
Thin film processing of photorefractive BaTiO3 [NASA-CR-192169] 07 p2079 N93-20311
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers [DE93-004204] 08 p2499 N93-22064
Generalized melting criterion for amorphization [DE93-005557] 08 p2226 N93-22345
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects [DE93-006216] 08 p2501 N93-22508
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams [NASA-TM-105943] 08 p2206 N93-22586
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8 [DE93-004453] 08 p2503 N93-22728
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder [DE93-007966] 08 p2237 N93-22730
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation [DE93-005560] 08 p2230 N93-22943
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2 [DE93-005558] 08 p2230 N93-22977
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite [DE93-005473] 08 p2210 N93-23246
Amorphous diffusion barriers for electronic device applications [ETN-93-93476] 08 p2281 N93-23366
Recrystallization of amorphous and nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x) [DE93-004469] 08 p2508 N93-23950
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si [PB93-152098] 08 p2225 N93-24632
Structure and properties of a-C: N filns prepared by pulsed excimer laser deposition [DE93-007908] 09 p2654 N93-25372
The nature of the glass transition and its determination by thermal analysis [DE93-006746] 09 p2654 N93-25374
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams 09 p2658 N93-25564
Ir-Zr alloys as diffusion barriers between Cu and Si(100) [AD-A261919] 09 p2652 N93-26197
Research support for the Laboratory for Lightwave Technology [AD-A261488] 09 p2856 N93-26343
Paramagnetic nitrogen defects in silicon nitride [DE93-008341] 10 p3151 N93-27619
Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers [AD-A262013] 10 p3004 N93-27669
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation [DE93-005579] 10 p3136 N93-28301
Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer [AD-A262189] 11 p3329 N93-28489
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR [AD-A263511] 11 p3332 N93-29342
Dipolar orientational relaxation in guest/host amorphous polymer probed by second harmonic generation [AD-A262006] 11 p3333 N93-29441
Complex dielectric function of amorphous diamond films deposited by pulsed excimer (ArF) laser ablation of graphite [AD-A264527] 11 p3598 N93-30408
Role of oxygen vacancies in anodic TiO2 thin films [DE92-642137] 11 p3602 N93-31027
Large-area, triple-junction a-Si alloy production scale-up [DE93-010007] 12 p3750 N93-32177
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR [AD-A265800] 12 p3822 N93-32312
AMORPHOUS SEMICONDUCTORS
NT AMORPHOUS SILICON
Theory of transport for interacting many-body systems [AD-A253789] 01 p0169 N93-10871
Charge-induced structural relaxation in amorphous semiconductors [MBB-Z-0265-89-PUB] 05 p1151 N93-17641
Enhanced polarization-dependent coupling between an optical waveguide and laterally coupled photodetector [MBB-Z-0338-90-PUB] 05 p1305 N93-17642
Writing electronically active nanometer-scale structures with a scanning tunneling microscope [MBB-Z-0367-91-PUB] 06 p1671 N93-18117
Crystalline-amorphous contrast formation in thermally crystallized SiC [MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Defects and impurities in amorphous semiconductors and in liquid electrolytes [MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Bias-annealing experiments for doped a-Si:H layers [MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Transport in amorphous semiconductors 08 p2506 N93-23101
AMORPHOUS SILICON
Signal and noise analysis of a-Si:H radiation detector-amplifier system [DE92-016928] 01 p0075 N93-10790
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys [DE92-010588] 02 p0463 N93-11813
Recombination and metastability in amorphous silicon and silicon germanium alloys [DE92-010593] 02 p0463 N93-11816
Research on stable, high-efficiency, amorphous silicon multijunction modules [DE92-010599] 02 p0464 N93-11818
Study of short-range motion of atomic hydrogen in amorphous silicon by neutron reflectometry [DE92-016392] 03 p0703 N93-13194
Design and hardware implementation of neural systems [AD-A256040] 04 p0866 N93-14577
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources [AD-A257552] 06 p1492 N93-17967
Research on stable, high-efficiency amorphous silicon multijunction modules [DE93-000011] 06 p1571 N93-18657
Laser scribing system for amorphous silicon solar cells [AD-A259287] 07 p1910 N93-20608
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization [ETN-93-92992] 07 p1859 N93-20909
Relaxation of radiation damages in a-Si:H layers [MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content [DE93-000049] 08 p2377 N93-22750
In-situ characterization of growth and interfaces in a-Si:H devices [DE93-000051] 08 p2504 N93-22928
Research on the stability, electronic properties, and structure of a-Si:H and its alloys [DE93-000050] 08 p2505 N93-22969
The Photovoltaic Manufacturing Technology Project, phase 1 [DE92-010597] 08 p2380 N93-23302
Growth mechanisms and characterization of hydrogenated amorphous-silicon-alloy films [DE93-000071] 08 p2508 N93-23673
Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon [DE93-005767] 08 p2509 N93-24017
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD) [DE92-010560] 09 p2862 N93-24953
Research on stable, high-efficiency amorphous silicon multijunction modules [DE93-000072] 09 p2862 N93-25163

Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Diamond composite films for protective coatings on metals and method of formation
[NASA-CASE-NPO-18501-1-CU] 10 p3006 N93-28426
Large-area, triple-junction a-Si alloy production scale-up
[DE93-010007] 12 p3750 N93-32177

AMPERAGE
U ELECTRIC CURRENT

AMPHETAMINES
Effects of dextromethamphetamine on subjective fatigue
[AD-A258252] 06 p1594 N93-17822

AMPHIBIA
NT FROGS

AMPLIFICATION
NT POWER GAIN
NT WAVE AMPLIFICATION
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
Theory of lasing without population inversion 03 p0605 N93-13497
Appendix: Limits on the use of heterodyning and amplification in optical interferometry 03 p0747 N93-13597
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
Experimental evaluation of software-driven digital gain-drift compensation in scintillator gamma ray spectroscopy
[DE93-002623] 06 p1657 N93-19616
Study of the gain factor (G/T) of an active antenna
[CNES-NT-130] 07 p1884 N93-21036
Scalar gain interpretation of large order filters 09 p2606 N93-24729
Stability margins for multilinear interval systems by way of phase conditions: A unified approach
[NASA-CR-192893] 09 p2819 N93-25226
Three-dimensional compressible stability-transition calculations using the spatial theory 10 p2931 N93-27431
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983

AMPLIFICATION FACTOR
U AMPLIFICATION

AMPLIFIER DESIGN
Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830

AMPLIFIERS
NT BEAM PLASMA AMPLIFIERS
NT BROADBAND AMPLIFIERS
NT CURRENT AMPLIFIERS
NT CYCLOTRON RESONANCE DEVICES
NT DIFFERENTIAL AMPLIFIERS
NT LIGHT AMPLIFIERS
NT LINEAR AMPLIFIERS
NT MICROWAVE AMPLIFIERS
NT OPERATIONAL AMPLIFIERS
NT PARAMETRIC AMPLIFIERS
NT PHOTOMULTIPLIER TUBES
NT POWER AMPLIFIERS
NT PREAMPLIFIERS
NT TRANSISTOR AMPLIFIERS
NT TRAVELING WAVE AMPLIFIERS
NT VOLTAGE AMPLIFIERS
The unofficial AMPLEX owner's manual
[DE93-001437] 05 p1148 N93-16651
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298
Investigation of a background suppression transimpedance amplifier for photovoltaic detectors
[AD-A261828] 09 p2691 N93-26272

AMPLITUDE DISTRIBUTION ANALYSIS
Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878
Mechanism of the mode selection in bifurcations 05 p1162 N93-16825

AMPLITUDE MODULATION
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
A hybrid voice/data modulation for the VHF aeronautical channels 08 p2106 N93-22567
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Properties of readings of periodically correlated random processes
[AD-A261225] 09 p2686 N93-26573
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

AMPLITUDE PROBABILITY ANALYSIS
U AMPLITUDE DISTRIBUTION ANALYSIS

AMPLITUDES
NT PULSE AMPLITUDE
NT SCATTERING AMPLITUDE
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
SCRUNCHER phase and amplitude control
[DE92-040225] 04 p0870 N93-15421
An analysis of the structure of gamma ray burst time histories
[NASA-CR-191997] 06 p1746 N93-18583
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570

AMPTE (SATELLITES)
An investigation of dayside FTE's observed by the AMPTE-UKS satellite 12 p3858 N93-31709

ANAEROBES
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250668] 02 p0253 N93-12267
Biological conversion of synthesis gas
[DE92-017673] 03 p0672 N93-13269
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863

ANALOG CIRCUITS
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU] 02 p0420 N93-11174
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
Silicon neuron
[AD-A255091] 03 p0674 N93-12756
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Dynamics of analog electronic neural networks
[AD-A257019] 04 p0966 N93-15352
TOPICS: A contribution to analog design automation
[ISBN-90-9004786-7] 05 p1238 N93-16471
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Analog CMOS circuits for neural networks 11 p3355 N93-30223
An architecture for an analog VLSI neural network for early computer vision processing 11 p3359 N93-30244
Electronics mixed-mode simulation
[AD-A264734] 11 p3534 N93-30577

ANALOG COMPUTERS
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Stochastic architecture for Hopfield neural nets 11 p3519 N93-29579

ANALOG DATA
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
Analog signal isolation techniques
[DE93-008059] 10 p3147 N93-27524
An architecture for an analog VLSI neural network for early computer vision processing 11 p3359 N93-30244

ANALOG SIMULATION
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639

ANALOG TO DIGITAL CONVERTERS
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Orientation and pair correlation at high density by superresolution holography
[AD-A254034] 01 p0085 N93-10239
GaAs heterojunction device based A/D converter development
[AD-A252644] 02 p0468 N93-12183
Curve fitting and error modeling for the digitization process near the Nyquist rate
[DE92-018189] 02 p0286 N93-12417
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Evaluation of fast ADC's
[DE92-040582] 05 p1145 N93-16013
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle 05 p1057 N93-16784
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Analogue to digital transformation
[ESDU-92044] 06 p1517 N93-17959
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
Parallel processor for real-time structural control
[DE93-006284] 08 p2446 N93-22545
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
A wideband parallel sampling system
[ISBN-0-315-60463-8] 08 p2286 N93-24617
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
A high resolution 14-bit ADC for Gammasphere Project
[DE93-010446] 11 p3598 N93-30393
Low cost instrumentation: Parallel port analog to digital converter
[AD-A263468] 11 p3433 N93-30584
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
GDF: A digitizing format for geographical data 12 p3744 N93-31260
Accuracy estimation for digitizing 12 p3745 N93-31265

ANALOGIES
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Machine discovery by model driven analogy 06 p1629 N93-19724
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 2
[RR-875-M] 07 p2056 N93-21395
Strongly transitive fuzzy relations: A more adequate way to describe similarity
[NASA-CR-192951] 09 p2820 N93-25425
The use of multiple models in case-based diagnosis 09 p2823 N93-25969

ANALOGS
Earth-based analogs of lunar and planetary facilities 05 p1396 N93-17441

Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973

Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars 12 p3865 N93-31954

ANALYSIS (MATHEMATICS)

NT ABEL FUNCTION
NT ANALYTIC FUNCTIONS
NT APPROXIMATION
NT ASYMPTOTES
NT ASYMPTOTIC SERIES
NT BANACH SPACE
NT BESSEL FUNCTIONS
NT BETHE-SALPETER EQUATION
NT BIHARMONIC EQUATIONS
NT BOREL SETS
NT BORN APPROXIMATION
NT BORN-OPPENHEIMER APPROXIMATION
NT BOUNDARY INTEGRAL METHOD
NT BURGER EQUATION
NT CALCULUS
NT CALCULUS OF VARIATIONS
NT CAUCHY-RIEMANN EQUATIONS
NT CHEBYSHEV APPROXIMATION
NT COLLINEARITY
NT COMBINATIONS (MATHEMATICS)
NT COMBINATORIAL ANALYSIS
NT COMPLEX VARIABLES
NT COMPUTATIONAL CHEMISTRY
NT COMPUTATIONAL FLUID DYNAMICS
NT CONFORMAL MAPPING
NT CONJUGATE GRADIENT METHOD
NT CONJUGATES
NT CONTINUITY (MATHEMATICS)
NT CONVOLUTION INTEGRALS
NT COPLANARITY
NT CUBIC EQUATIONS
NT DELTA FUNCTION
NT DEPENDENT VARIABLES
NT DIFFERENCE EQUATIONS
NT DIFFERENTIAL CALCULUS
NT DIFFERENTIAL EQUATIONS
NT DUFFING DIFFERENTIAL EQUATION
NT EINSTEIN EQUATIONS
NT ELLIPTIC DIFFERENTIAL EQUATIONS
NT ELLIPTIC FUNCTIONS
NT ENTIRE FUNCTIONS
NT ERROR ANALYSIS
NT ESSENTIALLY NON-OSCILLATORY SCHEMES
NT EULER-CAUCHY EQUATIONS
NT EXISTENCE THEOREMS
NT EXPONENTIAL FUNCTIONS
NT EXTREMUM VALUES
NT FACTORIALS
NT FAST FOURIER TRANSFORMATIONS
NT FINITE DIFFERENCE THEORY
NT FINITE ELEMENT METHOD
NT FINITE VOLUME METHOD
NT FLUX VECTOR SPLITTING
NT FOKKER-PLANCK EQUATION
NT FOURIER ANALYSIS
NT FOURIER SERIES
NT FOURIER TRANSFORMATION
NT FREDHOLM EQUATIONS
NT FUNCTION SPACE
NT FUNCTIONAL ANALYSIS
NT FUNCTIONAL INTEGRATION
NT GAUSS EQUATION
NT GREEN'S FUNCTIONS
NT HALF PLANES
NT HALF SPACES
NT HANKEL FUNCTIONS
NT HARMONIC ANALYSIS
NT HARTREE APPROXIMATION
NT HILBERT SPACE
NT HILBERT TRANSFORMATION
NT HYPERBOLIC DIFFERENTIAL EQUATIONS
NT HYPERBOLIC FUNCTIONS
NT HYPERGEOMETRIC FUNCTIONS
NT HYPERPLANES
NT INTEGRAL CALCULUS
NT INTEGRAL EQUATIONS
NT INTEGRAL TRANSFORMATIONS
NT INTERPOLATION
NT ITERATION
NT ITERATIVE SOLUTION
NT J INTEGRAL
NT JACOBI MATRIX METHOD
NT KERNEL FUNCTIONS
NT LAPLACE TRANSFORMATION
NT LEAST SQUARES METHOD
NT LEGENDRE FUNCTIONS
NT LIAPUNOV FUNCTIONS
NT LIMITS (MATHEMATICS)
NT LINEAR EQUATIONS
NT LIOUVILLE EQUATIONS
NT LOGARITHMS
NT MAXIMA
NT MEAN SQUARE VALUES
NT MEASURE AND INTEGRATION
NT MINIMA
NT MONTE CARLO METHOD
NT MULTIGRID METHODS
NT NEUMANN PROBLEM
NT NEWTON METHODS
NT NEWTON-RAPHSON METHOD
NT NOMOGRAPHS
NT NONHOLONOMIC EQUATIONS
NT NONLINEAR EQUATIONS
NT NONLINEAR EVOLUTION EQUATIONS
NT NUMERICAL ANALYSIS
NT NUMERICAL DIFFERENTIATION
NT NUMERICAL INTEGRATION
NT ORTHOGONAL FUNCTIONS
NT OSEEN APPROXIMATION
NT PARABOLIC DIFFERENTIAL EQUATIONS
NT PARTIAL DIFFERENTIAL EQUATIONS
NT PARTICLE IN CELL TECHNIQUE
NT PARTITIONS (MATHEMATICS)
NT PERIODIC FUNCTIONS
NT PERMUTATIONS
NT PHASE-SPACE INTEGRAL
NT POISSON EQUATION
NT POWER SERIES
NT PREDICTOR-CORRECTOR METHODS
NT PRONY SERIES
NT QUADRATIC EQUATIONS
NT RATIONAL FUNCTIONS
NT RAYLEIGH-RITZ METHOD
NT REAL VARIABLES
NT RELAXATION METHOD (MATHEMATICS)
NT RICCATI EQUATION
NT RUNGE-KUTTA METHOD
NT SCHWARZ-CHRISTOFFEL TRANSFORMATION
NT SERIES (MATHEMATICS)
NT SINGULAR INTEGRAL EQUATIONS
NT SINGULARITY (MATHEMATICS)
NT SOBOLEV SPACE
NT SOMMERFELD APPROXIMATION
NT SPHERICAL HARMONICS
NT STIELTJES INTEGRAL
NT STURM-LIOUVILLE THEORY
NT TAYLOR SERIES
NT TRIGONOMETRIC FUNCTIONS
NT TRUNCATION ERRORS
NT TVD SCHEMES
NT UPWIND SCHEMES (MATHEMATICS)
NT VECTOR ANALYSIS
NT VLASOV EQUATIONS
NT VOLTERRA EQUATIONS
NT VORTICITY
NT VORTICITY EQUATIONS
NT WALSH FUNCTION
NT WEIGHTING FUNCTIONS

Acoustic noise generation at the air/ocean boundary [DREA-CR-90-445] 01 p0147 N93-10642

Topics on RF beam control of a synchrotron [DE92-019217] 02 p0443 N93-11498

Applications of group-invariant analytic solutions to inertial confinement fusion [DE92-040347] 03 p0715 N93-13047

IERS standards for 1992 [AD-A257973] 05 p1192 N93-17739

International Workshop on Mathematical Methods in Combustion [AD-A258161] 05 p1108 N93-17798

An interior point approach to postoptimal and parametric analysis in linear programming [REPT-92-21] 06 p1615 N93-17834

Comparing the theory of representations and constructing mathematics [ML-92-01] 06 p1644 N93-17913

Analytica: An experiment in combining theorem proving and symbolic computation [AD-A258656] 06 p1628 N93-19958

Non standard analysis and ordinary differential equations [RR-884-M] 07 p2051 N93-20787

Proximal techniques for convex programming [RR-877-M] 07 p2039 N93-21167

Performance and state-space analyses of systems using Petri nets [NASA-CR-193195] 08 p2443 N93-24604

Environmental studies: Mathematical, computational and statistical analyses [AD-A264223] 11 p3473 N93-30360

Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts [AD-A264091] 12 p3784 N93-31087

ANALYSIS OF VARIANCE

On Watson's ANOVA for directions [AD-A253576] 01 p0146 N93-10700

Change analysis and Fisher-Score change processes [AD-A254707] 02 p0429 N93-12334

Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations [AD-A259449] 07 p2030 N93-20058

Variance-covariance estimation and statistical testing of satellite networks [PB92-225358] 07 p1824 N93-21048

ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782

A comparison of variable selection criteria for multiple linear regression: A second simulation study [AD-A262512] 10 p3125 N93-27664

ANALYTIC FUNCTIONS

NT ENTIRE FUNCTIONS

Performance of the h-p version of the finite element method with various elements [AD-A250689] 02 p0427 N93-11837

Fixed points of expansive analytic maps (2) [AD-A254737] 02 p0344 N93-12357

An analytic phase function for cylindrical particles [AD-A255750] 04 p0977 N93-15054

On Gupta-Bleuler quantization of systems with second-class constants [NIKHEF-H/92-05] 05 p1264 N93-16342

Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium [DE93-010799] 11 p3565 N93-28833

On the real symmetric inverse eigenvalue problem [DE93-619667] 12 p3809 N93-32284

ANALYTIC GEOMETRY

NT CIRCUMFERENCES
NT ELLIPSES
NT MERCATOR PROJECTION
NT OBLATE SPHEROIDS
NT PARABOLAS
NT PROLATE SPHEROIDS
NT SPHEROIDS
NT TORUSES

ANALYTICAL CHEMISTRY

Formic acid: Development of an analytical method and use as process indicator in anaerobic systems [AD-A250668] 02 p0253 N93-12267

Instrumental and theoretical development of capillary electrophoresis and its application to biological systems [DE93-001220] 05 p1106 N93-17348

Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction 11 p3347 N93-30084

Standard Reference Materials: Handbook for SRM users [PB93-183796] 12 p3699 N93-31830

ANALYZERS

NT ENGINE ANALYZERS
NT SIGNAL ANALYZERS

Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures [NASA-CR-189151] 03 p0627 N93-13444

Mesh effect in a parallel plate analyzer [NIFS-203] 06 p1669 N93-19931

Scattering in electron spectrometers, diagnosis, and avoidance. 1: Concentric hemispherical analysers [NPL-DMM(A)-70] 08 p2218 N93-22463

Scattering in electron spectrometers, diagnosis, and avoidance. 2: Cylindrical mirror analysers [NPL-DMM(A)-71] 08 p2218 N93-22464

ANATOMY

NT ALVEOLI
NT ARM (ANATOMY)
NT AUTONOMIC NERVOUS SYSTEM
NT BONE MARROW
NT BONES
NT BRAIN
NT BRAIN STEM
NT BRONCHI
NT CARDIOVASCULAR SYSTEM
NT CARTILAGE
NT CENTRAL NERVOUS SYSTEM
NT CEREBRAL CORTEX
NT CEREBRUM
NT CIRCULATORY SYSTEM
NT COLLAGENS
NT CONNECTIVE TISSUE
NT CONSTRICTORS
NT EAR
NT EFFERENT NERVOUS SYSTEMS
NT ELBOW (ANATOMY)
NT ENDOCRINE GLANDS
NT EYE (ANATOMY)
NT FACE (ANATOMY)
NT FEET (ANATOMY)

NT FEMUR
NT FINGERS
NT FOREARM
NT FOVEA
NT GASTROINTESTINAL SYSTEM
NT HAND (ANATOMY)
NT HEAD (ANATOMY)
NT HEART
NT HIPPOCAMPUS
NT HUMAN BODY
NT HYPOTHALAMUS
NT INTESTINES
NT KNEE (ANATOMY)
NT LEG (ANATOMY)
NT LIMBS (ANATOMY)
NT LUNGS
NT MAMMARY GLANDS
NT MUSCLES
NT MUSCULOSKELETAL SYSTEM
NT MYOCARDIUM
NT NECK (ANATOMY)
NT NERVES
NT NERVOUS SYSTEM
NT NOSE (ANATOMY)
NT OTOLITH ORGANS
NT PERIPHERAL NERVOUS SYSTEM
NT PHOTORECEPTORS
NT PINEAL GLAND
NT PITUITARY GLAND
NT PROPRIOCEPTORS
NT PROSTATE GLAND
NT PUPILS
NT RESPIRATORY SYSTEM
NT RETINA
NT SEMICIRCULAR CANALS
NT SKIN (ANATOMY)
NT SPINAL CORD
NT SPINE
NT SYMPATHETIC NERVOUS SYSTEM
NT THORAX
NT TIBIA
NT TORSO
NT VESTIBULES
NT WRIST

Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654

Anatomy and physiology of plant conductive systems
[PB93-156032] 09 p2793 N93-25877

ANCHORS (FASTENERS)

Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384

ANDROMEDA GALAXY

The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867

ANECHOIC CHAMBERS

Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175

A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551

Modal measurements and propeller field excitation on acoustic full scale mockup of SAAB 340 aircraft
[FFA-TN-1992-08] 12 p3815 N93-31051

ANELASTICITY

Anelastic modelling of explosive cyclogenesis
01 p0126 N93-10377

Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270

Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492

Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796

ANEMIAS

Fundamental diagnostic hematology: Anemia (second edition)
[PB93-188662] 12 p3773 N93-31140

ANEMOMETERS

NT HOT-FILM ANEMOMETERS
NT HOT-WIRE ANEMOMETERS
NT LASER ANEMOMETERS

Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477

Effect of Reynolds number on the standards of a simplified anemoclinometric probe
[IMFL-91-31] 05 p1056 N93-17542

The 1991 LLWAS anemometer test program
[AD-A258844] 06 p1538 N93-19365

Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461

Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338

Pyroelectric anemometers and kinetic calorimeters
[PB93-141919] 08 p2303 N93-23230

ANEMOMETRY

U VELOCITY MEASUREMENT

ANESTHESIOLOGY

Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas
06 p1638 N93-18688

ANESTHETICS

NT CHLOROFORM
NT CYCLOPROPANE

ANGIOGRAPHY

Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253

ANGLE OF ATTACK

NT ZERO ANGLE OF ATTACK

Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858

The hemisphere-cylinder at an angle of attack
02 p0196 N93-11250

The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464

Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532

An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206

The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211

Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221

In-flight flow visualization results from the X-29A aircraft at high angles of attack
[NASA-TM-4430] 03 p0493 N93-13322

Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803

The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions
03 p0496 N93-13929

Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515

Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831

Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245

Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets
[NASA-TM-105935] 05 p1055 N93-16625

Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638

Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336

Identification of system dynamics of a high incidence research model
[RR-407] 06 p1440 N93-18507

Stall departure resistance enhancer
[NASA-CASE-LAR-14221-1] 06 p1447 N93-19023

Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108

Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110

AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910

X-31A high angle of attack and initial post stall flight testing 06 p1443 N93-19911

Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163

Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296

Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047

Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392

An investigation of the fundamental cause of asymmetric separated flow
[AD-A260296] 08 p2114 N93-24263

An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534

The transient development of vortices over delta wings 09 p2576 N93-25269

Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409

Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134

Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005

Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence
10 p2927 N93-27220

Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0
10 p2927 N93-27221

Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443

Prediction of vortex breakdown on a delta wing
10 p2936 N93-27459

X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack
11 p3260 N93-28851

An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124

NASTRAN analysis for the Airmass Sunburst model 'C' Ultralight Aircraft 11 p3249 N93-29777

Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862

The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919

Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764

Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing
12 p3683 N93-31068

ANGLES (GEOMETRY)

NT ANGLE OF ATTACK
NT BRAGG ANGLE
NT DIHEDRAL ANGLE
NT ELEVATION ANGLE
NT LEADING EDGE SWEEP
NT LOOK ANGLES (TRACKING)
NT SWEEP ANGLE
NT ZERO ANGLE OF ATTACK

Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194

A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415

The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559

Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635

Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus
04 p1041 N93-14371

ARID relative calibration experimental data and analysis 06 p1552 N93-19395

System for determining the angle of impact of an object on a structure
[NASA-CASE-LAR-14817-1] 07 p1906 N93-20569

ANGULAR ACCELERATION

Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469

Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633

ANGULAR CORRELATION

The stellar angular correlation: Clues to wide binary star properties 03 p0757 N93-14059

Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371

ANGULAR DISTRIBUTION

Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393

Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263

Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
The stellar angular correlation: Clues to wide binary star properties 03 p0757 N93-14059
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
Angular distributions of charge exchange collisions at very low energies
[DE93-002338] 07 p2064 N93-21751
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059
Medium energy measurements on N-N parameters
[DE93-007304] 10 p3137 N93-28358
Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887
Analysis of possibilities for using laser scattering for MeV electron beam diagnostics
[DE93-606223] 11 p3441 N93-30767

ANGULAR MOMENTUM

Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
SSG 5.98: Atmospheric excitation of the Earth's rotation 07 p1974 N93-20991
Testing of the on-board attitude determination and control algorithms for SAMPEX
09 p2600 N93-24698
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Attitude stabilization of bias momentum satellites
10 p2923 N93-27195
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers
11 p3642 N93-28777
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991
Planar reorientation of a free-free beam in space using embedded electromechanical actuators
11 p3280 N93-29993
Space station attitude disturbance arising from internal motions 11 p3280 N93-29995
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241

ANGULAR MOTION

U ANGULAR VELOCITY

ANGULAR RESOLUTION

Ground-based high angular resolution observation of the Sun by interferometry in the visible
01 p0177 N93-10941
Radio and optical interferometric imaging
03 p0744 N93-13580
The CHARA optical array 03 p0744 N93-13581
High resolution imaging at Palomar
03 p0745 N93-13584
HARDI: A high angular resolution deployable interferometer for space 03 p0745 N93-13588
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887
Prospects for stellar physics: Structure and influence of circumstellar media 12 p3850 N93-31789

ANGULAR VELOCITY

Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Transverse wave motion in constrained mechanical systems 03 p0628 N93-13634
Instabilities and patterns in Taylor-Couette flow
03 p0593 N93-13965
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
TREND field test report
[AD-A258568] 07 p2067 N93-20372
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
A nanoradian differential VLBI tracking demonstration
09 p2677 N93-26108
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1
11 p3502 N93-28857

ANHYDRIDES

NT INORGANIC PEROXIDES
NT ORGANIC PEROXIDES
NT PEROXIDES
Substituted 1,1,1-triaryl 2,2,2-trifluoroethanes and processes for their synthesis
[NASA-CASE-LEW-14345-7] 05 p1095 N93-17412
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Polyimides containing the cyclobutene-3,4-dione moiety
[NASA-CASE-LAR-14753-1] 09 p2656 N93-25999
Diphenylmethane-containing dianhydride and polyimides prepared therefrom
[NASA-CASE-LAR-14487-1] 11 p3331 N93-29085
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506

ANIK SATELLITES

Canada's role in pushing back the frontiers of space
04 p0806 N93-14928
Anik E spacecraft integration and test
04 p0808 N93-14939
Security of the remote control link of Anik E satellites
11 p3365 N93-30282

ANILINE

Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Impedance and voltammetric studies of electrogenerated polyaniline conducting films
[AD-A258328] 06 p1493 N93-18256
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
The polyanilines: A novel class of conducting polymers
[AD-A259386] 07 p1860 N93-21266
Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443

ANIMALS

NT ARTEMIA
NT BABOONS
NT BEETLES
NT BIRDS
NT DOGS
NT FISHES
NT FROGS
NT HUMAN BEINGS
NT INSECTS
NT LIVESTOCK
NT MAMMALS
NT MICE
NT MONKEYS
NT MOTHS
NT PRIMATES
NT PROTOZOA
NT RATS
NT RODENTS
NT SHEEP
NT SWINE
NT VERTEBRATES
NT WILDLIFE
NT ZOOPLANKTON
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
An overview of gravitational physiology
[NASA-TM-102849] 02 p0391 N93-12319
Environmental health discipline science plan
[NASA-TM-108042] 07 p2024 N93-21369
CEBAS-Aquarack: An artificial aquatic animal plant ecosystem as a tool for basic research in the Columbus Space Station 08 p2166 N93-24401
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594

ANIMATION

NT COMPUTER ANIMATION
Aid in investigation by figure animation
06 p1422 N93-19659
Combining particles and waves for fluid animation
09 p2699 N93-25348

ANIONS

Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809

ANISOTROPIC MEDIA

Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media
03 p0568 N93-14044
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386

Full wave characterization of microstrip open end discontinuities patterned on anisotropic substrates using potential theory
[NASA-TM-106037] 07 p1889 N93-20259
A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
Multilayered elastoplastic homogeneization and anisotropic plasticity
[ECL-92-24] 07 p1839 N93-21359
Three dimensional transient analysis of microstrip circuits in multilayered anisotropic media
[AD-A259829] 08 p2281 N93-23433
Methods of determining loads and fiber orientations in anisotropic non-crystalline materials using energy flux deviation
[NASA-CASE-LAR-14399-1] 09 p2729 N93-26102

ANISOTROPIC PLATES
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties 03 p0530 N93-13007

ANISOTROPIC SHELLS
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders 04 p0897 N93-14251
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597

ANISOTROPY
NT PLASTIC ANISOTROPY
Cosmic microwave background anisotropies from plausible double inflation
[DE92-016195] 01 p0192 N93-10616
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Experiments, theory, and simulation on the evolution of fabric in granular materials
[AD-A254820] 03 p0545 N93-12729
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689
A search for anisotropy in the cosmic background radiation at millimeter wavelengths on angular scales from 0.3 to 3 degrees 04 p1050 N93-14244
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU] 04 p0940 N93-14704
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media 04 p0984 N93-15509
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
North-south anisotropy during the quasi-stationary modulation of galactic cosmic rays
[NOTA-INTERNA-975] 05 p1400 N93-17647
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Analysis and optimal design of pressurized, imperfect, anisoropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633
Anisotropic etching of silicon in KOH solutions 09 p2647 N93-25037
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Microstrip antennas on/in anisotropic material layers
[AD-A261700] 09 p2681 N93-26383
Magnetic thin films and nanostructures: Anisotropy, microstructure, and their inter-relationship
[DE93-007714] 10 p3002 N93-26611
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Benchmark eigenvalue spectrum calculations with anisotropic effects
[DE93-006387] 11 p3548 N93-28891
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
Mapping robust parallel multigrid algorithms to scalable memory architectures
[NASA-CR-191470] 12 p3793 N93-32359

ANNEALING
NT LASER ANNEALING
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
The III-V semiconductor quantum well lasers and related optoelectronic devices (on silicon). Oxide-defined semiconductor quantum well lasers and optoelectronic devices: Al-based III-V nativeoxide s
[AD-A255239] 04 p0885 N93-14667
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet
[NASA-TM-105921] 04 p0847 N93-15524
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Dependence of buried CoSi2 resistivity on ion implantation and annealing conditions
[DE92-010080] 05 p1322 N93-16930
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Indium phosphide photovoltaic technology 06 p1572 N93-18476
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Structural equilibration in intrinsic, single-doped, and compensated TFT's: Experiments and calculations
[MBB-Z-0377-91-PUB] 07 p1891 N93-20841
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization
[ETN-93-92992] 07 p1859 N93-20909
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
Development of superconducting thin films with a critical temperature greater than 110 K
[AD-A257988] 07 p2080 N93-21224
Relaxation of radiation damages in a-Si:H layers
[MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Bias-annealing experiments for doped a-Si:H layers
[MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Temperature dependence of radiation damage and its annealing in silicon detectors
[DE93-003854] 09 p2869 N93-26494
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-28007
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Isothermal annealing and relaxation of the second harmonic generation signal from a nonlinear optical polymer
[AD-A262007] 11 p3333 N93-29442
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991

ANNIHILATION REACTIONS
NT POSITRON ANNIHILATION
Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016
Evidence for the dominance of an I(sup G)J(sup PC) = 0(+)0(++) resonance in p(bar)n decay to 2 pi(+)
[PREPRINT-885] 05 p1290 N93-17021
Evidence of an I(sup G)J(sup PC) = O(+)O(++) resonance at 1.39 GeV/sq c and confutation of the zeta(1480) in a reanalysis of the p(bar)n decay to 2 pi(+)-3 pi(-) annihilation at rest
[PREPRINT-826] 05 p1291 N93-17222
Medium energy meson research
[DE93-004133] 06 p1655 N93-18449
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Two photon annihilation operators and squeezed vacuum 10 p3143 N93-27326
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791

ANNOTATIONS
A para-functional version of Warshall's algorithm
[MEMO-INF-92-23] 04 p0947 N93-15092
Formal development of Ada programs using Z and Anna: A case study
[AD-A235698] 06 p1623 N93-18847
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
MIT Space Engineering Research Center testbed programs
[NASA-CR-192115] 07 p2103 N93-21660
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
An annotated bibliography on integration in software engineering environments
[AD-A264798] 11 p3535 N93-30602
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917

ANNUAL VARIATIONS
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Reinterpretation of ozone data from Base Roi Baudouin (Antarctica)
[AERONOMICA-ACTA-A-365] 02 p0352 N93-11127
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989
03 p0663 N93-13446
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring
03 p0664 N93-13643
Long-term averages of globally-measured ELF/VLF radio noise
[AD-A255518] 03 p0566 N93-13869
Middle atmosphere water vapour
03 p0667 N93-13892
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
Low-frequency oscillations in radiative-convective models
[DE92-018779] 04 p0922 N93-14901
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Ocean circulation using altimetry
04 p0929 N93-14984
Ocean circulation modeling by use of radar altimeter data 04 p0929 N93-14986
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
Analysis of altimeter data jointly with seafloor electric data (vertically integrated velocity) and VCTD-yoyo data (detailed profiles of VCTD) 04 p0931 N93-14998
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991]
04 p0911 N93-15460
Diagnostic studies of climate variability
[DE93-002837] 06 p1586 N93-18403
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions
06 p1726 N93-19547
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814
Modeling interannual variability in the Martian seasonal CO2 cycle 06 p1743 N93-19820
Cloud radiative forcing effects on observed and simulated global energetics 07 p2003 N93-20072
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615
Monitoring of growth environment of forest
08 p2336 N93-22135
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
Intraseasonal relationships between tropical heating and extratropical jets
[AD-A260212] 08 p2408 N93-24004
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data
09 p2742 N93-24801
Role of the ocean in climate changes
09 p2732 N93-24918
Operational seasonal and interannual predictions of ocean conditions 09 p2733 N93-24921
Indian Ocean analyses 09 p2733 N93-24925
Satellite monitoring of the global ocean surface during 1987-1989 09 p2734 N93-24926
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method
10 p3074 N93-28249
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers
11 p3642 N93-28777
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874

ANNULAR DUCTS
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952

ANNULAR FLOW
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
An experimental investigation into flow induced acoustic resonances in an annular cascade
[PNR-90959] 02 p0433 N93-11322
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Smaller expendable turbojets
05 p1067 N93-17621
Natural axisymmetric frequencies of cylindrical liquid column with anchored free surface
[LRT-WE-9-FB-3-1991] 07 p1903 N93-21297
Theoretical and pragmatic modelling of governing equations for a two-phase flow in bubbly and annular flow regimes
[DE93-004200] 08 p2289 N93-22757

On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems
09 p2700 N93-25478

ANNULAR NOZZLES
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Analytical and experimental investigation of annular propulsive nozzles
[AD-A262685] 10 p2945 N93-28391

ANNULAR PLATES
The effects of delamination on the vibrational characteristics of composite structural elements
08 p2210 N93-23202

ANNULAR SUSPENSION AND POINTING SYSTEM
Large angle magnetic suspension test fixture
[NASA-CR-193123] 12 p3684 N93-31836

ANODES
NT CELL ANODES
NT TUBE ANODES
Effects of anode material on arcjet performance
01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Anode power deposition in applied-field MPD thrusters
[NASA-CR-190790] 03 p0526 N93-13283
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU]
05 p1150 N93-17278
Corrosion resistance of metal matrix composites
[AD-A258370] 06 p1478 N93-18266
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Anode power deposition in coaxial MPD thrusters
09 p2623 N93-25665
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

ANODIC COATINGS
Protective coating development for Space Station Freedom at McDonnell Douglas
07 p1849 N93-20820
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Adhesion and corrosion behavior of Al-Zn and TiN/Ti/TiN coatings on a DU-0.75 wt. percent Ti alloy
[MTL-TR-92-56] 09 p2658 N93-26433

ANODIC STRIPPING
Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566

ANODIZING
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum
03 p0544 N93-12779
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
Studies of components for thermally regenerative electrochemical systems
[AD-A256124] 04 p0842 N93-14664
Evaluation of corrosion protection methods for aluminum metal matrix composites
[AD-A255375] 04 p0832 N93-14675
The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667
Laser welding of selected aerospace alloys
09 p2718 N93-25435
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

ANOMALIES
NT GRAVITY ANOMALIES
NT MAGNETIC ANOMALIES
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
The relationship between SST anomalies and clouds, water vapor, and their radiative effects
03 p0665 N93-13744
Identification and interpretation of patterns in rocket engine data
[NASA-CR-192100] 06 p1473 N93-18401
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
Constraint checking during error recovery
08 p2445 N93-22169
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606
The initial flight anomalies of Skylab 1
09 p2619 N93-24692
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142

ANORTHOSITE
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816

ANTARCTIC ENVIRONMENT
U ICE ENVIRONMENTS

ANTARCTIC OCEAN
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Antarctic news clips - 1992
[NSF-92-83] 04 p0916 N93-15080
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882

ANTARCTIC REGIONS
NT MCMURDO SOUND
NT ROSS ICE SHELF
Reinterpretation of ozone data from Base Roi Baudouin (Antarctica)
[AERONOMICA-ACTA-A-365] 02 p0352 N93-11127
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255
JARE data reports no. 175 (ionosphere 46). Records of radio aurora at Syowa Station, Antarctica in 1990
03 p0651 N93-13285
JARE data reports no. 179 (meteorology 29). Meteorological data at Asuka Station, Antarctica in 1990
03 p0663 N93-13287
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
JARE data reports no. 170 (ionosphere 45). HF field strength data measured at Syowa Station, Antarctica from January to December 1988 03 p0652 N93-13432
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989
03 p0663 N93-13446
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements
03 p0647 N93-13723
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Antarctic news clips - 1992
[NSF-92-83] 04 p0916 N93-15080
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Epidemiologic research in Antarctica
05 p1221 N93-16800
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
NASA/NSF Antarctic Science Working Group
05 p1222 N93-16802
NASA/NSF Workshop on Antarctic Research
05 p1222 N93-16803
Immunology presentation at the 1990 NASA/NSF Antarctica Biomedical Science Working Group
05 p1222 N93-16806
Earth-based analogs of lunar and planetary facilities
05 p1396 N93-17441
Multifractal cloud properties data assessment
[DE93-002638] 05 p1218 N93-17785
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
Satellite monitoring of giant tabular icebergs
07 p1957 N93-21595
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Long period pulsation events in electron precipitation and magnetic fields at the South Pole
08 p2394 N93-23387
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989
09 p2774 N93-25889
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298
Transient (approximately equals 10 s) VLF amplitude and phase perturbations due to lightning-induced electron precipitation into the ionosphere (the Trimpi effect)
11 p3396 N93-30736
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883
Irregular oscillations of the West Antarctic Ice Sheet
12 p3759 N93-31884
Radar studies of the West Antarctic ice streams
12 p3760 N93-31891
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894
Aerogeophysical evidence for active volcanism beneath the West Antarctic Ice Sheet 12 p3761 N93-31895
Basal hydraulic conditions of Ice Stream B
12 p3762 N93-31898
In search of ice-stream sticky spots
12 p3762 N93-31899
Geologic controls on the West Antarctic Ice Sheet
12 p3762 N93-31900
Effect of subglacial volcanism on changes in the West Antarctic Ice Sheet 12 p3762 N93-31901
Sensible and latent heat flux estimates in Antarctica
12 p3763 N93-31902
Surface winds over West Antarctica
12 p3763 N93-31903
Modeling ice streams: Derived quantities
12 p3763 N93-31904
Field and laboratory investigations of Antarctic meteorites collected by United States expeditions, 1985-1987
[PB93-182723] 12 p3861 N93-32415

ANTARCTICA
U ANTARCTIC REGIONS

ANTENNA ARRAYS
NT ENDFIRE ARRAYS
NT LINEAR ARRAYS
NT STEERABLE ANTENNAS
NT YAGI ANTENNAS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
Optical generation, control and sensing of millimeter waves
[AD-A254700] 02 p0285 N93-12230
Optical beamformer
[AD-A254354] 02 p0448 N93-12272
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3226] 02 p0222 N93-12543
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects
03 p0568 N93-14048
A multiple-aperture multiple-beam EHF antenna for satellite communications
[AD-A256020] 04 p0858 N93-14426
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Orbital manoeuvre effects on large flexible antennae
05 p1078 N93-15729
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Broadband quadrifilar phased array helix
[AD-D015506] 05 p1139 N93-16519
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
Coupling losses in multiple beam antennas
[AD-A257494] 06 p1500 N93-17903
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures
06 p1504 N93-18901
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception
06 p1458 N93-18910
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
Research on phased array antenna
07 p1795 N93-20446
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259166] 07 p1884 N93-20597
Study of the gain factor (G/T) of an active antenna
[CNES-NT-130] 07 p1884 N93-21036
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
A class of hybrid finite element methods for electromagnetics: A review
[NASA-CR-192631] 08 p2260 N93-22467
Space power amplification with active linearly tapered slot antenna array
[NASA-TM-106036] 08 p2277 N93-22485
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Fractal theory for large lacunar antenna arrays
08 p2269 N93-23624
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates
08 p2270 N93-23626
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview
09 p2680 N93-26128
Microstrip antennas on/in anisotropic material layers
[AD-A261700] 09 p2681 N93-26383
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico
[DOT/FAA/CT-TN93/10] 10 p2941 N93-27017
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 2
[AD-A262098] 10 p3027 N93-27670
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 1
[AD-A262099] 10 p3027 N93-27671
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Parallel and series fed microstrip array with high efficiency and low cross polarization
[NASA-CASE-NPO-18678-1-CU]
10 p3029 N93-28422
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Planar microstrip YAGI antenna array
[NASA-CASE-NPO-17873-2-CU]
11 p3384 N93-29507
Tolerance theory of phased array antennas: A statistical approach 11 p3369 N93-30307
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746
Study of a VLF distributed antenna array
11 p3398 N93-30749
Adaptive array processing in uncertain inhomogeneous media 1992-1993
[AD-A265256] 12 p3717 N93-31794
Efficient numerical techniques for the analysis of complex microstrip-antennas and microstrip-arrays
[ESA-TT-1259] 12 p3717 N93-31861
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046

ANTENNA COMPONENTS
NT ANTENNA COUPLERS
NT ANTENNA FEEDS
NT DIPLEXERS
NT DIRECTIONAL COUPLERS
Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
Millimeter-wave quasi-optical and spatial power combining techniques
[AD-A255438] 03 p0574 N93-13865
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
JSEP fellowship --- Transient radiation from antenna structures
[AD-A257021] 04 p0863 N93-15470
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Survey of antenna design computer models
[AD-A258765] 06 p1516 N93-19869
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Smart electromagnetic structures: The neural antenna
[AD-A260469] 08 p2262 N93-22931
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813

ANTENNA COUPLERS
NT DIPLEXERS
NT DIRECTIONAL COUPLERS
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796

ANTENNA DESIGN
Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Beam forming antenna system
[PATENT-1-265-236] 01 p0067 N93-10111
Project and test of a reconfigurable multiple feed system in C-band
[MBB-UK-0162-92-PUB] 02 p0278 N93-11009
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
Method of moments analysis of symmetric dual reflector antennas with feeds
[AD-A255171] 02 p0286 N93-12407
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY
[DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
L-band antenna design for MSAT mission
04 p0812 N93-14961
Ku-band antenna design for MSAT mission
04 p0813 N93-14963
JSEP fellowship --- Transient radiation from antenna structures
[AD-A257021] 04 p0863 N93-15470
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
A systematic approach for the DRSS IOL APM design
05 p1081 N93-15753
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760
TELECOM 2 deployable reflectors
05 p1082 N93-15761
Dynamic of large reflectors 05 p1084 N93-15773
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Broadband quadrifilar phased array helix
[AD-D015506] 05 p1139 N93-16519
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191807] 05 p1230 N93-16709
Finite difference time domain modeling of spiral antennas
[NASA-CR-192237] 06 p1503 N93-18586
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931

Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
SETI low-frequency feed design study for DSS 24 06 p1514 N93-19433
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers [NASA-CR-192094] 06 p1515 N93-19483
Survey of antenna design computer models [AD-A258765] 06 p1516 N93-19869
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Research on phased array antenna 07 p1795 N93-20446
Research on beam compression technology 07 p1795 N93-20447
Study of the gain factor (G/T) of an active antenna [CNES-NT-130] 07 p1884 N93-21036
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1 [PB93-113629] 07 p1885 N93-21237
Low frequency RF current drive [DE93-005130] 08 p2260 N93-22421
Log-periodic slot antenna [CA-PATENT-1-296-421] 08 p2272 N93-24203
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
Sequential design of a linear quadratic controller for the Deep Space Network antennas 09 p2679 N93-26123
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview 09 p2680 N93-26128
Development of novel ferrite antennas [AD-A261690] 10 p3022 N93-26629
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles [DE93-008363] 10 p3025 N93-26670
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico [DOT/FAA/CT-TN93/10] 10 p2941 N93-27017
Moment method analysis of linearly tapered slot antennas [NASA-CR-191474] 10 p2955 N93-27261
Microwave characterization of slotline on high resistivity silicon for antenna feed network [NASA-TM-106058] 10 p3031 N93-27265
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas [NASA-CR-193030] 10 p3026 N93-27283
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. A: Multiband dipole antenna [AD-A262010] 10 p3027 N93-27668
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 2 [AD-A262098] 10 p3027 N93-27670
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 1 [AD-A262099] 10 p3027 N93-27671
The Third International Symposium on Space Terahertz Technology: Symposium proceedings [NASA-CR-193013] 10 p3011 N93-27726
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Progress in integrated-circuit horn antennas for receiver applications. Part 1: Antenna design 10 p3015 N93-27755
Zone plate lens antennas for millimeter and submillimeter wavelengths 10 p3016 N93-27757
Double-slot antennas on extended hemispherical dielectric lenses 10 p3016 N93-27759
Choice of antenna geometry for microwave power transmission from solar power satellites 10 p2988 N93-27987
A satellite-tracking millimeter-wave reflector antenna system for mobile satellite-tracking [NASA-CASE-NPO-18772-1-CU] 11 p3381 N93-28955
System overview on electromagnetic compensation for reflector antenna surface distortion [NASA-TM-106217] 11 p3273 N93-29195
Planar microstrip YAGI antenna array [NASA-CASE-NPO-17873-2-CU] 11 p3384 N93-29507
Gravity referenced elevation encoder development 11 p3385 N93-29592
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation 11 p3386 N93-29601
Widebanding techniques for VHF antennas 2 [AD-A263998] 11 p3387 N93-29882
Fundamental studies of fusion plasmas [DE93-013144] 11 p3589 N93-30189
Status of the Canadian military Multibeam Antenna (MBA) development for EHF SATCOM 11 p3374 N93-30334
Comparison and design of multiple beam antenna feed networks 11 p3374 N93-30335
Recent advances in bootlace lens design 11 p3374 N93-30336
VLF/LF transmitting antennas 11 p3398 N93-30747
Application of the Fourier transform to short antennas 11 p3398 N93-30750
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Phased array for mobile satellite communications [ESA-TT-1280] 12 p3716 N93-31342
The microwave radiometer as a remote sensing device: Design and application [ISBN-9-09-005507-X] 12 p3746 N93-31537
Efficient numerical techniques for the analysis of complex microstrip-antennas and microstrip-arrays [ESA-TT-1259] 12 p3717 N93-31861

ANTENNA FEEDS
Project and test of a reconfigurable multiple feed system in C-band [MBB-UK-0162-92-PUB] 02 p0278 N93-11009
Method of moments analysis of symmetric dual reflector antennas with feeds [AD-A255171] 02 p0286 N93-12407
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas [NASA-CR-190948] 03 p0561 N93-12655
A systematic approach for the DRSS IOL APM design 05 p1081 N93-15753
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media [AD-A256937] 05 p1138 N93-16207
Antenna pattern control using impedence surfaces [NASA-CR-192182] 06 p1516 N93-19934
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon [NASA-TM-106057] 08 p2283 N93-23743
Microwave characterization of slotline on high resistivity silicon for antenna feed network [NASA-TM-106058] 10 p3031 N93-27265
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas [NASA-CR-193030] 10 p3026 N93-27283
A dual polarized broadband multifrequency Earth station feed 11 p3371 N93-30319
Comparison and design of multiple beam antenna feed networks 11 p3374 N93-30335
Recent advances in bootlace lens design 11 p3374 N93-30336

ANTENNA FIELDS
U ANTENNA RADIATION PATTERNS

ANTENNA RADIATION PATTERNS
NT SIDELOBES
Antenna pattern measurement facilities [AD-A250219] 02 p0283 N93-11764
Extension of fresnel near-field region by single-cycle sinusoidal pulses [AD-A254736] 02 p0285 N93-12356
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation [NASA-TP-3228] 02 p0222 N93-12543
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity [NASA-CR-191284] 03 p0565 N93-13354
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects 03 p0568 N93-14048
JSEP fellowship --- Transient radiation from antenna structures [AD-A257021] 04 p0863 N93-15470
Optimal linear array heading in a directional noise field [AD-A257336] 05 p1137 N93-15991
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media [AD-A256937] 05 p1138 N93-16207
Finite difference time domain modeling of spiral antennas [NASA-CR-192237] 06 p1503 N93-18586
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers [NASA-CR-192094] 06 p1515 N93-19483
Real time data reformatting using the TMS320C25 development system [AD-A259187] 07 p1882 N93-20273
Research on beam compression technology 07 p1795 N93-20447
Fractal theory for large lacunar antenna arrays 08 p2269 N93-23624
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon [NASA-TM-106057] 08 p2283 N93-23743
Antenna pattern control using impedance surfaces [NASA-CR-192712] 08 p2273 N93-24471
Influence due to antenna pattern change in brightness temperature estimation for a space-based microwave radiometer 09 p2753 N93-24868
Development of novel ferrite antennas [AD-A261690] 10 p3022 N93-26629
Wide-angle radiation pattern calculation of paraboloidal reflector antennas: A comparative study [EUT-91-E-252] 10 p3026 N93-27226
Moment method analysis of linearly tapered slot antennas [NASA-CR-191474] 10 p2955 N93-27261
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751
Double-slot antennas on extended hemispherical dielectric lenses 10 p3016 N93-27759
Predicting radiation characteristics from antenna physical dimensions [AD-A262462] 11 p3379 N93-28654
System overview on electromagnetic compensation for reflector antenna surface distortion [NASA-TM-106217] 11 p3273 N93-29195
Optical antenna beam steering using digital phase shifter control [AD-D015688] 11 p3383 N93-29455
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Models for performance assessment of HF antennas on the CH-135/Twin Huey helicopter 11 p3366 N93-30291
Computer-aided modeling for analysis of arbitrary scatterers and feeds 11 p3367 N93-30293
Development of an antenna measurement facility operating in the 2 GHz - 100 GHz frequency range 11 p3369 N93-30308
Application of the Fourier transform to short antennas 11 p3398 N93-30750
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Pattern measurements of US Navy ELF antennas 11 p3399 N93-30752
Advanced electromagnetic methods for aerospace vehicles [NASA-CR-193468] 11 p3400 N93-31036
Operation of the helicopter antenna radiation prediction code [NASA-CR-193259] 12 p3715 N93-31110

ANTENNAS
NT AIRCRAFT ANTENNAS
NT CASSEGRAIN ANTENNAS
NT DIPOLE ANTENNAS
NT DIRECTIONAL ANTENNAS
NT FURLABLE ANTENNAS
NT GRAVITATIONAL WAVE ANTENNAS
NT HELICAL ANTENNAS
NT HOOP COLUMN ANTENNAS
NT HORN ANTENNAS
NT LENS ANTENNAS
NT LOG PERIODIC ANTENNAS
NT LOOP ANTENNAS
NT MICROSTRIP ANTENNAS
NT MICROWAVE ANTENNAS
NT MONOPOLE ANTENNAS
NT MULTIBEAM ANTENNAS
NT OMNIDIRECTIONAL ANTENNAS
NT PARABOLIC ANTENNAS
NT PLASMA ANTENNAS
NT RADAR ANTENNAS

NT RADIO ANTENNAS
NT RECTENNAS
NT REFLECTOR ANTENNAS
NT SATELLITE ANTENNAS
NT SLOT ANTENNAS
NT SPACECRAFT ANTENNAS
NT SPHERICAL ANTENNAS
NT SPIRAL ANTENNAS
NT STEERABLE ANTENNAS
NT WAVEGUIDE ANTENNAS
NT YAGI ANTENNAS
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Extension of fresnel near-field region by single-cycle sinusoidal pulses
[AD-A254736] 02 p0285 N93-12356
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Low frequency RF current drive
[DE93-005130] 08 p2260 N93-22421
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669

ANTHROPOLOGY
Space migrations: Anthropology and the humanization of space 05 p1229 N93-16862

ANTHROPOMETRY
Astronaut candidate strength measurement using the Cybex 2 and the LIDO Multi-Joint 2 dynamometers
[NASA-CR-185679] 02 p0389 N93-12195
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Human perceptual deficits as factors in computer interface test and evaluation
[DE92-019124] 03 p0677 N93-12712
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
The design and use of automotive crash test dummies 06 p1424 N93-19669
An improved anthropometric test device 06 p1424 N93-19670
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Anthropometry of the foot and lower leg of U.S. Army soldiers: Fort Jackson, SC
[AD-A261405] 09 p2802 N93-26404
Neural network technologies
[AD-A262576] 11 p3541 N93-28987
Anthropometric data from launch and entry suited test subjects for the design of a recumbent seating system
[NASA-TM-104769] 11 p3505 N93-29044
Anthropometric survey of the astronaut applicants and astronauts from 1985 to 1991
[NASA-RP-1304] 11 p3506 N93-29324
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006
Correlation of life-style and dietary concomitants of Greek pilots with serum analytes 12 p3780 N93-32256

ANTIADRENERGICS
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820

ANTIBODIES
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force 02 p0377 N93-11292
Silent HIV infection 02 p0378 N93-11293
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations 02 p0379 N93-11297
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Measuring the metastatic potential of cancer cells 09 p2794 N93-25566
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
Pseudomonas screening assay
[NASA-CASE-NPO-17653-1-CU] 09 p2793 N93-25994
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality
[AD-A263240] 11 p3494 N93-29620

ANTICLINES
Effects of gravity in folding --- of geological layers 01 p0124 N93-10324

ANTICLINORIA
U ANTICLINES

ANTICONVULSANTS
Autoradiographic distribution and applied pharmacological characteristics of dextromethorphan and related antitissue/anticonvulsant drugs and novel analogs
[AD-A255607] 04 p0935 N93-15009

ANTICYCLONES
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
A procedure to reduce northward drift of tropical storms in a numerical model
[PB92-226406] 07 p2013 N93-21290
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

ANTIDIURETICS
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014

ANTIFERROMAGNETISM
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling
[DE93-000607] 05 p1319 N93-16278
Phase diagram by frustrated vortices in Potts models
[ROM1F-92-860] 05 p1281 N93-17217
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
High-energy spin-density-wave correlated fluctuations in paramagnetic Cr + 5 at. percent V
[DE93-003165] 07 p1857 N93-21958
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517
Nonclassical disordered phase in the strong quantum limit of frustrated antiferromagnets
[DE92-645691] 12 p3815 N93-31806

ANTIFOULING
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532

ANTIFRICTION BEARINGS
NT BALL BEARINGS
NT ROLLER BEARINGS
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001

ANTIGENS
Silent HIV infection 02 p0378 N93-11293
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Cytokines as vaccine adjuvants: Interleukin 1 and its synthetic peptide 163-171 02 p0382 N93-11309
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037

ANTIGRAVITY
Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463

ANTIHISTAMINICS
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817

ANTIINFECTIVES AND ANTIBACTERIALS
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits 02 p0381 N93-11305
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736

ANTIKNOCK ADDITIVES
The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540

ANTIMATTER
NT ANTINEUTRINOS
NT ANTINUCLEONS
NT ANTIPARTICLES
NT ANTIPROTONS
NT POSITRONS
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Anti-hydrogen: The cusp between quantum mechanics and general relativity
[DE93-001807] 04 p0998 N93-15469
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584

ANTIMISSILE DEFENSE
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Simulator, Tactical Use, Flare (STUF) project report
[AD-A254890] 02 p0276 N93-12281
Theory for a high power free electron laser and tactical applications
[AD-A255161] 02 p0323 N93-12405
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Strategic defense initiative: Estimates of brilliant pebbles' effectiveness are based on many unproven assumptions
[AD-A256810] 05 p1277 N93-15679
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Report to Congress on the strategic defense initiative, 1992
[AD-A258449] 06 p1650 N93-17992
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Environmental assessment for the brilliant pebbles tether test at the Nevada test site
[DE93-003869] 07 p1952 N93-21839
Military space capabilities and requirements 08 p2154 N93-23161
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206

Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209
Midcourse Space Experiment (MSX) environmental assessment
[AD-A262460] 10 p3127 N93-27830
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867

ANTIMISSILE MISSILES
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209

ANTIMONIDES
NT GALLIUM ANTIMONIDES
NT INDIUM ANTIMONIDES

ANTIMONY ALLOYS
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132

ANTIMONY COMPOUNDS
NT GALLIUM ANTIMONIDES
NT INDIUM ANTIMONIDES

ANTINEUTRINOS
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606

ANTINUCLEONS
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792

ANTIOXIDANTS
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902

ANTIPARTICLES
NT ANTINEUTRINOS
NT ANTINUCLEONS
NT ANTIPROTONS
NT POSITRONS
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463
Quons, an interpolation between Bose and Fermi oscillators 10 p3141 N93-27312
Mass spectra of the particle-antiparticle system with a Dirac oscillator interaction 10 p3146 N93-27351

ANTIPROTONS
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
A program to study antiprotons in the cosmic rays: Arizona collaboration
[NASA-CR-191272] 03 p0772 N93-13306
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986
Evidence for the dominance of an I(sup G)J(sup PC) = 0(+)0(++) resonance in p(bar)n decay to 2 pi(+)
[PREPRINT-885] 05 p1290 N93-17021
Evidence of an I(sup G)J(sup PC) = O(+)O(++) resonance at 1.39 GeV/sq c and confutation of the zeta(1480) in a reanalysis of the p(bar)n decay to 2 pi(+)-3 pi(-) annihilation at rest
[PREPRINT-826] 05 p1291 N93-17222
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Medium energy meson research
[DE93-004133] 06 p1655 N93-18449
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618

ANTIRADIATION MISSILES
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059

ANTIREFLECTION COATINGS
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
A high intensity solar cell invention: The edge-illuminated Vertical Multi-Junction (VMJ) solar cell
[DE92-019015] 04 p0907 N93-15224
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771
Effects of long term space environment exposure on optical substrates and coatings (S0050-2) 11 p3582 N93-29694

ANTISEPTICS
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122

ANTISHIP MISSILES
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206

ANTISUBMARINE WARFARE
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
Research platforms FLIP and ORB support
[AD-A265910] 12 p3771 N93-32320

ANTISUBMARINE WARFARE AIRCRAFT
NT CL-84 AIRCRAFT
NT P-3 AIRCRAFT
Usage monitoring in the RNLN Fleet Air Arm (Marine Luchtvaarldienst)
[NLR-TP-91070-U] 05 p1062 N93-17394

ANVILS
Modeling of cloud/radiation processes for tropical anvils
[AD-A260203] 08 p2410 N93-24470

APATITES
U CALCIUM PHOSPHATES
U MINERALS

APERTURES
NT IRISES (MECHANICAL APERTURES)
NT SYNTHETIC APERTURES
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
Radio and optical interferometric imaging 03 p0744 N93-13580
The CHARA optical array 03 p0744 N93-13581
High resolution imaging at Palomar 03 p0745 N93-13584
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter
[AD-A257694] 05 p1141 N93-17689
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures 06 p1504 N93-18901
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
FESDIF: Finite Element Scalar Diffraction theory code
[DE93-007222] 08 p2475 N93-24447
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Application of the Fourier transform to short antennas 11 p3398 N93-30750
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988

APEXES
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
On corner and vertex detection
[INRIA-RR-1439] 06 p1646 N93-18594
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713
Cycles containing all vertices of maximum degree 10 p3115 N93-27474
Smallest regular graphs with given diameter
[MEMO-1092] 12 p3810 N93-32399

APNEA
U RESPIRATION

APOLLO ASTEROIDS
On associations of Apollo asteroids with meteor streams 06 p1715 N93-19223

APOLLO FLIGHTS
NT APOLLO 17 FLIGHT

APOLLO PROJECT
Last chance at Taurus-Littrow 06 p1740 N93-18817

APOLLO SOYUZ TEST PROJECT
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975

APOLLO 17 FLIGHT
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Last chance at Taurus-Littrow 06 p1740 N93-18817

APPARATUS
U EQUIPMENT

APPENDAGES
NT ARM (ANATOMY)
NT ELBOW (ANATOMY)
NT FEET (ANATOMY)
NT FINGERS
NT FOREARM
NT HAND (ANATOMY)
NT KNEE (ANATOMY)
NT LEG (ANATOMY)

APPLICATION
U UTILIZATION

APPLICATION SPECIFIC INTEGRATED CIRCUITS
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
Spacecraft optical disk recorder memory buffer control 05 p1170 N93-16773
Contribution to the development of an ISFET type integrated sensor using an ASIC thread in CMOS technology
[ECL-91-09] 07 p1892 N93-21006
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777
Flexible high speed CODEC 08 p2287 N93-22178
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology
[DE93-003602] 08 p2279 N93-22819
VLSI architectural synthesis for DSP custom applications
[ISBN-0-315-57793-2] 08 p2433 N93-24621

APPLICATIONS OF MATHEMATICS
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961

Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
Current research activities: Applied and numerical mathematics, fluid mechanics, experiments in transition and turbulence and aerodynamics, and computer science
[NASA-CR-191408] 09 p2803 N93-25084
Strongly transitive fuzzy relations: A more adequate way to describe similarity
[NASA-CR-192951] 09 p2820 N93-25425
Cumulative reports and publications
[NASA-CR-191440] 10 p3090 N93-27063
SIAM Conference on Applications of Dynamical Systems
[DE93-007969] 11 p3548 N93-29057

APPLICATIONS PROGRAMS (COMPUTERS)
NT NASTRAN
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields 01 p0016 N93-10010
Issues and techniques of CASE integration with configuration management
[AD-A253323] 01 p0136 N93-10298
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
LABAN-PEL: A two-dimensional, multigroup diffusion, high-order response matrix code
[DE92-626845] 01 p0144 N93-10624
ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Object-oriented design unifies databases and applications
[AD-A253313] 01 p0175 N93-10723
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas
[AD-A249095] 02 p0451 N93-11275
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Operator's guide for VAXGAP, a gamma-ray spectrum analysis package
[DE92-019096] 02 p0407 N93-11356
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
A rule-based system for real-time analysis of control systems
[NASA-TM-104258] 02 p0277 N93-11619
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11926
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET) 02 p0395 N93-11940
The development and technology transfer of software engineering technology at NASA. Johnson Space Center 02 p0396 N93-11943
Micromechanical combined stress analysis: MICSTRAN, a user manual
[NASA-CR-189694] 02 p0243 N93-12306
Application interface engine language and object reference manual
[DE92-017555] 03 p0683 N93-12686
An interactive office accounting program written in UNIX and C
[AD-A255077] 03 p0683 N93-12740
The VELOPT code for estimating performance of a Fabry-Perot velocimeter
[DE92-015566] 03 p0596 N93-12831
User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851
Computer program for calculating and fitting thermodynamic functions
[NASA-RP-1271] 03 p0728 N93-12967
Semiconductor measurement technology: Version 2.0 of the TXYZ thermal analysis program: TXYZ20
[PB92-217603] 03 p0570 N93-12978
Fully energy-dependent HZETRN (a galactic cosmic-ray transport code)
[NASA-TP-3243] 03 p0771 N93-13020
Introduction to IND and recursive partitioning, version 1.0
[NASA-CR-191220] 03 p0685 N93-13063
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets
[NASA-CR-191260] 03 p0685 N93-13261
Optimal control computer programs
[NASA-TM-108384] 03 p0693 N93-13289
Development status of SINDA/FLUINT and SINAPS 03 p0585 N93-13393
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
Analysis of fluid/mechanical systems using EASY5 03 p0586 N93-13397
Aerospace applications of SINDA/FLUINT at the Johnson Space Center 03 p0586 N93-13401
Two-phase/two-phase heat exchanger simulation analysis 03 p0586 N93-13402
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Special MAFIA postprocessors for the analysis of RF structures
[DE92-040248] 03 p0565 N93-13510
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
Scientific predictability of solid rocket performance: Analyses of the processing parameters 03 p0526 N93-13824
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522
Air Force procedure for predicting noise around airbases: Noise exposure model (Noisemap)
[AD-A255769] 04 p0910 N93-14655
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide
[NASA-CR-189653-VOL-1-REV] 04 p0815 N93-14794
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
A guide to EDI translation software
[AD-A255739] 04 p1007 N93-15051
Workstation tools for feature extraction and classification for nonstationary and transient signals
[AD-A255389] 04 p0947 N93-15228
Validation of an automated torsional and warping stress analysis program
[AD-A256035] 04 p0902 N93-15260
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
Automated Estimated System (AES) standard value and guidelines programs user's manual
[DE92-041243] 04 p0951 N93-15450
User's guide for a large signal computer model of the helical traveling wave tube
[NASA-TP-3251] 04 p0871 N93-15531
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Lewis online travel system: Preparer's/traveler's manual, release 1.0
[NASA-CR-190776] 05 p1254 N93-15789
Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
CRRESRAD documentation
[AD-A256715] 05 p1213 N93-16172
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674
SAFSIM input manual: A computer program for the engineering simulation of flow systems
[DE93-002738] 05 p1163 N93-16922
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Software Engineering Laboratory Ada performance study: Results and implications 05 p1245 N93-17172
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
SEDS1 mission software verification using a signal simulator 05 p1254 N93-17321
Stiffnesses by (TtN) ensemble molecular dynamics 05 p1274 N93-17331
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
Domain specific software architectures: Command and control 05 p1247 N93-17503
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Automating FEA programming 05 p1251 N93-17524
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Microcomputer simulation of a fourier approach to optical wave propagation
[AD-A257598] 05 p1305 N93-17796
Minimum size of disc cams with radial translating roller followers
[ESDU-92005] 06 p1544 N93-17998
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
A simulated annealing approach to schedule optimization for the SES facility 06 p1634 N93-18662
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system
[AD-A259018] 06 p1624 N93-19016
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Integrated software package STAMP for minor planets 06 p1628 N93-19187
Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335
Digital signal processing using lapped transforms with variable parameter windows and orthonormal bases
[AD-A258853] 06 p1511 N93-19368
Software for parallel processing applications
[DE93-002510] 06 p1627 N93-19744

An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters
07 p1446 N93-19928
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Design of a laboratory computer interface
[AD-A259126] 07 p2028 N93-20594
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
Further development of the CANAERO computer code to include a time-stepping capability
[DREA-CR-91-478] 07 p2042 N93-21820
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041
Transportable Applications Environment (TAE) Plus: A NASA tool for building and managing graphical user interfaces
08 p2444 N93-22150
Microcomputer based software for biodynamic simulation
08 p2429 N93-22191
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package
08 p2305 N93-22203
COSMIC software catalog, 1993
[NASA-CR-191005] 08 p2434 N93-22205
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Terndl). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
SPRING2: Helical compression spring geometry generator program manual
[DREA-TC-92-314] 08 p2438 N93-23345
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
PROMISC user manual, appendix 2
[NASA-CR-192989] 08 p2332 N93-24529
PROMISS user manual, appendix 1
[NASA-CR-192990] 08 p2333 N93-24530
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Geometric modeling for computer aided design
[NASA-CR-192891] 09 p2808 N93-24750
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
OCEAN-PC and a distributed network for ocean data
09 p2734 N93-24928
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
EXCHANGE
[DE93-007227] 09 p2808 N93-24962
PCG: A software package for the iterative solution of linear systems on scalar, vector and parallel computers
[DE93-007366] 09 p2809 N93-25315
A software package for neural network applications development
09 p2827 N93-25610
Experimenter's laboratory for visualized interactive science
09 p2879 N93-25802
A Spatial Analysis and Modeling System (SAMS) for environment management
09 p2881 N93-25813
A distributed analysis and visualization system for model and observational data
09 p2881 N93-25814
DSD Technology: A detonation reactive Huygens code
[LA-12235-MS] 09 p2706 N93-25987
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
EnviroNET
09 p2886 N93-26398
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Directory of US Government software for mainframes and microcomputers, 1993
[PB93-111565] 09 p2807 N93-26569
Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947
Overview of NASA/DOE/DOD interagency modeling team and activities
10 p2980 N93-26952
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling
10 p2980 N93-26955
NEP systems model
10 p2984 N93-26987
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093
User's guide for the algorithm testing system/version 1.1
[PB93-175990] 10 p3096 N93-27408
Adaptive EAGLE dynamic solution adaptation and grid quality enhancement
10 p2937 N93-27464
A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations
10 p2937 N93-27465
Thermoelectric cooler design
[AD-A262149] 10 p3010 N93-27545
Qualitative model-based diagnostics for rocket systems
[NASA-TM-106234] 10 p2956 N93-28052
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Parallel computation and the basis system
[DE93-008755] 11 p3537 N93-28544
Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558
Basic OSF/Motif programming and applications
[DE93-010800] 11 p3524 N93-28834
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
A proposed approach for developing next-generation computational electromagnetics software
[DE93-007326] 11 p3380 N93-28900
Index mappings for interactive editing of symbolic matrices
[DE93-009316] 11 p3549 N93-29060
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
TRAB: A transient analysis program for BWR. Part 2: User's manual
[VTT-TIED-1232-PT-2] 11 p3575 N93-29996
The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156
The First NASA Advanced Composites Technology Conference, part 1
[NASA-CP-3104-PT-1] 11 p3300 N93-30428
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Computer algebra tools for higher symmetry analysis of nonlinear evolution equations
[DE93-606089] 11 p3535 N93-30787
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
HELAS: HELicity amplitude subroutines for Feynman diagram evaluations
[DE93-715538] 12 p3813 N93-31166
SCRIBO: An interactive grid-base name placement system for map making
12 p3745 N93-31268
Commercialization of NESSUS: Status
12 p3695 N93-31567
Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081
Software engineering
12 p3794 N93-32154
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

APPROACH
NT INSTRUMENT APPROACH
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Flight simulation evaluation of the flyability of curved MLS approaches with wide-body aircraft
[NLR-TP-90238-U] 06 p1452 N93-17875
Visual approach data collection at St. Louis Lambert Field (STL)
[DOT/FAA/CT-TN93/2] 09 p2584 N93-24948

APPROACH CONTROL
NT RADAR APPROACH CONTROL
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
Approach range and velocity determination using laser sensors and retroreflector targets
08 p2147 N93-22297
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
The dependent converging instrument approach procedure: An analysis of its safety and applicability
[DOE/FAA/RD-93/6] 09 p2585 N93-25456
Control of complex dynamic systems by neural networks
09 p2827 N93-25611
Minimum effort interception of multiple targets
10 p2925 N93-27205
Developing automation for terminal air traffic control: Case study of the imaging aid
11 p3247 N93-30356
Evaluation of the flyability of MLS curved approaches for wide-body aircraft
[NLR-TP-91396-U] 12 p3680 N93-32416

APPROACH INDICATORS
Developing automation for terminal air traffic control: Case study of the imaging aid
11 p3247 N93-30356

APPROPRIATIONS
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
National Aeronautics and Space Administration Authorization Act, fiscal year 1993
[S-REPT-102-364] 03 p0741 N93-13798
NASA authorization, 1993, volume 2
[GPO-56-943-VOL-2] 03 p0741 N93-13799
NASA's fiscal year 1993 budget
[S-HRG-102-707] 03 p0742 N93-13800
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
National Aeronautics and Space Administration
05 p1358 N93-17091
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500

Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc.
07 p2093 N93-21677
National Aeronautics and Space Administration: Statement of Joanne Padron, American Institute of Aeronautics and Astronautics 07 p2093 N93-21678
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
National Aeronautics and Space Administration: Statement of Len Ricks, Council of Engineers and Scientists Organizations 07 p2094 N93-21681
Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives. Intelligence programs: New RC-135 aircraft engines can reduce cost and improve performance
[AD-A259283] 08 p2105 N93-22397

APPROXIMATION
NT BORN APPROXIMATION
NT BORN-OPPENHEIMER APPROXIMATION
NT CHEBYSHEV APPROXIMATION
NT ESSENTIALLY NON-OSCILLATORY SCHEMES
NT FINITE DIFFERENCE THEORY
NT FINITE ELEMENT METHOD
NT HARTREE APPROXIMATION
NT LEAST SQUARES METHOD
NT MEAN SQUARE VALUES
NT MULTIGRID METHODS
NT NEWTON METHODS
NT NEWTON-RAPHSON METHOD
NT NUMERICAL DIFFERENTIATION
NT OSEEN APPROXIMATION
NT PARTICLE IN CELL TECHNIQUE
NT PREDICTOR-CORRECTOR METHODS
NT RAYLEIGH-RITZ METHOD
NT RELAXATION METHOD (MATHEMATICS)
NT SOMMERFELD APPROXIMATION
NT TVD SCHEMES
NT UPWIND SCHEMES (MATHEMATICS)
A new non-Gausssian approximation technique for random vibration of general hysteresis
01 p0050 N93-10496
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
Some numerical results on best uniform polynomial approximation of chi(sup alpha) on interval (0,1)
[DE92-014859] 02 p0426 N93-11520
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
Efficient solution of parabolic equations by Krylov approximation methods
[NASA-CR-191235] 03 p0697 N93-13409
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
Approximate performability analysis using generalized stochastic Petri nets
[MEMO-INF-92-11] 04 p0971 N93-15119
Multiresolution analysis by infinitely differentiable compactly supported functions
[AD-A256526] 04 p0969 N93-15398
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
The role of under-determined approximations in engineering and science application
05 p1274 N93-16763
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition
[AD-A257733] 05 p1188 N93-17690
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Vector approximation problems in geometric vector optimization
[REPT-92-39] 06 p1643 N93-17871
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084] 06 p1435 N93-17893
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
Particle approximation for first order stochastic partial differential equations
[INRIA-RR-1502] 06 p1646 N93-18597
Discrete time system piecewise linear filtering with small observation noise
[INRIA-RR-1451] 06 p1633 N93-18611
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160
An approximate solution for the linearized spinup dynamics of a dual-spin spacecraft
[AD-A258903] 06 p1470 N93-19350
The practical application of computational fluid mechanics 07 p1905 N93-20622
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions
07 p1928 N93-20632
Denumerable constrained Markov decision problems and finite approximations
[INRIA-RR-1568] 07 p2058 N93-20867
Asymptotic behaviour of some bilinear functionals of the empirical process
[MEMO-1031] 07 p2059 N93-20956
SSG 4.91: Local gravity field approximation
07 p1972 N93-20979
Proximal techniques for convex programming
[RR-877-M] 07 p2039 N93-21167
Approximation paper, part 1 --- neural networks, fuzzy systems 08 p2456 N93-22372
An approximate method for estimating the lifting characteristics of thin bodies of non-circular cross-section
[CRANFIELD-AERO-9006] 08 p2108 N93-22395
Improving the chi-squared approximation for bivariate normal tolerance regions
[NASA-TP-3304] 08 p2472 N93-22670
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle 08 p2126 N93-23505
Determining nodes and long-time approximations to the Navier-Stokes equations 08 p2296 N93-23593
Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation
[AD-A260284] 08 p2483 N93-24234
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
Monte Carlo approach to the approximation of invariant measures
[PB93-159069] 09 p2830 N93-26317
Asymptotic estimates of Stirling numbers
[CWI-AM-R9204] 10 p3113 N93-27310
Quantized discrete space oscillators
10 p3146 N93-27349
Approximate analysis of an M/G/1 priority queue with priority changes due to impatience
[CWI-BS-R9202] 10 p3127 N93-27606
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883
An algorithm for determining the approximation orders of multivariate periodic spline spaces
[MEMO-1061] 10 p3101 N93-28012
Bootstrapping multivariable U-quantiles and related statistics
[CWI-BS-R9215] 10 p3126 N93-28091
Polygonal approximation overviews and perspectives
[INRIA-RR-1621] 11 p3547 N93-28513
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Fixed point iterations for quasi-contractive maps in uniformly smooth Banach spaces
[DE92-641348] 11 p3552 N93-30942
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
Curve interpolation with constrained length
[MEMO-1079] 12 p3804 N93-31467
Finite volume methods constructed by mixed variational formulation. Part 2: Error estimates in discrete energetic norms
[REPT-92-86] 12 p3805 N93-31488
Finite volume methods constructed by mixed variational formulation. Part 1: Description of the discretization technique
[REPT-92-85] 12 p3805 N93-31489
Approximation orders of and approximation maps from local principal shift-invariant spaces
[AD-A265038] 12 p3808 N93-31999
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286
Convergence rates and finite-dimensional approximations for nonlinear ill-posed problems involving monotone operators in Banach spaces
[DE93-619670] 12 p3809 N93-32287

APPROXIMATION METHODS
U APPROXIMATION

APSIDES
NT PERIHELIONS

APTITUDE
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291

AQUATIC PLANTS
NT PHYTOPLANKTON
Aquatic plant control research program. Biological control of Pistia stratiotes L. (waterlettuce) using Neohydronomus affinis hustache (coleoptera: curculionidae)
[AD-A257463] 06 p1574 N93-18945
CEBAS-Aquarack: An artificial aquatic animal plant ecosystem as a tool for basic research in the Columbus Space Station 08 p2166 N93-24401

AQUEOUS SOLUTIONS
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
Predicting viscosities of aqueous salt mixtures
[DE93-002421] 06 p1483 N93-18523
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
Methods for predicting properties and tailoring salt solutions for industrial processes
08 p2226 N93-22183
Electronic control of pH at sulfonated polyaniline electrodes
[AD-A260074] 08 p2222 N93-23963
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Mars aqueous chemistry experiment
[NASA-CR-193134] 10 p3211 N93-27604
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359

Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
Diffusion coefficients and heats of mixing in aqueous alkanolamines
[PB93-176212] 11 p3316 N93-30661

AQUIFERS
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762

ARABIAN SEA
Late quaternary time series of Arabian Sea productivity: Global and regional signals 06 p1580 N93-18969
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239

ARABSAT
Lessons drawn from 2 existing satellite networks: ARABSAT and EUTELSAT. Application to the Pacific basin projects
[REPT-921-440-101] 02 p0282 N93-11591

ARAMID FIBER COMPOSITES
Aramids in high performance protective clothing 07 p1837 N93-21155

ARAMID FIBERS
NT KEVLAR (TRADEMARK)
Twaron in composites and protective clothing 07 p1837 N93-21153
Aramids in high performance protective clothing 07 p1837 N93-21155
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636

ARC DISCHARGES
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Pulse discharge laser with passive arc protection
[AD-D015601] 07 p1909 N93-20262
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171

ARC HEATING
Arc-cathode interaction study
[NASA-CR-191356] 04 p0867 N93-14721

ARC JET ENGINES
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
A 26 kW arcjet system for on-orbit demonstration 01 p0021 N93-10031
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
Effects of anode material on arcjet performance 01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Numerical modeling of a vortex stabilized arcjet 02 p0232 N93-11889
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
Development of arcjet and ion propulsion for spacecraft stationkeeping
[NASA-TM-106102] 08 p2204 N93-23747
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658

ARC MELTING
Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932

ARC SPRAYING
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
Diagnostic behavior of the Wire Arc Plasma spray process
[DE93-000717] 05 p1308 N93-16229
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936

ARC WELDING
NT GAS TUNGSTEN ARC WELDING
NT PLASMA ARC WELDING
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
The collaborative program of research in engineering sciences
[DE92-016838] 02 p0490 N93-12477
An integrated optical sensor for GMAW feedback control
[DE92-018019] 03 p0610 N93-12793
Automatic programming of arc welding robots 03 p0616 N93-13720
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
Investigation of gas metal arc welding characteristics of alloy 6013 08 p2211 N93-23937
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253
Welding wire pressure sensor assembly
[NASA-CASE-MFS-26216-1] 11 p3442 N93-28951

ARCHAEBACTERIA
New class of lubricants derived from archaebacterial lipids
[AD-D015481] 05 p1124 N93-16487

ARCHAEOLOGY
Bibliographic study of georadar principles, applications, advantages, and inconvenience
[CR-35/91] 06 p1509 N93-18993
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146

ARCHES
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282

ARCHIPELAGOES
Atoll Research Bulletin numbers 355-364: 40th anniversary issue
[PB93-169654] 10 p3062 N93-27421

ARCHITECTURE
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
Lunar architecture and urbanism 05 p1396 N93-17440
Preliminary design study of lunar housing configurations 05 p1229 N93-17443
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
Mars habitat 11 p3233 N93-29747
Selenia: A habitability study for the development of a third generation lunar base 11 p3233 N93-29748

ARCHITECTURE (COMPUTERS)
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter
[CTN-92-60593] 01 p0135 N93-10088
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
QR decomposition based algorithms and architectures for least-squares adaptive filtering
[RSRE-MEMO-4562] 02 p0408 N93-11390
Geometrical concepts about learning rules in networks with binary and ternary output functions
[REPT-92-020] 02 p0411 N93-11592
A VMEbus ultrasonic sensor controller for mapping end servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Design of a lattice-based faceted classification system 02 p0415 N93-12385
Formal specification of the VIPER microprocessor in HOL
[RSRE-90009] 02 p0405 N93-12430
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
Reviews of computing technology: Securing network applications, Kerberos, and RSA
[DE92-019928] 03 p0690 N93-13620
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
Monitoring and controlling distributed applications using Lomita (position paper)
[NASA-CR-190971] 03 p0687 N93-13695
Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
The 1992 Summer SIGAda AIWG Workshop applications experiences and lessons learned panel message from the panel chair
[AD-A256188] 04 p0962 N93-14519
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A255433] 04 p0962 N93-14551
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Enterprise storage report for the 1990's 04 p1004 N93-15028
EMASS (trademark): An expandable solution for NASA space data storage needs 04 p1005 N93-15033
Data storage and retrieval system 04 p1005 N93-15034
Network accessible multi-terabyte archive 04 p1005 N93-15036
Storage needs in future supercomputer environments 04 p1007 N93-15047
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083

Architecture of low cost, large scale neural networks
[MEMO-INF-92-16] 04 p0941 N93-15089
Progammable connection parallel architecture: Design and routing
[ETN-92-92676] 04 p0958 N93-15124
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Experience with a course on architectures for software systems. Part 1: Course description
[AD-A256221] 04 p0941 N93-15239
Neural network architectures for general image recognition
[AD-A256017] 04 p0964 N93-15258
VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment
[VH-1] 04 p0947 N93-15262
Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
CMU common lisp user's manual
[AD-A256431] 04 p0950 N93-15336
Analog Very Large Scale Integration (VLSI) implementations of artificial neural networks
[AD-A256621] 04 p0966 N93-15408
Proposal for massively parallel data storage system
04 p0960 N93-15510
A linear constraint technology for interactive graphic systems 04 p0957 N93-15568
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
A structural approach to the photonic processor
[AD-A260688] 04 p0986 N93-15648
Micrometer FX/DLX: A pedagogic compiler
[AD-A256821] 05 p1232 N93-15684
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
An MCM/chip concurrent engineering validation
[AD-A257415] 05 p1233 N93-15863
The Sandia Airborne Computer (SANDAC)
[DE92-014046] 05 p1231 N93-15878
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
A pipelined, high-precision FFT architecture
[AD-A257235] 05 p1263 N93-15969
Spacecraft command and control using AI planning techniques. The O-Plan2 project
[AD-A257395] 05 p1258 N93-16008
Proceedings of the MIT Student Workshop on VLSI and Parallel Systems
[AD-A256795] 05 p1145 N93-16054
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Fault tolerant real-time systems
[AD-A257352] 05 p1235 N93-16174
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems
05 p1353 N93-16322
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
Open systems storage platforms
05 p1355 N93-16333
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490
Parallel processing for linear programming
[ISBN-90-6275-754-5] 05 p1256 N93-16565
TMN: Introduction and interpretation
[MEMO-INF-92-40] 05 p1140 N93-16592
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
Architectures for intelligent machines
[NASA-CR-191875] 05 p1231 N93-16621
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
Exploratory designs for computational experiments
[DE93-002354] 05 p1243 N93-17040
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU] 05 p1261 N93-17276
Neural network architectures to analyze OPAD data
05 p1262 N93-17336
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
Domain specific software architectures: Command and control 05 p1247 N93-17503
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
Architecture/environment evaluation
[AD-A257849] 06 p1613 N93-18348
Self-growing neural network architecture using crisp and fuzzy entropy
[NASA-TM-105677] 06 p1553 N93-18422
Artificial neural networks application simulator
06 p1642 N93-18502
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
A proposal of an architecture for the coordination level of intelligent machines
[NASA-CR-191990] 06 p1613 N93-18516
O-Plan2: The open planning architecture
06 p1637 N93-18678
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
Numerical Wind Tunnel: Requirements and the outline
06 p1411 N93-19288
The operating system for Numerical Wind Tunnel
06 p1411 N93-19290
Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335
A computer architecture for intelligent machines
[NASA-CR-191861] 06 p1614 N93-19347
Development of a task analysis tool to facilitate user interface design 06 p1628 N93-19404
User interface of complex interactive computer systems
[ECL-92-05] 07 p2030 N93-20059
A coupled multi-ALU processing node for a highly parallel computer
[AD-A259455] 07 p2043 N93-20240
Design of a laboratory computer interface
[AD-A259126] 07 p2028 N93-20594
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
A distributed Petri Net controller for a dual arm testbed
[NASA-CR-192733] 07 p2048 N93-21373
A phase one AR/C system design
07 p1816 N93-21435
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Translational controller results
[NASA-CR-192320] 08 p2457 N93-22396
Parallel processor for real-time structural control
[DE93-006284] 08 p2446 N93-22545
Survey of benchmarks
[NPL-DITC-192/91] 08 p2436 N93-22816
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Space Generic Open Avionics Architecture (SGOAA) standard specification
[NASA-CR-188245] 08 p2199 N93-23003
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
A stochastic learning algorithm for layered neural networks
[DE93-003555] 08 p2458 N93-23288
LOTOS specification style for OSI
[MEMO-INF-92-46] 08 p2448 N93-23357
Asynchronous design for parallel processing architectures
[AD-A259776] 08 p2448 N93-23453
A new process for acquiring software architecture
[AD-A259487] 08 p2439 N93-23463
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
Northeast Parallel Architectures Center (NPAC)
[AD-A259627] 08 p2448 N93-23653
Validation of distributed systems by fault injection
[LAAS-92180] 08 p2472 N93-23864
Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
Shiva Mark 2 hardware architecture, version 1
[AD-A259534] 08 p2449 N93-24039
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
Architecture for human-computer design, management and coordination in a collaborative AEC environment
08 p2528 N93-24186
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Information handling as task layer of Columbus user support 08 p2163 N93-24383
The actor model
[AD-A260196] 08 p2442 N93-24469
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
Hyperstructures as computer architectures for high performance multiprocessor systems
[ISBN-0-315-58975-2] 08 p2433 N93-24613
VLSI architectural synthesis for DSP custom applications
[ISBN-0-315-57793-2] 08 p2433 N93-24621
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
A comparison using APPL and PVM for a parallel implementation of an unstructured grid generation program
[NASA-CR-191425] 09 p2808 N93-25073
RAMA: A file system for massively parallel computers
[NASA-CR-192906] 09 p2815 N93-25297
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture
09 p2876 N93-25554
Splash 2 09 p2814 N93-25575
A novel method for characterization of superconductors: Physical measurements and modeling of thin films
09 p2871 N93-25584
Data systems dynamic simulator
09 p2814 N93-25602
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
Integrated Development Support Environment (IDSE)
[AD-A261088] 09 p2877 N93-25763
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis
09 p2880 N93-25807
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
Information requirements analyses for transatmospheric vehicles
[AD-A261189] 09 p2590 N93-25949
Strategic information planning: Framework for designing and developing system architectures
[GAO/IMTEC-92-51] 09 p2882 N93-26097
National Launch System. Task 4: System architecture options analysis
[MCR-92-5011] 09 p2609 N93-26098
An OSI architecture for the Deep Space Network
09 p2679 N93-26121

Deep Space Network information system architecture study 09 p2679 N93-26126
Source-level debugging of automatically parallelized programs
[AD-A261520] 09 p2813 N93-26378
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669
Computational modeling of nuclear thermal rockets 10 p2980 N93-26956
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Rutger's CAM2000 chip architecture
[NASA-CR-193078] 10 p3151 N93-27094
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372
Validated fault tolerant architectures for Space Station 10 p2964 N93-27707
Consistency management for virtually indexed caches
[AD-A261952] 10 p3100 N93-27920
An architecture for interactive raster graphics
[CWI-CS-R9229] 10 p3102 N93-28102
Generic Application Layer for PC-controlled VME measuring systems (GAL PC-VME)
[OEFZS-4630] 10 p3103 N93-28204
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Design of a hardware discrete event simulation coprocessor
[AD-A262614] 11 p3537 N93-28478
A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Development of a visual system interface to support a domain-oriented application composition system
[AD-A262489] 11 p3528 N93-29418
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Stochastic architecture for Hopfield neural nets 11 p3519 N93-29579
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
Synthesis techniques and analysis tools for on-chip fault-tolerance
[AD-A263167] 11 p3409 N93-29654
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A264831] 11 p3543 N93-29791
Accelerating the transfer of technology for implementing domain specific software architectures
[AD-A264017] 11 p3532 N93-30014
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
A parallel processing system for intensive I/O 11 p3362 N93-30262
A transputer based parallel processing architecture for robotics applications 11 p3362 N93-30263
Technology for national asset storage systems 11 p3617 N93-30452
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Nonlinear explicit transient finite element analysis on the Intel Delta
[DE93-009561] 11 p3535 N93-30647
Space Generic Open Avionics Architecture (SGOAA) reference model technical guide
[NASA-CR-188246] 11 p3285 N93-31032
Testability of artificial neural networks: A behavioral approach
[REPT-92-047] 12 p3797 N93-31254
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Design and implementation strategies
[MEMO-INF-92-57] 12 p3788 N93-31511
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
The implementation of the digital wave processor for the ESA/NASA Cluster mission 12 p3858 N93-31708
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
Current state of the mass storage system reference model 12 p3840 N93-31965
Grand challenges in mass storage: A system integrator's perspective 12 p3840 N93-31973
Performance of a distributed superscalar storage server 12 p3841 N93-31978
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
New architectures to reduce I/O bottlenecks in high-performance systems
[DE93-009059] 12 p3795 N93-31985
Neural attentional sensory processing
[AD-A265163] 12 p3799 N93-31992
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Video conferencing made easy
[DE93-010798] 12 p3718 N93-32283
Application of compiler-assisted multiple instruction rollback recovery to speculative execution
[NASA-CR-193360] 12 p3796 N93-32355
Strategic control of reactive behavior in intelligent agents
[AD-A264376] 12 p3801 N93-32413

ARCS
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and CI2244-02 03 p0755 N93-13848
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410

ARCTIC ENVIRONMENTS
U ICE ENVIRONMENTS

ARCTIC OCEAN
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Multi-discipline Arctic oceanography and acoustics program: The Geodesic Underice Tramway System (GUTS)
[AD-A258323] 06 p1589 N93-18254
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
The Oden real time ice monitoring demonstration 08 p2371 N93-23837
Radar backscatter measurements from Arctic sea ice during the fall freeze-up
[NASA-CR-193100] 09 p2790 N93-26050

ARCTIC REGIONS
Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Arctic science, engineering, and education. Directory of awards, fiscal year 1991
[NSF-92-60] 03 p0775 N93-13713
Data management for the coordinated Eastern Arctic experiment
[AD-A255648] 04 p1000 N93-14182
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Precipitation associated electric field enhancements 06 p1722 N93-19520
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
The EISCAT Svalbard (Arctic) radar 06 p1517 N93-19574
The BICORE project 06 p1517 N93-19587
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
Observation in Arctic 08 p2336 N93-22133
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Airborne studies of ocean-particle-cloud interactions
[AD-A259874] 08 p2415 N93-23958
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422
Radar backscatter measurements from Arctic sea ice during the fall freeze-up
[NASA-CR-193100] 09 p2790 N93-26050
A climatology of polar low occurrences in the Nordic Seas and an examination of katabatic winds as a triggering mechanism
[AD-A261719] 09 p2786 N93-26245
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298
Design issues and initial performance of an adaptive air/ground/air HF communication system 11 p3375 N93-30342
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922

AREA NAVIGATION
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671

ARGENTINA
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management 08 p2367 N93-23813

ARGON
NT ARGON ISOTOPES
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Experimental study of interactions of highly charged ions with atoms at keV energies
[DE92-019512] 02 p0436 N93-11541
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274
A global potential energy surface for ArH2 04 p0843 N93-15358
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446

Ion-beam modification of Gd2Ti2O7
[DE93-001514] 05 p1328 N93-17652
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327

ARGON ISOTOPES
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome 01 p0122 N93-10189
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943

ARGON LASERS
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703

ARGON PLASMA
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases 09 p2712 N93-25280

ARGOS SYSTEM
Control of on-orbit contamination for the Argos (P91-1) satellite 04 p0823 N93-15617

ARGUMENTS (MATHEMATICS)
U INDEPENDENT VARIABLES

ARIANE LAUNCH VEHICLE
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
Experimental approach on the pyrotechnical shock reduction of Ariane-5 upper stage 05 p1075 N93-15764
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material 05 p1084 N93-15779
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Nonlinear analysis of Ariane 5 engine frame
[LR-678] 05 p1074 N93-16284
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
Vulcain: A cryogenic engine for Ariane 5
[ETN-93-93022] 06 p1472 N93-18082
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
European space programme 10 p2920 N93-27174
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188

ARID LANDS
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation
[NASA-CR-191886] 05 p1190 N93-16382
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia 08 p2407 N93-23721
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823

ARIP (IMPACT PREDICTION)
U COMPUTERIZED SIMULATION
U IMPACT PREDICTION

ARITHMETIC
NT FLOATING POINT ARITHMETIC
Reduction operations on a distributed memory machine with a reconfigurable interconnection network 02 p0410 N93-11484
An interval refinement technique for surface intersection 04 p0956 N93-15561
Shavrukov's theorem on the subalgebras of diagonalizable algebras for theories containing I(delta(sub 0)) + exp
[ML-92-05] 06 p1642 N93-17825
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
On the structure of Kripke models of Heyting arithmetic
[ML-92-03] 06 p1644 N93-17914
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
The generic arithmetic of SISYPHE
[INRIA-RT-0136] 11 p3524 N93-28755
Realizability
[ML-92-09] 12 p3804 N93-31482

ARITHMETIC AND LOGIC UNITS
A coupled multi-ALU processing node for a highly parallel computer
[AD-A259455] 07 p2043 N93-20240
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650

ARIZONA
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160

ARKANSAS
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159

ARM (ANATOMY)
NT ELBOW (ANATOMY)
NT FOREARM
Control of a very flexible robot in gravity 03 p0615 N93-13541
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
Aimed arm movements under changed gravity 07 p1809 N93-21113

ARMATURES
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Validation of the flux loop diagnostic for the measurement of launch package motion during electromagnetic launch
[AD-A256547] 04 p0814 N93-14266
A multiple armature railgun launcher
[AD-A259768] 08 p2171 N93-23486
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394

ARMED FORCES
NT ARMED FORCES (FOREIGN)
NT ARMED FORCES (UNITED STATES)
NT NAVY
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696

ARMED FORCES (FOREIGN)
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
The German national industry as a source of logistic support for armed forces facing new requirements
[MBB-UL-0002-91-PUB] 07 p1877 N93-21463
An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765

ARMED FORCES (UNITED STATES)
Viral hepatitis in the US Air Force, 1980 - 1989 02 p0377 N93-11287
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force 02 p0377 N93-11292
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function 02 p0379 N93-11299
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Air Force Office of Scientific Research
[AD-A255331] 04 p1051 N93-14523
Smart battery controller for lithium sulfur dioxide batteries
[AD-A255490] 04 p0867 N93-14642
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Report to Congress on the strategic defense initiative, 1992
[AD-A258449] 06 p1650 N93-17992
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
A paradigm shift in Air Force medicine
[AD-A258334] 06 p1596 N93-18159
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
JIGSAW: Preference-directed, co-operative scheduling 06 p1639 N93-18689
Data management: Implementation and lessons learned from the Department of the Army data management program
[AD-A258796] 06 p1687 N93-19063
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
Summer research program (1992). Graduate student
[AD-A261971] 10 p3163 N93-28223
Summer Faculty Research Program (SFRP), volume 1
[AD-A261988] 11 p3608 N93-29440
Air Force CALS business practices
[AD-A264789] 11 p3610 N93-30177
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
The Army and military in space
[AD-A264581] 12 p3812 N93-32013
RACE pulls for shared control 12 p3686 N93-32122

ARMOR
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
A progressive resistance weight training program designed to improve the armor crewman's strength
[AD-A255553] 04 p0934 N93-14556
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662

Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
Impact on ceramic faced armour
[ETN-92-92797] 05 p1124 N93-16569
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

ARMS (ROBOTICS)
U ROBOT ARMS

AROMATIC COMPOUNDS
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
Understanding crystallinity in aromatic polyimides 05 p1128 N93-16764
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626

AROUSAL
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264

ARRAYS
NT ANTENNA ARRAYS
NT ENDFIRE ARRAYS
NT LASER ARRAYS
NT LINEAR ARRAYS
NT MULTISPECTRAL LINEAR ARRAYS
NT PHASED ARRAYS
NT SOLAR ARRAYS
NT SOLAR BLANKETS
NT STEERABLE ANTENNAS
NT SYNTHETIC ARRAYS
NT SYSTOLIC ARRAYS
NT YAGI ANTENNAS
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
United Kingdom Infrared Telescope 03 p0743 N93-13273
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
GGADS: A library independent layout synthesis system for user adaptive gate array master structures
[ETN-93-92571] 07 p1892 N93-21021
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Splash 2 09 p2814 N93-25575
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB] 09 p2706 N93-26000
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774
The dynamic behavior of constrained adaptive array sensor processors
[AD-A262402] 11 p3541 N93-28494
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482
Striped tape arrays 12 p3730 N93-31970

ARRHYTHMIA
Carbon monoxide exposure of subjects with documented cardiac arrhythmias
[PB93-179943] 11 p3497 N93-30890

ARSENATES
Two new titanium pyroarsenates: Alpha-TiAs2O7 and Beta-TiAs2O7
[AD-A264632] 11 p3599 N93-30518

ARSENIC
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164

ARSENIC ALLOYS
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827

ARSENIC COMPOUNDS
NT ALUMINUM ARSENIDES
NT ALUMINUM GALLIUM ARSENIDES
NT ARSENATES
NT ARSENIDES
NT GALLIUM ARSENIDES
NT INDIUM ARSENIDES
NT INDIUM GALLIUM ARSENIDES
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Be3(AsO4)2 2H2O: A new beryllоarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584

ARSENIDES
NT ALUMINUM ARSENIDES
NT ALUMINUM GALLIUM ARSENIDES
NT GALLIUM ARSENIDES
NT INDIUM ARSENIDES
NT INDIUM GALLIUM ARSENIDES
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595

ARTEMIA
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162

ARTERIOSCLEROSIS
Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098
Cardiovascular risk factors in an Italian Air Force population: Preliminary report 12 p3775 N93-32252

ARTHROPODS
NT ARTEMIA
NT BEETLES
NT INSECTS
NT MOTHS

ARTIFICIAL CLOUDS
NT BARIUM ION CLOUDS

ARTIFICIAL GRAVITY
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
Artificial gravity experiment satellites 10 p2949 N93-28018

ARTIFICIAL INTELLIGENCE
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
Artificial intelligence technical paper abstracts, 1991
[AD-A253340] 01 p0141 N93-10269
Analysis of observation report databases/knowledge bases
[AD-A252636] 01 p0172 N93-10428
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
TAQL: A problem space tool for expert system development
[AD-A253820] 01 p0175 N93-10826
Symbolic Boolean manipulation with ordered binary decision diagrams
[AD-A253822] 01 p0142 N93-10828
On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
From pilot's associate to satellite controller's associate 02 p0390 N93-11922
A model-based reasoning approach to sensor placement for monitorabiiity 02 p0391 N93-11923
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Intelligent diagnostics systems 02 p0393 N93-11931
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET) 02 p0395 N93-11940
System diagnostic builder 02 p0396 N93-11944
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
Adaptive neural network models for intelligent computations
[AD-A254689] 02 p0421 N93-12226
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795] 03 p0734 N93-12703
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Building and using scene representations in image understanding 03 p0692 N93-13241
Machine perception exploiting high-level spatio-temporal models 03 p0693 N93-13244
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
Explanation-based knowledge acquisition of electronics
[AD-A255069] 03 p0573 N93-13650
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
The 1992 Summer SIGAda AIWG Workshop applications experiences and lessons learned panel message from the panel chair
[AD-A256188] 04 p0962 N93-14519
The human-electronic crew: Is the team maturing? The 2nd Joint GAF/RAF/USAF Workshop on Human-Electronic Crew Teamwork
[AD-A256192] 04 p0939 N93-14520
Machine intelligence, a foreword: The brain as electronic circuitry; electronic circuitry as a brain
[AD-A255283] 04 p0962 N93-14533
A voyage to Mars: A challenge to collaboration between man and machines 04 p0777 N93-14614
A probabilistic approach to anytime algorithm for intelligent real-time problem solving
[AD-A255709] 04 p0945 N93-14654
Analysis of symbolic models of cognition project (ASPM-Pitt)
[AD-A255929] 04 p0962 N93-14656
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
Probabilistic inference
[AD-A255471] 04 p0963 N93-14786
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
A monitoring and control system for complex man-machine systems: Preliminary design 04 p0810 N93-14951
Minimizing conflicts: A heuristic repair method for constraint-satisfaction and scheduling problems
[NASA-TM-108121] 04 p0964 N93-15286
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
A beginner's guide to belief revision and truth maintenance systems
[NASA-TM-108117] 04 p0965 N93-15290
An application of artificial intelligence to automatic telescopes
[NASA-TM-108115] 04 p0965 N93-15291
Knowledge and regularity in planning
[NASA-TM-108113] 04 p0965 N93-15293
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364

Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Spacecraft command and control using AI planning techniques. The O-Plan2 project
[AD-A257395] 05 p1258 N93-16008
TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490
Architectures for intelligent machines
[NASA-CR-191875] 05 p1231 N93-16621
Increasingly automated procedure acquisition in dynamic systems
[NASA-TM-108112] 05 p1241 N93-16684
Utilizing semantic networks to database and retrieve generalized stochastic colored Petri nets
[NASA-CR-191853] 05 p1355 N93-16707
Tradeoffs in the utility of learned knowledge
[NASA-TM-108111] 05 p1242 N93-16750
An intelligent decomposition approach for efficient design of non-hierarchic systems
05 p1254 N93-16762
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Automating software design system DESTA
05 p1250 N93-17519
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
A domain-specific design architecture for composite material design and aircraft part redesign
05 p1250 N93-17522
Program 6 technical interchange meeting proceedings
[AD-A257736] 05 p1356 N93-17665
Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision
06 p1618 N93-18225
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
Grammatica: An open software laboratory for artificial intelligence
[REPT-92-031] 06 p1632 N93-18331
Artificial neural networks application simulator
06 p1642 N93-18502
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations
06 p1634 N93-18660
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
CABINS: Case-based interactive scheduler
06 p1635 N93-18670
O-Plan2: The open planning architecture
06 p1637 N93-18678
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems
06 p1638 N93-18684
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas
06 p1638 N93-18688
A hybrid job-shop scheduling system
06 p1639 N93-18690
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain
06 p1639 N93-18694
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
A computer architecture for intelligent machines
[NASA-CR-191861] 06 p1614 N93-19347
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Discovery of pathways in science
06 p1689 N93-19718
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Discovery of physical principles from design experiences 06 p1690 N93-19722
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Machine discovery by model driven analogy
06 p1629 N93-19724
Informal qualitative models in scientific discovery
06 p1690 N93-19725
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Knowledge acquisition from examples with mixed attributes 06 p1691 N93-19729
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
ARC.2: Linear regression in ABACUS
06 p1629 N93-19731
Goal-directed learning: A decision-theoretic model for deciding what to learn next 06 p1629 N93-19732
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
The evaluation and reporting of discovery systems
06 p1691 N93-19734
Evaluating machine discovery systems
06 p1692 N93-19735
Evaluation of discovery systems
06 p1692 N93-19736
Adaptive autonomous target cuer
06 p1612 N93-19784
Natural selection and particle physics: A thrust for artificial intelligence research
[INPE-5335-PRE/1734] 06 p1641 N93-19823
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
Upside-down meta-interpretation of the model elimination theorem-proving procedure for deduction and abduction
[AD-A259436] 07 p2046 N93-20012
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941
Intelligent processing equipment within the Environmental Protection Agency
[PB92-217330] 07 p1989 N93-21011
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285
On the neural substrates leading to the emergence of mental operational structures 08 p2453 N93-22355
A hierarchical structure for representing and learning fuzzy rules 08 p2454 N93-22358
Multi-layered reasoning by means of conceptual fuzzy sets 08 p2455 N93-22365
AEROBA: A control blackboard approach for model formulation 08 p2524 N93-23183
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge
[AD-A259491] 08 p2459 N93-23448
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
The analysis of remotely sensed data with neural networks 08 p2355 N93-23579
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
Face recognition with neural networks
[AD-A259587] 08 p2462 N93-24066
The multi-scale veto model: A two-stage analog network for edge detection and image reconstruction
[AD-A259600] 08 p2462 N93-24069
Space efficient 3D model indexing
[AD-A259571] 08 p2462 N93-24085
A global approach to parameter estimation of chaotic dynamical systems
[AD-A259932] 08 p2463 N93-24130
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247
What makes a good feature?
[AD-A259962] 08 p2463 N93-24249
Transformational planning of reactive behavior
[AD-A260350] 08 p2463 N93-24270
Distance metric between 3D models and 2D images for recognition and classification
[AD-A260069] 08 p2463 N93-24313
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Machine-assisted human classification of segmented characters for optical character recognition testing and training
[PB93-152155] 08 p2529 N93-24631
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
An expert system shell for inferring vegetation characteristics: interface for the addition of techniques (Task H)
[NASA-CR-192897] 09 p2754 N93-25154
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
An approach to configuration design synthesis of subsonic transport aircraft using artificial intelligence techniques 09 p2589 N93-25692
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800
Development of an expert data reduction assistant
09 p2880 N93-25808
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
The 1993 Goddard Conference on Space Applications of Artificial Intelligence
[NASA-CP-3200] 09 p2822 N93-25961
Using AI/expert system technology to automate planning and replanning for the HST servicing missions
09 p2822 N93-25962
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
An architecture for object-oriented intelligent control of power systems in space 09 p2823 N93-25968
An autonomous satellite architecture integrating deliberative reasoning and behavioural intelligence
09 p2823 N93-25970
Visualizing the semantic content of large text databases using text maps 09 p2826 N93-25982
The StarView intelligent query mechanism
09 p2826 N93-25984
NASA Center for Intelligent Robotic Systems for Space Exploration
[NASA-CR-193208] 09 p2826 N93-25986
Using modular neural networks with local representations to control dynamic systems
[AD-A261597] 09 p2826 N93-26162

Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
Real-time value-driven monitoring and repair
[AD-A260959] 09 p2811 N93-26221
Neural basis of motion perception
[AD-A261452] 09 p2798 N93-26349
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
Automata network models of galaxy evolution
10 p3201 N93-26879
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
AI in space: Past, present, and possible futures
10 p3111 N93-27988
The LAZYRMS: Avoiding work in the ATMS
[RUU-CS-92-20] 10 p3101 N93-28062
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Constraints logic programming in knowledge-based planning domains
[AD-A262958] 10 p3104 N93-28291
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498
Natural language generation
[AD-A262578] 11 p3524 N93-28579
Operator and automation capability analysis: Picking the right team 11 p3503 N93-28864
Cognitive interface considerations for intelligent cockpits 11 p3503 N93-28865
Uncertainty reasoning in expert systems
[NASA-CR-193120] 11 p3548 N93-28973
Modelling temporal abductive explanation
[AD-A263096] 11 p3526 N93-29145
MoCog1: A computer simulation of recognition-primed human decision making
[NASA-TM-103868] 11 p3542 N93-29386
Information technology: A force for organizational change
[AD-A261986] 11 p3615 N93-29439
Intelligent virtual reality in the setting of fuzzy sets
11 p3513 N93-29544
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
Center for the Study of Intelligent Control Systems (Fellowships)
[AD-A263604] 11 p3543 N93-29917
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Evolution of a high-performance storage system based on magnetic tape instrumentation recorders
11 p3435 N93-30470
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
Optimal trajectories for aircraft terrain following and terrain avoidance: A literature review update
[AD-A264075] 11 p3260 N93-30604
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Commercial applications 12 p3688 N93-31441
NASA/ARC proposed training in intelligent control
12 p3688 N93-31444
Introduction to Fuzzy Set Theory
12 p3689 N93-31446
Advanced Artificial Intelligence Technology Testbed
12 p3801 N93-32126
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127
Crisis action planning and replanning using SIPE-2
12 p3835 N93-32131
Agent oriented programming: An overview of the framework and summary of recent research
12 p3794 N93-32136
Intelligent assistance in scientific data preparation
12 p3843 N93-32144
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147
The computer integrated documentation project: A merge of hypermedia and AI techniques
12 p3801 N93-32148
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
Strategic control of reactive behavior in intelligent agents
[AD-A264376] 12 p3801 N93-32413

ARTIFICIAL RESPIRATION
U RESUSCITATION

ARTIFICIAL SATELLITES
NT ACTS
NT ALOUETTE SATELLITES
NT AMPTE (SATELLITES)
NT ANIK SATELLITES
NT ARABSAT
NT ASTRONOMICAL SATELLITES
NT BEACON SATELLITES
NT COLUMBUS SPACE STATION
NT COMMUNICATION SATELLITES
NT COMMUNICATIONS TECHNOLOGY SATELLITE
NT COSMIC BACKGROUND EXPLORER SATELLITE
NT COSPAS
NT DIRECT BROADCAST SATELLITES
NT DMSP SATELLITES
NT DYNAMICS EXPLORER SATELLITES
NT ERS-1 (ESA SATELLITE)
NT ESA SATELLITES
NT EUROPEAN COMMUNICATIONS SATELLITE
NT EXOSAT SATELLITE
NT EXPLORER SATELLITES
NT EXPLORER 50 SATELLITE
NT EXTREME ULTRAVIOLET EXPLORER SATELLITE
NT GAMMA RAY OBSERVATORY
NT GEODETIC SATELLITES
NT GEOPHYSICAL SATELLITES
NT GEOSAT SATELLITES
NT GINGA SATELLITE
NT GOES SATELLITES
NT HEAO 2
NT HELIOS 1
NT HELIOS 2
NT HIPPARCOS SATELLITE
NT HUBBLE SPACE TELESCOPE
NT INFRARED ASTRONOMY SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT INTELSAT SATELLITES
NT INTERNATIONAL SUN EARTH EXPLORER 1
NT INTERNATIONAL SUN EARTH EXPLORER 2
NT INTERNATIONAL SUN EARTH EXPLORER 3
NT INTERNATIONAL SUN EARTH EXPLORERS
NT IRIS SATELLITES
NT ISIS SATELLITES
NT IUE
NT LAGEOS (SATELLITE)
NT LANDSAT SATELLITES
NT LANDSAT 4
NT LANDSAT 5
NT LARGE DEPLOYABLE REFLECTOR
NT LONG DURATION EXPOSURE FACILITY
NT LUNAR SATELLITES
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT MAN TENDED FREE FLYERS
NT MAPSAT
NT MARITIME SATELLITES
NT METEOROLOGICAL SATELLITES
NT METEOSAT SATELLITE
NT MIR SPACE STATION
NT MOLNIYA SATELLITES
NT MSAT
NT NAVIGATION SATELLITES
NT NAVIGATION TECHNOLOGY SATELLITES
NT NAVSTAR SATELLITES
NT NIMBUS 7 SATELLITE
NT NOAA SATELLITES
NT NOAA 10 SATELLITE
NT OAO
NT ORBITAL WORKSHOPS
NT OSO
NT PALAPA SATELLITES
NT PASSIVE SATELLITES
NT POSEIDON SATELLITE
NT RELAY SATELLITES
NT ROSAT MISSION
NT SAGE SATELLITE
NT SALYUT SPACE STATION
NT SARSAT
NT SCATHA SATELLITE
NT SCIENTIFIC SATELLITES
NT SEASAT SATELLITES
NT SHUTTLE PALLET SATELLITES
NT SKYLAB 1
NT SMALL SCIENTIFIC SATELLITES
NT SOLAR POWER SATELLITES
NT SOVIET SATELLITES
NT SPACE INFRARED TELESCOPE FACILITY
NT SPACE STATION FREEDOM
NT SPACE STATION POLAR PLATFORMS
NT SPACE STATIONS
NT SPOT (FRENCH SATELLITE)
NT SYNCHRONOUS SATELLITES
NT SYNCOM SATELLITES
NT TETHERED SATELLITES
NT TIROS N SERIES SATELLITES
NT TIROS SATELLITES
NT UPPER ATMOSPHERE RESEARCH SATELLITE (UARS)
NT VENERA SATELLITES
NT WESTAR SATELLITES
NT X RAY ASTROPHYSICS FACILITY

Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Orbital perturbations due to the albedo effect
[GKSS-91/E/59] 02 p0220 N93-11348
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
Resonance studies of artificial earth satellites
03 p0523 N93-14037
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Comparative study of stability of flexible satellites with and without guy-wire constraints
04 p0817 N93-14585
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
A synthetic environment for satellite modeling and satellite orbital motion
[AD-A258847] 06 p1470 N93-19068
Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
Satellite situation report, volume 32, no. 4
[NASA-TM-108203] 07 p1824 N93-20999
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
Flight project data book
[NASA-TM-108657] 08 p2152 N93-22870
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem
09 p2603 N93-24718
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
Orbital parameter estimation using an extended Kalman filter
[AD-A260618] 09 p2608 N93-25636
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
Space research in Sweden, 1990-1991
09 p2888 N93-25887
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite
10 p2924 N93-27199
Approaches to dealing with meteoroid and orbital debris protection on the Space Station
10 p2971 N93-27838
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395

Automating the satellite range scheduling process
[AD-A262601] 11 p3270 N93-28468
STRV1-b flight experiment 11 p3265 N93-28723
NEP space test program objective
11 p3265 N93-28724
Electric propulsion for lightsats: A review of applications and advantages 11 p3290 N93-29907
Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335

ARTILLERY
NT PRECISION GUIDED PROJECTILES
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
Ramjet propulsion for advanced projectiles
05 p1067 N93-17615

ARTILLERY FIRE
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960

ARTS
NT ABILITIES
NT ANIMATION
NT COMPUTER ANIMATION
NT GRAPHIC ARTS

ARYL COMPOUNDS
U AROMATIC COMPOUNDS

ASCENT
NT CLIMBING FLIGHT

ASCENT PROPULSION SYSTEMS
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012

ASCENT TRAJECTORIES
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
MASTRE trajectory code update to automate flight trajectory design, performance predictions, and vehicle sizing for support of shuttle and shuttle derived vehicles: Programmers manual
[NASA-CR-192558] 10 p2954 N93-28321
Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558

ASCORBIC ACID
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

ASE (AERODYNAMICS)
U AEROSERVOELASTICITY

ASHES
NT FLY ASH

ASIA
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment
08 p2367 N93-23812
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region
10 p3022 N93-26641

ASIC
U APPLICATION SPECIFIC INTEGRATED CIRCUITS

ASPECT RATIO
NT HIGH ASPECT RATIO
NT LOW ASPECT RATIO
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Stability of elliptical vortices
[ITN-93-85181] 05 p1159 N93-16733
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383
Bootstrap current profiles and scaling in large aspect ratio tokamaks
[DE93-753158] 11 p3589 N93-30003

ASPHALT
Thermoviscoelastic analysis of pavements
05 p1070 N93-16313
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
Asphalt mixtures modified with tall oil pitches and cellulose fibres
[VTT-PUBS-99] 06 p1494 N93-18699
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744

ASPHERICITY
Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104

ASPIRATION
U VACUUM

ASRM (STS)
U ADVANCED SOLID ROCKET MOTOR (STS)

ASSAULTING
U ATTACKING (ASSAULTING)

ASSAYING
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253] 08 p2195 N93-24057
Pseudomonas screening assay
[NASA-CASE-NPO-17653-1-CU]
09 p2793 N93-25994
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541

ASSEMBLER ROUTINES
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341

ASSEMBLIES
NT SUBASSEMBLIES
NT TAIL ASSEMBLIES
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599

ASSEMBLING
NT ORBITAL ASSEMBLY
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Backward assembly planning with DFA analysis
[NASA-CASE-NPO-18817-1-CU]
02 p0278 N93-12202
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021
Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
Robot friendly probe and socket assembly
[NASA-CASE-MSC-22028-1] 07 p1917 N93-22007
Space assembled entry systems certification
08 p2176 N93-22106
A virtual environment for manufacturing systems
[AD-A260813] 09 p2810 N93-25699
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472

ASSEMBLY
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
Path planning for assembly of strut-based structures
[NASA-CR-191874] 05 p1260 N93-16622
Aerobraking technology studies
08 p2173 N93-22089
Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505

ASSEMBLY LANGUAGE
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182

ASSESSMENTS
NT DAMAGE ASSESSMENT
NT TECHNOLOGY ASSESSMENT
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852
Life insurance risk assessment using a fuzzy logic expert system 11 p3520 N93-29585

ASSIGNMENT
U ALLOCATIONS

ASSIMILATION
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672

ASSOCIATIONS
U ORGANIZATIONS

ASSOCIATIVE PROCESSING (COMPUTERS)
Dynamics of analog electronic neural networks
[AD-A257019] 04 p0966 N93-15352
An adaptive algorithm for linear associative memory problem 11 p3360 N93-30255
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
ASSUMPTIONS
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
A beginner's guide to belief revision and truth maintenance systems
[NASA-TM-108117] 04 p0965 N93-15290
ASSURANCE
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
ASTEROID BELTS
NT AMOR ASTEROID
NT APOLLO ASTEROIDS
NT ASTEROIDS
NT CERES ASTEROID
NT CHIRON
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
A photometric survey of outer belt asteroids 06 p1697 N93-19149
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165
On the asteroidal jet-stream Flora A 06 p1710 N93-19185
Asteroid proper elements and secular resonances 06 p1710 N93-19186
Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships 06 p1698 N93-19210
On the distribution of minor planet inclinations 06 p1454 N93-19242
3-D orbital evolution model of outer asteroid belt 06 p1718 N93-19245
Gaspra and Ida in families 06 p1720 N93-19263
A comparison between families obtained from different proper elements 06 p1721 N93-19270
ASTEROID MISSIONS
NT COMET RENDEZVOUS ASTEROID FLYBY MISSION
International Asteroid Mission 03 p0513 N93-13548
Introduction to the International Asteroid Mission 03 p0513 N93-13549
The program plan: An overview of the development and implementation of the International Asteroid Mission 03 p0514 N93-13553
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Legal and political issues raised by the International Asteroid Mission 03 p0514 N93-13555
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
Scientific experimentation afforded by the International Asteroid Mission 03 p0515 N93-13561
Research and technology in support of IAM 03 p0515 N93-13562
Ground-based observation of near-Earth asteroids 05 p1360 N93-16879
Asteroid resources 05 p1380 N93-16880
Asteroid mining 05 p1381 N93-16884
Asteroid exploration and utilization: The Hawking explorer
[NASA-CR-192027] 06 p1699 N93-18164
Comet nucleus and asteroid sample return missions
[NASA-CR-192055] 06 p1699 N93-18171
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
Gaspra and Ida in families 06 p1720 N93-19263
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
ASTEROIDS
NT AMOR ASTEROID
NT APOLLO ASTEROIDS
NT CERES ASTEROID
NT CHIRON
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments 01 p0110 N93-10140
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters 01 p0114 N93-10154
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188
Airblast damage from small asteroids
[DE92-017834] 03 p0749 N93-12956
International Asteroid Mission 03 p0513 N93-13548
Introduction to the International Asteroid Mission 03 p0513 N93-13549
Asteroid search program 03 p0514 N93-13550
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM 03 p0514 N93-13551
Conceptual design of a human piloted mining mission 03 p0514 N93-13552
Mining equipment and operations for mining the 1982HR (Orpheus) asteroid 03 p0515 N93-13557
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects 04 p1040 N93-14365
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Issues for further study 05 p1379 N93-16874
Ground-based observation of near-Earth asteroids 05 p1360 N93-16879
Asteroid resources 05 p1380 N93-16880
Asteroid mining 05 p1381 N93-16884
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
A Southern Hemisphere radar meteor orbit survey 06 p1701 N93-19121
Asteroids with unusual lightcurves: 14 Irene and 51 Nemausa 06 p1701 N93-19123
Low cost missions to explore the diversity of near Earth objects 06 p1453 N93-19124
Simulated families: A test for different methods of family identification 06 p1701 N93-19125
The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Debris about asteroids: Where and how much? 06 p1703 N93-19136
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
The great asteroid nomenclature controversy of 1801 06 p1704 N93-19145
The orbital evolution of real asteroids near the 4:1 mean-motion resonance with Jupiter 06 p1704 N93-19146
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
A photometric survey of outer belt asteroids 06 p1697 N93-19149
Modeling of asteroidal dust production rates 06 p1705 N93-19150
From asteroid clusters to families: A proposal for a new nomenclature 06 p1705 N93-19151
Injecting asteroid fragments into resonances 06 p1705 N93-19152
Spectroscopy of D-type asteroids 06 p1697 N93-19158
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163
Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
Asteroid-type orbit evolution near the 5:2 resonance 06 p1708 N93-19171
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
On the asteroidal jet-stream Flora A 06 p1710 N93-19185
Asteroid proper elements and secular resonances 06 p1710 N93-19186
Integrated software package STAMP for minor planets 06 p1628 N93-19187
Spin vector and shape of 532 Herculina 06 p1711 N93-19193
The state of knowledge concerning the Kuiper belt 06 p1711 N93-19197
A computer search for asteroid families 06 p1711 N93-19199
Philosophy and updating of the asteroid photometric catalogue 06 p1693 N93-19203
The recovery of asteroids after two observations 06 p1698 N93-19206
Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships 06 p1698 N93-19210
Spin vectors of asteroids 21 Lutetia, 196 Philomela, 250 Bettina, 337 Devosa, and 804 Hispania 06 p1713 N93-19211
Ground-based observations of 951 Gaspra: CCD lightcurves and spectrophotometry with the Galileo filters 06 p1698 N93-19212
CCD-photometry of comets at large heliocentric distances 06 p1698 N93-19213
Asteroid orbital error analysis: Theory and application 06 p1454 N93-19214
The shape of asteroid 1917 Cuyo 06 p1714 N93-19218
A new method for astrometric observations of asteroids 06 p1698 N93-19220
The flux of small asteroids near the Earth 06 p1715 N93-19225
Narrow band photometry of selected asteroids 06 p1698 N93-19226
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
Interpreting asteroid photometry and polarimetry using a model of shadowing and coherent backscattering 06 p1699 N93-19241
On the distribution of minor planet inclinations 06 p1454 N93-19242
Melting, vaporization, and energy partitioning for impacts on asteroidal and planetary objects 06 p1718 N93-19244
1991 DA: An asteroid in a bizarre orbit 06 p1718 N93-19247
A CCD search for distant satellites of asteroids 3 Juno and 146 Lucina 06 p1699 N93-19248
Cartography of asteroids and comet nuclei from low resolution data 06 p1718 N93-19249
Minor satellites and the Gaspra encounter 06 p1719 N93-19255
What makes a family reliable? 06 p1720 N93-19264
On the dynamical structure of the Trojan group of asteroids 06 p1721 N93-19269
A comparison between families obtained from different proper elements 06 p1721 N93-19270
Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry
[DE93-003839] 07 p2098 N93-21849
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Reports of planetary astronomy - 1991
[NASA-TM-4459] 08 p2542 N93-23055
Asteroid detection and monitoring using a satellite-borne visible scanner
[AD-A259797] 08 p2543 N93-23455
Extraction of volatiles and metals from extraterrestrial materials 10 p2997 N93-26682
Composition of near-Earth asteroids 10 p3205 N93-26690
Spacewatch discovery of near-Earth asteroids 10 p3205 N93-26691
The Steward Observatory asteroid relational database 10 p3168 N93-26698
Near-Earth asteroids: Observer alert network and physical observations 10 p3168 N93-26699
Vertical landing on an asteroid 10 p2924 N93-27202
Value of space defenses
[DE93-003813] 10 p3127 N93-28295
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803

Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716] 11 p3634 N93-29246
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF)
11 p3638 N93-29371
Galileo post-Gaspra cruise and Earth-2 encounter
11 p3385 N93-29597
Visible and infrared investigations of planet-crossing asteroids and outer solar system objects
[NASA-CR-193511] 12 p3844 N93-31604

ASTHMA
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
Phadiatop: A screening test for inhalant allergy
02 p0383 N93-11313
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE
02 p0383 N93-11314
Asthma in aircrew: Assessment, treatment and disposition
02 p0383 N93-11315
Allergic and nonallergic rhinitis in Greek pilots
02 p0383 N93-11317

ASTIGMATISM
Improved astigmatic focus error detection method
04 p0984 N93-15507

ASTP
U APOLLO SOYUZ TEST PROJECT

ASTRIONICS
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960

ASTRO MISSIONS (STS)
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission
08 p2535 N93-23891
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope
10 p3174 N93-26722
Shuttle PRCS plume contamination analysis for Astro-2 mission
[NASA-CR-193828] 10 p2986 N93-27240

ASTROBIOLOGY
U EXOBIOLOGY

ASTRODYNAMICS
The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496
[NASA-CR-191240] 03 p0743 N93-13352
The planetary nebula system and the dynamics of the galaxy Centaurus A
03 p0754 N93-13645
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
New developments in astrodynamics algorithms for autonomous rendezvous
08 p2144 N93-22279
Colorado Center for Astrodynamics Research (CCAR)
11 p3614 N93-29233
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test
12 p3849 N93-31778

ASTROGRAPHY
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
Geometric distortion analysis of a wide-field astrograph
09 p2621 N93-26111

ASTROMASTS
U LONGERONS

ASTROMETRY
Successes of and prospects for ground-based interferometry
01 p0177 N93-10940
Report of the Lunar Interferometry Study Team (LIST) activities
01 p0178 N93-10945
Orbiting Space Interferometer (OSI): A first generation space interferometer
03 p0745 N93-13587
Radio astrometry from the Moon
05 p1363 N93-17452
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
The importance of guiding on the motion of a comet in astrometric observations
06 p1698 N93-19219
A new method for astrometric observations of asteroids
06 p1698 N93-19220
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422
Corrections to the luni-solar precession derived from a compilation catalogue of extragalactic radio sources
[MITT-SER-A-233] 07 p2095 N93-21052
Analysis and synthesis of catalogues of extragalactic radio sources
[MITT-SER-A-231] 07 p2102 N93-21053
Present status of work on the FK5 extension
[MITT-SER-B-229] 07 p2095 N93-21299
Status and early results of the Hipparcos astrometry project
08 p2533 N93-23879
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
Removing Malmquist bias from linear regressions
10 p3122 N93-26872
Precision optical interferometry in space
[NASA-CR-193264] 11 p3630 N93-29163
Visible and infrared investigations of planet-crossing asteroids and outer solar system objects
[NASA-CR-193511] 12 p3844 N93-31604
The need of very accurate optical astrometry by interferometric techniques
12 p3844 N93-31751
Space-based astrometric optical interferometry with POINTS
12 p3845 N93-31758
Prospects for imaging and astrometry on the ground and implications for space interferometry
12 p3848 N93-31776
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test
12 p3849 N93-31778
Interferometer concepts for astrometry in space
12 p3691 N93-31788

ASTRONAUT MANEUVERING EQUIPMENT
NT MANNED MANEUVERING UNITS

ASTRONAUT PERFORMANCE
Task Analysis of Shuttle Entry and Landing Activities
[NASA-TM-104761] 08 p2178 N93-22702

ASTRONAUT TRAINING
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
The European astronauts training programme
08 p2156 N93-24346
Training facilities at the Crew Training Complex
08 p2156 N93-24347
Mir 1992 operations and crew training
08 p2157 N93-24352
Flight experiences on board Space Station Mir
08 p2157 N93-24355
Development and implementation of the MotoMir experiment on the Mir Space Station
08 p2159 N93-24363
Background and objectives of the PARAT program
12 p3775 N93-31230

ASTRONAUTICS
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
JPRS report: Central Eurasia. Aviation and cosmonautics, no. 9, September 1992
[JPRS-UAC-93-003] 09 p2574 N93-26325
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

ASTRONAUTS
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Radiation dose to critical body organs for October 1989 proton event
[NASA-TP-3237] 03 p0520 N93-12876
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
TALON and CRADLE: Systems for the rescue of tumbling spacecraft and astronauts
08 p2142 N93-22268
Selection of astronauts for European space missions
08 p2156 N93-24345
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133
Anthropometric survey of the astronaut applicants and astronauts from 1985 to 1991
[NASA-RP-1304] 11 p3506 N93-29324

ASTRONOMICAL CATALOGS
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150
A catalog of moderately distant galaxy clusters
03 p0749 N93-13011
A high-resolution radio survey of the galactic plane
03 p0744 N93-13480
Faint high-latitude carbon stars
04 p1019 N93-14638
Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284
Hubble space telescope: The GO and GTO observing programs, version 3.0
[NASA-CR-191290] 05 p1359 N93-16949
Spectroscopic identification of x ray soft AGN found by ROSAT
05 p1362 N93-17155
Correlated flux densities from VLBI observations with the DSN
06 p1506 N93-18909
Philosophy and updating of the asteroid photometric catalogue
06 p1693 N93-19203
IUE-ULDA access guide no. 3: International Ultraviolet Explorer-Uniform Low Dispersion Archive: Normal galaxies
[ESA-SP-1152] 07 p2094 N93-20541
The Einstein All-Sky Slew Survey
[NASA-CR-192323] 07 p2095 N93-20793
Identifications of Einstein Slew Survey sources
07 p2095 N93-20794
Einstein Slew Survey: Data analysis innovations
07 p2095 N93-20795
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015
Corrections to the luni-solar precession derived from a compilation catalogue of extragalactic radio sources
[MITT-SER-A-233] 07 p2095 N93-21052
Analysis and synthesis of catalogues of extragalactic radio sources
[MITT-SER-A-231] 07 p2102 N93-21053
Present status of work on the FK5 extension
[MITT-SER-B-229] 07 p2095 N93-21299
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
Fifth fundamental catalogue. Part 2: The FK5 extension - new fundamental stars
[REPT-33(1991)] 08 p2542 N93-23346
Carlsberg meridian catalogue La Palma (Spain). Number 6: Observations of positions of stars and planets 1990
[ISBN-84-7469-052-8] 08 p2543 N93-24059
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function
09 p2894 N93-25559
Cape Photographic Durchmusterung, volume 1
[NASA-RP-1300-VOL-1] 09 p2890 N93-26002
Cape Photographic Durchmusterung, volume 2
[NASA-RP-1300-VOL-2] 09 p2890 N93-26003
Cape Photographic Durchmusterung, volume 3
[NASA-RP-1300-VOL-3] 09 p2890 N93-26004
Hubble Space Telescope: The archived exposures catalog, version 2.0
[NASA-CR-192896] 09 p2883 N93-26423
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field
10 p3175 N93-26725
Clustering of very luminous infrared galaxies and their environment
10 p3175 N93-26731
Analysis of the Einstein sample of early-type galaxies
10 p3179 N93-26754
IRAS studies of galactic supershells
10 p3183 N93-26776
Central star formation in early-type galaxies: Images and implications
10 p3202 N93-26883
Cordoba Durchmusterung, volume 1
[NASA-RP-1299-VOL-1] 10 p3170 N93-27116
Cordoba Durchmusterung, volume 2
[NASA-RP-1299-VOL-2] 10 p3170 N93-27117
Cordoba Durchmusterung, volume 3
[NASA-RP-1299-VOL-3] 10 p3170 N93-27118
Cordoba Durchmusterung, volume 4
[NASA-RP-1299-VOL-4] 10 p3170 N93-27119
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
Bonner Durchmusterung, volume 1
[NASA-RP-1297-VOL-1] 10 p3170 N93-27382

Bonner Durchmusterung, volume 2
[NASA-RP-1297-VOL-2] 10 p3170 N93-27383
Washington Double Star Catalog Cross Index (1950 position sort)
[NASA-RP-1302] 10 p3171 N93-27533
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers)
[NASA-RP-1295] 11 p3629 N93-29156
Bonner Durchmusterung (Southern Durchmusterung)
[NASA-RP-1298-VOL-3] 11 p3630 N93-29811
The faintest stars 11 p3630 N93-30493
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143

ASTRONOMICAL COORDINATES
Integrated software package STAMP for minor planets 06 p1628 N93-19187

ASTRONOMICAL INTERFEROMETRY
Targets for Space-Based Interferometry
[ESA-SP-354] 12 p3844 N93-31750
The need of very accurate optical astrometry by interferometric techniques 12 p3844 N93-31751
Ultraviolet imaging interferometry 12 p3844 N93-31752
Visible and infrared imaging interferometry from space 12 p3844 N93-31753
Submillimeter interferometry 12 p3845 N93-31754
Prospects for Earth-based interferometry 12 p3845 N93-31755
Comparative aspects of Earth- and space-based interferometry 12 p3845 N93-31756
Interferometry from the Moon 12 p3845 N93-31757
Space-based astrometric optical interferometry with POINTS 12 p3845 N93-31758
The SUN/SIMURIS interferometer 12 p3845 N93-31759
Space Interferometry Science Working Group 12 p3846 N93-31761
Report on the ESA Interferometry Study Team activities 12 p3846 N93-31762
The VLT interferometer: Current status and expectations for the next 20 years 12 p3846 N93-31763
SISTERS: A space interferometer for the search for terrestrial exo-planets by rotation shearing 12 p3846 N93-31764
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766
Study of ISM turbulence using radiointerferometers (new method) 12 p3847 N93-31767
The lunar interferometer for solar physics 12 p3847 N93-31768
Advanced lunar-based interferometer for solar observations 12 p3847 N93-31769
Report of the submillimeter splinter group 12 p3847 N93-31770
Atomic and molecular line observations of galaxies 12 p3847 N93-31771
Submillimetre line observations of molecular clouds 12 p3848 N93-31772
Summary of the splinter session on optical and UV science 12 p3848 N93-31773
UV interferometry of hot stars 12 p3848 N93-31774
High resolution solar physics 12 p3848 N93-31775
Prospects for imaging and astrometry on the ground and implications for space interferometry 12 p3848 N93-31776
P Cyg envelope and prospects of interferometric observations 12 p3848 N93-31777
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test 12 p3849 N93-31778
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779
Study of an optimized configuration for interferometric imaging of complex and extended solar structures 12 p3849 N93-31780
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781
Exploring the limits of adaptive wavefront compensation for ground based astronomical interferometers 12 p3849 N93-31782
Integrated optics for an interferometric link 12 p3824 N93-31783
IR single-mode fiber optics for double Fourier interferometry 12 p3824 N93-31784
Interferometry at the vacuum ultra-violet limit 12 p3850 N93-31785
HARDI: A High Angular Resolution Deployable Interferometer 12 p3850 N93-31786
A concept of deployable tethered interferometer 12 p3691 N93-31787
Interferometer concepts for astrometry in space 12 p3691 N93-31788
Prospects for stellar physics: Structure and influence of circumstellar media 12 p3850 N93-31789

ASTRONOMICAL MAPS
Mapping the Universe: Statistical measures of the galaxy distribution
[ETN-93-93456] 08 p2542 N93-23116
The ROSAT all-sky x ray survey 08 p2533 N93-23880

ASTRONOMICAL MODELS
NT DENSITY WAVE MODEL
NT STELLAR MODELS
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
Cosmological models in higher-order gravity 04 p1018 N93-14592
Faint high-latitude carbon stars 04 p1019 N93-14638
Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814
The gamma ray spectrum resulting from pp interactions in quasars 04 p1051 N93-14917
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Light curve and fan-shaped coma of comet P/Tempel 2 in 1988-1989 06 p1700 N93-19114
The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130
A preliminary model of the coma of 2060 Chiron 06 p1702 N93-19132
Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
Modeling of asteroidal dust production rates 06 p1705 N93-19150
Injecting asteroid fragments into resonances 06 p1705 N93-19152
Evolution of the Quadrantid meteor stream 06 p1708 N93-19177
Dynamical timescales in the Jupiter family 06 p1712 N93-19201
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
SSG 4.118: Inverse geodetic problems 07 p1973 N93-20984
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
The radiation gasdynamics of planetary nebulae 08 p2547 N93-23133
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud 08 p2549 N93-23722
Temporal and spatial inhomogeneities in comets 08 p2551 N93-24188
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
Numerical modeling of barred spiral galaxies 09 p2893 N93-25537
The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706
Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Galaxy tracers in N-body simulations 10 p3176 N93-26732
Subclustering in the hierarchical model of galaxy formation 10 p3176 N93-26734
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
The galaxy velocity field and CDM models 10 p3176 N93-26737
Near-IR imaging of moderate redshift galaxy clusters 10 p3177 N93-26741
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
Starburst models of merging galaxies 10 p3183 N93-26778
High velocity clouds in nearby disk galaxies 10 p3187 N93-26804
Galactic oscillations 10 p3188 N93-26808
A new method to simulate vertical and horizontal structure in galactic disks 10 p3188 N93-26809
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
The critical density for star formation in HII galaxies 10 p3189 N93-26817
Numerical simulations of galactic wakes 10 p3189 N93-26818
Models of the Cartwheel ring galaxy: Spokes and starbursts 10 p3190 N93-26823
Dissipative merging of galaxies 10 p3191 N93-26827
A new observational and numerical study of tidal interactions in M81-M82-NGC3077 system 10 p3192 N93-26830
The nature of the evolution of galaxies by mergers 10 p3192 N93-26831
A numerical simulation of galaxy subcluster mergers 10 p3192 N93-26833
Luminosity segregation in galaxy clusters as an indication of dynamical evolution 10 p3192 N93-26834
Automata network models of galaxy evolution 10 p3201 N93-26879
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Predicting Ly-alpha intensities in coronal streamers 12 p3870 N93-31360
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377
Temperature measurements in the inner corona 12 p3877 N93-31402
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696
Model of a rotating magnetic cloud 12 p3857 N93-31707

ASTRONOMICAL OBSERVATORIES
NT ASTRONOMICAL SATELLITES
NT GAMMA RAY OBSERVATORY
NT GINGA SATELLITE
NT HEAO 2
NT HUBBLE SPACE TELESCOPE
NT INFRARED ASTRONOMY SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT IUE
NT LARGE DEPLOYABLE REFLECTOR
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT OAO
NT OSO
NT ROSAT MISSION
NT SOFIA (AIRBORNE OBSERVATORY)
NT SPACE INFRARED TELESCOPE FACILITY
NT X RAY ASTROPHYSICS FACILITY
Interferometry with the Very Large Telescope 01 p0178 N93-10943
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
Lunar optical telescopes: An historical perspective 03 p0746 N93-13593
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
Report of the Working Group on Space/Lunar Tradeoffs 03 p0747 N93-13599
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Report of the Working Design Group 03 p0748 N93-13601
A second generation expert system for checking and diagnosing AXAF's electric power system 05 p1152 N93-17287
Astronomy on the Moon: Geological considerations
[SOEST-CONTRIB-2399] 05 p1363 N93-17434
Some astronomical challenges for the twenty-first century 05 p1363 N93-17451

Required technologies for lunar astronomical observatories 05 p1363 N93-17453
Environmental effects on lunar astronomical observatories 05 p1363 N93-17454
Lunar base activities and the lunar environment 05 p1398 N93-17455
PARAS program: Phased array radio astronomy from space [NASA-CR-192025] 06 p1695 N93-18115
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory [NASA-CR-192029] 06 p1695 N93-18163
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
The Goldstone solar system radar: A science instrument for planetary research [NASA-CR-192793] 08 p2261 N93-22478
Activities report of the European Southern Observatory [ETN-93-93459] 08 p2542 N93-23118
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932
The Steward Observatory asteroid relational database 10 p3168 N93-26698
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043
Astrophysics science operations in the Great Observatories era 10 p3165 N93-27044
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Targets for Space-Based Interferometry [ESA-SP-354] 12 p3844 N93-31750
The International Stratospheric Laboratory for Astrophysics (ISLA): The cosmic microscope 12 p3846 N93-31765
Report of the submillimeter splinter group 12 p3847 N93-31770
The application of synthetic-beacon technology to astronomy [AD-A265146] 12 p3850 N93-31990

ASTRONOMICAL PHOTOGRAPHY
Faint high-latitude carbon stars 04 p1019 N93-14638
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records 06 p1703 N93-19137
A new method for astrometric observations of asteroids 06 p1698 N93-19220
Planetary astronomy research [NASA-CR-192134] 07 p2099 N93-21643
Ground-based optical support for gamma ray satellite activities 08 p2170 N93-23909
How to get unlimited observing time on a 4 metre telescope 10 p3171 N93-26707
The solar corona structures as inferred from July 11, 1991 total solar eclipse observation 12 p3872 N93-31372
The July 11, 1991 solar corona observed in polarized white light: Preliminary results 12 p3879 N93-31417
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143

ASTRONOMICAL PHOTOMETRY
NT STELLAR SPECTROPHOTOMETRY
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet 02 p0482 N93-11373
Faint high-latitude carbon stars 04 p1019 N93-14638
Hubble space telescope: The GO and GTO observing programs, version 3.0 [NASA-CR-191290] 05 p1359 N93-16949
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
Selection of faint quasars based on variability 05 p1363 N93-17156
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130
A photometric survey of outer belt asteroids 06 p1697 N93-19149
Spectroscopy of D-type asteroids 06 p1697 N93-19158
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
Philosophy and updating of the asteroid photometric catalogue 06 p1693 N93-19203
CCD-photometry of comets at large heliocentric distances 06 p1698 N93-19213
15 years of comet photometry: A comparative analysis of 80 comets 06 p1698 N93-19217
Narrow band photometry of selected asteroids 06 p1698 N93-19226
Interpreting asteroid photometry and polarimetry using a model of shadowing and coherent backscattering 06 p1699 N93-19241
Status and early results of the Hipparcos astrometry project 08 p2533 N93-23879
The optical counterparts of the x ray binaries in NGC 6712 and 47 Tucanae 08 p2538 N93-23914
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
The nature of faint emission-line galaxies 10 p3173 N93-26716
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
Near-IR imaging of moderate redshift galaxy clusters 10 p3177 N93-26741
Distant radio galaxies in the near IR 10 p3177 N93-26742
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
Declining rotation curves in interacting galaxies 10 p3192 N93-26829
Multicolor photometry of x ray selected Abell clusters 10 p3195 N93-26846
Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
Multi-filter spectrophotometry simulations 10 p3201 N93-26881
Development of far infrared detection techniques [NASA-CR-193153] 10 p3141 N93-27225
A broadband THz receiver for low background space applications 10 p3020 N93-27782
The galactic center stellar population in the near infrared 10 p3204 N93-28080
Spectroscopic and photometric studies of main sequence M stars and a search for late-type dwarfs in the solar vicinity 11 p3629 N93-28608
Detection of other planetary systems using photometry 11 p3632 N93-28791
XRONOS: A timing analysis software package. User's guide, version 3.00 [NASA-TM-109222] 11 p3532 N93-30023

ASTRONOMICAL POLARIMETRY
Near-infrared imaging polarimetry of bipolar nebulae 02 p0481 N93-11248
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Interpreting asteroid photometry and polarimetry using a model of shadowing and coherent backscattering 06 p1699 N93-19241
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields [AD-A260029] 08 p2483 N93-24251
Development of a large field-of-view KD potassium di-deuterium phosphate modulator: Center Director's Discretionary Fund [NASA-TM-108410] 12 p3824 N93-32378

ASTRONOMICAL SATELLITES
NT GAMMA RAY OBSERVATORY
NT GINGA SATELLITE
NT HEAO 2
NT HUBBLE SPACE TELESCOPE
NT INFRARED ASTRONOMY SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT IUE
NT LARGE DEPLOYABLE REFLECTOR
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT OAO
NT OSO
NT SPACE INFRARED TELESCOPE FACILITY
NT X RAY ASTROPHYSICS FACILITY
Ginga results of type 2 AGN's and their contributions to the cosmic x ray background 05 p1367 N93-17105
Energy spectrum of the cosmic x ray background: Some considerations based on the Ginga results 05 p1373 N93-17143
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics [ESA-ISY-3] 08 p2533 N93-23878
ROSAT: The German x ray satellite nearly two years in orbit 08 p2538 N93-23916
Concept of a small satellite for URM 08 p2199 N93-23922
SAX overview 08 p2540 N93-23927
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932

ASTRONOMICAL SPECTROSCOPY
The fine structure of prominences 01 p0180 N93-10910
A search for low-luminosity objects [AD-A253301] 02 p0483 N93-11750
Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689
Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959
A faint spectroscopic quasar survey 04 p1012 N93-14629
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
Faint high-latitude carbon stars 04 p1019 N93-14638
The Prospector mission [DE93-000656] 05 p1385 N93-17194
Pre-phase A: Development of a far-ultraviolet photometric- and spectroscopic-survey small-explorer experiment [NASA-CR-192092] 06 p1696 N93-18415
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate [NASA-TM-108588] 06 p1561 N93-18709
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Radio spectroscopy of comets: Recent results and future prospects 06 p1697 N93-19144
Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156
Spectroscopy of D-type asteroids 06 p1697 N93-19158
Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163
Spectroscopic observations of comet Austin (1989c) 06 p1697 N93-19169
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago 06 p1698 N93-19230
Microwave spectroscopy of the active sun [NASA-CR-192135] 07 p2100 N93-20571
The structure of circumstellar shells [NASA-CR-192337] 07 p2096 N93-20757
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres [NASA-CR-192145] 07 p2099 N93-21642
The optical counterparts of the x ray binaries in NGC 6712 and 47 Tucanae 08 p2538 N93-23914
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932
Investigation of serendipitious WFC sources [NASA-CR-192774] 08 p2544 N93-24458
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
Two searches for primeval galaxies 10 p3172 N93-26714
The nature of faint emission-line galaxies 10 p3173 N93-26716
Two protogalaxy candidates in one night 10 p3173 N93-26717
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Environmental influences on galaxy evolution 10 p3175 N93-26727
Globular cluster formation in merging galaxies? 10 p3175 N93-26729
Near-IR imaging of moderate redshift galaxy clusters 10 p3177 N93-26741
Distant radio galaxies in the near IR 10 p3177 N93-26742
Deep, wide-field, multi-band imaging of z approximately equal to 0.4 clusters and their environs 10 p3195 N93-26848
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Long slit spectroscopy of NGC 5506 10 p3198 N93-26861
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
The disk-halo interface in edge-on spirals 10 p3198 N93-26865
Emission line gas in early-type galaxies: Kinematics and physical conditions 10 p3200 N93-26874
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds 10 p3201 N93-26878
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742

Spectroscopic and photometric studies of main sequence M stars and a search for late-type dwarfs in the solar vicinity 11 p3629 N93-28608
Submillimetre line observations of molecular clouds 12 p3848 N93-31772

ASTRONOMICAL TELESCOPES
U TELESCOPES

ASTRONOMY
NT GAMMA RAY ASTRONOMY
NT INFRARED ASTRONOMY
NT RADAR ASTRONOMY
NT RADIO ASTRONOMY
NT SPACEBORNE ASTRONOMY
NT ULTRAVIOLET ASTRONOMY
NT X RAY ASTRONOMY
Workshop on the evolution of the Martian atmosphere [NASA-CR-190730] 01 p0189 N93-10064
ESIS: An introduction to the European space information system. A modern tool for space scientists [ESA-INT-2] 02 p0479 N93-12404
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets [NASA-CR-191260] 03 p0685 N93-13261
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory [DE92-040316] 04 p1013 N93-15425
Some astronomical challenges for the twenty-first century 05 p1363 N93-17451
Asteroids with unusual lightcurves: 14 Irene and 51 Nemausa 06 p1701 N93-19123
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
A cryogenic shutter for the VLT NIR camera [MPE-237] 07 p1906 N93-20855
Reports of planetary astronomy - 1991 [NASA-TM-4459] 08 p2542 N93-23055
Activities report of the European Southern Observatory [ETN-93-93459] 08 p2542 N93-23118
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics [ESA-ISY-3] 08 p2533 N93-23878
The German space science programme 08 p2536 N93-23903
SETI in Europe 08 p2429 N93-23908
Ground-based optical support for gamma ray satellite activities 08 p2170 N93-23909
Development of a tool-set for simultaneous, multi-site observations of astronomical objects 09 p2878 N93-25795
High-performance compression of astronomical images 09 p2805 N93-25931
Astrophysics science operations in the Great Observatories era 10 p3165 N93-27044
Digital image compression using artificial neural networks 11 p3624 N93-28811
Activities report of the Astronomical Society [MITT-75] 11 p3629 N93-29008
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers) [NASA-RP-1295] 11 p3629 N93-29156
NSSDC data listing [NASA-TM-108264] 11 p3612 N93-29167

ASTROPHYSICS
NT COMPUTATIONAL ASTROPHYSICS
NT NUCLEAR ASTROPHYSICS
NT SOLAR PHYSICS
NT STELLAR PHYSICS
Gamma ray astrophysics to the year 2000. Report of the NASA Gamma Ray Program Working Group [NASA-TM-107995] 01 p0178 N93-10067
Research in theoretical particle physics [DE92-016181] 01 p0154 N93-10605
Research program in experimental and theoretical high energy physics [DE92-016219] 01 p0156 N93-10618
Morphology and physics of supernova remnants 02 p0482 N93-11476
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992 [PB92-154913] 02 p0477 N93-11769
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning [NASA-CR-184410] 02 p0220 N93-12213
ESIS: An introduction to the European space information system. A modern tool for space scientists [ESA-INT-2] 02 p0479 N93-12404
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets [NASA-CR-191260] 03 p0685 N93-13261
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars 03 p0755 N93-13828
The theory and numerical simulation of non-local mixing-length convection 04 p1015 N93-14147
Nuclear physics and astrophysics [DE93-002042] 05 p1364 N93-16362
The atmospheric structures of the companion stars of eclipsing binary x ray sources [NASA-CR-191393] 05 p1365 N93-16752
Proceedings of the fifth workshop on elementary-particle picture of the universe [DE92-538746] 05 p1375 N93-17190
Some astronomical challenges for the twenty-first century 05 p1363 N93-17451
Research in particle physics [DE92-041135] 05 p1293 N93-17475
Research in elementary particle physics [DE93-003153] 05 p1294 N93-17488
Activities report of the Institute of Space Physics [ETN-93-93360] 06 p1665 N93-17947
Nuclear structure studies [DE93-002791] 06 p1654 N93-18402
Aerospace Sponsored Research [ATR-91(8498)-1] 06 p1747 N93-18459
Solar-terrestrial physics and astrophysics 06 p1733 N93-18501
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Recent progress on astrophysical opacity [DE93-002892] 06 p1722 N93-19513
Non-topological solitons in astrophysics and cosmology 07 p2096 N93-20292
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe [MPE-238] 07 p2096 N93-20856
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics [ESA-ISY-3] 08 p2533 N93-23878
The German space science programme 08 p2536 N93-23903
FIRST: Far Infrared and Submillimeter Space Telescope 08 p2540 N93-23924
European Space Science and Space Station Freedom 08 p2163 N93-24387
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue 08 p2164 N93-24394
Very high energy gamma ray astrophysics [DE93-007625] 08 p2551 N93-24453
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
Correlative studies of astrophysical sources of very high and ultra high energy gamma-rays [NASA-CR-192781] 09 p2888 N93-25172
Multivariate statistical analysis software technologies for astrophysical research involving large data bases 09 p2878 N93-25796
VIEWCACHE: An incremental pointer-based access method for autonomous interoperable databases 09 p2880 N93-25809
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043
Astrophysics science operations in the Great Observatories era 10 p3165 N93-27044
An astrophysics data program investigation of spatial structure of supernova remnants [NASA-CR-193104] 10 p3205 N93-28409
Near-infrared spectroscopy as an astrophysical tool 11 p3632 N93-28607
On the meaning of delta T/T [DE93-008482] 11 p3653 N93-28962
Activities report of the Astronomical Society [MITT-75] 11 p3629 N93-29008
National collaboratories: Applying information technology for scientific research [LC-93-83795] 11 p3612 N93-29129
NSSDC data listing [NASA-TM-108264] 11 p3612 N93-29167
Distributed data systems in space physics 12 p3859 N93-31715

ASYMMETRY
Research on the asymmetrical aerodynamic forces of reentry vehicles [AD-A254307] 01 p0004 N93-10707
Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906
Local-time asymmetries in the Venus thermosphere 04 p1023 N93-14290
Control of asymmetric jet [AD-A255967] 04 p0873 N93-14400
Recent advances in numerical simulation and control of asymmetric flows around slender bodies [PAPER-W.1.2] 04 p0875 N93-14688
Numerical simulation of steady and unsteady asymmetric vortical flow 04 p0876 N93-14691
Passive control of supersonic asymmetric vortical flows around cones 04 p0876 N93-14692
Effect of sonic boom asymmetry on subjective loudness [NASA-TM-107708] 05 p1282 N93-16755
A Boltzmann-equation approach to the magnetoresistance of ferromagnetic-normal metallic multilayers [DE92-041213] 05 p1270 N93-17361
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments [DE93-002319] 07 p2069 N93-20026
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems [NIFS-172] 07 p2070 N93-20263
Predicting structure in nonsymmetric sparse matrix factorizations [DE93-003365] 07 p2057 N93-21963
Predicting structure in nonsymmetric sparse matrix factorizations [DE93-004119] 08 p2468 N93-22938
Axisymmetric vortex sheet roll-up 10 p2938 N93-28078
Composition dependence of fluid thermophysical properties: Theory and modeling [DE93-011119] 10 p2996 N93-28352
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility [NASA-CR-193304] 12 p3774 N93-32364

ASYMPTOTES
Hyperasymptotics and the Stokes' phenomenon [CWI-AM-R9206] 10 p3120 N93-28085

ASYMPTOTIC GIANT BRANCH STARS
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes 09 p2889 N93-25440
Radial velocity measurements of carbon stars 09 p2895 N93-25713

ASYMPTOTIC METHODS
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow [AD-A253617] 01 p0079 N93-10094
The problem of the selection of an a-posteriori error indicator based on smoothening techniques [AD-A253401] 01 p0144 N93-10407
Stochastic control and nonlinear estimation [AD-A253543] 02 p0420 N93-11147
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves [AD-A254473] 02 p0275 N93-12236
Fluid-structure interaction using retarded potential and ABAQUS [AD-A254735] 02 p0307 N93-12355
Eddy current power dissipation at sharp corners [DE92-016890] 03 p0571 N93-13300
The three-dimensional turbulent boundary layer: Theory and application 03 p0588 N93-13749
Development of an environment for software reliability model selection [AD-A256609] 04 p0942 N93-14241
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1 [AD-A256258] 04 p0830 N93-14436
Domain decomposition as a mechanism for using asymptotic methods [DE92-040759] 05 p1263 N93-16201
A generalized asymptoticity problem in max algebra; the two-dimensional case [REPT-92-29] 05 p1273 N93-17735
Lift and drag forces on droplets and particles in wall-bounded shear flows [DE93-002678] 05 p1165 N93-17761
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment [AD-A258177] 06 p1524 N93-17908
Location and distribution of local optima [AD-A257791] 06 p1645 N93-18237
Modeling of composite beams and plates for static and dynamic analysis [NASA-CR-192222] 06 p1556 N93-18609
The stability of a trailing-line vortex in compressible flow [NASA-CR-189738] 06 p1408 N93-18771
Studies of droplet burning and extinction 07 p1854 N93-20212
Computational/experimental studies of isolated, single component droplet combustion 07 p1854 N93-20213

On homogenization method and large deformations
07 p1845 N93-20634
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Asymptotic analysis of: 1: Wave propagation in dispersive optical media with quadratic nonlinearity. 2: A hypersonic wing with three-dimensional self-similarity
08 p2112 N93-23594
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
Asymptotic studies of gravity-driven reacting coating flows and pultrusion processes
09 p2704 N93-25683
Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333
Asymptotic estimates of Stirling numbers
[CWI-AM-R9204] 10 p3113 N93-27310
Curvilinear geometry transport discretizations in the thick diffusion limit
[DE93-007109] 10 p3117 N93-27615
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791

ASYMPTOTIC PROPERTIES
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
A generalized asymptoticity problem in max algebra; the two-dimensional case
[REPT-92-29] 05 p1273 N93-17735
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions
07 p1928 N93-20632
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
Asymptotic behaviour of some bilinear functionals of the empirical process
[MEMO-1031] 07 p2059 N93-20956
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
Determining nodes and long-time approximations to the Navier-Stokes equations 08 p2296 N93-23593
Models and analysis for multivariate failure time data
08 p2322 N93-24198
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
Boundedness and asymptotics of the generalized theodorus iteration
[AD-A261427] 09 p2829 N93-26452
An analytical solution to the consistency problem for the Littlewood model in software reliability
[CWI-BS-R9129] 10 p3096 N93-27392
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
Asymptotic properties of constrained Markov decision processes
[INRIA-RR-1598] 11 p3553 N93-28508
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471

ASYMPTOTIC SERIES
On the evaluation of Bessel functions
[AD-A253129] 01 p0143 N93-10339
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
Optimal guidance law development for an advanced launch system
[NASA-CR-192189] 07 p1820 N93-20313
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Modelling of microgravity ignition phenomena
09 p2664 N93-25465
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
On the accurate long-time solution of the wave equation in exterior domains: Asymptotic expansions and corrected boundary conditions
[NASA-TM-106117] 10 p3111 N93-27068
Asymptotic estimates of Stirling numbers
[CWI-AM-R9204] 10 p3113 N93-27310
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

ATHEROSCLEROSIS
U ARTERIOSCLEROSIS

ATHODYDS
U RAMJET ENGINES

ATLANTIC OCEAN
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
The North Atlantic circulation: Combining simplified dynamics with hydrographic data
03 p0670 N93-13483
Report of the International Ice Patrol in the North Atlantic, bulletin no. 77
[AD-A256162] 04 p0925 N93-14452
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Meridional circulation in the tropical North Atlantic
[AD-A256906] 05 p1219 N93-16024
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
The environmental biogeochemistry of open ocean and partially enclosed marine systems
08 p2413 N93-23130
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779
The JGOFS North Atlantic Bloom Experiment: An overview 09 p2735 N93-24934
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
Hydrographic observations in the western tropical and subtropical North Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1991
[PB93-184778] 12 p3770 N93-31832
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

ATLANTIS (ORBITER)
STS-44 Space Shuttle mission report
[NASA-TM-108735] 09 p2612 N93-25988
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285

ATLAS LAUNCH VEHICLES
Atlas mission planner's guide
[AD-A258845] 06 p1470 N93-19366

ATMOSPHERIC ABSORPTION
U ATMOSPHERIC ATTENUATION

ATMOSPHERIC ATTENUATION
NT AURORAL ABSORPTION
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
Effect-specific analysis of propagation parameters
09 p2684 N93-26478
The Virginia Tech OLYMPUS propagation experiment
09 p2685 N93-26479
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU]
11 p3440 N93-30415

ATMOSPHERIC BOUNDARY LAYER
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
Structure of the nocturnal boundary layer over a complex terrain
[DE92-018141] 02 p0362 N93-11669
Atmospheric dispersion in mountain valleys and basins
02 p0355 N93-11920
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
Acoustic tomographic monitoring of the atmospheric boundary layer 03 p0651 N93-13143
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Wave drag in the atmospheric boundary layer
04 p0915 N93-14873
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
A modeling study of marine boundary layer clouds
07 p2010 N93-20105
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
Climatological study of ozone in the boundary layer above Belgium
[MISC-SER-A-127] 07 p1989 N93-20925
Contribution to the study of the atmospheric surface layer in stable conditions, simulated in a wind tunnel
[ECL-91-15] 07 p2012 N93-21010
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions
08 p2393 N93-23207
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation
08 p2407 N93-23495
Turbulent microfronts
[AD-A260300] 08 p2409 N93-24265
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
An investigation of the role of flux divergence in the turbulent kinetic energy balance of the atmospheric surface layer 09 p2773 N93-25756
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946

Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations
11 p3483 N93-30044
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

ATMOSPHERIC CHEMISTRY

Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
The current and future environmental role of atmospheric methane: Model studies and uncertainties
[NASA-CR-190662] 01 p0104 N93-10256
Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Future chlorine-bromine loading and ozone depletion
02 p0352 N93-11095
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
Steady state analysis of tropospheric chemistry
03 p0644 N93-13121
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
An investigation of the processes controlling ozone in the upper stratosphere
[DE92-019621] 03 p0645 N93-13615
An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Thermochemistry of atmospheric metal reactions
[AD-A248651] 03 p0543 N93-13733
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Radical reactions of atmospheric importance
03 p0659 N93-14053
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
An investigation of transient atmospheric inorganic peroxides: A theoretical and experimental study
04 p0912 N93-14117
The isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
04 p0913 N93-14207
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Near-infrared oxygen airglow from the Venus nightside
04 p1026 N93-14308
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
On the role of water growth in atmospheric aerosol
04 p0922 N93-14875
LISA: A limb imaging spectrograph for airglow
04 p0811 N93-14952
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Aerosol transport and global models
[DE93-001618] 05 p1209 N93-16969
Effects of the Mount Pinatubo eruption on the chemistry, radiative, and transport processes in the stratosphere
[DE93-001508] 05 p1203 N93-17211
Visible Airglow Experiment data analysis
[NASA-CR-192119] 06 p1577 N93-18361
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
Titan 06 p1592 N93-18553
Low level measurements of atmospheric DMS, H2S, and SO2 for GTE/CITE-3
[NASA-CR-191635] 06 p1573 N93-18863
Ion produced cometary organic crust
06 p1701 N93-19122
Radio spectroscopy of comets: Recent results and future prospects 06 p1697 N93-19144
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic)
06 p1584 N93-19555
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19887
ER-2 investigations of lightning and thunderstorms
07 p2006 N93-20088
On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
07 p2011 N93-20281
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune
[NASA-CR-192131] 07 p2099 N93-20732
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
Gas-Grain Simulation Facility (GGSF)
08 p2186 N93-22626
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
Chemical kinetics and photochemical data for use in stratospheric modeling
[NASA-CR-192795] 08 p2392 N93-23124
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Observations of atmospheric chemistry on the first European polar platform 08 p2361 N93-23776
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
Global ozone monitoring experiment
08 p2364 N93-23793
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation
09 p2760 N93-24908
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
The Martian lower atmosphere
09 p2897 N93-26394
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Atmospheric and Geophysical Sciences Program report, 1990-1991
[DE93-007390] 11 p3470 N93-29055
Chemistry of the atmosphere: Its impact on global change. CHEMRAWN 7: Perspectives and recommendations
[PB93-180644] 11 p3488 N93-29670
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926
Climatic effects of turbofan emissions in the stratosphere and the higher troposphere 12 p3753 N93-31927
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933

Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

ATMOSPHERIC CIRCULATION
NT ZONAL FLOW (METEOROLOGY)
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing
01 p0124 N93-10318
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Adequate sampling of a chaotic time series
[AD-A254170] 01 p0127 N93-10664
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Magnetospheres and atmospheres of planets
01 p0182 N93-10922
Radiative forcing of climate 02 p0351 N93-11094
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system
02 p0358 N93-11184
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
Modeling the dispersion of tracer plumes in the Colorado front range boundary layer during night- and day-time conditions
[DE92-019384] 02 p0354 N93-11676
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A
02 p0369 N93-11839
Dynamics of planetary waves in the atmosphere
02 p0363 N93-11898
Atmospheric dispersion in mountain valleys and basins
02 p0355 N93-11920
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Deep convection and its relation to the large-scale circulation in the tropical Pacific
03 p0654 N93-13725
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations
03 p0655 N93-13757
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses
03 p0657 N93-13796
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Frontogenesis processes in the troposphere
03 p0667 N93-13890
Middle atmosphere water vapour
03 p0667 N93-13892
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Simulations of the Amazon Basin circulation using the Pennsylvania State University/National Center for Atmospheric Research mesoscale model
04 p0919 N93-14197
Revelations of a stratospheric circulation: The dynamical transport of hydrocarbons in the stratosphere of Uranus
04 p0913 N93-14211
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory
04 p0920 N93-14213
Local-time asymmetries in the Venus thermosphere
04 p1023 N93-14290
Dynamics of the Venus atmosphere
04 p1030 N93-14325
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere
04 p1033 N93-14338
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere
04 p1037 N93-14351
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
Microwave observations of Uranus
04 p1046 N93-14863
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance
04 p1047 N93-14918
Natural and anthropogenic climate change
[DE93-000898] 05 p1200 N93-16162
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies
05 p1214 N93-16507
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
Single-station integral measures of atmospheric stagnation, ventilation, and recirculation
[DE93-001554] 05 p1203 N93-17050
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Modeling the uncertain impacts of climate change
[DE92-041339] 05 p1204 N93-17370
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
Measurements of F-region drift velocities at the dusk sector mid-latitude trough
[AD-A257766] 06 p1575 N93-17907
Tropical cyclone motion and recurvature in TCM-90
[AD-A258258] 06 p1585 N93-18010
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
Diabatic dynamic initialization
06 p1563 N93-18719
Increasing the corrected field of view of an adaptive optical telescope
[AD-A258816] 06 p1663 N93-18995
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
Cloud radiative forcing effects on observed and simulated global energetics 07 p2003 N93-20072
An investigation of low-frequency planetary wave forcing and predictability in a simple global atmospheric circulation model 07 p1996 N93-20279
Nocturnal temperature forecasting
[MISC-SER-A-126] 07 p2012 N93-20888
SSG 5.98: Atmospheric excitation of the Earth's rotation 07 p1974 N93-20991
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
Climatological use of long time series of data from the water vapour channel of Meteosat
07 p1958 N93-21601
Upper-air circulation systems
08 p2337 N93-22138
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Southward burst mesoscale convective systems: An observational and modeling study
08 p2406 N93-23494
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation
08 p2407 N93-23495
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Numerical simulations of the transport and diffusion during the 1991 Winter Validation Study along the front range in Colorado
[DE93-002684] 08 p2396 N93-23674
Normal modes of the atmosphere as estimated by principal oscillation patterns and derived from quasi-geostrophic theory
[MPIM-81] 08 p2397 N93-23857
On regional surface fluxes over partly forested areas
[MPIM-82] 08 p2397 N93-23858
Chaos theory and its application in the atmosphere
08 p2398 N93-24082
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Modeling of forced planetary waves in the Mars atmosphere 08 p2555 N93-24579
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
Empirical wind model for the middle and lower atmosphere. Part 1: Local time average
[NASA-TM-104581] 09 p2770 N93-25160
A dynamical theory for hurricane spiral bands
09 p2782 N93-25352
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
Evaluating climate-vegetation interactions at climate model sub-grid scales 09 p2764 N93-25476
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633

Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations 09 p2784 N93-25741
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946
Effects of surface thermal forcing on stratified flow past an isolated obstacle
[PB93-156776] 09 p2776 N93-26548
Residual mean meridional circulation in titan's middle atmosphere
[PB93-162931] 09 p2898 N93-26571
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
The representativeness of various clouds as tracers of the flow 10 p3075 N93-26992
Research summary
[NASA-CR-193082] 10 p3129 N93-27127
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Modeling land-surface/atmosphere dynamics for CHAMMP
[DE93-008520] 11 p3476 N93-28677
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

ATMOSPHERIC COMPOSITION
NT ATMOSPHERIC MOISTURE
NT IONOSPHERIC COMPOSITION
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
Climate Monitoring and Diagnostics Laboratory
[PB92-162346] 01 p0105 N93-10772
Magnetospheres and atmospheres of planets 01 p0182 N93-10922
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Ozone and temperature trends 02 p0350 N93-11089
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Future chlorine-bromine loading and ozone depletion 02 p0352 N93-11095
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Tenth International Symposium on Environmental Biogeochemistry
[DE92-016200] 02 p0355 N93-11864
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Research on stimulated Raman scattering with applications to atmospheric lidar 02 p0322 N93-12163
The broad band overlap problem in atmospheric trace gases 03 p0641 N93-12624
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
Absolute absorption cross sections of ozone at 300 K, 228 K and 195 K in the wavelength region 185-240 nm
[NASA-CR-191267] 03 p0645 N93-13274
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements 03 p0647 N93-13723
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Infrared spectroscopy of size resolved fine aerosol 03 p0647 N93-13758
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses 03 p0657 N93-13796
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations 04 p1022 N93-14146
The isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry 04 p0913 N93-14207
Revelations of a stratospheric circulation: The dynamical transport of hydrocarbons in the stratosphere of Uranus 04 p0913 N93-14211
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer 04 p1027 N93-14312
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Long-term variations in abundance and distribution of sulfuric acid vapor in the Venus atmosphere inferred from Pioneer Venus and Magellan radio occultation studies 04 p1030 N93-14328
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
Pioneer Venus polarimetry and haze optical thickness 04 p1032 N93-14335
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Method for detecting chemical vapors using a lasing dye sensor
[AD-D015424] 04 p0885 N93-14821
On the role of water growth in atmospheric aerosol 04 p0922 N93-14875
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance 04 p1047 N93-14918
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
Laboratory evaluation and application of microwave absorption properties under simulated conditions for planetary atmospheres
[NASA-CR-191298] 04 p1047 N93-15081
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars
[NASA-CR-191638] 05 p1377 N93-16630
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
Lunar and asteroid composition using a remote secondary ion mass spectrometer 05 p1387 N93-17245
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
An artificially generated atmosphere near a lunar base 05 p1398 N93-17456
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
Forward model and CO retrieval algorithm
[NASA-CR-191306] 06 p1620 N93-18414
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Low level measurements of atmospheric DMS, H2S, and SO2 for GTE/CITE-3
[NASA-CR-191635] 06 p1573 N93-18863
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
Modeling interannual variability in the Martian seasonal CO2 cycle 06 p1743 N93-19820
Microwave radiative transfer studies of precipitation 07 p2008 N93-20095

On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
07 p2011 N93-20281
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune
[NASA-CR-192131] 07 p2099 N93-20732
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Screening analysis of CO2 utilization and fixation
[DE93-004313] 07 p1994 N93-21850
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-192273] 08 p2554 N93-23096
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Cassini/Huygens: A mission to Saturn and Titan
08 p2539 N93-23918
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144
Aspects of the design of a satellite borne infra-red radiometer 09 p2620 N93-25474
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
Redistribution of trace chemical species by a small convective cloud
[PB93-156164] 09 p2765 N93-25873
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192937] 09 p2767 N93-26427
ATMOS: Long term atmospheric measurements for mission to planet Earth
[NASA-TM-108720] 09 p2757 N93-26429
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance
11 p3646 N93-28798
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Study to determine the nature and extent of ozone and ozone precursor transport in selected areas of California
[PB93-184828] 11 p3470 N93-29669
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
A preliminary review of global CO2 exchange between ocean and atmosphere
[AD-A264019] 11 p3472 N93-30015
Case study of Frontal Boundary Study Mission 03
[DE93-007176] 11 p3473 N93-30183
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C
12 p3862 N93-31940
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947
Mars brine formation experiment
12 p3864 N93-31949
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

ATMOSPHERIC CONDITIONS
U METEOROLOGY

ATMOSPHERIC CONDUCTIVITY
NT IONOSPHERIC CONDUCTIVITY

ATMOSPHERIC CORRECTION

Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna
06 p1505 N93-18903
CCD imaging of the inner coma jets of comet P/Halley
06 p1702 N93-19133
SSG 4.93: Wave propagation in refractive media
07 p1972 N93-20980
End-to-end tests of satellite data
07 p1953 N93-21571
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data
07 p1954 N93-21576
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862
Atmospheric correction of LANDSAT-TM-data for forest inventory 11 p3459 N93-28929
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011

ATMOSPHERIC DENSITY

Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP
03 p0518 N93-13922
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182

ATMOSPHERIC DIFFUSION

Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause
06 p1730 N93-19575
Chaos metrics for testing lagrangian particle models
[AD-A261429] 09 p2776 N93-26454
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295
Atmospheric dispersion of air pollutants in Umea (Sweden)
[FOA-C-40300-4.5] 12 p3756 N93-32424

ATMOSPHERIC EFFECTS

The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Dynamics of space debris 02 p0219 N93-11904
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
An optical VLA on the Moon
03 p0747 N93-13596
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Atmospheric effects on crater growth on Venus
04 p1041 N93-14370
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
CCD imaging of the inner coma jets of comet P/Halley
06 p1702 N93-19133
Advanced launch system trajectory optimization using suboptimal control 08 p2171 N93-22010
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 1: Workshop objectives and summary
[NASA-RP-1292-VOL-1] 09 p2762 N93-25157
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 2: Comparisons with global atmospheric measurements
[NASA-RP-1292-VOL-2] 09 p2762 N93-25158
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 3: Special diagnostic studies
[NASA-RP-1292-VOL-3] 09 p2762 N93-25159
Laser propagation through turbulence
[AD-A260712] 09 p2714 N93-26217
Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
Results from the US/Russian Meteor-3/Total Ozone Mapping Spectrometer
[NASA-TM-104576] 11 p3467 N93-28682
Cloud Impacts on DOD Operations and Systems Conference (CIDOS-91)
[AD-A264463] 11 p3484 N93-30535

ATMOSPHERIC ELECTRICITY
NT AURORAL ELECTROJETS
NT IONOSPHERIC CURRENTS

Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments
[DE92-014268] 02 p0367 N93-11236
Temporal monitoring of VHF and LF atmospherics and their relation to lightning
[AD-A252617] 02 p0371 N93-12180
Characterization of electric discharge in air produced by an environmental ionizator
[INPE-5310-NTC/299] 03 p0651 N93-13310
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235

A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Zoning of aircraft: A review of the definitions 09 p2583 N93-24880
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network 09 p2779 N93-24892
Zoning of aircraft by electric field modelling 09 p2583 N93-24894
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115

ATMOSPHERIC EMISSION
U AIRGLOW

ATMOSPHERIC ENTRY
NT HYPERSONIC REENTRY
NT MANNED REENTRY
NT REENTRY
NT SPACECRAFT REENTRY
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects 04 p1040 N93-14365
Shape-stable reentry body nose tip
[AD-D015437] 04 p0817 N93-14725
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Task Analysis of Shuttle Entry and Landing Activities
[NASA-TM-104761] 08 p2178 N93-22702
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
The infrared measurement for the reentry-body-translation
[AD-A263100] 11 p3278 N93-29134

ATMOSPHERIC GENERAL CIRCULATION MODELS
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
The broad band overlap problem in atmospheric trace gases 03 p0641 N93-12624
Baroclinic wave packets in models and observations 03 p0663 N93-13361
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US 03 p0664 N93-13631
Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-191365] 03 p0654 N93-13719
Convective parameterization in mesoscale models 03 p0659 N93-14062
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics 04 p0918 N93-14115
Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178
Local-time asymmetries in the Venus thermosphere 04 p1023 N93-14290
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Modeling the uncertain impacts of climate change
[DE92-041339] 05 p1204 N93-17370
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Modelling studies in support of open-ocean convection field programs
[AD-A258324] 06 p1589 N93-18255
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns 07 p2007 N93-20092
A modeling study of marine boundary layer clouds 07 p2010 N93-20105
An investigation of low-frequency planetary wave forcing and predictability in a simple global atmospheric circulation model 07 p1996 N93-20279
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Comparison of monthly precipitation analyses derived from conventional measurements, satellite estimates and model results 07 p1958 N93-21599
Monthly precipitation and runoff data for validation of climate models 07 p1959 N93-21605
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
Prognostic cloud water in the Los Alamos GCM
[DE93-000679] 08 p2404 N93-22772
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
On the cold start problem in transient simulations with coupled atmosphere-ocean models
[MPIM-83] 08 p2397 N93-23859
Intraseasonal relationships between tropical heating and extratropical jets
[AD-A260212] 08 p2408 N93-24004
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
The effects of sampling frequency on the climate statistics of the ECMWF general circulation model
[DE93-003338] 09 p2761 N93-25145
Empirical wind model for the middle and lower atmosphere. Part 1: Local time average
[NASA-TM-104581] 09 p2770 N93-25160
Rossby-gravity waves in tropical total ozone data
[NASA-CR-192963] 09 p2764 N93-25432
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
A hierarchical framework for coupling surface fluxes to atmospheric general circulation models: The homogeneity test
[DE93-004804] 10 p3072 N93-27612
Modeling land-surface/atmosphere dynamics for CHAMMP
[DE93-008520] 11 p3476 N93-28677
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Spectral energetics of the lower thermosphere 11 p3477 N93-29467
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289
Coupled ocean-atmosphere GCM simulation of Southern Oscillation phenomena
[DE93-012583] 12 p3766 N93-32297

ATMOSPHERIC HEAT BUDGET
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
The structure and energetics of Amazon squall lines 08 p2404 N93-23166

ATMOSPHERIC HEATING
NT GLOBAL WARMING
NT STRATOSPHERIC WARMING
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178
Infrared radiative properties of clouds 04 p0919 N93-14196
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory 04 p0920 N93-14213
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Evolution of the Martian atmosphere: The role of the polar caps 06 p1741 N93-19809
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Intraseasonal relationships between tropical heating and extratropical jets
[AD-A260212] 08 p2408 N93-24004
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CO2 and H2O
[DE93-007391] 11 p3474 N93-30504

ATMOSPHERIC IMPURITIES
U AIR POLLUTION

ATMOSPHERIC IONIZATION
NT AURORAL IONIZATION
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461

Diurnal variation of overdense meteor echo duration and ozone 06 p1718 N93-19243
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487

ATMOSPHERIC LASERS
Two micron laser development for atmospheric remote sensing at NASA Langley Research Center 04 p0784 N93-14845
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Development of laser guide stars and adaptive optics for large astronomical telescopes
[DE93-007511] 09 p2888 N93-25320

ATMOSPHERIC LOADING
U POLLUTION TRANSPORT

ATMOSPHERIC MODELS
NT ATMOSPHERIC GENERAL CIRCULATION MODELS
NT REFERENCE ATMOSPHERES
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing 01 p0124 N93-10318
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Anelastic modelling of explosive cyclogenesis 01 p0126 N93-10377
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Adequate sampling of a chaotic time series
[AD-A254170] 01 p0127 N93-10664
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Radiative forcing of climate 02 p0351 N93-11094
Future chlorine-bromine loading and ozone depletion 02 p0352 N93-11095
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Atmospheric dispersion in mountain valleys and basins 02 p0355 N93-11920
Visualizing wind velocities by advecting cloud textures
[DE92-014717] 02 p0371 N93-12154
The vertical distribution of heating in the tropical atmosphere
[AD-A254982] 02 p0372 N93-12507
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
Numerical simulation of a squall line: Tests of a new cumulus parameterization scheme 03 p0662 N93-13124
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
The Jovian ionosphere 03 p0758 N93-13337
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall 03 p0663 N93-13489
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements 03 p0647 N93-13723
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations 03 p0655 N93-13757
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
Model studies of the middle atmosphere of Venus 03 p0759 N93-13831
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Frontogenesis processes in the troposphere 03 p0667 N93-13890
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Infrared radiative properties of clouds 04 p0919 N93-14196
Four-dimensional data assimilation of GALE data using a multivariate analysis scheme and a mesoscale model with diabatic initialization 04 p0919 N93-14198
The use of chaos metrics to analyze Lagrangian particle diffusion models
[AD-A256142] 04 p0967 N93-14255
Local-time asymmetries in the Venus thermosphere 04 p1023 N93-14290
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Venusian hydrology: Steady state reconsidered 04 p1028 N93-14318
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere 04 p1037 N93-14351
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
Numerical simulation of baroclinic Jovian vortices 04 p1046 N93-14865
Wave drag in the atmospheric boundary layer 04 p0915 N93-14873
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
Low-frequency oscillations in radiative-convective models
[DE92-018779] 04 p0922 N93-14901
Fitting microphysical observations to a numerical model through an optimal control theory technique 04 p0924 N93-15100
A numerical model of ionospheric convection derived from field-alignment currents and the corresponding conductivity
[TRITA-EPP-91-03-REV] 04 p0916 N93-15252
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies 05 p1214 N93-16507
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Aerosol transport and global models
[DE93-001618] 05 p1209 N93-16969
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Computer models used by AFGWC and NMC for weather analysis and forecasting
[AD-A257985] 05 p1218 N93-17744
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Forward model and CO retrieval algorithm
[NASA-CR-191306] 06 p1620 N93-18414
Aeronomy of auroral and airglow emissions 06 p1584 N93-18496
Titan 06 p1592 N93-18553
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704

Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
Numerical experiments on consistent horizontal and vertical resolution for atmospheric models and observing systems 06 p1563 N93-18718
Diabatic dynamic initialization 06 p1563 N93-18719
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions 06 p1726 N93-19547
D-region incoherent scatter spectra: Discrepancies between observations and current theory 06 p1728 N93-19559
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause 06 p1730 N93-19575
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
A numerical field experiment approach for determining probabilities of microburst intensity 06 p1419 N93-19599
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Atmospheric tides in the middle atmosphere
[INPE-5436-PUD/053] 06 p1583 N93-19791
Evolution of the Martian atmosphere: The role of the polar caps 06 p1741 N93-19809
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067
Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076
Global water cycle 07 p2004 N93-20078
Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves 07 p2007 N93-20090
Microwave radiative transfer studies of precipitation 07 p2008 N93-20095
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
Simulations of satellite Doppler wind observations 07 p2010 N93-20104
Magnetospheric and auroral processes
[NASA-CR-192138] 07 p1996 N93-20250
A numerical investigation of squall lines
[ISBN-0-315-69244-8] 07 p2011 N93-20280
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data 07 p1956 N93-21590
A 2 x CO2 experiment with prescribed changes in sea surface temperature 07 p1958 N93-21598
Air/sea latent heat flux measurements with microwave radiometers 07 p1959 N93-21604
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies 07 p1959 N93-21608
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
CHAMMP
[AD-A260190] 08 p2403 N93-22765
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Chemical kinetics and photochemical data for use in stratospheric modeling
[NASA-CR-192795] 08 p2392 N93-23124
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
Data ingest and objective analysis for the PSU/NCAR modeling system. Programs DATAGRID and RAWINS
[PB93-138519] 08 p2393 N93-23252
Massively parallel implementation of the Penn State/NCAR mesoscale model
[DE93-004874] 08 p2394 N93-23320
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
Model of Venus ionopause formation 08 p2554 N93-23354
Southward burst mesoscale convective systems: An observational and modeling study 08 p2406 N93-23494
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
Radiolocation of a satellite-borne LOVHF beacon 08 p2268 N93-23613
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
[MPIM-76] 08 p2396 N93-23635
The joint normal modes of the coupled atmosphere-ocean system observed from 1967 to 1986
[MPIM-78] 08 p2396 N93-23637
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Numerical simulations of the transport and diffusion during the 1991 Winter Validation Study along the front range in Colorado
[DE93-002684] 08 p2396 N93-23674
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860
The quasi-biennial oscillation in the middle atmosphere 08 p2397 N93-23965
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
Chaos theory and its application in the atmosphere 08 p2398 N93-24082
The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366] 08 p2389 N93-24089
An investigation of the ERICA IOP-5A cyclone
[AD-A260214] 08 p2408 N93-24097
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite
[AD-A260015] 08 p2401 N93-24301
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships 08 p2411 N93-24578
Modeling of forced planetary waves in the Mars atmosphere 08 p2555 N93-24579
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
The AFTAC model integration project
[DE93-003334] 09 p2761 N93-25122
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 1: Workshop objectives and summary
[NASA-RP-1292-VOL-1] 09 p2762 N93-25157
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 2: Comparisons with global atmospheric measurements
[NASA-RP-1292-VOL-2] 09 p2762 N93-25158
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 3: Special diagnostic studies
[NASA-RP-1292-VOL-3] 09 p2762 N93-25159
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Propagation at microwave frequencies in the presence of tropospheric stratified layers 09 p2674 N93-25340
A dynamical theory for hurricane spiral bands 09 p2782 N93-25352
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Simulation and prediction of tropical SST with a coupled ocean-atmosphere model 09 p2789 N93-25469
Evaluating climate-vegetation interactions at climate model sub-grid scales 09 p2764 N93-25476
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Land surface processes and climate modeling 09 p2783 N93-25685
Prediction of global cloud cover with a very high resolution global spectral model
[AD-A261047] 09 p2785 N93-25777
Construction of an advanced software tool for planetary atmospheric modeling 09 p2815 N93-25799
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
Chaos metrics for testing lagrangian particle models
[AD-A261429] 09 p2776 N93-26454
The Earth's climate as a dynamical system
[DE93-004666] 09 p2767 N93-26496
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
Residual mean meridional circulation in titan's middle atmosphere
[PB93-162931] 09 p2898 N93-26571
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666

Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Improvements to the high-frequency benchmark propagation analysis program
[AD-A262278] 10 p3103 N93-28240
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Direct volume visualization of three-dimensional vector fields
[DE93-009233] 11 p3524 N93-28550
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
The meteorological database
[DE93-007289] 11 p3481 N93-29054
Atmospheric and Geophysical Sciences Program report, 1990-1991
[DE93-007390] 11 p3470 N93-29055
National Center for Supercomputer Applications 11 p3614 N93-29232
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Ocean aerosol measurements and models in the straits of Florida (The KEY-90 experiment)
[AD-A264777] 11 p3487 N93-29659
The basics of weather models
[AD-A263386] 11 p3483 N93-29850
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043
Numerical modeling and parameterization of gravity wave processes and effects in the atmosphere
[AD-A264331] 11 p3478 N93-30367
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CO2 and H2O
[DE93-007391] 11 p3474 N93-30504
Graphical comparison of U.S. standard atmospheres and military standard climatic extremes
[AD-A264639] 11 p3484 N93-30521
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
The structure of the dayside boundary layer between the Venus ionosphere and the shocked solar wind 12 p3853 N93-31678
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

ATMOSPHERIC MOISTURE
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis 01 p0127 N93-10849
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses 03 p0657 N93-13796
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
On the role of water growth in atmospheric aerosol 04 p0922 N93-14875
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor
[AD-A256699] 05 p1212 N93-16153
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
A comparison of intense extratropical cyclone life cycles from diverse geographical locations 07 p2011 N93-20278
Microwave radiometry for monitoring the diverse cloudiness regimes on Earth: A review 07 p1958 N93-21600
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Prognostic cloud water in the Los Alamos GCM
[DE93-000679] 08 p2404 N93-22772
The structure and energetics of Amazon squall lines 08 p2404 N93-23166
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
Empirical determination of the effects of clouds on the Earth's Radiation Budget over the Pacific Ocean
[NASA-CR-192696] 08 p2401 N93-24485
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Observed annual and interannual variations in tropospheric water vapor
[PB93-123313] 08 p2411 N93-24588
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
A proposed study of multiple scattering through clouds up to 1 THz 09 p2684 N93-26474
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206

ATMOSPHERIC NOISE
U ATMOSPHERICS

ATMOSPHERIC OPTICS
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
The effect of an adaptive optical system's spatio-temporal response on imaging performance
[AD-A258848] 06 p1663 N93-19069
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Laser propagation through turbulence
[AD-A260712] 09 p2714 N93-26217

ATMOSPHERIC PHYSICS
NT CLOUD PHYSICS
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
Near-infrared oxygen airglow from the Venus nightside 04 p1026 N93-14308
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
Theoretical studies of the physics of the solar atmosphere
[NASA-CR-191357] 04 p1049 N93-15085
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Annual report, 1990 - 1991 05 p1402 N93-16749
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
Atmospheric dynamics and coupling 06 p1584 N93-18495
Space physics strategy: Implementation study. Volume 2: Program plan
[NASA-TM-108143] 06 p1453 N93-18544
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic) 06 p1584 N93-19555
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-002] 09 p2737 N93-25426
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989 09 p2774 N93-25889

NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Syllabus physical meteorology, part 1
[KNMI-TR-140-PT-1] 11 p3484 N93-30114
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

ATMOSPHERIC PRESSURE
SAC contrail formation study
[AD-A254410] 03 p0499 N93-12605
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082
Atmospheric effects on crater growth on Venus
04 p1041 N93-14370
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Cosmic ray NM-64 neutron monitor data-18
[NOTA-INTERNA-972] 05 p1400 N93-17627
Cosmic-ray NM-64 neutron monitor data-19 from Rome, Italy
[NOTA-INTERNA-989] 06 p1745 N93-17878
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder
09 p2773 N93-25739
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations
11 p3483 N93-30044
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Effect of purity on adsorption capacities of a Mars-like clay mineral at different pressures
12 p3863 N93-31945

ATMOSPHERIC RADIATION
NT AIRGLOW
NT AURORAL ARCS
NT AURORAS
NT DAYGLOW
NT GEOCORONAL EMISSIONS
NT NIGHTGLOW
NT RADIO AURORAS
NT RED ARCS
NT TWILIGHT GLOW
NT WHISTLERS
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Climate Monitoring and Diagnostics Laboratory
[PB92-162346] 01 p0105 N93-10772
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
[NASA-RP-1281] 02 p0367 N93-11168
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
The relationship between SST anomalies and clouds, water vapor, and their radiative effects
03 p0665 N93-13744
Near-infrared oxygen airglow from the Venus nightside
04 p1026 N93-14308
On the variation of the Nimbus 7 total solar irradiance
[NASA-TP-3316] 04 p1049 N93-15532
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-16393
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
Geostationary earth climate sensor: Scientific utility and feasibility, phase A
[NASA-CR-191919] 07 p1996 N93-20248
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Gravity waves from O2 airglow
09 p2772 N93-25547
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
The possible direct use of satellite radiance measurements by the Atmospheric Radiation Measurement Program
[DE93-009819] 11 p3462 N93-30049

ATMOSPHERIC REFRACTION
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna
06 p1505 N93-18903
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803

ATMOSPHERIC SCATTERING
NT TROPOSPHERIC SCATTERING
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Research on stimulated Raman scattering with applications to atmospheric lidar
02 p0322 N93-12163
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
Gamma ray astronomy
[NASA-CR-184447] 02 p0483 N93-12348
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
The EISCAT Svalbard (Arctic) radar
06 p1517 N93-19574
On the hierarchy of processes contributing to equatorial spread F 08 p2395 N93-23595
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991]
08 p2558 N93-24637
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Brightness temperature and attenuation diversity statistics at 20.6 and 31.65 GHz for the Colorado Research Network 09 p2684 N93-26473
A proposed study of multiple scattering through clouds up to 1 THz 09 p2684 N93-26474
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Scattering by irregular particles in anomalous diffraction and discrete dipole approximations
12 p3817 N93-31154
Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803

ATMOSPHERIC SEEING
U SEEING (ASTRONOMY)

ATMOSPHERIC SHELLS
U ATMOSPHERIC STRATIFICATION

ATMOSPHERIC SOUNDING
Remote sounding of the Martian atmosphere
01 p0189 N93-10378
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
Some possible space interferometry applications
01 p0178 N93-10957
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Spectroscopy for remote sounding of the atmosphere
03 p0659 N93-14054
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor
04 p0784 N93-14846
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
Chemical Release and Radiation Effects Satellite (CRRES) program archiving and Puerto Rican sounding rocket campaign
[NASA-CR-184503] 06 p1579 N93-18773
RAWS 1992 progress report
[NASA-CR-191382] 06 p1587 N93-18849
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036
Precipitation associated electric field enhancements
06 p1722 N93-19520
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192098] 06 p1583 N93-19886
A documentation of icing-relevant cloud-physical parameters on vertical soundings of stratiform clouds (continuation)
[DLR-MITT-91-19] 07 p2012 N93-21040
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229

Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Requirements and projects for high-resolution atmospheric sounding 07 p1959 N93-21607
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Upper-air circulation systems 08 p2337 N93-22138
A satellite-based Radar Wind Sounder (RAWS) 08 p2406 N93-23384
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
IASI (Infrared Atmospheric Sounding Interferometer): Programme objectives and status 08 p2364 N93-23794
Millimeter wave Atmospheric Sounder (MAS) 08 p2364 N93-23795
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081
A study of high-latitude auroral arcs using radar, optical, and in situ techniques 08 p2399 N93-24183
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder 09 p2773 N93-25739
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
Derivation of total ozone amount from NOAA/TOVS data 10 p3071 N93-26997
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059
A noise level analysis of special multiple-spin VAS data during storm-fest
[NOAA-TR-NESDIS-65] 10 p3071 N93-27079
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
EOS/AMSU-A NASA/Aerojet Interface Meeting
[NASA-TM-108234] 10 p3063 N93-27288
CSU FIRE 2 cirrus field experiment: Description of field deployment phase
[NASA-CR-193162] 10 p3077 N93-27292
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

ATMOSPHERIC STRATIFICATION
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy 03 p0660 N93-14064
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
Contribution to the study of the atmospheric surface layer in stable conditions, simulated in a wind tunnel
[ECL-91-15] 07 p2012 N93-21010
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174

ATMOSPHERIC TEMPERATURE
NT IONOSPHERIC TEMPERATURE
Remote sounding of the Martian atmosphere 01 p0189 N93-10378
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Ozone and temperature trends 02 p0350 N93-11089
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data 02 p0365 N93-12182
The vertical distribution of heating in the tropical atmosphere
[AD-A254982] 02 p0372 N93-12507
SAC contrail formation study
[AD-A254410] 03 p0499 N93-12605
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb
[PB92-222694] 03 p0661 N93-12817
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877
Acoustic tomographic monitoring of the atmospheric boundary layer 03 p0651 N93-13143
Two-phase/two-phase heat exchanger simulation analysis 03 p0586 N93-13402
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar 03 p0653 N93-13614
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring 03 p0664 N93-13643
Integration of vegetation indices and thermal measurements for ecosystem modeling 03 p0646 N93-13721
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres 03 p0768 N93-14072
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
Modeling interannual variability in the Martian seasonal CO2 cycle 06 p1743 N93-19820
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
Global temperature variations 07 p2003 N93-20068
Nocturnal temperature forecasting
[MISC-SER-A-126] 07 p2012 N93-20888
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Comparison of the efficiencies of lidar techniques for atmospheric-temperature measurement based on rotational Raman, and Rayleigh scattering 07 p1960 N93-21614
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period 08 p2405 N93-23219
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
Aspects of the design of a satellite borne infra-red radiometer 09 p2620 N93-25474
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
The Martian lower atmosphere 09 p2897 N93-26394
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815
Sensible and latent heat flux estimates in Antarctica 12 p3763 N93-31902
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289
Atmospheric dispersion of air pollutants in Umea (Sweden)
[FOA-C-40300-4.5] 12 p3756 N93-32424

ATMOSPHERIC TIDES
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced? 06 p1723 N93-19525
Atmospheric tides in the middle atmosphere
[INPE-5436-PUD/053] 06 p1583 N93-19791
SSG 5.99: Tidal friction and the Earth's rotation 07 p1974 N93-20992
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106

ATMOSPHERIC TURBULENCE
NT CLEAR AIR TURBULENCE
NT GUSTS
NT LOW LEVEL TURBULENCE
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence 02 p0360 N93-11269
A theory for the analysis of rotorcraft operating in atmospheric turbulence 02 p0207 N93-11725
Atmospheric dispersion in mountain valleys and basins 02 p0355 N93-11920
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
Science objectives for ground- and space-based optical/IR interferometry 03 p0746 N93-13590
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887

Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy
03 p0660 N93-14064
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements
04 p0914 N93-14641
Wave drag in the atmospheric boundary layer
04 p0915 N93-14873
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory
[DE92-040316] 04 p1013 N93-15425
Turbulence research: Where should we go?
05 p1160 N93-16812
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
Computer program for wind speeds and turbulence properties: Flat or hilly sites in terrain with roughness changes
[ESDU-92032] 06 p1585 N93-18043
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
Increasing the corrected field of view of an adaptive optical telescope
[AD-A258816] 06 p1663 N93-18995
CCD imaging of the inner coma jets of comet P/Halley
06 p1702 N93-19133
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Contribution to the study of the atmospheric surface layer in stable conditions, simulated in a wind tunnel
[ECL-91-15] 07 p2012 N93-21010
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind
[DE93-004480] 08 p2375 N93-22045
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Turbulent microfronts
[AD-A260300] 08 p2409 N93-24265
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Actuator stroke requirements based on a Zernike decomposition of atmospheric turbulence
[DE93-007393] 08 p2516 N93-24449
An investigation of the role of flux divergence in the turbulent kinetic energy balance of the atmospheric surface layer 09 p2773 N93-25756
Laser propagation through turbulence
[AD-A260712] 09 p2714 N93-26217
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

ATMOSPHERIC WINDOWS
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Recent astronomical results from the infrared spatial interferometer and their implications for LOUISA
03 p0745 N93-13585

ATMOSPHERICS
NT IONOSPHERICS
NT WHISTLERS
G-133: A soft x ray solar telescope
03 p0510 N93-13171
The tropical school for atmospheric and space sciences: An international project proposal
08 p2369 N93-23828
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310

ATOLLS
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
Atoll Research Bulletin numbers 355-364: 40th anniversary issue
[PB93-169654] 10 p3062 N93-27421

ATOM CONCENTRATION
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing
11 p3641 N93-28773

ATOMIC BATTERIES
U RADIOISOTOPE BATTERIES

ATOMIC BEAMS
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Spin effects in electron-atom collisions
06 p1659 N93-18494
Method and apparatus for producing a thermal atomic oxygen beam
[NASA-CASE-LEW-15614-1] 06 p1656 N93-19026
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Miniature optically-pumped cesium beam resonator
09 p2833 N93-24990
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator
09 p2833 N93-24991
Phase differences of the fields in a Ramsey resonator for submillimetric frequency standards
09 p2840 N93-25042
A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903

ATOMIC CLOCKS
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Determining optimum C-field settings that minimize output frequency variations in cesium atomic frequency standards
[AD-A255902] 04 p0971 N93-14108
The effects of acceleration on precision frequency sources
[AD-A255465] 04 p0972 N93-14496
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
Introduction to quartz frequency standards, revision 1
[AD-A256373] 04 p0870 N93-15330
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
Chaotic dynamics of atoms 06 p1659 N93-18491
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Hydrogen masers for space 09 p2716 N93-24980
A simple and compact source of cold atoms for cesium fountains and microgravity clocks
09 p2831 N93-24981
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks
09 p2832 N93-24983
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Microwave interrogation frequency noise and clock frequency stability: Experimental results
09 p2842 N93-25056
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard
09 p2842 N93-25058
A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065

ATOMIC COLLISIONS
Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
The binary collision approximation: Background and introduction
[DE92-040887] 05 p1285 N93-16276
Atomic collision physics: A summary and some projections
[DE92-040638] 05 p1287 N93-16407
Spin effects in electron-atom collisions
06 p1659 N93-18494
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Differential electron emission in multi-charged ion atom collisions: Systematics for distant and close collisions
[DE93-004324] 07 p2064 N93-21851
Electron impact ionization of highly charged lithiumlike ions
[DE93-002895] 07 p2065 N93-21954
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface
10 p2928 N93-27222
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Excitation of atomic hydrogen
[DE93-604639] 12 p3820 N93-31822
Theoretical investigation of electron-positive ion/atom interactions
[DE93-012933] 12 p3822 N93-32162
Geometric model from microscopic theory for nuclear absorption
[NASA-TP-3324] 12 p3822 N93-32369

ATOMIC ENERGY
U NUCLEAR ENERGY

ATOMIC ENERGY LEVELS
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
The 2S(+) - 2P separation in KO
[NASA-TM-108086] 03 p0702 N93-12900
Theory of lasing without population inversion
03 p0605 N93-13497
Two-photon cooperative cascade superfluorescence
[AD-A255690] 03 p0608 N93-14023
Spectroscopic and magnetic studies of tetravalent Pa and trivalent Th compounds
[DE92-041214] 05 p1100 N93-15676

Advanced atomic filters 06 p1664 N93-18468
Overview of helium-like structure measurements: A focus on the N = 2 triplet states
[DE93-002913] 06 p1658 N93-19748
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Improved NMR signatures of explosives 07 p1771 N93-21900
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres
[AD-A260304] 08 p2223 N93-24235
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard 09 p2842 N93-25058

ATOMIC EXCITATIONS
Development of laser excited atomic fluorescence and ionization methods
[DE92-016199] 01 p0089 N93-10611
Connected triple excitations in coupled-cluster calculations of hyperpolarizabilities: Neon 02 p0439 N93-11854
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
Self-consistent one-dimensional modelling of x ray laser plasmas
[DE92-019543] 03 p0712 N93-12571
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
Atomic relaxation modes in grain boundaries
[DE92-016781] 03 p0722 N93-13195
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
Two-photon cooperative cascade superfluorescence
[AD-A255690] 03 p0608 N93-14023
A study of mid-latitude 5577 A OI dayglow emissions 04 p0913 N93-14199
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Relativistic calculations of excitation and ionization of highly charged ions by electron impact
[DE93-002129] 05 p1296 N93-17783
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883
Electron impact excitation cross section measurements of highly charged heliumlike and lithiumlike ions
[DE93-003478] 08 p2478 N93-22031
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 08 p2478 N93-22050
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method
[DE93-006095] 08 p2479 N93-22525
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
State-selected studies of atoms and molecules ejected from ion bombarded surfaces
[AD-A261275] 09 p2850 N93-26267
Nonlinear optics in three level atomic systems
[AD-A262793] 10 p3148 N93-28376
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Effects of atomic coherence on multi-level lasing systems 12 p3731 N93-31133
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

ATOMIC EXPLOSIONS
U NUCLEAR EXPLOSIONS

ATOMIC GASES
U MONATOMIC GASES

ATOMIC INTERACTIONS
NT ATOMIC COLLISIONS
Adhesion in atomic scale metal contacts
[AD-A257137] 05 p1121 N93-16142
The APX spectrometer for Martian missions 11 p3434 N93-28776
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668

ATOMIC MASS
U ATOMIC WEIGHTS

ATOMIC PHYSICS
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
The 1989 Scientific Report of the Laboratory for the Use of High Power Lasers
[ETN-92-92175] 02 p0317 N93-12023
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A 02 p0321 N93-12046
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Activities report of the Kernfysisch Versneller Institute
[ETN-93-93340] 06 p1653 N93-17931
Research programs at the Research Laboratory of Electronics 06 p1522 N93-19482
Recent progress on astrophysical opacity
[DE93-002892] 06 p1722 N93-19513
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-006123] 08 p2491 N93-22052
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation
[AD-A260284] 08 p2483 N93-24234
The physics of spin polarized gases
[AD-A261396] 09 p2850 N93-26288
Atomic supersymmetry 10 p3146 N93-27353
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
Proceedings of the Workshop on Spin-Charge Transfer Reaction in Atomic Collision Process for planning of next period of cascade project
[DE93-704290] 12 p3821 N93-31834
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

ATOMIC RECOMBINATION
Direct radiative recombination of atomic ions 02 p0321 N93-12048
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677

ATOMIC SPECTRA
Development of laser excited atomic fluorescence and ionization methods
[DE92-016199] 01 p0089 N93-10611
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
The Lyman alpha forest of the high-z quasar 0000-263 10 p3203 N93-26890
Bibliography on atomic line shapes and shifts
[PB93-173433] 10 p3132 N93-27529
Quantum spectra and dynamics 12 p3831 N93-31129
Atomic and molecular line observations of galaxies 12 p3847 N93-31771
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009

ATOMIC STRUCTURE
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Electronic structure of highly correlated structures
[DE92-017017] 01 p0155 N93-10863
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778
Theoretical studies of high-temperature superconductors and highly compressed hydrogen 02 p0292 N93-11833
Atomic structure and spectral perturbations in dense and hot plasmas 02 p0321 N93-12049
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
Electronic structure of microclusters and defect complexes
[AD-A254807] 03 p0720 N93-12750
Atomic structure of mixed ferroelectrics
[AD-A254369] 03 p0702 N93-12947
Ordering energies and mechanisms in beta-phase NiAl
[DE92-040031] 03 p0542 N93-13043
Atomic relaxation modes in grain boundaries
[DE92-016781] 03 p0722 N93-13195
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption 04 p0989 N93-14172
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
A global potential energy surface for ArH2 04 p0843 N93-15358
Spectroscopic and magnetic studies of tetravalent Pa and trivalent Th compounds
[DE92-041214] 05 p1100 N93-15676
The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
The electronic structure of core states under extreme compressions
[DE92-017451] 05 p1112 N93-16334
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Electronic structure and phase separation in superconducting cuprates
[PREPRINT-889] 05 p1323 N93-17025
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
Apical oxygen ions and the electronic structure of the high T(sub c) cuprates
[PREPRINT-828] 05 p1324 N93-17223
Strongly interacting fermion systems
[DE93-002839] 05 p1295 N93-17656
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753
Relativistic calculations of excitation and ionization of highly charged ions by electron impact
[DE93-002129] 05 p1296 N93-17783
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932

Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
Atomic and electronic structure of metals and alloys: Clean surfaces and chemisorbed molecules
[DE93-004371] 06 p1487 N93-18452
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Atomic and electronic structure of ultrathin films 07 p2078 N93-20287
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875
New developments in the 'ab initio' determination of transition metal alloy phase diagrams
[DE93-002540] 07 p1856 N93-21488
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Angular distributions of charge exchange collisions at very low energies
[DE93-002338] 07 p2064 N93-21751
Positron studies of defected metals, metallic surfaces
[DE93-006089] 08 p2499 N93-22051
Metallization and insulization during impact
[DE93-004708] 08 p2500 N93-22420
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Electronic structure studies of YBa2Cu3O(x)(6.2 less than equal to x less than or equal to 6.9) using angle resolved photoemission
[DE93-004811] 08 p2501 N93-22493
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
A novel method for characterization of superconductors: Physical measurements and modeling of thin films 09 p2871 N93-25584
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646
Fundamental aspects of metal joining: The study of strong interfaces
[AD-A261293] 09 p2653 N93-26304
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
Role of oxygen vacancies in anodic TiO2 thin films
[DE92-642137] 11 p3602 N93-31027
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063

ATOMIC THEORY
NT HEISENBERG THEORY

ATOMIC WEIGHTS
Proposal for an absolute, atomic definition of mass
[DE93-609842] 12 p3815 N93-32410

ATOMIZATION
U ATOMIZING

ATOMIZERS
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223

ATOMIZING
NT GAS ATOMIZATION
NT LIQUID ATOMIZATION
Physical processes involved in injection and atomization of liquid propellants 02 p0248 N93-11453
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
A summary of the JANNAF workshop on liquid rocket atomization 09 p2625 N93-26014
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155

ATOMS
NT HELIUM ATOMS
NT HYDROGEN ATOMS
NT NEUTRAL ATOMS
NT NITROGEN ATOMS
NT OXYGEN ATOMS
NT RECOIL ATOMS
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
Theory of lasing without population inversion 03 p0605 N93-13497
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

ATP
U ADENOSINE TRIPHOSPHATE

ATR REACTOR
U ADVANCED TEST REACTORS

ATROPHY
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Growth factor involvement in tension-induced skeletal muscle growth
[NASA-CR-193023] 10 p3083 N93-27113

ATTACHMENT
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21)
[AD-A253395] 01 p0091 N93-10290

ATTACK AIRCRAFT
NT A-6 AIRCRAFT
NT A-7 AIRCRAFT
NT AH-64 HELICOPTER
NT B-1 AIRCRAFT
NT B-2 AIRCRAFT
NT BOMBER AIRCRAFT
NT F-4 AIRCRAFT
NT F-14 AIRCRAFT
NT F-15 AIRCRAFT
NT F-16 AIRCRAFT
NT F-18 AIRCRAFT
NT F-104 AIRCRAFT
NT F-117A AIRCRAFT
NT FIGHTER AIRCRAFT
NT HARRIER AIRCRAFT
NT MIRAGE AIRCRAFT
NT YF-12 AIRCRAFT
NT YF-16 AIRCRAFT
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691

ATTACKING (ASSAULTING)
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719

ATTENTION
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
Attention factors associated with head-up display and helmet-mounted display systems
[AD-A260204] 08 p2427 N93-24001
Method of encouraging attention by correlating video game difficulty with attention level
[NASA-CASE-LAR-15022-1] 10 p3085 N93-28128

ATTENUATION
NT ACOUSTIC ATTENUATION
NT ATMOSPHERIC ATTENUATION
NT AURORAL ABSORPTION

NT MICROWAVE ATTENUATION
NT SIDELOBE REDUCTION
NT WAVE ATTENUATION
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178

ATTENUATION COEFFICIENTS
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
High resolution computed tomography
[AD-A259728] 08 p2321 N93-23470

ATTENUATORS
NT RESISTORS
NT THERMISTORS
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453

ATTITUDE (INCLINATION)
NT PITCH (INCLINATION)
NT ROLL
NT SATELLITE ORIENTATION
NT YAW
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse 04 p0955 N93-15551
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
TRAC based sensing for autonomous rendezvous 07 p1813 N93-21412
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290
An overview of optical gyroscopes for navigation 08 p2119 N93-22783
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086
Concepts for conformal and body-axis attitude information for spatial awareness presented in a helmet-mounted display
[NASA-TM-4438] 08 p2129 N93-23408
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory 09 p2600 N93-24697
Resolution of the COBE Earth sensor anomaly 09 p2600 N93-24700
Real-time attitude determination and gyro calibration 09 p2602 N93-24708
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Attitude analysis in Flatland: The plane truth 09 p2603 N93-24712
Rate determination from vector observations 09 p2603 N93-24713
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
SCATHA mission termination report 09 p2605 N93-24725
Accurate attitude determination of the LACE satellite 09 p2605 N93-24726
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors 09 p2606 N93-24733
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors 09 p2607 N93-24735
Apparatus for determining the attitude of a vehicle
[AD-D015667] 09 p2710 N93-26092
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
Long Duration Exposure Facility (LDEF) attitude measurements of the Interplanetary Dust Experiment 11 p3638 N93-29377
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
Attitude determination using GPS: Development of an all solid-state guidance, navigation, and control sensor for air and space vehicles based on the global positioning system 11 p3246 N93-30605
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability 12 p3776 N93-31236

ATTITUDE CONTROL
NT DIRECTIONAL CONTROL
NT LATERAL CONTROL
NT LONGITUDINAL CONTROL
NT SATELLITE ATTITUDE CONTROL
NT THRUST VECTOR CONTROL
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
Fuzzy logic control for camera tracking system 02 p0314 N93-11935
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study
[NASA-CR-188578] 04 p0825 N93-15633
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
Office of Spaceflight Standard Spaceborne Global Positioning System (GPS) user equipment project 07 p1780 N93-21417
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
Modal identification experiment 08 p2188 N93-22635
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results
[NASA-CR-192294] 08 p2180 N93-22683
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Attitude control results
[NASA-CR-192291] 08 p2458 N93-23084
Nonlinear attitude control of spacecraft and momentum management of control moment gyros 08 p2195 N93-23506
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft 09 p2617 N93-25527
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Apparatus for determining the attitude of a vehicle
[AD-D015667] 09 p2710 N93-26092
Dynamics of on-orbit construction process 09 p2669 N93-26406
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814
Attitude control and stabilization technology discipline 10 p2972 N93-27855
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
Project MEDSAT 11 p3231 N93-29739
Efficient Reorientation Maneuvers for Spacecraft with Multiple Articulated Payloads
[NASA-CR-193142] 11 p3279 N93-29988
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization 11 p3279 N93-29989
Attitude stabilization of a rigid spacecraft using two momentum wheel actuators 11 p3280 N93-29990
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode 11 p3280 N93-29992
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
Space Station Freedom attitude determination and control system overview 12 p3689 N93-31447
Blowdown thrust profile prediction 12 p3689 N93-31448
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32228

ATTITUDE GYROS
ROSAT in-orbit attitude measurement recovery
[MBB-UK-0168-92-PUB] 05 p1088 N93-17629
Real-time attitude determination and gyro calibration 09 p2602 N93-24708
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734

ATTITUDE INDICATORS
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory 09 p2600 N93-24697
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Resolution of the COBE Earth sensor anomaly 09 p2600 N93-24700
Real-time attitude determination and gyro calibration 09 p2602 N93-24708
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Rate determination from vector observations 09 p2603 N93-24713
A multimission three-axis stabilized spacecraft flight dynamics ground support system 09 p2603 N93-24714
Accurate attitude determination of the LACE satellite 09 p2605 N93-24726
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors 09 p2606 N93-24733
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors 09 p2607 N93-24735
Attitude stabilization of bias momentum satellites 10 p2923 N93-27195
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
Space Station Freedom attitude determination and control system overview 12 p3689 N93-31447

ATTITUDE STABILITY
NT DIRECTIONAL STABILITY
NT GYROSCOPIC STABILITY
NT LATERAL STABILITY
NT LONGITUDINAL STABILITY
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Frequency ratio lock up in the attitude drift of a dissipative axisymmetric gyrostat 07 p1908 N93-20725

Spacecraft detumbling through energy dissipation
09 p2600 N93-24696
Attitude stabilization of bias momentum satellites
10 p2923 N93-27195
Attitude control and stabilization technology discipline
10 p2972 N93-27855
Refinements on the pinhole camera measurements of the LDEF attitude
11 p3283 N93-29622
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3279 N93-29989
Attitude stabilization of a rigid spacecraft using two momentum wheel actuators
11 p3280 N93-29990
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode
11 p3280 N93-29992
Space station attitude disturbance arising from internal motions
11 p3280 N93-29995

ATTRITION (MATERIALS)
U COMMINUTION

AUDIO DATA
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915

AUDIO EQUIPMENT
NT EARPHONES
NT LOUDSPEAKERS
NT MICROPHONES
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Acoustic device and method for measuring gas densities
[NASA-CASE-NPO-18155-1-CU]
03 p0700 N93-13421
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Inflight evaluation of an acoustic orientation instrument
[AD-A260752] 09 p2591 N93-25909

AUDIO FREQUENCIES
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21)
[AD-A253393] 01 p0133 N93-10217
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Audio detection algorithms
[AD-A256076] 04 p0973 N93-14234
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342

AUDIO SIGNALS
Audio detection algorithms
[AD-A256076] 04 p0973 N93-14234
Enhancement of audio localization cue synthesis by adding environmental and visual cues
[AD-A259041] 06 p1652 N93-19001
Fly-by voice, a technology demonstration
06 p1444 N93-19918
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915

AUDIO TAPES
Corrosion of metal particle and metal evaporated tapes
04 p0883 N93-15039

AUDITORY DEFECTS
Measurement and evaluation of blast overpressure during F-15A crew station vulnerability assessment test
[AD-A257152] 05 p1227 N93-16033

AUDITORY PERCEPTION
Auditory processing of complex sounds across frequency channels
[AD-A253612] 01 p0131 N93-10650
Auditory perception
[AD-A255061] 02 p0385 N93-12469
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Demodulation processes in auditory perception
[AD-A255748] 04 p0935 N93-15053
Multimodal interactions in sensory-motor processing
[AD-A255780] 04 p0938 N93-15067
Program auralization: Sound enhancements to the programming environment
04 p0953 N93-15539
An automated version of the dichotic listening test: Hardware, software, and procedural details
[AD-A258114] 06 p1594 N93-17895
An analysis of a sustained flight operation training mission in Navy attack aircraft
[AD-A258199] 06 p1602 N93-18205
Classification of complex sounds
[AD-A258405] 06 p1596 N93-18223
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
AudiMir: Directional hearing at microgravity
08 p2159 N93-24365
Speech research
[AD-A260643] 09 p2675 N93-25639
Complex auditory signals
[AD-A261491] 09 p2846 N93-26374
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

AUDITORY SENSATION AREAS
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252

AUDITORY SIGNALS
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Enhancement of audio localization cue synthesis by adding environmental and visual cues
[AD-A259041] 06 p1652 N93-19001
Modeling and simulation of a formal neural network: Implementation on a 'Hypercube FPS T-40' parallel machine
[ETN-93-92688] 07 p2045 N93-21065
Inflight evaluation of an acoustic orientation instrument
[AD-A260752] 09 p2591 N93-25909
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
Complex auditory signals
[AD-A261491] 09 p2846 N93-26374
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

AUDITORY TASKS
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
An automated version of the dichotic listening test: Hardware, software, and procedural details
[AD-A258114] 06 p1594 N93-17895

AUGER EFFECT
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401

AUGER SPECTROSCOPY
Signal-to-noise assessment and measurement in spectroscopies with particular reference to Auger and x ray photoelectron spectroscopies
[NPL-DMM(A)-45] 02 p0247 N93-11396
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Scattering in electron spectrometers, diagnosis, and avoidance. 1: Concentric hemispherical analysers
[NPL-DMM(A)-70] 08 p2218 N93-22463
Scattering in electron spectrometers, diagnosis, and avoidance. 2: Cylindrical mirror analysers
[NPL-DMM(A)-71] 08 p2218 N93-22464
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258

AUGMENTATION
NT STABILITY AUGMENTATION
NT THRUST AUGMENTATION
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
Program auralization: Sound enhancements to the programming environment
04 p0953 N93-15539
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events
06 p1732 N93-19583
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar
06 p1732 N93-19586
Acquisition and production of skilled behavior in dynamic decision-making tasks
[NASA-CR-192361] 07 p2025 N93-20908
An approach to improving TNA EDS
07 p1765 N93-21864
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458

AURORA 7
Auroral Cluster: Science objectives and measurement strategies
12 p3858 N93-31710

AURORAL ABSORPTION
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757

AURORAL ACTIVITY
U AURORAS

AURORAL ARCS
NT RED ARCS
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results
02 p0360 N93-11267
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
Evaluating auroral processes within a magnotospheric model
[NASA-CR-192122] 06 p1577 N93-18606
A case study of two auroral arcs using optical and radar measurements
06 p1722 N93-19519
Precipitation associated electric field enhancements
06 p1722 N93-19520
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525
Formation of auroral arcs via magnetosphere-ionosphere coupling
[AD-A258641] 07 p1998 N93-20363
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials
[NIFS-195] 07 p2073 N93-20764
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987
A study of high-latitude auroral arcs using radar, optical, and in situ techniques
08 p2399 N93-24183
Laboratory simulation of field-aligned currents
[NASA-CR-193091] 11 p3476 N93-28538

AURORAL ELECTROJETS
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990
06 p1733 N93-19589
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation
11 p3398 N93-30746
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices
12 p3856 N93-31701

AURORAL IONIZATION
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora
02 p0359 N93-11266
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results
02 p0360 N93-11267
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited
02 p0360 N93-11268
On the origin of ion acoustic turbulence in the auroral topside ionosphere
02 p0361 N93-11273
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
Physics of the aurora
[TRITA-EPP-91-06] 05 p1376 N93-17639
Precipitation associated electric field enhancements
06 p1722 N93-19520
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308

AURORAL IRRADIATION
Physics of the aurora
[TRITA-EPP-91-06] 05 p1376 N93-17639

AURORAL SPECTROSCOPY
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
The role of proton precipitation in Jovian aurora: Theory and observation
02 p0487 N93-11165

AURORAL ZONES
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166

Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Comment on 'EISCAT Radar Observations of Enhanced Incoherent Scatter Spectra and Their Relation to Auroral Luminosity and Field-Aligned Currents' by P. N. Collis et al. 02 p0360 N93-11271
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
JARE data reports no. 175 (ionosphere 46). Records of radio aurora at Syowa Station, Antarctica in 1990 03 p0651 N93-13285
The Jovian ionosphere 03 p0758 N93-13337
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions 06 p1726 N93-19547
Plasma flow bursts in the auroral zone 06 p1726 N93-19550
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region 06 p1727 N93-19552
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar 06 p1727 N93-19554
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event 06 p1728 N93-19560
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564
STARE: A new coherent radar in Scandinavia 06 p1517 N93-19572
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar 06 p1732 N93-19586
The BICORE project 06 p1517 N93-19587
Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A259943] 08 p2401 N93-24322
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

AURORAS
NT AURORAL ARCS
NT RADIO AURORAS
NT RED ARCS
Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165
Multispectral observations of the Jovian aurora 02 p0487 N93-11167
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results 02 p0360 N93-11267
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited 02 p0360 N93-11268
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence 02 p0360 N93-11269
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
Fine structure of auroral particle acceleration 04 p0912 N93-14121
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612
The dependence of pulsating auroral events on energetic electrons and cold plasma near the equatorial plane
[DE93-000856] 05 p1376 N93-17384
Physics of the aurora
[TRITA-EPP-91-06] 05 p1376 N93-17639
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Aeronomy of auroral and airglow emissions 06 p1584 N93-18496
Ionospheric processes 06 p1584 N93-18498
Auroral energization and geomagnetic disturbances 06 p1584 N93-18499
EISCAT related satellites in near future 06 p1578 N93-18738
Freja satellite program and its connection to EISCAT 06 p1578 N93-18739
Campaigns to study the aurora borealis focused on myriametric waves in 1991 06 p1578 N93-18740
Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991 06 p1578 N93-18741
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced? 06 p1723 N93-19525
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
Proposal for a coordination between EISCAT and INTERBALL 06 p1726 N93-19544
Main ionospheric trough: Preliminary results from the 1990 Finnish-French EISCAT campaign 06 p1726 N93-19545
Particle simulation of auroral double layers
[AD-A258577] 07 p1996 N93-20032
Magnetospheric and auroral processes
[NASA-CR-192138] 07 p1996 N93-20250
Electron acceleration in the magnetosphere 07 p1997 N93-20283
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere 08 p2394 N93-23388
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite
[AD-A260015] 08 p2401 N93-24301
Mercury: The Los Alamos ICF KrF laser system
[DE93-007363] 09 p2713 N93-25379
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
Particle simulation of auroral double layers 09 p2774 N93-25830
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989 09 p2774 N93-25889
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009

AUSTENITE
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Fastening apparatus having shape memory alloy actuator
[NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

AUSTENITIC STAINLESS STEELS
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels
[DE92-041208] 05 p1111 N93-16149
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
A modified Miner rule to predict crack initiation 07 p1948 N93-21325
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Transformation plasticity in ductile solids
[DE93-008636] 11 p3321 N93-28902
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

AUSTIN COMET
Ultraviolet spectroscopy of Comet Austin (1989c1) using a two-dimensional diode array detector 04 p1017 N93-14444
High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
A strong 3.4 micron emission feature in comet Austin 1989c1 06 p1706 N93-19162
Spectroscopic observations of comet Austin (1989c) 06 p1697 N93-19169
H2O(+) structures in the inner plasma tail of comet Austin 06 p1708 N93-19174
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin 06 p1710 N93-19192
Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres 06 p1698 N93-19236

AUSTRALIA
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia 01 p0120 N93-10181
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana 01 p0122 N93-10191
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147

An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765

AUSTRALIAN SPACE PROGRAM
National space program in Australia
07 p1977 N93-21283

AUSTRIA
Activities of the Seibersdorf Research Center
[ETN-93-92597] 07 p2103 N93-20857
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456

AUSTRIAN SPACE PROGRAM
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
The joint Austro-Soviet space project Austromir-91
08 p2157 N93-24353
Flight experiences on board Space Station Mir
08 p2157 N93-24355
VideoMir: Satellite video conferencing during the AustroMir spaceflight
08 p2158 N93-24356
Technical management and test procedures for AustroMir-1991
08 p2158 N93-24357

AUTOCLAVES
ASRM test report: Autoclave cure process development
[NASA-CR-192535] 10 p2986 N93-27157

AUTOCOLLIMATORS
U COLLIMATORS

AUTOCORRELATION
The Ginga satellite and the large-scale structure of the Universe
05 p1374 N93-17151
The ROSAT autocorrelation function of the x ray background
05 p1374 N93-17152
Comparisons of theoretical limits for source coding with practical compression algorithms
06 p1513 N93-19428
Higher order crossings
[AD-A258727] 07 p2050 N93-20327
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
Application of Costas codes and quadratic congruential codes to digital pulse compression
[DREO-TN-91-31] 08 p2271 N93-23726
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 4
[NASA-CR-192834] 09 p2769 N93-24910
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601

AUTOIONIZATION
Progress toward x ray lasing between autoionizing transitions
[DE92-017428] 02 p0317 N93-11765
Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Ionization probes of molecular structure and chemistry
[DE93-008211] 09 p2847 N93-25310
Partial cross sections in H(-) photodetachment
[DE93-011570] 11 p3569 N93-30130
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401

AUTOMATA THEORY
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
Lazy scanner generation for modular regular grammars
[CWI-CS-R9158-REV] 05 p1251 N93-17533
A static view of localities
[INRIA-RR-1483] 06 p1622 N93-18650
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Goal-directed learning: A decision-theoretic model for deciding what to learn next 06 p1629 N93-19732
Efficient compilation of a synchronous declarative language: LUSTRE-V3 code generator
[ETN-93-92679] 07 p2038 N93-20899
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy
[NASA-TM-103992] 07 p2027 N93-21807
Learning optimal control using learning automata
[MATHS-REPT-A-176] 08 p2462 N93-24078
Automata network models of galaxy evolution
10 p3201 N93-26879
Automatic management of parallel and distributed system resources 10 p2965 N93-27715
Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525
Knot invariants and cellular automata
[AD-A264199] 11 p3607 N93-30884
Tapes, queues and communicating automata in DIAC
[REPT-92-94] 12 p3789 N93-31631

AUTOMATED EN ROUTE ATC
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
The Canadian Automated Air Traffic System
11 p3246 N93-30323
Procedural development prototype in Automated En Route Air Traffic Control 11 p3247 N93-30352

AUTOMATED RADAR TERMINAL SYSTEM
Controller evaluation of initial terminal data link ATC services: Mini study 3
[DOT/FAA/CT-92/18] 08 p2262 N93-23046

AUTOMATED TRANSIT VEHICLES
GDF: A digitizing format for geographical data
12 p3744 N93-31260
The use of digital road data by a navigation system
12 p3678 N93-31269
Maglev guideway and route integrity requirements
[PB93-154870] 12 p3736 N93-32086

AUTOMATIC CONTROL
NT ACTIVE CONTROL
NT ADAPTIVE CONTROL
NT AUTOMATIC FLIGHT CONTROL
NT AUTOMATIC FREQUENCY CONTROL
NT AUTOMATIC LANDING CONTROL
NT DYNAMIC CONTROL
NT FEEDBACK CONTROL
NT FEEDFORWARD CONTROL
NT H-INFINITY CONTROL
NT LINEAR QUADRATIC GAUSSIAN CONTROL
NT LINEAR QUADRATIC REGULATOR
NT MACHINE LEARNING
NT MODEL REFERENCE ADAPTIVE CONTROL
NT NUMERICAL CONTROL
NT OFF-ON CONTROL
NT OPTIMAL CONTROL
NT PROPORTIONAL CONTROL
NT SELF ALIGNMENT
NT SEQUENTIAL CONTROL
NT TIME OPTIMAL CONTROL
A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
An autonomous vehicle: Constrained test and evaluation
[PB92-205608] 02 p0325 N93-11427
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Requirements and opportunities for satellite autonomy
02 p0230 N93-11926
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Autoguidance video sensor for docking
02 p0230 N93-11954
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974
Habitat automation 02 p0391 N93-11976
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
Application of concurrent engineering methods to the design of an autonomous aerial robot
[AD-A254968] 03 p0609 N93-12555
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
Robot welding process control
[NASA-CR-184428] 03 p0614 N93-13436
Automation and robotics considerations for a lunar base 03 p0619 N93-14006
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
An application of artificial intelligence to automatic telescopes
[NASA-TM-108115] 04 p0965 N93-15291
A plan for spacecraft automated rendezvous
[NASA-TM-108385] 04 p0813 N93-15392
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU]
05 p1304 N93-17273
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Methodologies of automatic control including fuzzy logic
[LAAS-92257] 06 p1631 N93-17814
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192030] 06 p1605 N93-18018
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
ORCCAD: Towards an open robot controller computer aided design system
[INRIA-RR-1396] 06 p1621 N93-18519
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
En route air traffic controllers use of flight progress strips: A graph-theoretic analysis
[AD-A259062] 06 p1433 N93-18927
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
Automated control of aircraft in formation flight
[AD-A259020] 06 p1450 N93-19102

Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods 06 p1691 N93-19730
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Research on data handling technology 07 p1795 N93-20448
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace 07 p1811 N93-21123
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
NASA Automated Rendezvous and Capture Review. Executive summary
[NASA-TM-108597] 07 p1812 N93-21407
Autonomous pre-alignment of a docking mechanism 07 p1814 N93-21418
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
MMU applications for automated rendezvous and capture 07 p1817 N93-21438
NASA MSFC hardware in the loop simulations of automatic rendezvous and capture systems 07 p1818 N93-21448
Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
Multi-window registration algorithm for automatic detection and tracking of moving targets 08 p2255 N93-22022
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
Towards autonomous fuzzy control 08 p2450 N93-22213
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231
Manned versus unmanned rendezvous and capture 08 p2137 N93-22234
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 08 p2137 N93-22237
Autonomous prealignment of a docking mechanism 08 p2137 N93-22238
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Autonomous rendezvous and capture system design 08 p2138 N93-22244
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22287
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization 08 p2417 N93-23070
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. Economy
[NASA-TM-103895] 08 p2430 N93-23240
An algebra of discrete event processes
[NASA-TM-102848] 08 p2469 N93-23413
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Automated manufacturing of continuous fibre composite structures for aerospace applications 08 p2212 N93-23942
The strategic role of automation and robotics for Columbus utilization 08 p2164 N93-24389
Columbus automation testbed: A tool for users 08 p2164 N93-24390
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
How to combine probabilistic and fuzzy uncertainties in fuzzy control
[NASA-TM-108746] 09 p2818 N93-25138
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
An architecture for object-oriented intelligent control of power systems in space 09 p2823 N93-25968
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Automation of Space Station module power management and distribution system 10 p2969 N93-27816
Agent-independent planning 10 p2970 N93-27822
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Lunar surface roving explorer 10 p2952 N93-28042
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Natural language generation
[AD-A262578] 11 p3524 N93-28579
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Operator and automation capability analysis: Picking the right team 11 p3503 N93-28864
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack 11 p3503 N93-28867
Welding wire pressure sensor assembly
[NASA-CASE-MFS-26216-1] 11 p3442 N93-28951
An autonomous vision-based mobile robot 11 p3443 N93-29082
Lunar crane system 11 p3277 N93-29118
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
A functional system architecture for fully autonomous robot 11 p3370 N93-30311
Supervised autonomy in telerobotics 11 p3372 N93-30326
A multiprocessor architecture for realtime robot control 11 p3372 N93-30327
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
A framework for spatio-temporal control in the tracking of visual contours
[OUEL-1961/92] 12 p3785 N93-31055
Fuzzy Control/Space Station automation 12 p3688 N93-31440
Commercial applications 12 p3688 N93-31441
Current projects in Fuzzy Control 12 p3688 N93-31442
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169

AUTOMATIC CONTROL VALVES
NT PRESSURE REGULATORS
NT RELIEF VALVES

AUTOMATIC DATA PROCESSING
U DATA PROCESSING

AUTOMATIC FLIGHT CONTROL
NT AUTOMATIC LANDING CONTROL
Automatic control laws for aircraft in parabolic flight
[DILC-EST-TR-211] 02 p0214 N93-11160
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
Research on HOPE flight control technology 07 p1787 N93-20427
Research on combined HOPE navigation technology 07 p1792 N93-20428
Approach range and velocity determination using laser sensors and retroreflector targets 08 p2147 N93-22297
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280

AUTOMATIC FREQUENCY CONTROL
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
A PID auto-tuning algorithm based on relay feedback
[REPT-92-019] 02 p0421 N93-11667
A high-speed auto-tuning PID regulator based on programmable logic devices
[REPT-92-042] 07 p2047 N93-21186
Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049
Frequency generation and synthesis in the DRSS 09 p2693 N93-25054

AUTOMATIC LANDING CONTROL
Research on HOPE flight control technology 07 p1787 N93-20427
Orbiter Autoland reliability analysis
[NASA-TM-4464] 08 p2194 N93-23139
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description
[NASA-CR-191457] 11 p3250 N93-28621

AUTOMATIC PATTERN RECOGNITION
U PATTERN RECOGNITION

AUTOMATIC PILOTS
Advanced control for the design of STT missile autopilot
[REPT-921-320-102] 02 p0215 N93-11585
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Piloting decision aid for spacecraft proximity operations 08 p2147 N93-22295
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis
[AD-A262151] 10 p2946 N93-27546
Analytical foundations of gain scheduling
[AD-A264682] 11 p3260 N93-30550
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

AUTOMATIC ROCKET IMPACT PREDICTORS
U COMPUTERIZED SIMULATION
U IMPACT PREDICTION
AUTOMATIC TEST EQUIPMENT
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
The use of phase-stepping in the photoelastic analysis of complex components 07 p1928 N93-20636
Automated tools for testing computer system vulnerability
[PB93-146025] 08 p2433 N93-23273
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Standardization of automatic test equipment in the US Air force
[AD-A262076] 11 p3250 N93-29004
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764
AUTOMATIC WEATHER STATIONS
Automated Weather Observing System (AWOS) Data Acquisition System (ADAS) Operational Test and Evaluation (OT/E) integration and OT/E operational test plan
[DOT/FAA/CT-TN90/65] 05 p1214 N93-16631
AUTOMATION
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
Space robotics: Recent accomplishments and opportunities for future research
[NASA-TM-107675] 03 p0694 N93-13442
Mining equipment and operations for mining the 1982HR (Orpheus) asteroid 03 p0515 N93-13557
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
A tool for automated validation of network protocols
[AD-A256726] 05 p1255 N93-16066
Towards automation of user interface design 05 p1248 N93-17510
Description of research interests and current work related to automating software design 05 p1249 N93-17515
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
Aircrew acceptance of automation in the cockpit 06 p1608 N93-19761
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 8: Aerothermodynamics Automation and Robotics (A/R) systems sensors, high-temperature superconductivity
[NASA-TM-108655] 07 p2085 N93-20775
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping 08 p2259 N93-22174
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
Space Station Freedom automation and robotics: An assessment of the potential for increased productivity
[NASA-TM-108714] 08 p2195 N93-24149
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
Use of fuzzy relational information retrieval technique for generating control strategies in resolution-based automated reasoning 09 p2874 N93-25258
Advanced automation of a prototypic thermal control system for Space Station 10 p2972 N93-27846
Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
The future role of the Director of Information Management (DOIM) organization within the DOD corporate information management initiative
[AD-A264118] 11 p3616 N93-30193
Developing automation for terminal air traffic control: Case study of the imaging aid 11 p3247 N93-30356
Selection by simulation: A work sample approach to the selection of process algebras
[ISBN-9-09-005483-9] 12 p3811 N93-31618
Striped tape arrays 12 p3730 N93-31970
The enhanced Software Life Cyle Support Environment (ProSLCSE): Automation for enterprise and process modeling 12 p3794 N93-32158
Ground Robotic Hand Applications for the Space Program study (GRASP)
[NASA-CR-193571] 12 p3737 N93-32235
AUTOMOBILE ENGINES
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Assessment of future natural gas vehicle concepts
[PB93-138923] 08 p2317 N93-24145
The drive to cost-effective structural ceramics
[DE93-009722] 11 p3335 N93-30047
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069
AUTOMOBILE FUELS
The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540
Federal Alternative Fuel Program light duty vehicle operation
[DE92-018124] 02 p0274 N93-11794
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
Evaluation of a Schatz heat battery on a flexible-fueled vehicle. Phase 2
[PB92-204585] 07 p1893 N93-21377
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes
[DE93-005611] 08 p2312 N93-22737
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
Assessment of future natural gas vehicle concepts
[PB93-138923] 08 p2317 N93-24145
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
Documentation for propane fleet conversion cost-effectiveness model
[PB93-165611] 09 p2720 N93-26590
Emissions and fuel economy of Federal alternatively fueled fleet vehicles
[PB93-167195] 10 p3067 N93-26622
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 1
[PB93-186492] 12 p3712 N93-31326
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 2
[PB93-186500] 12 p3713 N93-31327
AUTOMOBILES
NT ELECTRIC AUTOMOBILES
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
An autonomous vehicle: Constrained test and evaluation
[PB92-205608] 02 p0325 N93-11427
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Sensor-based driving of a car with fuzzy inferencing VLSI chips and boards
[DE92-017819] 04 p0963 N93-14818
S/EV 1991: Solar and Electric Vehicle Symposium, Car and Trade Show
[DE92-019890] 04 p0869 N93-15226
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
A low emission vehicle procurement approach for Washington state
[DE92-040561] 05 p1176 N93-16406
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Transportation alternatives 92: Alternative fueled vehicles, volume 2
[DE93-001500] 06 p1548 N93-18531
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
The design and use of automotive crash test dummies 06 p1424 N93-19669
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes
[DE93-005611] 08 p2312 N93-22737
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377
An integrated car navigation system using a single processor for GPS signal processing, positioning, map display, and reporting 08 p2124 N93-23533
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
A demonstration of motion base design alternatives for the National Advanced Driving Simulator
[NASA-TM-103881] 08 p2428 N93-24490
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639
Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25296
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
Mobile robot navigation using qualitative reasoning
[DE93-008277] 10 p3109 N93-27104
AUTOMORPHISMS
Which Q-analogue of the squeezed oscillator?
10 p3142 N93-27320
On the spring and mass of the Dirac oscillator
10 p3146 N93-27355
Most monothetic extensions are rank-1
[REPT-93-05] 12 p3813 N93-31546
AUTONOMIC NERVOUS SYSTEM
NT SYMPATHETIC NERVOUS SYSTEM
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
Autonomic physiological data associated with simulator discomfort
[NASA-CR-177609] 09 p2794 N93-24738
AUTONOMOUS NAVIGATION
Application of concurrent engineering methods to the design of an autonomous aerial robot
[AD-A254968] 03 p0609 N93-12555
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243

An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Automatic rule generation for high-level vision 06 p1618 N93-18225
A parallel implementation of a multisensor feature-based range-estimation method
[NASA-TM-103999] 06 p1432 N93-18883
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 07 p1780 N93-21426
Autonomous rendezvous and capture system design 07 p1815 N93-21427
Autonomous docking ground demonstration 07 p1816 N93-21430
An overview of autonomous rendezvous and docking system technology development 07 p1816 N93-21431
An autonomous rendezvous and docking system using cruise missile technology 07 p1816 N93-21432
A phase one AR/C system design 07 p1816 N93-21435
MMU applications for automated rendezvous and capture 07 p1817 N93-21438
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 07 p1817 N93-21440
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028
Radar seeker based autonomous navigation update system using topography feature matching techniques 08 p2256 N93-22030
Driving a car with custom-designed fuzzy inferencing VLSI chips and boards 08 p2451 N93-22218
An autonomous rendezvous and docking system using cruise missile technologies 08 p2143 N93-22272
New developments in astrodynamics algorithms for autonomous rendezvous 08 p2144 N93-22279
An overview of autonomous rendezvous and docking system technology development at General Dynamics 08 p2145 N93-22281
Autonomous docking ground demonstration (category 3) 08 p2145 N93-22282
Autonomous rendezvous targeting techniques for national launch system application 08 p2145 N93-22284
Supervised autonomous rendezvous and docking systems technology evaluations 08 p2146 N93-22288
A navigation and control system for an autonomous rescue vehicle in the space station environment 08 p2146 N93-22289
Use of automated rendezvous trajectory planning to improve spacecraft operations efficiency 08 p2146 N93-22292
Automated rendezvous and docking with video imagery 08 p2148 N93-22298
Office of Space Flight standard spaceborne Global Positioning System user equipment project 08 p2148 N93-22301
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 08 p2151 N93-22315
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
Localization and positioning using combinations of model views
[AD-A259734] 08 p2460 N93-23472
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
Mobile robot navigation using qualitative reasoning
[DE93-008277] 10 p3109 N93-27104
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
Lunar surface roving explorer 10 p2952 N93-28041
Lunar surface roving explorer 10 p2952 N93-28042
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
An autonomous vision-based mobile robot 11 p3443 N93-29082
On the implementation of the BIRIS range sensor for applications in robotic control and autonomous navigation 11 p3366 N93-30286
The use of digital road data by a navigation system 12 p3678 N93-31269
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103
Real-time qualitative reasoning for telerobotic systems 12 p3737 N93-32116

AUTONOMY

ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
Implementing system simulation of C3 systems using autonomous objects
[NASA-CR-190845] 02 p0283 N93-11716
Research on a reconfigurable modular manipulator system
[DE92-018943] 02 p0327 N93-11865
Role of automation in the ACRV operations 02 p0230 N93-11977
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
A parallel implementation of a multisensor feature-based range-estimation method
[NASA-TM-103999] 06 p1432 N93-18883
A safety-based decision making architecture for autonomous systems
[NASA-CR-191864] 06 p1641 N93-19362
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
TRAC based sensing for autonomous rendezvous 07 p1813 N93-21412
Autonomous pre-alignment of a docking mechanism 07 p1814 N93-21418
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Autonomous rendezvous and capture system design 07 p1815 N93-21427
On-orbit demonstrations of automated closure and capture using ESA-developed proximity operations technologies and an existing serviceable NASA Explorer platform spacecraft 07 p1816 N93-21433
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 07 p1817 N93-21440
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom 08 p2140 N93-22252
TRAC based sensing for autonomous rendezvous 08 p2140 N93-22253
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware 08 p2141 N93-22260
Photonic correlator pattern recognition: Application to autonomous docking 08 p2148 N93-22303
Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
Visual autonomous automatic landing of airplanes 08 p2121 N93-22791
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
VIEWCACHE: An incremental pointer-based access method for autonomous interoperable databases 09 p2880 N93-25809
Knowledge-based control for robot self-localization 09 p2822 N93-25963
An architecture for object-oriented intelligent control of power systems in space 09 p2823 N93-25968
An autonomous satellite architecture integrating deliberative reasoning and behavioural intelligence 09 p2823 N93-25970
NASA Center for Intelligent Robotic Systems for Space Exploration
[NASA-CR-193208] 09 p2826 N93-25986
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
Robotics and artificial intelligence for hazardous environments
[DE93-008271] 11 p3541 N93-29047
Supervised autonomy in telerobotics 11 p3372 N93-30326
A multiprocessor architecture for realtime robot control 11 p3372 N93-30327
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108
Air Force construction automation/robotics 12 p3715 N93-32110
RACE pulls for shared control 12 p3686 N93-32122
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124

AUTOPILOTS

U AUTOMATIC PILOTS

AUTOPSIES

27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696

AUTORADIOGRAPHY

Tagging insulin in microgravity 03 p0510 N93-13172
Autoradiographic distribution and applied pharmacological characteristics of dextromethorphan and related antitissue/anticonvulsant drugs and novel analogs
[AD-A255607] 04 p0935 N93-15009

AUTOREGRESSIVE PROCESSES

Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2] 06 p1528 N93-18440
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1] 06 p1528 N93-18510
Fault detection using a two-model test for changes in the parameters of an autoregressive time series 06 p1505 N93-18907
A central limit theorem for autoregressive integrated moving average processes
[AD-A258923] 06 p1650 N93-19445
A necessary and sufficient condition for the existence of the maximum likelihood estimate in autoregressive models
[RR-866-M] 07 p2058 N93-20944
Evaluation and detection of a signal containing an autoregressive noise
[ETN-93-92684] 07 p1885 N93-21061

Estimation methods for parameters of multivariate autoregressive models
[ETN-93-92685] 07 p2059 N93-21062
Failure monitoring in dynamic systems: Model construction without fault training data
09 p2672 N93-24666
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
Parameter identification of time-varying systems using neural networks 11 p3356 N93-30226
Recognizing partially overlapping objects
11 p3366 N93-30289

AUXILIARY POWER SOURCES
NT SPACE POWER REACTORS
Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Proper battery system design for GAS experiments
03 p0511 N93-13176
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501

AV-8A AIRCRAFT
U HARRIER AIRCRAFT

AV-8B AIRCRAFT
U HARRIER AIRCRAFT

AVAILABILITY
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435
GPS standardization for the needs of time transfer
09 p2836 N93-25016

AVALANCHE DIODES
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special 03 p0509 N93-13166
An acoustic charge transport imager for high definition television applications
[NASA-CR-191295] 03 p0572 N93-13448
Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14086
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
Improvement of voltage reference Zener diode (1SZ48A) 07 p1797 N93-20462
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765

AVALANCHES
NT TOWNSEND AVALANCHE
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
New concepts for high efficiency energy conversion: The avalanche heterostructure and superlattice solar cells
[DE92-010592] 09 p2758 N93-25098
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293

AVERAGE
NT MEAN
Turbulent fluid motion IV-averages, Reynolds decomposition, and the closure problem
[NASA-TM-105822] 04 p0880 N93-15585
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Tidally averaged models for dispersion in shallow water
[REPT-92-66] 12 p3769 N93-31497

AVHRR
U ADVANCED VERY HIGH RESOLUTION RADIOMETER

AVIATION
U AERONAUTICS

AVIATION METEOROLOGY
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
The 1991 LLWAS anemometer test program
[AD-A258844] 06 p1538 N93-19365
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives
06 p1418 N93-19591
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095
A statistical characterization of Denver-area microbursts
[AD-A262127] 10 p3078 N93-27675
STRATUS: A prototype expert advisory system for terminal weather forecasting 11 p3367 N93-30296
Meteorological information for aviation: A systems approach 11 p3367 N93-30298
Preliminary evaluation of aviation-impact variables derived from numerical models
[PB93-190197] 12 p3767 N93-31202

AVIATION PSYCHOLOGY
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Underlying causes of accidents: Casual networks
06 p1422 N93-19658
Assessment of morale in Turkish Air Force pilots with two clinical psychological tests
06 p1423 N93-19660
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present
06 p1425 N93-19673
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability
12 p3776 N93-31237
The PARAT tests as examination system
12 p3776 N93-31238

AVIATORS
U AIRCRAFT PILOTS

AVIONICS
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
The future of carrier aviation
[AD-A254043] 02 p0430 N93-12260
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
FDAMS: An extendable and reconfigurable solution for avionics data management systems
04 p0794 N93-15157
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems
05 p1254 N93-17305
Test and integration concept for complex helicopter avionic systems
[MBB-UD-0605-91-PUB] 05 p1065 N93-17547
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Joint Integrated Avionics Working Group (JIAWG) object-oriented domain analysis method (JODA), version 3.1
[AD-A258468] 06 p1447 N93-18270
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
Management of avionics data in the cockpit
06 p1611 N93-19777
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852
Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview
06 p1443 N93-19906
Development and flight testing of the multi-source integration algorithms in the F/A-18 mission computer software 06 p1445 N93-19923
USA aviation digest index, 1989, volume 11
[AD-A258673] 07 p2089 N93-20388
Index to USA aviation digest, 1990
[AD-A258678] 07 p2089 N93-20389
Index to USA aviation digest, 1991
[AD-A258679] 07 p2089 N93-20390
Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259
An overview of autonomous rendezvous and docking system technology development
07 p1816 N93-21431
An autonomous rendezvous and docking system using cruise missile technology 07 p1816 N93-21432
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028
Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
An overview of autonomous rendezvous and docking system technology development at General Dynamics
08 p2145 N93-22281
Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561

Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
Detectability of high power aircraft [MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Space Generic Open Avionics Architecture (SGOAA) standard specification [NASA-CR-188245] 08 p2199 N93-23003
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM) [NASA-CR-192656] 08 p2152 N93-23033
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems [NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability [DLR-MITT-92-07] 08 p2123 N93-24138
Operator interface assessment for the sensor fusion flight demonstration program [AD-A260235] 08 p2129 N93-24416
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles 09 p2693 N93-24903
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6 [AD-A261213] 09 p2590 N93-25733
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design [AD-A261105] 09 p2591 N93-26572
Avionics systems architectures 10 p2919 N93-27169
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
A new class of mission support for combat air-crew 11 p3501 N93-28854
Standardization of automatic test equipment in the US Air force [AD-A262076] 11 p3250 N93-29004
Strategic avionics technology definition studies. Subtask 3-1A: Electrical Actuation (ELA) systems [NASA-CR-193237] 11 p3271 N93-29215
Space Generic Open Avionics Architecture (SGOAA) reference model technical guide [NASA-CR-188246] 11 p3285 N93-31032
Flight test of avionic and air-traffic control systems [ESA-TT-1279] 12 p3675 N93-31271
Instigation and processing of flight tests in DLR 12 p3675 N93-31275
Advanced launch system multi-path redundant avionics architecture analysis and characterization [NASA-CR-4516] 12 p3795 N93-31642

AVOIDANCE
NT COLLISION AVOIDANCE
NT VORTEX AVOIDANCE
Airbus Industrie TCAS experience 04 p0789 N93-15186

AWACS AIRCRAFT
NT E-2 AIRCRAFT

AWARDS
Summary of awards, fiscal year 1990 [NSF-92-70] 03 p0683 N93-12693
State award summary: Fiscal Year 1991 [NSF-92-3] 03 p0775 N93-13381
Summary of awards. Fiscal year 1991 [NSF-92-36] 03 p0681 N93-13431
Summary of awards: Applied mathematics. Fiscal year 1991 [NSF-92-38] 03 p0681 N93-13438
Directory of awards, fiscal year 1991. Directorate for engineering [NSF-92-55] 03 p0775 N93-13704
Chronology of KSC and KSC related events for 1992 [NASA-TM-107561] 10 p3219 N93-27285

AXAF
U X RAY ASTROPHYSICS FACILITY

AXES (COORDINATES)
U COORDINATES

AXES (REFERENCE LINES)
NT AXES OF ROTATION

AXES OF ROTATION
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers [AD-D015611] 07 p2067 N93-20397

AXIAL COMPRESSION LOADS
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
Metallization and insulization during impact [DE93-004708] 08 p2500 N93-22420

AXIAL COMPRESSORS
U TURBOCOMPRESSORS

AXIAL FLOW
Three dimensional inviscid compressible calculations around axial flow turbine blades [DS-2159] 06 p1524 N93-17881
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap [AD-A259344] 07 p1904 N93-21977
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
The WINCOF-I code: Detailed description [NASA-CR-190779] 09 p2573 N93-24760
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952

AXIAL FLOW COMPRESSORS
U TURBOCOMPRESSORS

AXIAL FLOW PUMPS
NT TURBINE PUMPS

AXIAL FLOW TURBINES
Three-dimensional turbopump flowfield analysis [NASA-CR-192418] 02 p0308 N93-12539
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Smaller expendable turbojets 05 p1067 N93-17621
Stall in axial flow aero engine compressors 06 p1530 N93-18723
Stall and surge in axial flow compressors 06 p1530 N93-18724
Aero-thermal design of a cooled transonic NGV and comparison with experimental results 11 p3257 N93-29957
The ViB-code to simulate 3-D stator/rotor flow in axial turbines [DLR-FB-92-19] 12 p3681 N93-31170
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588

AXIAL LOADS
NT AXIAL COMPRESSION LOADS
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C [NASA-TM-105765] 03 p0625 N93-13153
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
Failure of composite plates under static biaxial planar loading [NASA-CR-191391] 04 p0903 N93-15653
A semi-analytical formulation for the elastoplastic analysis of imperfect cylindrical shells [LR-674] 05 p1185 N93-16282
Multiaxial fatigue analysis of metals 05 p1113 N93-16509
Design against high cycle multiaxial fatigue 07 p1922 N93-20335
The predicting crack growth for mixed mode fracture under biaxial loads 07 p1922 N93-20336
Prebuckling deflections and lateral buckling: Theory [PB92-225382] 07 p1946 N93-21018
Buckling of columns: Allowance for axial shortening [PB93-110484] 07 p1947 N93-21234
Microcomputer system for measurements and analysis of signals for fatigue life calculations under biaxial random stress state 07 p1948 N93-21320
Theoretical analysis of plastic moment capacity of an inclined yield line under axial force [PB93-118784] 07 p1951 N93-21689
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force [PB93-118792] 07 p1952 N93-21798
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects [NASA-CR-192788] 09 p2723 N93-24912
Continuum and micromechanics treatment of constraint in fracture [AD-A260927] 09 p2727 N93-25647
In-situ ultrasonic C-scanner [AD-A261113] 09 p2638 N93-25768
Vibration localization in rotating shafts 11 p3454 N93-30626
Development of an experimental method to determine the axial rigidity of a strut-node joint 11 p3290 N93-30950
Lubrication of an 85-mm ball bearing with RP-1 [NASA-TM-106254] 12 p3686 N93-31670

AXIAL STRAIN
Some aspects for the application of a hierarchic family of Herrmann mixed compressible and incompressible finite elements 05 p1077 N93-15723
A theoretical analysis of the effect of uniaxial elastic strain on the critical temperature of cuprate superconductors [DE93-005710] 08 p2507 N93-23329
Studies in penetration mechanics [AD-A260436] 08 p2332 N93-24304
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects [NASA-CR-192788] 09 p2723 N93-24912
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels [DE93-006206] 11 p3454 N93-30213

AXIAL STRESS
Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress [DE92-041375] 05 p1185 N93-16270
Advanced reinforcement systems for intermetallic applications [NASA-CR-4488] 08 p2209 N93-22875
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress [DE93-009760] 10 p3000 N93-28234
Uniaxially stressed Ge:Ga and Ge:Be [DE93-010426] 11 p3594 N93-29150
An experimental/analytical evaluation of biaxial sheet failure [DE93-010620] 11 p3453 N93-29843

AXIOMS
Hereditarily-finite sets and complete metric spaces [CWI-CS-R9148] 05 p1265 N93-16366

AXISYMMETRIC BODIES
A study upon structural optimization of elastic rotors for mechanical systems [INPE-5376-TDI/471] 01 p0094 N93-10310
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Boundary element method for axisymmetric thermoelastic analysis 03 p0624 N93-13097
Fast optimization of static axisymmetric shell structures 03 p0630 N93-13921
Design optimization of natural laminar flow bodies in compressible flow [NASA-CR-4478] 05 p1056 N93-16940
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition [AD-A257733] 05 p1188 N93-17690
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Frequency ratio lock up in the attitude drift of a dissipative axisymmetric gyrostat 07 p1908 N93-20725
The structure of circumstellar shells [NASA-CR-192337] 07 p2096 N93-20757
Evaluation of nozzle shapes for an optical flow meter [PB93-124147] 08 p2292 N93-23281
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0 10 p2927 N93-27221
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer 10 p2937 N93-27462
Axial impact of composites 11 p3297 N93-29078
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme [AD-A264012] 11 p3421 N93-29260

AXISYMMETRIC DEFORMATION
U AXIAL STRAIN

AXISYMMETRIC FLOW
NT ANNULAR FLOW
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields 01 p0016 N93-10010
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
BLSTA: A boundary layer code for stability analysis [NASA-CR-4481] 04 p0877 N93-14797
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket [NASA-TM-105967] 05 p1091 N93-16714
CP-violation in K(sup +/-) to 3 pi decays and lattice QCD B-factors [PREPRINT-848] 05 p1323 N93-17068
Response of a rotating anchored finite annular liquid layer to axial excitation [LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Response of a viscous liquid column with anchored edges to axial excitations [LRT-WE-9-FB-7-1991] 05 p1164 N93-17550

Response of an annular cylindrical liquid layer with anchored edges in zero-gravity
[LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
An investigation of the near and induced flow fields of an axially symmetric jet, issuing normal to a plane surface, into a quiescent medium 06 p1533 N93-19041
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Simulation of vortex bursting 09 p2580 N93-25881
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers 11 p3416 N93-28612
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
An incompressible axisymmetric through-flow calculation procedure for design and off-design analysis of turbomachinery
[AD-A264933] 12 p3726 N93-32071

AXISYMMETRY
U SYMMETRY

AXLES
U SHAFTS (MACHINE ELEMENTS)

AXONS
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198

AZIDES (INORGANIC)
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986

AZIDES (ORGANIC)
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708

AZIMUTH
GPS azimuth determination using short baseline carrier wave interferometry
[AD-A254257] 01 p0006 N93-10265
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Polarization effects and multipolarization SAR 03 p0564 N93-13054
GPS azimuth determination
[AD-A254687] 03 p0499 N93-13348
Investigation of azimuthal stresses due to welding and cooldown
[DE93-005530] 08 p2324 N93-22708
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem 09 p2603 N93-24718

AZO COMPOUNDS
NT HMX
NT RDX

AZOLES
NT INDOLES
NT PYRROLES
Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471

AZORES
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292

A2F AIRCRAFT
U A-6 AIRCRAFT

B

B STARS
B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
The effects of rotation on the winds from hot stars 09 p2894 N93-25620
Two searches for primeval galaxies 10 p3172 N93-26714
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Long slit spectroscopy of NGC 5506 10 p3198 N93-26861
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

B-1 AIRCRAFT
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888

B-2 AIRCRAFT
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889

BABOONS
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166

BACK INJURIES
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210

BACKGROUND NOISE
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
The effects of mis-alignment and background noise in a low energy gamma ray telescope 04 p1011 N93-14231
Development of microchannel plates in advanced wind-tunnel instrumentation
[NASA-CR-181947] 05 p1166 N93-15716
Dual waveband signal processing system
[AD-D015493] 05 p1139 N93-16438
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
Motion-sensitive optical correlator
[NASA-CASE-NPO-18769-1-CU] 10 p3148 N93-28133

BACKGROUND RADIATION
Power spectrum of the extragalactic background light 01 p0177 N93-10364
Cosmic microwave background anisotropies from plausible double inflation
[DE92-016195] 01 p0192 N93-10616
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
Rosat deep surveys 02 p0482 N93-11474
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
A search for anisotropy in the cosmic background radiation at millimeter wavelengths on angular scales from 0.3 to 3 degrees 04 p1050 N93-14244
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
Observing AGN and DXRB with Xspect/Sodart 05 p1360 N93-17103
Ginga results of type 2 AGN's and their contributions to the cosmic x ray background 05 p1367 N93-17105
Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background 05 p1368 N93-17112
HI in galaxy outskirts and the extragalactic ionizing flux 05 p1372 N93-17139
The x ray background: Past, present, and future 05 p1372 N93-17140
Energy spectrum of the cosmic x ray background: Some considerations based on the Ginga results 05 p1373 N93-17143
Where have all the sources gone? 05 p1373 N93-17144
ROSAT deep surveys 05 p1362 N93-17145
Origin of the cosmic x ray background radiation 05 p1373 N93-17146
On the suitability of starburst galaxies as a contributor to the CXRB 05 p1373 N93-17147
Contribution of clusters of galaxies to the XRB 05 p1374 N93-17148
On the origin of the x ray background 05 p1374 N93-17149
Clustering properties of x ray sources from the analysis of the Ginga P(D) distribution 05 p1374 N93-17150
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
The ROSAT autocorrelation function of the x ray background 05 p1374 N93-17152
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Selection of faint quasars based on variability 05 p1363 N93-17156
AGN and the x ray background: Concluding remarks 05 p1375 N93-17160
Measurements of the cosmic microwave background temperature at 1.47 GHz
[DE93-000587] 05 p1400 N93-17379
Infrared studies of star-forming regions 06 p1696 N93-18497
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons?
[NASA-CR-192255] 07 p2102 N93-20601
Observation of the extragalactic x ray background 08 p2535 N93-23892
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
Investigation of a background suppression transimpedance amplifier for photovoltaic detectors
[AD-A261828] 09 p2691 N93-26272
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Correlation between low level fluctuations in the x ray background and faint galaxies 10 p3179 N93-26752
The two-point correlation function of randomly distributed Lyman alpha clouds 10 p3181 N93-26767
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
The emulsion chamber technology experiment 11 p3268 N93-28743
The Backgrounds Data Center 11 p3624 N93-28814

On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
A program to determine the pointing angle to a specular point
[AD-A262777] 11 p3630 N93-29460
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419
Predictions of a non-Gaussian model for large scale structure
[DE93-010196] 11 p3636 N93-30528

BACKINGS
U BACKUPS

BACKSCATTERING
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering 02 p0318 N93-12025
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
Diffusing wave spectroscopy 04 p0980 N93-14169
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Problem footprints in Magellan altimetry data 04 p1039 N93-14362
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363
Scattering properties of Venus' surface 04 p1044 N93-14391
Low-emissivity impact craters on Venus 04 p1044 N93-14392
Experimental investigation of scattering from randomly rough plastic cylinders
[AD-A256018] 04 p0975 N93-15259
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment 05 p1386 N93-17240
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy 05 p1390 N93-17261
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment 05 p1391 N93-17267
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Ionospheric processes 06 p1584 N93-18498
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Interpreting asteroid photometry and polarimetry using a model of shadowing and coherent backscattering 06 p1699 N93-19241
The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles 06 p1517 N93-19573
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar 06 p1732 N93-19582
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar 06 p1732 N93-19586
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19976
Remote sensing of earth terrain
[NASA-CR-192139] 07 p1966 N93-19979
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Infrared backscatter climatology and MACAWS 07 p2009 N93-20098
Aerosol chemistry in GLOBE 07 p2009 N93-20102
CO2 lidar backscatter experiment 07 p2009 N93-20103
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397
Multifrequency backscatter modelling of bare soil: Attema, Kats, and Krul model applied in Agriscatt 1987 data
[BCRS-91-43] 07 p1884 N93-20739
Stimulated Brillouin backscattering for nonlinear ionic sound waves in laser plasmas
[ETN-93-93415] 07 p2074 N93-21208
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Detection of objects concealed under persons' clothing using the SECURE system 07 p1767 N93-21879
Explosive detection using microwave imaging 07 p1771 N93-21902
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Automatic feature extraction and localization using data fusion of radar and infrared images 08 p2270 N93-23628
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Enhanced backscattering from rough surfaces
[AD-A261000] 09 p2676 N93-25855
Radar backscatter measurements from Arctic sea ice during the fall freeze-up
[NASA-CR-193100] 09 p2790 N93-26050
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Ground clutter measurements for surface-sited radar
[AD-A262472] 11 p3379 N93-28655
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

BACKSHORES
U BEACHES

BACKUPS
Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011888] 01 p0091 N93-10622
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984

BACKWARD DIFFERENCING
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534

BACKWARD FACING STEPS
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
An experimental investigation of the separating/reattaching flow over a backstep
[NASA-CR-192105] 06 p1408 N93-18781
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method
[DE93-005246] 08 p2293 N93-23299
Calculations of turbulent separated flows
[NASA-TM-106154] 10 p3039 N93-27161
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200

BACKWARD WAVE TUBES
An experimental investigation of a tandem relativistic backward wave oscillator-travelling wave tube amplifier system for generating high-power microwaves 06 p1521 N93-19058
Study of a plasma-filled X-band backward wave oscillator 08 p2281 N93-23498

BACKWARD WAVES
Experimental studies of high-power plasma-filled backward wave oscillators 03 p0717 N93-13495

BACTERIA
NT ARCHAEBACTERIA
NT CLOSTRIDIUM
NT ESCHERICHIA
NT KLEBSIELLA
NT PSEUDOMONAS
NT STREPTOMYCETES
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters
[NASA-TM-108375] 02 p0375 N93-12174
Biological conversion of synthesis gas
[DE92-017673] 03 p0672 N93-13269
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736

The design and construction of an ion trap based system for laser pyrolysis/mass spectrometry of single organic aerosol particles
[AD-A260455] 08 p2222 N93-24115
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
Biological conversion of synthesis gas
[DE93-008552] 10 p3064 N93-26628
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989
Plasmid encoded virulence of Yersinia
[FOA-B-40419-4.4] 10 p3082 N93-28199
Characterization and classification of strains of Francisella tularensis isolated in the central Asian focus of the Soviet Union and in Japan
[FOA-B-40421-4.4] 10 p3082 N93-28200
Use of RNA hybridization in the diagnosis of a case of ulceroglandular tularemia
[FOA-B-40422-4.4] 10 p3083 N93-28212
Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365

BACTERIAL DISEASES
NT CHOLERA
NT DIPHTHERIA
NT TUBERCULOSIS
NT TYPHOID

BAFFLES
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453

BAGGAGE
Recognition of partially occluded threat objects using the annealed Hopefield network
06 p1612 N93-19466
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Explosives detection limitations using dual-energy radiography and computed tomography
07 p1767 N93-21878
A general protocol for operational testing and evaluation of bulk explosive detection systems
07 p1769 N93-21888
Consideration of untried magnetic resonance techniques for possible baggage analysis 07 p1771 N93-21903
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
A systems approach to the explosive detection problem 07 p1778 N93-21942
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652

BAGS
NT AIR BAG RESTRAINT DEVICES
NT GAS BAGS
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783

BAINITE
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

BAKELITE (TRADEMARK)
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244

BAKEOUT
U DEGASSING

BALANCE
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
The mass balance of the ice plain of Ice Stream B and Crary Ice Rise 12 p3760 N93-31888

BALANCE EQUATIONS
U EQUATIONS

BALANCING
Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530
Model reduction results for flexible space structures
06 p1462 N93-18824
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Toward a parallel recursive spectral bisection mapping tool
[DE93-006632] 09 p2816 N93-25414
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669

BALL BEARINGS
The determination of particulate contamination in miniature ball bearings
[DE93-006261] 08 p2316 N93-23675
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670

BALL LIGHTNING
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584

BALLISTIC MISSILES
NT INTERCONTINENTAL BALLISTIC MISSILES
NT PERSHING MISSILE
Burn phase corrections of maneuver ballistic missiles with star light
[AD-A254105] 01 p0012 N93-10814
Strategic defense initiative: Estimates of brilliant pebbles' effectiveness are based on many unproven assumptions
[AD-A256810] 05 p1277 N93-15679
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Dual use of distributed remote sensing satellites
[DE93-005442] 08 p2193 N93-22906
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Launch vehicles for lightweight TACSAT deployment
11 p3271 N93-29903

BALLISTIC RANGES
Investigation of hypersonic shock-induced combustion in a hydrogen-air system
[NASA-CR-191239] 03 p0538 N93-13456

BALLISTIC TRAJECTORIES
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
A technique for predicting aircraft flow-field effects upon an unguided bomb ballistic trajectory and comparison with flight test results 06 p1417 N93-19922

BALLISTICS
NT INTERIOR BALLISTICS
NT TERMINAL BALLISTICS
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
Plume: Instructions for use and description of a missile plume visibility program
[AD-A258201] 06 p1473 N93-18201
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987

BALLOON FLIGHT
Solar cell calibration by balloon flight
07 p1800 N93-20479
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029

BALLOON SOUNDING
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803

BALLOON-BORNE INSTRUMENTS
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
The effects of mis-alignment and background noise in a low energy gamma ray telescope
04 p1011 N93-14231
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
Results of the 1992 NASA/JPL Balloon Flight Solar Cell Calibration Program
[NASA-CR-191630] 05 p1197 N93-16698
EXITE/IPC observations of SN1987A and southern targets
[NASA-CR-192133] 06 p1696 N93-18607
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales
06 p1563 N93-18717
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275
Aerospace payload design and development
[AD-A264502] 11 p3289 N93-30402
The International Stratospheric Laboratory for Astrophysics (ISLA): The cosmic microscope
12 p3846 N93-31765

BALLOONING MODES
Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves
03 p0718 N93-13750
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
Model of the L-mode confinement in tokamaks
[NIFS-187] 07 p2072 N93-20545
L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764

BALLOONS
NT TETHERED BALLOONS
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148

BALMER SERIES
Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883

BALTIC SEA
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932

BALTIC SHIELD (EUROPE)
Large impacts in the Baltic shield with special attention to the Uppland structure 01 p0113 N93-10149

BANACH SPACE
NT HILBERT SPACE
NT SOBOLEV SPACE
On homogeneous quasilinear evolution equation
[REPT-91-65] 07 p2052 N93-20854
Solution of quadratic distributed control problems by optimization methods
[ETN-93-93409] 07 p2040 N93-21303
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437

A singular perturbation theorem for evolution equations and time-scale arguments for structured population models
[CWI-AM-R9201] 10 p3112 N93-27295
Fixed point iterations for quasi-contractive maps in uniformly smooth Banach spaces
[DE92-641348] 11 p3552 N93-30942
Existence of viable solutions for nonconvex-valued differential inclusions in Banach spaces
[DE92-644669] 12 p3803 N93-31285
Optimal control problems for parabolic boundary control systems 12 p3800 N93-32216
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286
Convergence rates and finite-dimensional approximations for nonlinear ill-posed problems involving monotone operators in Banach spaces
[DE93-619670] 12 p3809 N93-32287

BAND STRUCTURE OF SOLIDS
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Mean field phase diagram of two band tJ model for CuO2 layers
[SSCL-PREPRINT-764] 10 p3151 N93-27581
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619

BANDGAP
U ENERGY GAPS (SOLID STATE)

BANDPASS FILTERS
NT CRYSTAL FILTERS
NT TRACKING FILTERS
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Variable phase sine wave generator for active phased arrays
[AD-D015558] 07 p1888 N93-20028
Distortion measurements on bandpass filters with powdered iron toroidal inductors
[AD-A260790] 09 p2675 N93-25689
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
Improved real-time imaging spectrometer
[NASA-CASE-NPO-18410-1-CU] 11 p3578 N93-29086
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Characterizing transient vibrations using band limited temporal moments
[DE93-009639] 11 p3453 N93-30185
Nonlinear processing of phase vocoded speech 11 p3355 N93-30219
Synthesis and realization of a monolithic active bandpass filter for the Ku band
[LAAS-92365] 12 p3719 N93-31173

BANDSTOP FILTERS
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261

BANDWIDTH
NT BROADBAND
NT NARROWBAND
NT SPECTRAL LINE WIDTH
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
Impact of finite frequency deviation on the performance of dual-filter heterodyne FSK lightwave systems
[AD-A247611] 02 p0448 N93-11892
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Numerical modelling of the suppression of stimulated Brillouin scattering due to finite laser bandwidth
[DE92-018064] 03 p0606 N93-13534
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159
Network issues for large mass storage requirements 04 p1002 N93-14773
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1
[AD-A258462] 06 p1502 N93-18262
Application of multirate digital filter banks to wideband all-digital phase-locked loops design 06 p1505 N93-18908
Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers 06 p1506 N93-18912
The use of subcarriers in future DSN missions 06 p1507 N93-18915
Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources 06 p1664 N93-19409
High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
A figure of merit for Transit-Time-Limited time-derivative electromagnetic field sensors
[AD-A260016] 08 p2273 N93-24459
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
Striped tape arrays
[NASA-CR-192914] 09 p2806 N93-25267
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Complex auditory signals
[AD-A261491] 09 p2846 N93-26374
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245
Characteristics of high-frequency signals, noise, availability, and duration of bandwidths based on ROTHR Amchitka spectrum measurements
[AD-A264480] 11 p3393 N93-30423
Bandwidth and SIMDUCE as simulator fidelity criteria 11 p3238 N93-30690
A dynamic bandwidth and phase linearity measurement technique for 4-channel MSK VLF antenna systems 11 p3398 N93-30748

BANG-BANG CONTROL
U OFF-ON CONTROL

BANKING FLIGHT
U TURNING FLIGHT

BARDEEN APPROXIMATION
U BARRIER LAYERS
U ELECTRICAL PROPERTIES
U SURFACE PROPERTIES

BARDEEN-COOPER-SCHRIEFFER THEORY
U BCS THEORY

BARENTS SEA
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377

BARIUM
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963

BARIUM COMPOUNDS
NT BARIUM FLUORIDES
NT BARIUM OXIDES
NT BARIUM TITANATES
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040

BARIUM FLUORIDES
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

BARIUM ION CLOUDS
One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625

BARIUM OXIDES
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726

BARIUM TITANATES
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Photorefractive properties of doped BaTiO 3 and SBN
[AD-A257989] 05 p1305 N93-17748
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal
[AD-A258824] 06 p1675 N93-19088
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144

Enhanced photorefractive effects in barium titanate
[AD-A264724] 11 p3599 N93-30554
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970

BARKHAUSEN EFFECT
Micromagnetic surface studies of materials for nondestructive evaluation
[DE93-006303] 08 p2321 N93-22695

BAROCLINIC INSTABILITY
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing 01 p0124 N93-10318
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Numerical simulation of baroclinic Jovian vortices 04 p1046 N93-14865
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331

BAROCLINIC WAVES
Baroclinic wave packets in models and observations 03 p0663 N93-13361
Determination of the zone of the stall cell by means of the baroclinic wave theory 06 p1531 N93-18733
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074
Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves 07 p2007 N93-20090
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475

BAROCLINITY
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028
Baroclinic wave packets in models and observations 03 p0663 N93-13361
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Basic studies of baroclinic flows 07 p2003 N93-20073
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195

BAROMETRIC PRESSURE
U ATMOSPHERIC PRESSURE

BAROTROPIC FLOW
Model studies of the middle atmosphere of Venus 03 p0759 N93-13831
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284

BAROTROPISM
NT PLANETARY WAVES
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195

BARRED GALAXIES
Numerical modeling of barred spiral galaxies 09 p2893 N93-25537
A halo and a blow-out in NGC 253 10 p3199 N93-26869
Powering the superwind in NGC 253 10 p3203 N93-26893

BARRICADES
U BARRIERS

BARRIER LAYERS
Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151
Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836

BARRIERS
Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858

BARRIERS (LANDFORMS)
NT REEFS

BARS
NT ELASTIC BARS
A consistent cracked bar vibration theory 02 p0339 N93-12000
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870

BARYCENTER
U CENTER OF GRAVITY

BARYON RESONANCE
Theoretical aspects of electroweak and other interactions in medium energy physics
[DE93-003714] 06 p1657 N93-19507
Particle physics
[DE93-006894] 08 p2482 N93-22992
Some outstanding issues in pion scattering at energies above the (delta) resonance
[DE93-012747] 12 p3822 N93-32300

BARYONS
NT HYPERONS
NT RHO-MESONS
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
Studies in theoretical particle physics
[DE93-000648] 05 p1284 N93-16161
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Aspects of the electroweak phase transition
[DE93-004629] 07 p2063 N93-21723
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Galaxy tracers in N-body simulations 10 p3176 N93-26732
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242
Baryon number violation and particle collider experiments
[NIKHEF-H/92-14] 11 p3572 N93-31008

BASALT
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Application of manufactured products 05 p1383 N93-16902
Mare volcanism in the Taurus-Littrow region 06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
neoKREEP: A new lunar component at Apollo 17 06 p1737 N93-18797
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts 06 p1738 N93-18806
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts 06 p1739 N93-18812
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded? 06 p1739 N93-18813
Indigenous lunar construction materials 09 p2670 N93-26413
Magnetic beneficiation of lunar soils 10 p3213 N93-27968
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938
Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments 12 p3863 N93-31943
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars 12 p3864 N93-31948
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957

BASE FLOW
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other 03 p0591 N93-13920
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034

BASE HEATING
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963

BASE PRESSURE
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985

BASES
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672

BASES (CHEMICAL)
NT ADENINES
NT ALKALIES
NT CAFFEINE
NT LITHIUM HYDROXIDES
NT POTASSIUM HYDROXIDES
NT PYRIDINES
Basicity and optical basicities of slags
[NPL-DMM(A)-48] 02 p0447 N93-11408

BASINS
U STRUCTURAL BASINS

BATCH PROCESSING
Implementation of parallel algorithms
[AD-A253638] 01 p0140 N93-10227
TDRSS-user orbit determination using batch least-squares and sequential methods
09 p2601 N93-24703
BATHOLITHS
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence
01 p0107 N93-10124
Thermobarometric studies on the Levack Gneisses: Footwall rocks to the Sudbury Igneous Complex
01 p0114 N93-10152
BATHYMETERS
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument
09 p2711 N93-25614
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983
BATHYMETRY
U BATHYMETERS
BATHYTHERMOGRAPHS
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
BATTERIES
U ELECTRIC BATTERIES
BATTERY CHARGERS
Laboratory testing of the electrosource traction battery
[DE92-017993] 02 p0292 N93-12057
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
BATTERY SEPARATORS
U SEPARATORS
BAUSCHINGER EFFECT
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
BAYES THEOREM
De Finetti representations of survival functions level to a product measure
[AD-A253623] 01 p0146 N93-10107
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420
Bayesian analysis of linear and nonlinear population models using the Gibbs sampler
[AD-A254769] 03 p0697 N93-12702
Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906
A proof of convergence of the Markov chain simulation method
[AD-A255456] 04 p0970 N93-14487
Nonparametric bayesian bioassay including ordered polytomous response
[AD-A255990] 04 p0970 N93-15109
An iterative Monte Carlo method for nonconjugate bayesian analysis
[AD-A255991] 04 p0971 N93-15110
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
Quantifying parameters for Bayesian prior assumptions when estimating the probability of failure of software
05 p1254 N93-16777
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
Asteroid orbital error analysis: Theory and application
06 p1454 N93-19214
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
On the prior probabilities for two-stage Bayesian estimates
[DE93-006389] 08 p2472 N93-22593
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
Meteorological data assimilation by adaptive Bayesian optimization 08 p2409 N93-24272
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
A parameter-controlled relaxation algorithm for Bayesian restoration of images using the maximum entropy method (design, analysis, Mach band simulation and parallelization)
[ISBN-0-315-64776-0] 08 p2444 N93-24608
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
On Bernoulli experiments with imprecise prior probabilities
[MEMO-COSOR-92-19] 10 p3123 N93-27236
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
On modeling of if-then rules for probabilistic inference
[AD-A262789] 10 p3126 N93-28404
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Information compression in the context model
11 p3514 N93-29549
Mixed limit theorems for pattern analysis
[AD-A263735] 11 p3549 N93-29854
Easy-to-apply results for establishing convergence of Markov chains in Bayesian analysis
[AD-A264015] 11 p3555 N93-29979
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
Decision theory for computing variable and value ordering decisions for scheduling problems
12 p3835 N93-32137
BAYESIAN STATISTICS
U BAYES THEOREM
BAYS (TOPOGRAPHIC FEATURES)
NT CHESAPEAKE BAY (US)
NT SAN FRANCISCO BAY (CA)
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
BCC LATTICES
U BODY CENTERED CUBIC LATTICES
BCH CODES
Self-dual (48,24;12) codes 06 p1505 N93-18905
More box codes 06 p1505 N93-18906
Flexible high speed CODEC 08 p2287 N93-22178
Suboptimum decoding of block codes
[NASA-CR-192342] 08 p2437 N93-23099
Soft decoding a self-dual (48, 24; 12) code
09 p2671 N93-24662
A (72, 36; 15) box code 09 p2671 N93-24663
Golay and other box codes 09 p2678 N93-26116
BCS THEORY
EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
BCS universal constants for high-temperature superconductivity
[DE92-642079] 12 p3830 N93-32405
BEACHES
Observations of turbulence in the surf zone
[AD-A262718] 10 p3081 N93-28397
BEACON SATELLITES
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
BEACONS
NT DISCRETE ADDRESS BEACON SYSTEM
NT RADAR BEACONS
NT RADIO BEACONS
NT RADIO DIRECTION FINDERS
An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
Radiolocation of a satellite-borne LOVHF beacon
08 p2268 N93-23613
DORIS precise orbit determination and location system performances of ultra stable oscillators
09 p2608 N93-24997
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
A satellite downlink spread spectrum timing beacon
11 p3362 N93-30267
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
BEADS
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
BEAM CURRENTS
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
Static and transient beam loading of a synchrotron
[DE92-019244] 02 p0445 N93-11776
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
Theory of the ion-channel laser
03 p0607 N93-13777
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324
Beam position and total current monitor for heavy ion fusion beams
[DE93-007653] 09 p2851 N93-25325
Investigation of methods for the measurement of small electron bundle currents
[DIGEL-1992-4] 11 p3413 N93-30763
A 250 mA toroid monitor for the measurement of the bundle current in the stretcher mode of AmPS
[DIGEL-1992-1] 11 p3413 N93-30835
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation
[DE93-605693] 11 p3400 N93-30993
BEAM FORMING
U BEAMFORMING
BEAM INJECTION
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326

Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Static and transient beam loading of a synchrotron
[DE92-019244] 02 p0445 N93-11776
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Longitudinal impedance of capacitive pick-up electrodes: Calculations and comparison with measurements
[DE92-019499] 03 p0571 N93-13358
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
High-brightness linac for the Advanced Free-Electron Laser Initiative at Los Alamos
[DE92-040213] 04 p0887 N93-15417
The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
Beam loading compensation with variable group velocity
[DE93-001810] 05 p1297 N93-16199
Enhancement of D3-D neutral beam system for higher performance
[DE93-000878] 05 p1309 N93-16307
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330
NIKHEF-K contributions to the 3rd European Particle Accelerator Conference
[NIKHEF-AMPS-92-02] 10 p3139 N93-28337
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341
High power density, thin magnetic DC septa for AmPS 10 p3140 N93-28342
Improvement of the 400 kV linac electron source of AmPS 10 p3140 N93-28343
An RF driven H(-) source and a low energy beam injection system for RFQ operation
[DE93-010438] 11 p3575 N93-29302
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer
[DE93-606271] 11 p3590 N93-30768
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Complex apparatus and results of active experiment Electron-1 with injection of electronic beam in the ionosphere
[DE93-605452] 11 p3480 N93-30991

BEAM INTERACTIONS
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Using the 16 viewscreens during commissioning of AmPS
[NIKHEF-K/AMPS/92-01] 02 p0442 N93-11131
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
An investigation of coherent quadrupole beam--beam effects
[DE92-041191] 05 p1297 N93-16527
Common analysis of the Relativistic Klystron and the Standing-Wave Free-Electron Laser two-beam accelerator
[DE92-041205] 05 p1173 N93-16529
First-principles studies of phase stability and the structural and dynamical properties of metal hydrides
[DE92-040855] 05 p1104 N93-16589
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings
[DE92-556477] 05 p1298 N93-16646
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Mesh effect in a parallel plate analyzer
[NIFS-203] 06 p1669 N93-19931
Complex apparatus and results of active experiment Electron-1 with injection of electronic beam in the ionosphere
[DE93-605452] 11 p3480 N93-30991

BEAM LEADS
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341

BEAM NEUTRALIZATION
Divergence in intense ion beams caused by incomplete charge neutralization
[DE92-016891] 02 p0445 N93-12103
Above-surface neutralization of highly charged ions: The formation of hollow atoms
[DE93-001371] 05 p1288 N93-16603
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908

BEAM PLASMA AMPLIFIERS
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7 03 p0657 N93-13830
High power microwave generator
[AD-D015560] 07 p1891 N93-20783

BEAM RIDER GUIDANCE
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067

BEAM SPLITTERS
CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4528] 02 p0315 N93-11388
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Shot noise limits to sensitivity of optical interferometry 03 p0745 N93-13586
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Integrated device with diffractive polarization components for a magneto-optical disk head 04 p0986 N93-15517
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
Design and fabrication of Dammann gratings to illuminate a time-integrating correlator
[CTN-93-60700] 08 p2305 N93-24650
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395

BEAM WAVEGUIDES
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna 06 p1505 N93-18903
DSS-13 beam waveguide antenna frequency stability 06 p1513 N93-19424
SETI low-frequency feed design study for DSS 24 06 p1514 N93-19433
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661
Performance of a 12-GHz fiber-optic system for beam-waveguide antenna stability testing 09 p2677 N93-26113
Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118

BEAMED POWER
U POWER BEAMING

BEAMFORMING
Beam forming antenna system
[PATENT-1-265-236] 01 p0067 N93-10111
Simulation of electron beam transport in ion-focused regime conditioning cells
[AD-A253352] 01 p0070 N93-10215
Optical beamformer
[AD-A254354] 02 p0448 N93-12272
Pre-compression of bunch length in the SLC damping rings
[DE92-018154] 02 p0446 N93-12497
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Test and control computer user's guide for a digital beam former test system
[NASA-CR-189208] 03 p0685 N93-13291
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
Studies in beamforming tracking neural networks mathematics
[AD-A255574] 05 p1258 N93-16039
Conditioner for a helically transported electron beam
[DE92-041169] 05 p1297 N93-16526
A compact and versatile pulse generation and shaping subsystem for high energy laser systems
[DE93-007114] 09 p2711 N93-24961
Analysis and design of a novel robotic finger-tip sensor for adaptive grasping 09 p2719 N93-25745
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
Time-interpolation method for digital beamformers
[AD-D015709] 11 p3383 N93-29275
Recent advances in bootlace lens design 11 p3374 N93-30336
Neural attentional sensory processing
[AD-A265163] 12 p3799 N93-31992

BEAMS (RADIATION)
NT ATOMIC BEAMS
NT ELECTRON BEAMS
NT ION BEAMS
NT LASER BEAMS
NT LIGHT BEAMS
NT MOLECULAR BEAMS
NT NEUTRAL BEAMS
NT NEUTRINO BEAMS
NT NEUTRON BEAMS
NT PARTICLE BEAMS
NT PHOTON BEAMS
NT PION BEAMS
NT PROTON BEAMS
NT RADAR BEAMS
NT RELATIVISTIC ELECTRON BEAMS
Using the 16 viewscreens during commissioning of AmPS
[NIKHEF-K/AMPS/92-01] 02 p0442 N93-11131
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
Computational aspects of Gaussian beam migration
[DE92-018641] 02 p0431 N93-11567

RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
Longitudinal impedance of capacitive pick-up electrodes: Calculations and comparison with measurements
[DE92-019499] 03 p0571 N93-13358
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams
04 p0973 N93-14145
High-brightness linac for the Advanced Free-Electron Laser Initiative at Los Alamos
[DE92-040213] 04 p0887 N93-15417
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
Beam loading compensation with variable group velocity
[DE93-001810] 05 p1297 N93-16199
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141
Log-ratio signal-processing technique for beam position monitors
[DE93-007356] 09 p2851 N93-25314
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110

BEAMS (SUPPORTS)
NT BOX BEAMS
NT CANTILEVER BEAMS
NT CURVED BEAMS
NT I BEAMS
NT TIMOSHENKO BEAMS
Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Vibration of a damped double-beam system
01 p0056 N93-10527
Flexural vibration of beams with varying section properties 01 p0057 N93-10531
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
A consistent cracked bar vibration theory
02 p0339 N93-12000
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Finite elements for free edge delaminations and delaminated anisotropic beams
03 p0535 N93-13967
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus industry
[LR-677] 05 p1061 N93-16283
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
Beam, plate, and shell finite elements for CSI design code 05 p1189 N93-16782
Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
Fatigue experiments of microconcrete beams under a running load 07 p1923 N93-20346
Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
Buckling and dynamic instability phenomena of tapered bar with localized flaw subjected to an intermediate periodic axial load 07 p1935 N93-20675
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
Identification of delamination by eigenfrequency degradation: An inverse problem
07 p1843 N93-21526
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
Advanced buckling analyses of beams with arbitrary cross sections
[ISBN-90-02808-0] 10 p3059 N93-27944
Interaction dynamics of on-orbit construction
11 p3274 N93-29109
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874

BEAMSHAPING
U BEAMFORMING

BEARING (DIRECTION)
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
Bearing determination and bearing quality indication from a goniometric HF DF system
08 p2268 N93-23617
Relative motion pinwheel
[AD-D015629] 08 p2123 N93-24222
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085

BEARINGLESS ROTORS
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Structural dynamic analysis of bearingless rotor blade
09 p2590 N93-25719

BEARINGS
NT ANTIFRICTION BEARINGS
NT BALL BEARINGS
NT GAS BEARINGS
NT JOURNAL BEARINGS
NT MAGNETIC BEARINGS
NT ROLLER BEARINGS
NT THRUST BEARINGS
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Bearing servicing tool
[NASA-CASE-MSC-21881-1] 04 p0891 N93-14871
Summary of the NASA Lewis component technology program for Stirling power converters
[NASA-TM-105640] 04 p0827 N93-15526
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Experimental and analytical study of a hybrid isolation system using friction controllable sliding bearings
[PB93-150282] 08 p2320 N93-24595
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
System for testing bearings
[NASA-CASE-MFS-28589-1] 11 p3445 N93-29618
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731

BEAT
U SYNCHRONISM

BEAT FREQUENCIES
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Carbon monoxide exposure of subjects with documented cardiac arrhythmias
[PB93-179943] 11 p3497 N93-30890

BEAUFORT SEA (NORTH AMERICA)
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491

BED REST
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318

BEDROCK
NT BALTIC SHIELD (EUROPE)
NT BATHOLITHS
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
In search of ice-stream sticky spots
12 p3762 N93-31899
Chemical transport during formation and alteration of Martian impact and volcanic deposits
12 p3865 N93-31953

BEDS (GEOLOGY)
NT SALT BEDS
Structural aspects of the Araguainha impact structure (Brazil) 01 p0106 N93-10118
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187

BEECH AIRCRAFT
U BEECHCRAFT AIRCRAFT

BEECHCRAFT AIRCRAFT
Aircraft accident/incident summary report: Controlled flight into terrain, Bruno's Inc., Beechjet, N25BR, Rome, Georgia, December 11, 1991
[PB92-910404] 03 p0498 N93-13470
Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783

BEETLES
Aquatic plant control research program. Biological control of Pistia stratiotes L. (waterlettuce) using Neohydronomus affinis hustache (coleoptera: curculionidae)
[AD-A257463] 06 p1574 N93-18945

BEHAVIOR
NT HUMAN BEHAVIOR
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520
How do zooplankton feed? A critical microgravity experiment 07 p1806 N93-21097
Gravity as a factor in the orientation and vertical migration of marine zooplankton
07 p1806 N93-21098
Studying the effects of microgravity on lower vertebrate development and behavior 07 p1807 N93-21099
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates
[DE93-007678] 08 p2419 N93-24455

BELGIUM
Climatological study of ozone in the boundary layer above Belgium
[MISC-SER-A-127] 07 p1989 N93-20925

BELL AIRCRAFT
NT V-22 AIRCRAFT
NT XV-15 AIRCRAFT
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
The consequence of joint failures 08 p2212 N93-23941
Models for performance assessment of HF antennas on the CH-135/Twin Huey helicopter 11 p3366 N93-30291

BELLOWS
High-temperature, bellows hybrid seal
[NASA-CASE-LEW-15570-1] 06 p1549 N93-19027

BENCHES
U SEATS

BEND TESTS
Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy
[FFA-TN-1992-04] 02 p0237 N93-11128
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 1: Experimental determination of mechanical properties for a carbon-carbon composite
[AD-A257459] 05 p1090 N93-16010
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
Bend ductility of tungsten heavy alloys
[DE93-004839] 08 p2232 N93-23971
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832

BENDING
NT ELASTIC BENDING
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580
Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth 03 p0621 N93-12628
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties 03 p0530 N93-13007
Bifurcation and localization instabilities in plastic bending of cylindrical shells 03 p0630 N93-13923
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
Cytherean crustal bending at Salme Dorsa 04 p1039 N93-14364
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407
Finite element analysis of elastic fracture under unsteady translational and rotational loading 04 p0899 N93-14469
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Validation of an automated torsional and warping stress analysis program
[AD-A256035] 04 p0902 N93-15260
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Fibre reinforced plastic structures 06 p1557 N93-18752
P-adaptivity applied to plate in bending problems 06 p1557 N93-18756
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
Reduction of bend losses for titanium diffused waveguides in lithium niobate
[ETN-93-92558] 07 p1884 N93-20750
Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930
The flexural behaviour of thin-walled singly symmetric columns
[PB92-225408] 07 p1946 N93-21020
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test 07 p1844 N93-21531
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites 09 p2638 N93-25760
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Fracture of glass 11 p3293 N93-30969

BENDING FATIGUE
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650

BENDING MOMENTS
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Theoretical analysis of plastic moment capacity of an inclined yield line under axial force
[PB93-118784] 07 p1951 N93-21689
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
Composite laminated bend analysis and experiments 10 p2921 N93-27181

BENDING THEORY
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569
P-adaptivity applied to plate in bending problems 06 p1557 N93-18756

BENDING VIBRATION
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Magnetic field perturbation caused by bending vibrations of a quadrupole
[DE92-040644] 03 p0623 N93-13003
Sensitivity analysis of coupled bending and torsional vibrations in flexible robot arms
[MEMO-1088] 12 p3735 N93-31526
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275

BENDS (PHYSIOLOGY)
U DECOMPRESSION SICKNESS

BENEFICIATION
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Lunar beneficiation 05 p1381 N93-16887
Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260
Resource availability at Taurus-Littrow 06 p1736 N93-18792
Beneficiation of ilmenite from lumar analog 10 p2997 N93-26681
Magnetic beneficiation of lunar soils 10 p3213 N93-27968

BENZENE
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Studies of metal-semiconductor clusters 06 p1678 N93-18493
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H88
[AD-A258764] 06 p1658 N93-19868
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

BENZOQUINONE
U QUINONES

BERMUDA
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study 09 p2736 N93-24938

BERNOULLI EQUATION
U BERNOULLI THEOREM

BERNOULLI THEOREM
Location and distribution of local optima
[AD-A257791] 06 p1645 N93-18237
On Bernoulli experiments with imprecise prior probabilities
[MEMO-COSOR-92-19] 10 p3123 N93-27236
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k)
[CWI-NM-R9215] 10 p3120 N93-28083

BERNSTEIN ENERGY PRINCIPLE
Nonlinear effects of ICRF power on drift wave stability and transport in tokamaks, task 1
[DE92-018488] 02 p0453 N93-11729

Fast ion-driven Bernstein instabilities
[DE92-019393] 03 p0705 N93-12713
On the Bernstein modes generation in solar post-flare loops 12 p3859 N93-31718

BERYLLIUM
NT BERYLLIUM 10
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150

BERYLLIUM ALLOYS
Deformation mechanisms in Be(sub 12)X compounds
[DE93-009080] 11 p3320 N93-28548

BERYLLIUM COMPOUNDS
NT BERYLLIUM OXIDES
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584

BERYLLIUM ISOTOPES
NT BERYLLIUM 10

BERYLLIUM OXIDES
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345

BERYLLIUM 10
Cosmogenic radionuclides on LDEF: An unexpected Be-10 result 11 p3573 N93-29643

BESSEL FUNCTIONS
NT HANKEL FUNCTIONS
On the evaluation of Bessel functions
[AD-A253129] 01 p0143 N93-10339
The Hahn-Exton q-Bessel function
[ISBN-90-9004649-6] 05 p1271 N93-17587
A q-analogue of the Wronskian and a second solution of the Hahn-Exton q-Bessel difference equation
[REPT-92-18] 06 p1643 N93-17843

BETA INTERACTIONS
U WEAK INTERACTIONS (FIELD THEORY)

BETA PARTICLES
High beta and confinement studies on TFTR
[DE92-018647] 02 p0452 N93-11568
D decays, B-physics, and CP-violation from lattice QCD
[PREPRINT-799] 05 p1287 N93-16419
High beta and second stability region transport and stability analysis
[DE93-000886] 05 p1310 N93-16534
Nuclear structure studies
[DE93-002791] 06 p1654 N93-18402
Direct searches for neutrino mass
[DE93-003867] 08 p2479 N93-22068
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Measuring pion beta decay with high-energy pion beams
[DE93-007347] 10 p3132 N93-27521
Neutrino mass
[DE93-010735] 11 p3566 N93-29315

BETATRONS
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Theory of the ion-channel laser
03 p0607 N93-13777
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330

BETHE-SALPETER EQUATION
General method for reducing the two-body Dirac equation
[DE93-609833] 11 p3607 N93-30943

BEVERAGES
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894

BI-SR-CA-CU-O SUPERCONDUCTORS
U BSCCO SUPERCONDUCTORS

BIAS
NT RESPONSE BIAS
Back-gate bias generator
[AD-A255126] 02 p0295 N93-12421
Simultaneous DIF amplification and cancellation: Shealy-Stout test for DIF
[AD-A256284] 04 p0970 N93-14455
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014
Bias correction factors for near-Earth asteroids
06 p1701 N93-19127
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-002625] 06 p1676 N93-19617
Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619
Bias-annealing experiments for doped a-Si:H layers
[MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
A local exponential transform method for global variance reduction in Monte Carlo transport problems
[DE92-018992] 08 p2468 N93-22926
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Removing Malmquist bias from linear regressions
10 p3122 N93-26872
GPS L1-L2 bias determination
[AD-A262141] 10 p2941 N93-27544
Full complex modulation using two one-parameter spatial light modulators
[NASA-CASE-MSC-22255-1] 10 p3148 N93-28135
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field
11 p3266 N93-28725
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Evaluating the bias of alternative cost progress models: Tests using aerospace industry acquisition programs
[AD-A262870] 11 p3624 N93-29477

BIBLIOGRAPHIES
Aeronautical engineering: A continuing bibliography with indexes (supplement 276)
[NASA-SP-7037(276)] 01 p0001 N93-10073
Aeronautical engineering: A continuing bibliography with indexes (supplement 279)
[NASA-SP-7037(279)] 01 p0001 N93-10074
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 41)
[NASA-SP-7039(41)-SECT-1] 01 p0171 N93-10078
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 274)
[NASA-SP-7037(274)] 01 p0001 N93-10351
Aeronautical engineering: A continuing bibliography with indexes (supplement 281)
[NASA-SP-7037(281)] 01 p0001 N93-10352
Document processing 01 p0174 N93-10600
Research in theoretical particle physics
[DE92-016181] 01 p0154 N93-10605
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Bibliography of publications from the Texas A and M Sea Grant College Program, 1968-1992
[PB92-205517] 02 p0372 N93-11253
Information dissemination: Case studies on electronic dissemination at four agencies. Fact sheet for the Chairman, Committee on Governmental Affairs, US Senate
[GAO/IMTEC-92-6FS] 02 p0474 N93-11274
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
Publications on acoustics research at the Langley Research Center, January 1987 - September 1992
[NASA-TM-107674] 02 p0435 N93-12080
Energy efficient drivepower: Literature reference list: Culled references
[PB92-199181] 02 p0294 N93-12192
Energy efficient drivepower: Literature reference list. Volume 1: General user's supplement
[PB92-199157] 02 p0294 N93-12294
Energy efficient drivepower: Literature reference list. Volume 2: Design engineer's supplement
[PB92-199165] 02 p0295 N93-12295
ONR basic research program: Summary and bibliographies, FY 1990 and 1991
[AD-A253038] 03 p0774 N93-12696
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
Composites: A catalogue of books and conference proceedings available in the NAL library
[NAL-SP-IC-9201] 03 p0737 N93-13368
Directory of awards, fiscal year 1991. Directorate for engineering
[NSF-92-55] 03 p0775 N93-13704
Arctic science, engineering, and education. Directory of awards, fiscal year 1991
[NSF-92-60] 03 p0775 N93-13713
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
Aeronautical engineering: A continuing bibliography with indexes (supplement 282)
[NASA-SP-7037(282)] 04 p0777 N93-14604
Aeronautical engineering: A continuing bibliography with indexes (supplement 284)
[NASA-SP-7037(284)] 04 p0777 N93-14605
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606
Bibliography of scientific publications of the Naval Biodynamics Laboratory
[AD-A255952] 04 p1051 N93-14657
Aeronautical engineering: A continuing bibliography with indexes (supplement 283)
[NASA-SP-7037(283)] 04 p0778 N93-14732
Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
NREL photovoltaic subcontract reports: Abstracts and document control information
[DE92-016408] 04 p0907 N93-14817
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Automatic differentiation bibliography
[DE92-040599] 05 p1263 N93-15944
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065

Bibliography of technical reports, 1991 from Woods Hole Institution
[AD-A257304] 05 p1220 N93-16083
Software engineering laboratory series: Annotated bibliography of software engineering laboratory literature
[NASA-TM-108100] 05 p1237 N93-16380
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
Aeronautical Engineering Group publications: 1950 - present
[AERO-REPT-9108] 05 p1355 N93-16563
A bibliography of the qualitative theory of quadratic systems of differential equations in the plane
[REPT-92-17] 06 p1642 N93-17842
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
Aeronautical engineering: A continuing bibliography with indexes (supplement 285)
[NASA-SP-7037(285)] 06 p1403 N93-18109
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 42)
[NASA-SP-7039(42)-SECT-1] 06 p1685 N93-18110
A classification and bibliography of software prototyping
[AD-A258466] 06 p1619 N93-18268
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990
[NASA-CR-4475] 06 p1598 N93-18376
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 42)
[NASA-SP-7039(42)-SECT-2] 06 p1686 N93-18410
Bibliographic study of georadar principles, applications, advantages, and inconvenience
[CR-35/91] 06 p1509 N93-18993
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
Theoretical studies on the chromosphere, corona, and solar wind
[NASA-CR-192116] 06 p1745 N93-19932
Bibliography of scientific publications 1977-1991
[AD-A259084] 07 p2090 N93-20393
Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
National report of the Federal Republic of Germany on the geodetic activities in the years 1987-1991
[SER-B-294] 07 p1969 N93-20960
Commission 5: Earth tides 07 p1973 N93-20987
International geodetic bibliography 07 p1974 N93-20995
Aeronautical engineering: A continuing bibliography with indexes (supplement 286)
[NASA-SP-7037(286)] 07 p1759 N93-21026
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Publications of the Executive Office of the President
[PB92-233204] 07 p2091 N93-21226
Publications of the National Institute of Standards and Technology 1991 catalog
[PB92-217579] 07 p2091 N93-21344
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
A literature review of time-deterioration prediction techniques
[PB92-229202] 07 p1919 N93-21822
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations
[PB93-126092] 07 p2064 N93-21828
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 287)
[NASA-SP-7037(287)] 08 p2107 N93-23038
Aeronautical engineering: A continuing bibliography with indexes (supplement 288)
[NASA-SP-7037(288)] 08 p2107 N93-23039
Bibliography of global change, 1992
[NASA-SP-7102] 08 p2342 N93-23239
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279
Bibliography of the Biosciences Division: 1986 to present
[DCIEM-92-20] 08 p2419 N93-23343
Annual bibliography, 1989
[ISBN-951-22-0488-6] 08 p2526 N93-23424
Microgravity science and applications: Program tasks and bibliography for FY 1992
[NASA-TM-4469] 08 p2253 N93-23428
The IUE archive(s) 08 p2535 N93-23895
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
NASA scientific and technical publications: A catalog of special publications, reference publications, conference publications, and technical papers, 1991-1992
[NASA-SP-7063(06)] 08 p2529 N93-24654
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
Space Science Laboratory Publications and Presentations
[NASA-TM-108402] 09 p2884 N93-26562
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
Bibliography of the Maryland Power Plant Research Program, fourteenth edition
[PB93-174241] 10 p3068 N93-27404
Bibliography on atomic line shapes and shifts
[PB93-173433] 10 p3132 N93-27529
Energy efficient drivepower, volume 2
[DE93-012437] 11 p3410 N93-29814
Energy efficient drivepower
[DE93-012436] 11 p3411 N93-30058
An annotated bibliography on integration in software engineering environments
[AD-A264798] 11 p3535 N93-30602
An annotated bibliography of inductive learning since 1985
[REPT-92-74] 12 p3833 N93-31507
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 43)
[NASA-SP-7039(43)-SECT-1] 12 p3839 N93-31923
Selected experiments in laminar flow: An annotated bibliography
[NASA-TM-103989] 12 p3673 N93-32226
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 43)
[NASA-SP-7039(43)-SECT-2] 12 p3842 N93-32376
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

BICARBONATES
U CARBONATES

BICRYSTALS
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Elastic stresses, twin boundaries, and fatigue cracking 02 p0338 N93-11890
Atomic relaxation modes in grain boundaries
[DE92-016781] 03 p0722 N93-13195
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
Studies of microstructure/critical current density relationships for grain boundaries in YBa2Cu3O(7-delta) bicrystals
[DE93-003000] 08 p2513 N93-24512
Crack tip fields in ductile crystals and bicrystals 09 p2866 N93-25749

BIDIRECTIONAL REFLECTANCE
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Data analysis for bark and leaf reflectance measurements
[AD-A258598] 07 p1966 N93-19983
A radiosity approach realistic image synthesis system
[AD-A259082] 07 p2032 N93-20406
Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830

BIFURCATION (MATHEMATICS)
U BRANCHING (MATHEMATICS)

BIG BANG COSMOLOGY
Cosmic microwave background anisotropies from plausible double inflation
[DE92-016195] 01 p0192 N93-10616
Cosmological constraints on early-decaying particles 03 p0750 N93-13123
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963

BIGHTS
U BAYS (TOPOGRAPHIC FEATURES)

BIHARMONIC EQUATIONS
Biharmonic pattern selection
[DE93-608186] 12 p3803 N93-31303

BILLETS
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956

BIMETALS
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Organometallic chemistry of bimetallic compounds
[DE93-002773] 05 p1115 N93-17201
Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Design of a high activity and selectivity alcohol catalyst
[DE93-008101] 09 p2659 N93-25111
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428

BINARY ALLOYS
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Determination of parameters of a new method for predicting alloy properties
[NASA-TM-105895] 02 p0257 N93-11609
Calculation of binary phase diagrams between the actinide elements, rare earth elements, and transition metal elements
[DE92-019119] 02 p0249 N93-11801
The nature of scales grown on binary Cr-Nb alloys
[DE92-019283] 03 p0542 N93-13080
Development of equipment and technique to study solidification in microgravity, phase 1
[CTN-93-60608] 05 p1132 N93-16729
First-principles approach to alloy phase stability
[DE93-001323] 05 p1115 N93-17031
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121

Ripening of immiscible liquid droplets in microgravity with constrained Marangoni drift 07 p1810 N93-21122
New developments in the 'ab initio' determination of transition metal alloy phase diagrams
[DE93-002540] 07 p1856 N93-21488
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Acceptable aluminum additions for minimal environmental effect in iron-aluminum alloys
[DE93-006738] 08 p2234 N93-24329
Ordering and displacive transformations in Ni-Al alloys
[DE93-009553] 10 p3001 N93-28371
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Effective interactions between concentration fluctuations and charge transfer in chemically ordering liquid alloys
[DE93-606724] 11 p3327 N93-30778
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093

BINARY CODES
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
Maximal codeword lengths in Huffman codes 06 p1513 N93-19427
Binary weight distributions of some Reed-Solomon codes 06 p1514 N93-19430
Soft decoding a self-dual (48, 24; 12) code 09 p2671 N93-24662
Golay and other box codes 09 p2678 N93-26116
A proposed study of multiple scattering through clouds up to 1 THz 09 p2684 N93-26474

BINARY DATA
Symbolic Boolean manipulation with ordered binary decision diagrams
[AD-A253822] 01 p0142 N93-10828
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
The WG sequences: Quasi perfect binary sequences 08 p2271 N93-23631
Goldstone solar system radar signal processing 09 p2680 N93-26130
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Incomplete fuzzy data processing systems using artificial neural network 11 p3519 N93-29578
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Neural network identification of keystream generators
[AD-A265778] 12 p3800 N93-32334

BINARY FLUIDS
Phase separation under a weak concentration gradient 08 p2226 N93-22853
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-192624] 08 p2292 N93-23220
Collective dynamics in dense fluid mixtures 10 p3041 N93-28069
Loading and testing a light scattering cell with a binary fluid mixture near its critical composition
[NASA-CR-193147] 11 p3415 N93-28557

BINARY MIXTURES
NT BINARY FLUIDS
NT EUTECTIC ALLOYS
NT EUTECTICS
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
Adsorption of a binary gas mixture which laterally interacts on a random heterogeneous surface
[DE93-000706] 05 p1103 N93-16227
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Oscillating-body viscometry and its application to phase-separating liquid mixtures 08 p2293 N93-23386
Thermodynamic analysis of the binary systems Mo-V, Ni-V, Si-V, and Ti-V
[PB93-173185] 10 p3155 N93-26637
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303

BINARY PHASE SHIFT KEYING
Multiple symbol partially coherent detection of MPSK 06 p1514 N93-19431
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Suboptimum decoding of block codes
[NASA-CR-192342] 08 p2437 N93-23099
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202

BINARY STARS
NT CATACLYSMIC VARIABLES
NT COMPANION STARS
NT DWARF NOVAE
NT ECLIPSING BINARY STARS
NT X RAY BINARIES
Tomographic/interferometric studies of active stars and binaries 01 p0182 N93-10920
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
The stellar angular correlation: Clues to wide binary star properties 03 p0757 N93-14059
The black hole candidate binary A0620-00 04 p1015 N93-14148
Orbital coplanarity in solar-type binary systems: Implications for planetary system formation and detection 04 p1020 N93-14867
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4
[NASA-CR-191634] 05 p1377 N93-15829
HST imaging of the binary pulsar PSR1913+16 08 p2536 N93-23902
EUV spectral features of active binaries 08 p2536 N93-23904
Gravitational radiation from coalescing binary star systems 09 p2900 N93-25625
Chromospheric activity in algol binaries
[AD-A261440] 09 p2896 N93-26508
Stellar encounters in globular clusters 11 p3632 N93-28606
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

BINARY SUMMATORS
U ADDING CIRCUITS

BINARY SYSTEMS (DIGITAL)
U DIGITAL SYSTEMS

BINARY SYSTEMS (MATERIALS)
NT BINARY ALLOYS
NT BINARY FLUIDS
NT BINARY MIXTURES
NT EUTECTIC ALLOYS
NT EUTECTICS
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
Growth and characterization of binary and pseudo-binary 3-5 compounds exhibiting non-linear optical behavior. Undergraduate research opportunities in microgravity science and technology
[NASA-CR-192143] 07 p2068 N93-21363
Numerical evidence for two types of localized states in a two-dimensional disordered lattice
[DE92-642677] 12 p3827 N93-31159

BINAURAL HEARING
Auditory processing of complex sounds across frequency channels
[AD-A253612] 01 p0131 N93-10650
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
AudiMir: Directional hearing at microgravity 08 p2159 N93-24365
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358

BINDERS (ADHESIVES)
U ADHESIVES

BINDERS (MATERIALS)
NT PROPELLANT BINDERS
NT SOLID ROCKET BINDERS
A new route for fibre management in metal matrix composites 03 p0534 N93-13779
Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites
[DE93-004063] 07 p1844 N93-21842
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605
Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197

BINOCULAR VISION
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421
Coordinated action in 3-D space
[AD-A261418] 09 p2799 N93-26449
Binocular spherical disparity: A study in representation for a forward translating camera
[PB93-184422] 11 p3579 N93-29667
Intermediate levels of visual processing
[AD-A264117] 11 p3495 N93-30192

BINOMIAL THEOREM
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
BINOMIALS
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
BIOACOUSTICS
Classification of complex sounds
[AD-A258405] 06 p1596 N93-18223
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
BIOASSAY
Nonparametric bayesian bioassay including ordered polytomous response
[AD-A255990] 04 p0970 N93-15109
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups
[DE93-002942] 06 p1484 N93-19752
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Characterization and classification of strains of Francisella tularensis isolated in the central Asian focus of the Soviet Union and in Japan
[FOA-B-40421-4.4] 10 p3082 N93-28200
BIOASTRONAUTICS
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Space flight and immune system 02 p0376 N93-11284
An overview of gravitational physiology
[NASA-TM-102849] 02 p0391 N93-12319
Occupational ergonomics in space 03 p0680 N93-14013
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990
[NASA-CR-4475] 06 p1598 N93-18376
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648
Neuroscience discipline science plan
[NASA-TM-108041] 06 p1600 N93-19882
Regulatory physiology discipline science plan
[NASA-TM-108038] 06 p1594 N93-19891
Musculoskeletal discipline science plan
[NASA-TM-108039] 06 p1600 N93-19892
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition
[NASA-TP-3297] 07 p2026 N93-20319
Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Life sciences utilization of Space Station Freedom 08 p2185 N93-22622
Life sciences recruitment objectives 08 p2186 N93-22623
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
SETI in Europe 08 p2429 N93-23908
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
BIOCHEMICAL OXYGEN DEMAND
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
BIOCHEMISTRY
NT BIOGEOCHEMISTRY
NT PHYSIOCHEMISTRY
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
A physico-chemical study of some areas of fundamental significance to biophysics
[DE92-019917] 03 p0672 N93-13034
A physico-chemical study of some areas of fundamental significance to biophysics
[DE92-019916] 03 p0672 N93-13083
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods 06 p1691 N93-19730
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Improved inhalation technology for setting safe exposure levels for workplace chemicals 08 p2423 N93-22164
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
CSTL technical activities 1992
[PB93-173482] 10 p3219 N93-27399
Characterization and classification of strains of Francisella tularensis isolated in the central Asian focus of the Soviet Union and in Japan
[FOA-B-40421-4.4] 10 p3082 N93-28200
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613
Spontaneous regulating mechanisms that may have led to the origin of life
[DE93-603677] 12 p3771 N93-31161
BIOCONTROL SYSTEMS
Aquatic plant control research program. Biological control of Pistia stratiotes L. (waterlettuce) using Neohydronomus affinis hustache (coleoptera: curculionidae)
[AD-A257463] 06 p1574 N93-18945
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
BIOCONVERSION
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Biological conversion of synthesis gas
[DE92-017673] 03 p0672 N93-13269
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
Bioiogical conversion of synthesis gas
[DE93-008552] 10 p3064 N93-26628
Introductions to the Proceedings of the Fourteenth Symposium on Biotechnology for Fuels and Chemicals
[DE93-006235] 11 p3490 N93-28890
BIODEGRADABILITY
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783
BIODEGRADATION
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250868] 02 p0253 N93-12267
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors
[AD-A258020] 06 p1496 N93-17917
Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089
BIODYNAMICS
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Astronaut candidate strength measurement using the Cybex 2 and the LIDO Multi-Joint 2 dynamometers
[NASA-CR-185679] 02 p0389 N93-12195
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Bibliography of scientific publications of the Naval Biodynamics Laboratory
[AD-A255952] 04 p1051 N93-14657

Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident?
06 p1423 N93-19664
Design/development of an enhanced biodynamic manikin
06 p1424 N93-19667
The design and use of automotive crash test dummies
06 p1424 N93-19669
An improved anthropometric test device
06 p1424 N93-19670
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration
06 p1424 N93-19672
Global models of ecosystem change
07 p1953 N93-21570
Microcomputer based software for biodynamic simulation
08 p2429 N93-22191
Materials dispersion and biodynamics project research
08 p2192 N93-22651
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
Anthropometric survey of the astronaut applicants and astronauts from 1985 to 1991
[NASA-RP-1304] 11 p3506 N93-29324
Visualization techniques for analyzing control of human movement: Affine mappings between multi-dimensional spaces
11 p3508 N93-30204
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

BIOELECTRIC POTENTIAL
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991
09 p2753 N93-24873
Comparative analytical study of evoked and event related potentials as correlates of cognitive processes
[AD-A261388] 09 p2799 N93-26446
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818

BIOELECTRICITY
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
Explosives search dogs 07 p1776 N93-21933
Comparison of total body water estimates from O-18 and bioelectrical response prediction equations
[NASA-TP-3299] 08 p2421 N93-23734
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991
09 p2753 N93-24873
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186

BIOENGINEERING
NT ANTHROPOMETRY
NT BIOINSTRUMENTATION
NT BIOMETRICS
NT BIOTELEMETRY
NT BODY MEASUREMENT (BIOLOGY)
NT CARDIOGRAPHY
NT ELECTROCARDIOGRAPHY
NT ELECTROENCEPHALOGRAPHY
NT ELECTROMYOGRAPHY
NT IMPLANTED ELECTRODES (BIOLOGY)
NT MAGNETOCARDIOGRAPHY

BIOFEEDBACK
NT SENSORY FEEDBACK
Effects of spatially displaced feedback on remote manipulation tasks
02 p0400 N93-11966
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems
02 p0330 N93-11968
Autogenic-feedback training improves pilot performance during emergency flying conditions
[NASA-TM-104005] 10 p2940 N93-27076

BIOGENESIS
U BIOLOGICAL EVOLUTION

BIOGEOCHEMISTRY
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Tenth International Symposium on Environmental Biogeochemistry
[DE92-016200] 02 p0355 N93-11864
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
The environmental biogeochemistry of open ocean and partially enclosed marine systems
08 p2413 N93-23130
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
The JGOFS North Atlantic Bloom Experiment: An overview
09 p2735 N93-24934
Data management for JGOFS: Theory and design
09 p2735 N93-24935
Data management for community research projects: A JGOFS case study
09 p2736 N93-24936
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study
09 p2736 N93-24938
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies
09 p2736 N93-24939
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057

BIOGRAPHY
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919

BIOINSTRUMENTATION
NT BIOTELEMETRY
NT IMPLANTED ELECTRODES (BIOLOGY)
Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Dry immunochemical sensor for the detection of PETN vapor
07 p1776 N93-21930
The challenge of biodetection for screening persons carrying explosives
07 p1776 N93-21931
The flow immunosensor: An antibody-based system for explosives detection
07 p1776 N93-21932
Explosives search dogs 07 p1776 N93-21933
Biomedical Monitoring and Countermeasures Facility
08 p2186 N93-22624
Construction and evaluation of a metal ion biosensor
[AD-A259775] 08 p2304 N93-23452
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
Transcutaneous analyte measuring methods
[AD-A262861] 11 p3494 N93-29509
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138
Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

BIOLOGICAL ACTIVITY
U ACTIVITY (BIOLOGY)

BIOLOGICAL ANALYSIS
U BIOASSAY

BIOLOGICAL CELLS
U CELLS (BIOLOGY)

BIOLOGICAL CLOCKS
U RHYTHM (BIOLOGY)

BIOLOGICAL EFFECTS
NT JET LAG
NT RELATIVE BIOLOGICAL EFFECTIVENESS (RBE)
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
Ultraviolet radiation changes
02 p0352 N93-11098
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Radiation dose to critical body organs for October 1989 proton event
[NASA-TP-3237] 03 p0520 N93-12876
Establishing laboratory standards for biological flight experiments
[NASA-CR-184402] 03 p0671 N93-12901
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520
Human factors dealing with the International Asteroid Mission
03 p0515 N93-13559
A study of the generation of linear energy transfer spectra for space radiations
[NASA-TM-4410] 03 p0772 N93-13572
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
Radiation monitoring for long duration space flights
04 p0812 N93-14959
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838

Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Studying the effects of microgravity on lower vertebrate development and behavior 07 p1807 N93-21099
Human exposure assessment for airborne pollutants: Advances and opportunities
[PB92-223247] 07 p1991 N93-21496
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendoctrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Measuring variation in ecosystem sensitivity to stress
[AD-A259521] 08 p2387 N93-23450
The USO-concept applied to a biological model experiment 08 p2162 N93-24379
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates
[DE93-007678] 08 p2419 N93-24455
The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer
[DE93-007183] 08 p2273 N93-24466
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
State of the art: Ecological biomarkers
[DE93-006621] 11 p3469 N93-28992
Theoretical-experimental study of the non-thermal effects of the polarized laser radiation in living tissues
[DE93-607212] 11 p3441 N93-30775
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035

BIOLOGICAL EVOLUTION
NT ABIOGENESIS
Self-programming of matter and the evolution of proto-biological organizations
[DE92-015244] 01 p0129 N93-10628
The search for life's origins: Progress and future directions in planetary biology and chemical evolution
[NASA-CR-190929] 02 p0487 N93-11603
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457
Chemical environments of submarine hydrothermal systems
[NASA-CR-191258] 03 p0669 N93-13458
The influence of culture on space developments 05 p1378 N93-16863
Overview: Exobiology in solar system exploration 06 p1591 N93-18546
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Venus: A search for clues to early biological possibilities 06 p1591 N93-18549
Mars: A reassessment of its interest to biology 06 p1591 N93-18550
Natural selection and particle physics: A thrust for artificial intelligence research
[INPE-5335-PRE/1734] 06 p1641 N93-19823
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480
A robust model for finding optimal evolutionary trees
[DE93-010682] 11 p3491 N93-30483
Spontaneous regulating mechanisms that may have led to the origin of life
[DE93-603677] 12 p3771 N93-31161

BIOLOGICAL MODELS
U BIONICS

BIOLOGICAL MODELS (MATHEMATICS)
Bionics and problems of instrument manufacture
[AD-A254461] 02 p0314 N93-12517
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Image quality measurement techniques
[INPE-5362-NTC/302] 06 p1664 N93-19794
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Global models of ecosystem change 07 p1953 N93-21570
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772
Anatomy and physiology of plant conductive systems
[PB93-156032] 09 p2793 N93-25877
An invitation to structured (meta)population models
[CWI-AM-R9113] 10 p3124 N93-27294
The saturating contact rate in marriage- and epidemic models
[CWI-AM-R9203] 10 p3124 N93-27297
The cumulative formulation of (physiologically) structured population models
[CWI-AM-R9205] 10 p3124 N93-27298
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199
Modelling and simulation of human retinal vision processing 11 p3363 N93-30269
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A264224] 11 p3539 N93-30361
A robust model for finding optimal evolutionary trees
[DE93-010682] 11 p3491 N93-30483
A simple computational model of center-surround receptive fields in the retina
[AD-A264723] 11 p3496 N93-30515
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603

BIOLOGICAL RHYTHM
U RHYTHM (BIOLOGY)

BIOLOGY
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457

BIOLUMINESCENCE
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037

BIOMAGNETISM
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521

BIOMASS
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data 07 p1955 N93-21583
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854
Biodiversity indication by Earth observation data 09 p2751 N93-24858
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069
Development of a pyrolysis waste recovery model with designs, test plans, and applications for space-based habitats 09 p2803 N93-26076
Introductions to the Proceedings of the Fourteenth Symposium on Biotechnology for Fuels and Chemicals
[DE93-006235] 11 p3490 N93-28890
Design of biomass management systems and components for closed loop life support systems 11 p3230 N93-29728

BIOMASS ENERGY PRODUCTION
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Electricity from biomass: A development strategy
[DE92-010590] 02 p0346 N93-11814
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Japan's Sunshine Project
[DE93-768309] 12 p3748 N93-31811
Session of alcohol and biomass energy technology
[DE93-768440] 12 p3749 N93-32056
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057

BIOMECHANICS
U BIODYNAMICS

BIOMEDICAL DATA
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
An object-oriented database approach to the storage and use of medical data 08 p2526 N93-23382
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917

BIOMETRICS
NT ANTHROPOMETRY
NT BODY MEASUREMENT (BIOLOGY)
NT CARDIOGRAPHY
NT ELECTROCARDIOGRAPHY
NT ELECTROENCEPHALOGRAPHY
NT ELECTROMYOGRAPHY
NT MAGNETOCARDIOGRAPHY
Enabler operator station --- lunar surface vehicle
[NASA-CR-192067] 06 p1546 N93-18050

BIONICS
Bionics and problems of instrument manufacture
[AD-A254461] 02 p0314 N93-12517
BIOPHYSICS
NT HEALTH PHYSICS
NT PUBLIC HEALTH
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
A physico-chemical study of some areas of fundamental significance to biophysics
[DE92-019917] 03 p0672 N93-13034
A physico-chemical study of some areas of fundamental significance to biophysics
[DE92-019916] 03 p0672 N93-13083
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613
BIOPOLYMER DENATURATION
EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817
BIOPOLYMERS
NT ALBUMINS
NT CARBONIC ANHYDRASE
NT CARBOXYHEMOGLOBIN
NT CYTOCHROMES
NT DEOXYRIBONUCLEIC ACID
NT ENZYMES
NT HEMOGLOBIN
NT LIPOPROTEINS
NT LYSOZYME
NT MELANIN
NT MYOGLOBIN
NT OXIDASE
NT PROTEINS
NT RIBONUCLEIC ACIDS
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783
The effect of lamination angle on polymer retention
[DE93-004304] 07 p1861 N93-21722
Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889
New methods and instrumentation for the characterization of biopolymers using electrospray ionization-mass spectrometry
[DE93-005100] 08 p2239 N93-23323
BIOPROCESSING
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Bioprocessing of ores: Application to space resources
05 p1382 N93-16894
Materials dispersion and biodynamics project research
08 p2192 N93-22651
BIOREACTORS
Method for culturing mammalian cells in a perfused bioreactor
[NASA-CASE-MSC-21293-2] 01 p0129 N93-10109
Method for culturing mammalian cells in a horizontally rotated bioreactor
[NASA-CASE-MSC-21294-2] 01 p0129 N93-10110
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250668] 02 p0253 N93-12267
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
High density cell culture system
[NASA-CASE-MSC-22060-1] 06 p1593 N93-19037
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB]
08 p2216 N93-22036
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
BIOREGENERATION
U REGENERATION (PHYSIOLOGY)
BIOREGENERATIVE LIFE SUPPORT SYSTEMS
U CLOSED ECOLOGICAL SYSTEMS
BIORHYTHMS
U RHYTHM (BIOLOGY)
BIOSENSORS
U BIOINSTRUMENTATION
BIOSIMULATION
U BIONICS
BIOSPHERE
Ultraviolet radiation changes
02 p0352 N93-11098
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
Life systems for a lunar base
03 p0680 N93-13992
Lunar subsurface architecture enhanced by artificial biosphere concepts 05 p1230 N93-17448
Earth observation in the TIGER programme of the UK Natural Environment Research Council
07 p1953 N93-21572
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda
08 p2361 N93-23772
Closed ecological systems: From test tubes to Earth's biosphere 10 p3088 N93-27976
BIOSYNTHESIS
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250668] 02 p0253 N93-12267
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768
Biological conversion of synthesis gas
[DE92-017673] 03 p0672 N93-13269
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
BIOTECHNOLOGY
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 2
[NASA-CP-3189-VOL-2] 08 p2560 N93-22149
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
Space Station Freedom Utilization Conference
[NASA-TM-108742] 08 p2182 N93-22606
Space Station Freedom Utilization Conference: Executive summary 08 p2182 N93-22607
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom
08 p2192 N93-22649
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369
Microgravity science and applications: Program tasks and bibliography for FY 1992
[NASA-TM-4469] 08 p2253 N93-23428
Construction and evaluation of a metal ion biosensor
[AD-A259775] 08 p2304 N93-23452
Digital mammography, cancer screening: Factors important for image compression
08 p2424 N93-24551
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Center of Excellence in Biotechnology (Research)
[AD-A263598] 11 p3491 N93-29915
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
Japan's Sunshine Project
[DE93-768309] 12 p3748 N93-31811
Biological treatment of porous off-gases
[VTT-JULK-766] 12 p3752 N93-31853
BIOTELEMETRY
Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661
BIPHASE SHIFT KEYING
U BINARY PHASE SHIFT KEYING
BIPOLAR TRANSISTORS
GaAs heterojunction device based A/D converter development
[AD-A252644] 02 p0468 N93-12183
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Minority carrier transport in heavily doped silicon
[ETN-92-92527] 05 p1327 N93-17563
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
High-frequency BiCMOS transconductance integrators
[ISBN-0-315-60484-0] 08 p2286 N93-24612
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
Analysis of electrothermal interactions in power semiconductor modules
[ETN-93-93800] 11 p3591 N93-28470
Charge separation in bipolar transistors
[DE93-009624] 11 p3413 N93-30650
Hardness assurance and testing issues for bipolar/BiCMOS devices
[DE93-009623] 11 p3570 N93-30669
BIPOLARITY
Near-infrared imaging polarimetry of bipolar nebulae
02 p0481 N93-11248
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526
Design of low-voltage bipolar operational amplifiers
[ISBN-90-9004571-6] 08 p2280 N93-23021
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU]
08 p2464 N93-24599
A simple computational model of center-surround receptive fields in the retina
[AD-A264723] 11 p3496 N93-30515
BIPROPELLANTS
U LIQUID ROCKET PROPELLANTS
BIRD-AIRCRAFT COLLISIONS
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579

Effects of air traffic on nature and environment in the neighborhood of airports by example of the Munich 2 Airport (Germany) 12 p3753 N93-31932

BIRDS

Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024

Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763

Effects of air traffic on nature and environment in the neighborhood of airports by example of the Munich 2 Airport (Germany) 12 p3753 N93-31932

BIREFRINGENCE

Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983

The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984

The time-dependent stress-optical behaviour of polycarbonate in the glass transition region 02 p0269 N93-11985

The measurement and calculation of birefringence in quenched polycarbonate specimens 02 p0269 N93-11986

Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching 02 p0269 N93-11987

Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988

Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989

Analysis of the birefringence distributions in compact discs of polycarbonate 02 p0270 N93-11991

Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096

Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495

Birefringent polarization ray tracing: Theory and applications 07 p2067 N93-20285

Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397

A compact imaging detector of polarization and spectral content 11 p3582 N93-28810

BIREFRINGENT COATINGS

Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770

BIREFRINGENT FILTERS

Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714

BIRTH

The cumulative formulation of (physiologically) structured population models
[CWI-AM-R9205] 10 p3124 N93-27298

BISMALEIMIDE

Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065

Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143

Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194

Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193

Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517

Barely visible damage threshold in a BMI 07 p1843 N93-21524

Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU] 08 p2235 N93-22033

BISMUTH

Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318

Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436

BISMUTH ALLOYS

Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905

The influence of microgravity on the microstructure and properties of eutectics, phase 2
[CTN-93-60627] 05 p1131 N93-16427

The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936

Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083

Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024

BISMUTH COMPOUNDS

NT BISMUTH OXIDES

Optical information processing using photorefractive BSO 04 p0981 N93-14204

Bismuth based ceramic superconductors: An experimental study on crystal growth and vortex dynamics
[ETN-93-93665] 10 p3004 N93-27945

BISMUTH OXIDES

Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335

Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522

Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571

A study of parameters that influence growth and stability of the (Bi(1-x)Pb(x))2 Sr2Ca2Cu3O(y) phase
[DE92-015187] 02 p0462 N93-11703

Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065

Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104

Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118

Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547

Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267

Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape
[DE92-041314] 05 p1321 N93-16533

Electrochemical and electrode properties of stabilized bismuth oxide ceramics
[ISBN-90-9003981-3] 05 p1125 N93-16570

Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725

Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728

Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219

The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774

BISPHENOLS

The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984

The time-dependent stress-optical behaviour of polycarbonate in the glass transition region 02 p0269 N93-11985

BISTABLE AMPLIFIERS

U FLIP-FLOPS

BISTABLE CIRCUITS

NT FLIP-FLOPS

BISTATIC RADAR

U MULTISTATIC RADAR

BISTATIC REFLECTIVITY

Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724

BIT ERROR RATE

Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430

SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001

A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954

Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854

Multiple symbol partially coherent detection of MPSK 06 p1514 N93-19431

Computer simulation of a general purpose satellite modem
[AD-A259083] 07 p1882 N93-20392

Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788

Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407

Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier 11 p3386 N93-29599

Combinatorial pulse position modulation for power-efficient free-space laser communications
[NASA-TM-106241] 12 p3717 N93-31856

BIT SYNCHRONIZATION

Resolution of the COBE Earth sensor anomaly 09 p2600 N93-24700

BIVARIATE ANALYSIS

Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426

Improving the chi-squared approximation for bivariate normal tolerance regions
[NASA-TP-3304] 08 p2472 N93-22670

Curve interpolation with constrained length
[MEMO-1079] 12 p3804 N93-31467

BL LACERTAE OBJECTS

Imaging of BL Lac objects 01 p0177 N93-10884

Multifrequency observations of rapidly variable blazars 05 p1361 N93-17109

ROSAT and multi-wavelength observations of 3C 371 05 p1361 N93-17121

X ray spectra of bright BL Lacertae objects observed with ROSAT 05 p1361 N93-17126

Thirteen new BL Lacertae objects discovered by an efficient x ray/radio/optical technique 07 p2095 N93-20796

IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007

Emission from relativistic jets in blazars 08 p2536 N93-23900

The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933

Correlative studies of astrophysical sources of very high and ultra high energy gamma-rays
[NASA-CR-192781] 09 p2888 N93-25172

The environment of x ray selected BL Lacs: Host galaxies and galaxy clustering 10 p3196 N93-26851

Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857

BLACK BODY RADIATION

Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825

Classical fluids of negative heat capacity
[DE92-040507] 05 p1329 N93-15943

Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637

Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713

Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188

Fractional brownian motion, wavelets, and infrared detector noise
[AD-A262956] 10 p3129 N93-28290

BLACK HAWK ASSAULT HELICOPTER

U H-60 HELICOPTER

BLACK HOLES (ASTRONOMY)

Temporal and spectral variability in luminous x ray binaries 02 p0483 N93-12336

The dynamics of dense galactic nuclei 03 p0750 N93-13340

The black hole candidate binary A0620-00 04 p1015 N93-14148

Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176

A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228

On the stability of a stringy black hole
[PREPRINT-879] 05 p1365 N93-16983

On the black-hole conformal field theory coupled to the Polyakov's string theory. A non perturbative analysis
[PREPRINT-852] 05 p1365 N93-17072

Problems in particle theory
[DE93-003687] 05 p1293 N93-17469

Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714

The two black hole problem in 3+1 general relativity: Analytical approximations and numerical solutions of the initial data 08 p2548 N93-23212
Endpoints of stellar evolution: The incidence of stellar mass black holes in the galaxy 08 p2533 N93-23882
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations 08 p2536 N93-23901
Diskoseismology: Probing relativistic accretion disks 09 p2894 N93-25622
Gravitational radiation from coalescing binary star systems 09 p2900 N93-25625
Topics in General Relativity theory: Gravitational-wave measurements of black-hole parameters; gravitational collapse of a cylindrical body; and classical-particle evolution in the presence of closed, timelike curves 11 p3603 N93-28690
Electric magnetic duality in string theory [DE93-606061] 11 p3606 N93-30807
Effects of spiral shocks on disk emission lines [DE92-641716] 11 p3637 N93-31004
Constraints on cosmic strings due to black holes formed from collapsed cosmic string loops [NASA-CR-193248] 12 p3861 N93-31837

BLACKBIRD AIRCRAFT
U SR-71 AIRCRAFT

BLACKOUT (PHYSIOLOGY)
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness [AD-A255485] 04 p0935 N93-14789

BLACKOUT (PROPAGATION)
NT POLAR RADIO BLACKOUT

BLADDERS (MECHANICS)
U DIAPHRAGMS (MECHANICS)

BLADE SLAP
U BLADE-VORTEX INTERACTION

BLADE SLAP NOISE
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980

BLADE TIPS
A concept for a counterrotating fan with reduced tone noise [NASA-TM-105736] 02 p0433 N93-11370
Effects of cooling-air injection on secondary flows and losses in a turbine cascade [NAL-TR-1121T] 02 p0307 N93-12382
An experimental and analytical study of TIP clearance effects in axial flow compressors [AD-A256434] 04 p0800 N93-15337
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades [NASA-TM-4448] 08 p2125 N93-22486
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors [NASA-TM-105978] 08 p2130 N93-23013
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects [NASA-CR-191087] 08 p2111 N93-23431
Measurement and prediction of tip-clearance effects in a linear turbine cascade [ISBN-0-315-68826-2] 08 p2130 N93-24176
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade [NASA-TM-4264] 11 p3240 N93-29450

BLADE-VORTEX INTERACTION
A study of the wall-pressure fluctuations downstream of a blade-wall junction [ECL-91-07] 02 p0299 N93-11363
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
The Applicaiton of CFD to rotary wing flow problems [NASA-TM-102803] 04 p0782 N93-15483
Two- and three-dimensional blade vortex interactions [NASA-CR-177567] 05 p1056 N93-16942
Numerical investigation of swirl-airfoil interactions in transonic area [MPIS-8/1991] 06 p1407 N93-18627
Flow visualizations of perpendicular blade vortex interactions [NASA-CR-192725] 09 p2696 N93-25208
Computation of far-field helicopter rotor tone noise [ONERA-P-1990-5] 11 p3562 N93-30110
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980

BLADES
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model [NASA-TM-105272] 06 p1558 N93-18875
Flow visualizations of perpendicular blade vortex interactions [NASA-CR-192725] 09 p2696 N93-25208

BLANKETS (FUSION REACTORS)
Advanced materials: The key to attractive magnetic fusion power reactors [DE92-040637] 05 p1307 N93-16103
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design [DE93-753270] 11 p3584 N93-28535

BLASIUS FLOW
Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874
Instability of flow in a streamwise corner [NASA-CR-191410] 09 p2576 N93-25153

BLAST LOADS
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4 [AD-A261116] 09 p2660 N93-25769
Mitigation of shock waves in a cylindrical tunnel by foam [AD-A262491] 11 p3423 N93-29419

BLASTOFF
U ROCKET LAUNCHING

BLASTS
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes [NASA-CR-184462] 03 p0558 N93-13021

BLAZARS
NT BL LACERTAE OBJECTS
Preliminary results on ROSAT observations of the Blazar PKS 0537-441 05 p1362 N93-17127
Emission from relativistic jets in blazars 08 p2536 N93-23900
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858

BLEACHING
Processability of polythiophene thin films by ultraviolet photo bleaching [AD-A259043] 06 p1495 N93-19021
Optical bleaching of bismuth implanted silica glass: A threshold effect [DE93-009716] 10 p3007 N93-28436

BLEED-OFF
U PRESSURE REDUCTION

BLEEDING
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model [MPIS-9/1991] 04 p0781 N93-15131

BLENDS
U MIXTURES

BLINDNESS
NT FLASH BLINDNESS

BLOCK COPOLYMERS
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers [AD-A253568] 02 p0264 N93-11150
Oxygen plasma resistant phosphine oxide containing imide/arylene copolymers [NASA-TM-107712] 07 p1859 N93-20300
Imide/arylene ether copolymers containing phosphine oxide groups [NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Use of block copolymer as polymer blend compatibilizer [AD-A260435] 08 p2242 N93-24417
Selectivity and permeability of microporous block copolymer membranes [AD-A263189] 10 p3006 N93-28382
Gas permeability of E/EP semicrystalline diblock copolymers [AD-A263241] 11 p3329 N93-28560

BLOCK DIAGRAMS
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download [ETN-93-94179] 11 p3466 N93-30573

BLOCKING
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation [NASA-CR-184359] 02 p0297 N93-11171
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
Tradeoffs in implementing primary-backup protocols [NASA-CR-190970] 02 p0472 N93-12212
Model for impedance of an ionic conductor sandwiched between blocking electrodes [DE92-017812] 03 p0569 N93-12561
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091

BLOOD
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident [AD-A254550] 03 p0674 N93-12612
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4 [DE92-040955] 05 p1224 N93-16166
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
Monitoring human tissues for toxic substances [PB92-223239] 07 p2024 N93-21498
Altered fluid shift dynamics with 6 days in microgravity 08 p2160 N93-24369
13 C NMR spectra of allosteric effectors of hemoglobin [AD-A262979] 10 p3084 N93-28293
Transcutaneous analyte measuring methods [AD-A262861] 11 p3494 N93-29509
Fundamental diagnostic hematology: Anemia (second edition) [PB93-188662] 12 p3773 N93-31140
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition) [PB93-188670] 12 p3773 N93-31158
Blood lipids in aircrew recruits and in RAF aviators 12 p3774 N93-32251

BLOOD CELLS
NT EOSINOPHILS
NT ERYTHROCYTES
NT LYMPHOCYTES
Freeze-dried human red blood cells [AD-A253295] 02 p0376 N93-11193
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin [AD-A258185] 06 p1595 N93-17900

BLOOD CIRCULATION
NT BRAIN CIRCULATION
NT OCULAR CIRCULATION
NT PULMONARY CIRCULATION
Freeze-dried human red blood cells [AD-A253295] 02 p0376 N93-11193

BLOOD COAGULATION
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition) [PB93-188670] 12 p3773 N93-31158

BLOOD FLOW
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990 [NASA-CR-4475] 06 p1598 N93-18376
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502

BLOOD PLASMA
Silent HIV infection 02 p0378 N93-11293
Carboxyalkylated hemoglobin as a potential blood substitute [AD-A252329] 02 p0384 N93-11561
Complement proteins and decompression sickness susceptibility [AD-A254448] 03 p0674 N93-12905
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin [AD-A258185] 06 p1595 N93-17900
Altered fluid shift dynamics with 6 days in microgravity 08 p2160 N93-24369
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise [NASA-TM-103942] 09 p2795 N93-26133

BLOOD PRESSURE
NT HYPERTENSION
NT LOWER BODY NEGATIVE PRESSURE
Development and enhancement of a mode of performance and decision making under stress in a real life setting [AD-A257796] 06 p1598 N93-18363
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces 12 p3781 N93-32260

BLOOD VOLUME
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men [NASA-TM-103949] 02 p0374 N93-12014
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise [NASA-TM-103942] 09 p2795 N93-26133

BLOWDOWN WIND TUNNELS
Photoluminescent thermography in hypersonic blowdown wind tunnel: Feasibility study with pinpoint measurement [ONERA-NT-1992-8] 06 p1407 N93-18617

BLOWERS
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21) [AD-A253394] 01 p0134 N93-10288

BLOWING
NT SPANWISE BLOWING
NT UPPER SURFACE BLOWING

Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
Leading edge film cooking heat transfer including the effect of mainstream turbulence
02 p0199 N93-11886
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings
09 p2574 N93-24772
Tangential fuselage blowing on an ogive cylinder
09 p2578 N93-25545

BLOWOFF (COMBUSTION)
U FLAMEOUT

BLUE STARS
Why Blue stragglers formed via collisions may not be rapid rotators
[DE93-008708] 11 p3633 N93-28905
Do the Pop 2 field blue stragglers have a collisional origin?
[DE93-008709] 11 p3634 N93-28906
Can physical stellar collisions explain the blue stragglers in the dwarf spheroidal galaxies?
[DE93-008711] 11 p3634 N93-28907

BLUFF BODIES
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
The effects of three-dimensional imposed disturbances on bluff body near wake flows
[AD-A259501] 08 p2298 N93-24311
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Vortex shedding in oscillatory flow
09 p2700 N93-25438
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171
Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173

BLUNT BODIES
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Improved numerical simulation of Euler equations
01 p0080 N93-10309
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies
03 p0536 N93-12836
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102] 06 p1526 N93-18129
Code development for hypersonic real-gas flow simulations toward the design of space vehicles
06 p1411 N93-19293
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer
10 p2937 N93-27462
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171
Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173

BLUNT LEADING EDGES
Leading edge film cooking heat transfer including the effect of mainstream turbulence
02 p0199 N93-11886

BLUNT TRAILING EDGES
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model
[MPIS-9/1991] 04 p0781 N93-15131

BO-105 HELICOPTER
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515

BOATS
NT LIFEBOATS
Modelling of interfacial and thermocline waves
[AERO-REPT-9209] 06 p1525 N93-18103
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881

BOATTAILS
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409

BOD
U BIOCHEMICAL OXYGEN DEMAND

BODIES OF REVOLUTION
NT CELESTIAL SPHERE
NT CONICAL BODIES
NT CYLINDRICAL BODIES
NT FALLING SPHERES
NT PARABOLIC BODIES
NT ROTATING CYLINDERS
NT ROTATING SPHERES
NT SLENDER CONES
NT SPHERES
NT TORUSES
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Electromagnetic scattering cross sections from the bodies of revolution, volume 1
[DREV-CR-645] 08 p2264 N93-23342
Axial impact of composites 11 p3297 N93-29078
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028

BODY CENTERED CUBIC LATTICES
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Determination of parameters of a new method for predicting alloy properties
[NASA-TM-105895] 02 p0257 N93-11609
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389

BODY FLUIDS
NT BLOOD
NT URINE
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Comparison of total body water estimates from O-18 and bioelectrical response prediction equations
[NASA-TP-3299] 08 p2421 N93-23734
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133

BODY KINEMATICS
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211

BODY MEASUREMENT (BIOLOGY)
NT ANTHROPOMETRY
A body mass measurement device based on the oscillation principle 08 p2166 N93-24400
Portable equipment developed to estimate energy expenditure by simultaneous recording of heart rate and body position 12 p3778 N93-32243

BODY SIZE (BIOLOGY)
Astronaut candidate strength measurement using the Cybex 2 and the LIDO Multi-Joint 2 dynamometers
[NASA-CR-185679] 02 p0389 N93-12195
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
A body mass measurement device based on the oscillation principle 08 p2166 N93-24400

BODY TEMPERATURE
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
A review of models of the human temperature regulation system
[AD-A258023] 06 p1595 N93-17918
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Measurement of behavioral thermoregulation
[PB92-217033] 07 p2024 N93-21046
AFTERRISE: Deep body temperature following exercise
[AD-A259887] 08 p2421 N93-23984
Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates
[AD-A262762] 11 p3493 N93-28939
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266

BODY TEMPERATURE REGULATION
U THERMOREGULATION

BODY WEIGHT
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894

BODY-WING AND TAIL CONFIGURATIONS
Low-speed wind tunnel study of the direct side-force characteristics of a joined-wing airplane with an upper fin
[DE93-767966] 12 p3672 N93-31189
NLR inviscid transonic unsteady loads prediction methods in aeroelasticity
[NLR-TP-91410-U] 12 p3674 N93-32358

BODY-WING CONFIGURATIONS
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622

Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 06 p2108 N93-22487
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations 10 p2937 N93-27465
Towards industrial-strength Navier-Stokes codes 10 p2938 N93-27468

BOEING AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 747 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT C-135 AIRCRAFT
NT CH-47 HELICOPTER
NT V-22 AIRCRAFT
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident? 06 p1423 N93-19664

BOEING MILITARY AIRCRAFT
U MILITARY AIRCRAFT

BOEING 720 AIRCRAFT
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800

BOEING 747 AIRCRAFT
The effectiveness of hand-held fire extinguishers on cargo container fires
[DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
A simulation of the Boeing B-747 aircraft
[CRANFIELD-AERO-9202] 08 p2127 N93-24074
Evaluation of the flyability of MLS curved approaches for wide-body aircraft
[NLR-TP-91396-U] 12 p3680 N93-32416

BOEING 757 AIRCRAFT
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388

BOEING 767 AIRCRAFT
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388

BOGS
U MARSHLANDS

BOILERS
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059

BOILING
NT FILM BOILING
NT NUCLEATE BOILING
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260

BOILING WATER REACTORS
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
TRAB: A transient analysis program for BWR. Part 2: User's manual
[VTT-TIED-1232-PT-2] 11 p3575 N93-29996

BOLIDES
Structural review of the Vredefort dome 01 p0108 N93-10127
The Tapanui region of New Zealand: Site of a Tunguska around 800 years ago? 06 p1718 N93-19246

BOLIVIA
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346

BOLKOW AIRCRAFT
NT BO-105 HELICOPTER

BOLOGRAMS
U BOLOMETERS

BOLOMETERS
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-000600] 05 p1306 N93-15697
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K
[NASA-CR-192365] 07 p1878 N93-21815
A bolometric radiometer for investigations in cosmology 08 p2303 N93-22684
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751
Electrical and infrared properties of thin niobium microbolometers near T(sub c) 10 p3020 N93-27779
A broadband THz receiver for low background space applications 10 p3020 N93-27782
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
Novel low temperature superconducting bolometers
[DE93-010433] 11 p3430 N93-28664
Superconducting submillimeter and millimeter wave detectors
[DE93-007656] 11 p3431 N93-29149
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O
[DE93-010430] 11 p3596 N93-29868

BOLTED JOINTS
Slip joint connector
[NASA-CASE-MFS-28659-1] 05 p1178 N93-17080
Robot-friendly connector --- space truss structures
[NASA-CASE-MSC-21864-1] 07 p1914 N93-20117
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774

BOLTS
The technical background to standards for eyebolts
[NPL-DMM(A)-52] 02 p0325 N93-11327
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
Saddle clamp assembly
[NASA-CASE-MFS-28701-1] 05 p1178 N93-17057
Slip joint connector
[NASA-CASE-MFS-28659-1] 05 p1178 N93-17080
Problems involving combined loading 05 p1189 N93-17314
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567
Effects of bolt-hole contact on bearing-bypass damage-onset strength 11 p3307 N93-30870

BOLTZMANN TRANSPORT EQUATION
Using NEKTON to solve systems of discrete Boltzmann equations
[DE92-018272] 02 p0303 N93-11799
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
A quasi-equilibrium kinetic model of HF air breakdown
[AD-A256240] 04 p0859 N93-14453
A Boltzmann-equation approach to the magnetoresistance of ferromagnetic-normal metallic multilayers
[DE92-041213] 05 p1270 N93-17361
Methods development for electron transport
[AD-A257986] 05 p1295 N93-17698
A simulated annealing approach to schedule optimization for the SES facility 06 p1634 N93-18662
Fast algorithms for transport models
[DE93-003881] 06 p1657 N93-19508
Monte Carlo variance reduction approaches for non-Boltzmann tallies
[DE93-005665] 08 p2467 N93-22910
A method for transient, three-dimensional neutron transport calculations
[DE93-007243] 09 p2847 N93-25256
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Contribution to the theoretical study and finite-element approximation of the multidimensional, multispecies, hyperbolic system of gas dynamics
[ESA-TT-1275] 12 p3724 N93-31429

BOLTZMANN-VLASOV EQUATION
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Numerical modelling of the cold plasma with time-dependent, magnetohydrodynamic methods
[KFK-5053] 11 p3586 N93-29081
Kinetic nonlinear electron-ion two stream instability in field-free isothermal plasma
[DE93-608571] 12 p3826 N93-31668

BOMBARDMENT
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
A unique photon bombardment system for space applications 11 p3286 N93-28790

BOMBER AIRCRAFT
NT A-6 AIRCRAFT
NT B-1 AIRCRAFT
NT B-2 AIRCRAFT
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682

BOMBS (ORDNANCE)
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936

BOMBS (PRESSURE GAGES)
U PRESSURE GAGES

BOMBS (SAMPLERS)
U SAMPLERS

BOND GRAPHS
Modelling of flexible multibody dynamics and a computer method via the bond graph method 01 p0065 N93-10573
Automated multi-body system dynamics via bond graph modelling and interactive graphics 01 p0066 N93-10576
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808

BONDED JOINTS
A micromechanical fastening system and its applications 06 p1550 N93-19059
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Peak stresses in adhesive step lap joints with voids 07 p1932 N93-20656
The design of bonded structural assemblies
[REPT-921-430-116] 07 p1824 N93-20934
An expert system to study bonded joints
[REPT-921-430-113] 07 p1833 N93-20937

Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Models of crack growth along polymer interfaces 09 p2728 N93-25750
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond [DE93-008073] 10 p3055 N93-26668
The environmental and impact resistance of adhesively bonded thermoplastic fibre composites [AD-A263202] 10 p2992 N93-28383
Diffusion bonding [DE93-011480] 11 p3442 N93-28837

BONDING
NT ADHESIVE BONDING
NT AGGLUTINATION
NT CERAMIC BONDING
NT METAL BONDING
NT METAL-METAL BONDING
NT REACTION BONDING
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Transformation of Cl bonding structures on Si(100)-(2x1) [AD-A253739] 01 p0040 N93-10748
Preconversion catalytic deoxygenation of phenolic functional groups [DE92-018304] 02 p0244 N93-10986
Corrosion protection of materials for aircraft using ion beam processes. Corrosion and bonding strength examinations. Physical analysis of laser composition [MBB-Z-0405-91-PUB] 02 p0255 N93-11026
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Infiltration kinetics and interfacial bond strength of metal matrix composites [AD-A254002] 02 p0240 N93-11795
MMIC GaAs bonding investigation [AD-A254773] 02 p0470 N93-12464
Bonding in simple phosphate glass [DE92-019437] 03 p0550 N93-12917
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction [AD-A245362] 03 p0544 N93-13945
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
Core design for use with precision composite reflectors [NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
Comments on 'Kinetic Study on the Hexacelsian-Celsian Phase Transformation' [NASA-TM-105917] 04 p0850 N93-14886
A global potential energy surface for ArH2 04 p0843 N93-15358
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems [AD-A256659] 05 p1110 N93-15912
An experimental examination of the thermal and acoustic environments on runway joint seals [AD-A257965] 05 p1073 N93-17734
Slit scan radiographic system for intermediate size rocket motors [NASA-CR-191798] 06 p1471 N93-18058
Heteroepitaxial diamond growth [AD-A257510] 06 p1671 N93-18079
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding [DE93-002366] 06 p1654 N93-18398
Smart patch piezoceramic actuator issues 06 p1462 N93-18822
Metalloradical and electrophilic activation of methane [PB93-123693] 07 p1851 N93-21813
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer [AD-D015627] 08 p2241 N93-24221
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass [DE93-007504] 09 p2635 N93-25383
Method of joining diamond structures [AD-D015671] 09 p2867 N93-26140
Tailored interfaces for metal-matrix composites-fundamental considerations [AD-A263048] 11 p3298 N93-29130
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers [AD-A263470] 11 p3569 N93-29839
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces [DE93-012930] 11 p3325 N93-30060
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098

BONDLINES
U BONDED JOINTS

BONE DEMINERALIZATION
Bone loss and human adaptation to lunar gravity 03 p0676 N93-14002

BONE MARROW
AFRRI reports [AD-A254581] 03 p0674 N93-12649

BONES
NT FEMUR
NT SPINE
NT TIBIA
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets [AD-A252427] 01 p0132 N93-10709
Assessment of programs in space biology and medicine [NASA-CR-190930] 03 p0672 N93-13327
Training, muscle fatigue and stress fractures [AD-A255277] 04 p0935 N93-15006
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569

BOOLEAN ALGEBRA
NT BOOLEAN FUNCTIONS
Symbolic Boolean manipulation with ordered binary decision diagrams [AD-A253822] 01 p0142 N93-10828
Representation and manipulation of inductive boolean functions [AD-A256078] 04 p0967 N93-14235
Note on the average rank of LYM-sets [MEMO-1036] 05 p1266 N93-16640
Proceedings of the 2nd International Conference on Algebraic Methodology and Software Technology [AD-A257487] 05 p1272 N93-17664
A note on the diagonalizable algebras of PA and ZF [ML-91-09] 05 p1274 N93-17792
Sahlqvist's theorem for boolean algebras with operators [ML-91-10] 05 p1274 N93-17794
Shavrukov's theorem on the subalgebras of diagonalizable algebras for theories containing I(delta(sub 0)) + exp [ML-92-05] 06 p1642 N93-17825
A group-theoretical setting for some intersecting Sperner families [MEMO-1060] 10 p3120 N93-28011
Modeling the bidirectional reflectance and spectra [AD-A263570] 11 p3462 N93-29830
Efficient algorithms and data structures in geometric design [AD-A264678] 11 p3534 N93-30544
Manifold shape: From differential geometry to mathematical morphology [CS-9204] 11 p3552 N93-31012
Short-circuit evaluation of Boolean expressions [CS-9205] 11 p3552 N93-31014

BOOLEAN FUNCTIONS
Symbolic Boolean manipulation with ordered binary decision diagrams [AD-A253822] 01 p0142 N93-10828
Representation and manipulation of inductive boolean functions [AD-A256078] 04 p0967 N93-14235
Fixed points in spectral complexity [AD-A256729] 05 p1263 N93-16068
Efficient compilation of a synchronous declarative language: LUSTRE-V3 code generator [ETN-93-92679] 07 p2038 N93-20899

BOOMS (EQUIPMENT)
On-orbit deployment anamolies: What can be done? 04 p0821 N93-15603
Activities of the Boom and Chassis Group [NASA-CR-192028] 06 p1544 N93-17975
Boom and chassis articulation joints [NASA-CR-192059] 06 p1546 N93-18052

BOOST
U ACCELERATION (PHYSICS)

BOOSTER ROCKET ENGINES
NT ADVANCED SOLID ROCKET MOTOR (STS)
NT SPACE SHUTTLE BOOSTERS
Combustion-wave ignition for rocket engines 01 p0017 N93-10016
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report [NASA-CR-184357] 02 p0231 N93-11173
Booster rocket range safety system [AD-D015363] 02 p0221 N93-11428
Space Transportation Booster Engine Configuration Study. Volume 3: Program Cost estimates and work breakdown structure and WBS dictionary [NASA-CR-184458] 02 p0233 N93-12088
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis [NASA-CR-184459] 02 p0234 N93-12441
Space transportation booster engine configuration study. Volume 1: Executive Summary [NASA-CR-184457] 02 p0235 N93-12523
Power beaming providing a space power infrastructure [DE93-000850] 05 p1092 N93-17363
Numerical computations using multi-domain technique 06 p1409 N93-19277
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
Research on advanced transportation systems 07 p1789 N93-20414
SRB environment evaluation and analysis. Volume 3: ASRB plume induced environments [NASA-CR-192519] 09 p2631 N93-26054
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements [NASA-CR-192518] 09 p2631 N93-26057
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting [NASA-CR-192515] 09 p2614 N93-26152
Space transportation booster engine thrust chamber technology, large scale injector [NASA-CR-192531] 09 p2633 N93-26557
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle [NASA-TP-3335] 10 p2955 N93-27016

BOOSTERS (EXPLOSIVES)
Booster explosive rings [AD-D015375] 03 p0556 N93-13471

BORANES
NT CARBORANE
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron [AD-A256924] 05 p1310 N93-16503
Molecular and polymeric ceramic precursors [DE93-002841] 05 p1127 N93-17657
Mechanisms of decomposition and oxidation of borane compounds [AD-A261137] 09 p2645 N93-26045

BORATES
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units [AD-A262504] 11 p3594 N93-29138
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue [AD-A264523] 11 p3598 N93-30407

BORAZON (TRADEMARK)
U BORON NITRIDES

BOREHOLES
Gradiometer antennas for tunnel detection [PB92-205400] 01 p0069 N93-10440
The multiscale and wavelet transform with applications in well log analysis [ETN-92-92526] 05 p1246 N93-17491

BOREL SETS
Sojourns, extremes, and self-intersections of stochastic processes [AD-A257251] 05 p1274 N93-15820
Measurability of operators [W-9203] 10 p3125 N93-27930

BORES
U CAVITIES

BORESCOPES
U ENDOSCOPES

BORESIGHT ERROR
Gravity referenced elevation encoder development 11 p3385 N93-29592

BORESIGHTS
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Cryogenic magnetic bearing [AD-A264716] 11 p3446 N93-30512

BORIDES
NT TITANIUM BORIDES
Alternate electrode materials for the SP100 reactor [DE92-019570] 03 p0706 N93-12970

Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362

BORN APPROXIMATION
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111

BORN-MAYER EQUATION
U BORN APPROXIMATION

BORN-OPPENHEIMER APPROXIMATION
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751

BORON
NT BORON ISOTOPES
NT BORON 10
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Ductility and fracture in L1(sub 2) intermetallic alloys
[DE93-001644] 06 p1487 N93-18534
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313

BORON ALLOYS
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302

BORON CARBIDES
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404

BORON COMPOUNDS
NT BORANES
NT BORATES
NT BORIDES
NT BORON CARBIDES
NT BORON FLUORIDES
NT BORON NITRIDES
NT BORON OXIDES
NT CARBORANE
NT ORGANIC BORON COMPOUNDS
NT TITANIUM BORIDES
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933

BORON FLUORIDES
Efficient laser action from two CW laser pumped pyrromethene-BF2 complexes
[AD-A264887] 11 p3441 N93-30910

BORON HYDRIDES
NT BORANES
NT CARBORANE

BORON ISOTOPES
NT BORON 10
Isotopic composition of galactic cosmic ray boron, carbon, nitrogen, and oxygen 04 p1020 N93-14866

BORON NITRIDES
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180

BORON OXIDES
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693

BORON REINFORCED MATERIALS
NT ALUMINUM BORON COMPOSITES
NT BORON-EPOXY COMPOSITES
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
SESAME equation of state number 8010: Boron loaded silicone potting material
[DE93-012083] 11 p3300 N93-30395

BORON TRIFLUORIDE
U BORON FLUORIDES

BORON 10
Neutron cross section standards and instrumentation
[DE93-007675] 08 p2484 N93-24454

BORON-EPOXY COMPOSITES
Damage tolerance assessment of boron/epoxy repairs to fuselage lap joints
[AD-A256383] 06 p1439 N93-18257

BOROSILICATE GLASS
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Ceramic fiber reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15262-1] 09 p2640 N93-26100
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221

BOSE GEOMETRY
Bose realisation of a noncanonical Heisenberg algebra
[PREPRINT-844] 05 p1269 N93-16958
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259

BOSE-CHAUDHURI-HOCQUENGHEM CODES
U BCH CODES

BOSE-EINSTEIN STATISTICS
U QUANTUM STATISTICS

BOSON FIELDS
On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098

BOSONS
NT ALPHA PARTICLES
NT ETA-MESONS
NT KAONS
NT MESONS
NT MUONS
NT PHOTONS
NT PIONS
NT RHO-MESONS
NT VECTOR MESONS
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
Survey of composite particle models of electroweak interaction
[DE92-017110] 02 p0441 N93-12111
Relativistic condensate and cosmology 02 p0486 N93-12330
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
Semi-classical quantization rules in supersymmetric quantum mechanics 04 p0998 N93-14590
Dark matter axions
[DE92-040501] 04 p1022 N93-15346
Theory of the electroweak interactions
[SSCL-PREPRINT-775] 05 p1286 N93-16385
Instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems
[PREPRINT-881] 05 p1289 N93-17017
Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1
[HU-SEFT-1991-09] 05 p1300 N93-17598
A two body relativistic equation for interacting nucleons
[NOTA-INTERNA-976] 05 p1295 N93-17630
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom
[NOTA-INTERNA-993] 06 p1653 N93-17944
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Study of electroweak interactions
[DE93-004367] 07 p2061 N93-20385
Anomalous WWZ couplings at future e(+)e(-) colliders
[PREPRINT-814] 07 p2066 N93-21177
A boson field stochastic calculus and quantum filtering in Fock space
[SSCL-PREPRINT-723] 10 p3156 N93-28096
Physical parameters of the intermediate vector boson in the standard electroweak theory and the t-quark mass
[SSCL-PREPRINT-757] 10 p3135 N93-28142
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
Nonclassical disordered phase in the strong quantum limit of frustrated antiferromagnets
[DE92-645691] 12 p3815 N93-31806

BOTANY
NT GEOBOTANY
Anatomy and physiology of plant conductive systems
[PB93-156032] 09 p2793 N93-25877

BOTSWANA
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525
Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results
[NASA-TM-108607] 07 p2018 N93-20891

BOULES
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594
Silicon carbide semiconductor technology for high temperature and radiation environments 10 p2978 N93-26928

BOUNDARIES
NT FLUID BOUNDARIES
NT FREE BOUNDARIES
NT GRAIN BOUNDARIES
NT JET BOUNDARIES

NT LIQUID-LIQUID INTERFACES
NT LIQUID-SOLID INTERFACES
NT LIQUID-VAPOR INTERFACES
Elastic stresses, twin boundaries, and fatigue cracking
02 p0338 N93-11890
Implementation of the block-Krylov boundary flexibility method of component synthesis
[NASA-TM-106065] 08 p2325 N93-23044
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Finite element mesh generation from CSG models
[ETN-93-93614] 10 p3119 N93-27932
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370

BOUNDARY CONDITIONS
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids
02 p0340 N93-12199
Light scattering from a sphere on or near an interface
02 p0448 N93-12531
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
Scientific predictability of solid rocket performance: Analyses of the processing parameters
03 p0526 N93-13824
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object
04 p0857 N93-14189
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
Thermostructural responses of carbon phenolics in a restrained thermal growth test 05 p1128 N93-17333
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564
Parabolized Navier-Stokes methods for hypersonic flows 06 p1529 N93-18565
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI
06 p1417 N93-19326
Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Green's function methods in heavy ion shielding
[NASA-TP-3311] 08 p2485 N93-22488
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
Improved deterministic calculational methods for irregularly shaped shields
[DE93-004955] 08 p2467 N93-22795
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace 08 p2251 N93-22863
Time-stable boundary conditions for finite-difference schemes solving hyperbolic systems: Methodology and application to high-order compact schemes
[NASA-CR-191436] 08 p2468 N93-23126
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU]
08 p2169 N93-24598
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966
High-order cyclo-difference techniques: An alternative to finite differences
[NASA-TM-107745] 09 p2575 N93-25074
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
On the accurate long-time solution of the wave equation in exterior domains: Asymptotic expansions and corrected boundary conditions
[NASA-TM-106117] 10 p3111 N93-27068
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
Thermionic emission current in a single barrier varactor 10 p3012 N93-27735
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630
Design optimization of space structures
11 p3278 N93-29122
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784
Numerical wave propagation and steady-state solutions 11 p3428 N93-30999
Modal synthesis technique used in shallow doublewall
[FFA-TN-1992-29] 12 p3722 N93-31053
Point interactions on bounded domains
[REPT-92-97] 12 p3807 N93-31654
Complex Kohn variational principle for the solution of Lippmann-Schwinger equations
[DE93-609885] 12 p3814 N93-31910
Optimal control problems for parabolic boundary control systems 12 p3800 N93-32216

BOUNDARY DETECTION (IMAGERY)
U EDGE DETECTION

BOUNDARY ELEMENT METHOD
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
On the use of coupled finite element boundary element models in numerical design analysis
01 p0063 N93-10563
A boundary element super-element method for coupling with the finite element method of substructures
01 p0064 N93-10566
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156
Numerical solution of inverse problems in mechanics using the boundary element method
02 p0424 N93-11199
Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Fundamental solutions and boundary element formulations for convective fluid flow
02 p0298 N93-11217
Numerical simulation for the coaxial electromagnetic launcher using hybrid potentials with FE-BE method
02 p0222 N93-11726
Fluid-structure interaction using retarded potential and ABAQUS
[AD-A254735] 02 p0307 N93-12355
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Boundary element method for axisymmetric thermoelastic analysis 03 p0624 N93-13097
Finite element versus boundary element analysis of two-dimensional coupled thermoelasticity
03 p0625 N93-13142
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model
03 p0629 N93-13811
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951
On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates
04 p0901 N93-14587
Boundary element analysis of low frequency cavity acoustical problems
[MATHS-REPT-A-158] 04 p0974 N93-15073
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods 05 p1077 N93-15722
Development of a boundary element method program for numerical analysis of supersonic unsteady flow
06 p1410 N93-19283
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468
Further developments in shape optimization of stress concentration regions. Part 1: General theory
07 p1927 N93-20630
Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700
Boundary element shape function for bimaterial interface cracks 07 p1939 N93-20701
Application of the BEM to the crack growth problem by the coupling of damage-deformation
07 p1940 N93-20702
A boundary element formulation for thermo-hydrodynamic lubrication problem
07 p1918 N93-20704
Boundary element formulation for thermoelastohydrodynamic contact problems
07 p1918 N93-20705
Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733
Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893
Direct second kind boundary integral formulation for Stokes flow problems
[DE93-004069] 07 p1904 N93-22000
Application of the boundary element method to finite elasticity 08 p2327 N93-23200
Solution of a class of Sturm-Liouville problems using the Galerkin method with global basis functions
[DE93-005156] 08 p2474 N93-23692
Crack deflection at bi-material interfaces
[DE93-003712] 08 p2332 N93-24479
Boundary element method
[ETN-93-93699] 08 p2333 N93-24593
Three-dimensional boundary element analysis of contact and fracture problems 09 p2725 N93-25335
Composite micromechanical modeling using the boundary element method
[NASA-TM-106127] 10 p3056 N93-27030

Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141

BOUNDARY INTEGRAL METHOD
Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564
Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700
A recent boundary integral procedure on determining shear centers, warping constant and other cross sectional properties of a turbine blade 07 p1918 N93-20703
Multi-axial fatigue damage analysis using the boundary element method 07 p1950 N93-21339
Direct second kind boundary integral formulation for Stokes flow problems
[DE93-004069] 07 p1904 N93-22000
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Solution of the Helmholtz-Poincare Wave Equation using the coupled boundary integral equations and optimal surface eigenfunctions
[DE93-005300] 08 p2470 N93-24038
Use of the conventional and tangent derivative boundary integral equations for the solution of problems in linear elasticity 08 p2331 N93-24121
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107
Tokamak plasma shape identification based on the boundary integral equations
[DE93-715383] 12 p3825 N93-31097
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141

BOUNDARY LAYER COMBUSTION
A PDF closure model for compressible turbulent chemically reacting flows
[NASA-CR-191209] 03 p0587 N93-13453
Hybrid rocket fuel combustion study 09 p2626 N93-26019

BOUNDARY LAYER CONTROL
NT POROUS BOUNDARY LAYER CONTROL
Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
Wall layers
[AD-A256152] 04 p0872 N93-14257
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Bypass transition in compressible boundary layers 05 p1154 N93-15801
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle 05 p1057 N93-16784
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Boundary-layer control on a freely falling sphere 05 p1161 N93-16819
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
High-lift aerodynamics: Prospects and plans 10 p2933 N93-27442
The numerical simulation of circulation controlled airfoil flowfields 11 p3243 N93-30947
Selected experiments in laminar flow: An annotated bibliography
[NASA-TM-103989] 12 p3673 N93-32226

BOUNDARY LAYER EQUATIONS
On the instability of hypersonic flow past a pointed cone: Comparison of theoretical and experimental results of Mach 18
[DLR-FB-92-02] 02 p0196 N93-11141
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Combustion in supersonic flows 04 p0841 N93-14627
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802

BOUNDARY LAYER FLOW
NT BOUNDARY LAYER SEPARATION
NT REATTACHED FLOW
NT SECONDARY FLOW
NT SEPARATED FLOW
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
The three-dimensional turbulent boundary layer: Theory and application 03 p0588 N93-13749
An experimental investigation of the three-dimensional boundary layer on a rotating disk 03 p0589 N93-13806
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14758
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787
Consideration on boundary-layer receptivity 05 p1160 N93-16814
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
Solution of the time-dependent incompressible Navier-Stokes equations by finite elements 06 p1528 N93-18542
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Application of the program profile for the design of low-speed, low-observable configuration airfoils
[AD-A258842] 06 p1417 N93-19364
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Stability and heat transfer in time-modulated flows
[DE93-006423] 08 p2293 N93-23339
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness 09 p2701 N93-25483
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Large-eddy simulation of temporally developing boundary layers with embedded streamwise vortices 09 p2705 N93-25753
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
The influence of bulges on boundary-layer instability 10 p2932 N93-27435
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448
Sea breeze simulation with a static profile of the eddy viscosity
[FOA-B-40415-4.5] 10 p3078 N93-27831
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
State vector splitting: A numerical scheme for the Euler equations 11 p3419 N93-29039
Flow visualization on helicopter blades using acenaphthen
[ESA-TT-1255] 11 p3422 N93-29273
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934

Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095

BOUNDARY LAYER NOISE
U AERODYNAMIC NOISE
U BOUNDARY LAYERS

BOUNDARY LAYER PLASMAS
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Exploring the magnetospheric boundary layer 12 p3855 N93-31694

BOUNDARY LAYER SEPARATION
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2 02 p0304 N93-11881
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008] 04 p0780 N93-14516
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
Stall departure resistance enhancer
[NASA-CASE-LAR-14221-1] 06 p1447 N93-19023
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
The structures and the sensitivity of an incompressible turbulent boundary layer in the vicinity of the separation
[ETN-93-92557] 07 p1902 N93-20892
Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method 10 p2935 N93-27455
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929

BOUNDARY LAYER STABILITY
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Laminar boundary-layer breakdown
[AD-A254489] 02 p0306 N93-12162
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transitiion
[NAL-SP-15] 05 p1160 N93-16809
Instability of spatially periodic flows 05 p1160 N93-16810
Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811
Turbulence research: Where should we go? 05 p1160 N93-16812
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Consideration on boundary-layer receptivity 05 p1160 N93-16814
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Laminar turbulent transition of a boundary layer by disturbances in the main stream 05 p1161 N93-16816
Three dimensional boundary-layer transition on a swept cylinder 05 p1161 N93-16817
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Boundary-layer control on a freely falling sphere 05 p1161 N93-16819
Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom 05 p1161 N93-16820
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
Development of wall turbulence structure 05 p1162 N93-16824
Mechanism of the mode selection in bifurcations 05 p1162 N93-16825
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Drag reduction mechanism and coherent structure in near wall turbulence with riblets 05 p1162 N93-16827
A new parameter for predicting crossflow instability 05 p1162 N93-16828
Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742
Stability and transition of hypersonic boundary layer 07 p1763 N93-20687
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
Instability of flow in a streamwise corner
[NASA-CR-191410] 09 p2576 N93-25153
Large-eddy simulation of temporally developing boundary layers with embedded streamwise vortices 09 p2705 N93-25753
On the instability of the flow in an oscillating tank of fluid
[NASA-CR-191424] 10 p3037 N93-26896
The experimental study of transition and leading edge contamination of swept wings
[LIB-TRANS-2197] 10 p2930 N93-27274
On the role of secondary instabilities in laminar-turbulent transition of 2D and 3D boundary layers 10 p2931 N93-27430
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

BOUNDARY LAYER TRANSITION
Flow over a leading edge with distributed roughness 01 p0006 N93-10549
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transitiion
[NAL-SP-15] 05 p1160 N93-16809
Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811
Turbulence research: Where should we go? 05 p1160 N93-16812
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Laminar turbulent transition of a boundary layer by disturbances in the main stream 05 p1161 N93-16816
Three dimensional boundary-layer transition on a swept cylinder 05 p1161 N93-16817
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Boundary-layer control on a freely falling sphere 05 p1161 N93-16819
Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom 05 p1161 N93-16820
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
Development of wall turbulence structure 05 p1162 N93-16824
Mechanism of the mode selection in bifurcations 05 p1162 N93-16825
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Drag reduction mechanism and coherent structure in near wall turbulence with riblets 05 p1162 N93-16827
A new parameter for predicting crossflow instability 05 p1162 N93-16828
Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Stability and transition of hypersonic boundary layer 07 p1763 N93-20687
The effect of surface suction near the leading edge of a swept-back wing
[AERO-REPT-9205] 07 p1761 N93-20807
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734

The experimental study of transition and leading edge contamination of swept wings
[LIB-TRANS-2197] 10 p2930 N93-27274
On the role of secondary instabilities in laminar-turbulent transition of 2D and 3D boundary layers
10 p2931 N93-27430
The influence of bulges on boundary-layer instability
10 p2932 N93-27435
Simulation of boundary-layer transition: Receptivity to spike stage
[NASA-CR-191413] 10 p3040 N93-27588
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
Plasma transport through magnetic boundaries
12 p3827 N93-31692
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion?
12 p3855 N93-31693
Exploring the magnetospheric boundary layer
12 p3855 N93-31694
Multiple flows in the solar transition region
12 p3857 N93-31704
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719
Selected experiments in laminar flow: An annotated bibliography
[NASA-TM-103989] 12 p3673 N93-32226

BOUNDARY LAYERS
NT ATMOSPHERIC BOUNDARY LAYER
NT COMPRESSIBLE BOUNDARY LAYER
NT HYPERSONIC BOUNDARY LAYER
NT INCOMPRESSIBLE BOUNDARY LAYER
NT LAMINAR BOUNDARY LAYER
NT PLANETARY BOUNDARY LAYER
NT SUPERSONIC BOUNDARY LAYERS
NT THERMAL BOUNDARY LAYER
NT THREE DIMENSIONAL BOUNDARY LAYER
NT TURBULENT BOUNDARY LAYER
NT TWO DIMENSIONAL BOUNDARY LAYER
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
An engineering method for interactive inviscid-boundary layers in three-dimensional hypersonic flows
02 p0203 N93-12529
Light scattering from a sphere on or near an interface
02 p0448 N93-12531
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers
03 p0590 N93-13826
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
Studies of the charging of a thin dust layer in a plasma 05 p1313 N93-17320
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Tip-vortex/airframe interactions
08 p2111 N93-23489
The effect of large-scale unsteady motion on a turbulent reattaching shear layer: Application to the supersonic compression ramp 08 p2114 N93-24215
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388
The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
The influence of bulges on boundary-layer instability
10 p2932 N93-27435
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
An interactive boundary-layer approach to multielement airfoils at high lift 10 p2934 N93-27445
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations
10 p2935 N93-27451
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer
10 p2937 N93-27462
A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations 10 p2937 N93-27465
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
Heat transfer with moderate free stream turbulence
11 p3254 N93-29936
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

BOUNDARY LUBRICATION
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Investigation of multiply alkylated cyclopentane synthetic oil and lead naphthenate additive under boundary contact interactions
[ATR-93(8361)-1] 10 p2995 N93-27602
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650

BOUNDARY VALUE PROBLEMS
NT CAUCHY PROBLEM
NT DIRICHLET PROBLEM
NT NEUMANN PROBLEM
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions
01 p0066 N93-10575
Quasigeostrophic vortices in zonal shear
02 p0358 N93-11226
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
On the definition and calculation of effective impedances and averaged boundary conditions with application to the analysis of high complexity frequency selective surfaces
[RSRE-MEMO-4518] 02 p0281 N93-11387
Resolution of the pressure equation by the boundary element method. Application to multistage turbomachines
[ECL-91-16] 02 p0301 N93-11575
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids
02 p0340 N93-12199
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
Direct simulation of turbulent combustion
04 p0840 N93-14622
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428
Domain decomposition: A blowup problem and the Ginzburg-Landu equations
[DE92-040736] 05 p1266 N93-16587
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
Parallel step-by-step methods
[CWI-NM-R9116] 05 p1256 N93-17545
Parallel-iterated Runge-Kutta methods for stiff ordinary differential equations
[CWI-NM-R9117] 05 p1257 N93-17549
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition
[AD-A257733] 05 p1188 N93-17690
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
A review on application of MHD theory to plasma boundary problems in tokamaks
[NIFS-163] 07 p2073 N93-20762
SSG 4.115: Mathematical analysis of geodetic boundary value problem 07 p1972 N93-20981
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems
[NASA-CR-4503] 08 p2466 N93-22672
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086

On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
A singular perturbation theorem for evolution equations and time-scale arguments for structured population models
[CWI-AM-R9201] 10 p3112 N93-27295
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
Algorithms for point set congruence
[AD-A264016] 11 p3532 N93-29980
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913
An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490
Resonance and near-resonance for a nonlinear wave equation
[REPT-92-92] 12 p3814 N93-31633
A remark about the mean curvature
[DE93-619668] 12 p3809 N93-32285
Variational Trajectory Optimization Tool Set: Technical description and user's manual
[NASA-TM-4442] 12 p3690 N93-32381
Parallel Jacobi iteration in implicit step-by-step methods
[CWI-NM-R9218] 12 p3810 N93-32394
Explicit, high-order Runge-Kutta-Nystroem methods for parallel computers
[CWI-NM-R9219] 12 p3796 N93-32395

BOUSSINESQ APPROXIMATION
Numerical study of the small scale structures in Boussinesq convection
[NASA-CR-189695] 01 p0145 N93-10758
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536

BOW SHOCK WAVES
U SHOCK WAVES

BOW WAVES
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle 12 p3855 N93-31691
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004

BOX BEAMS
Miniaturized Cassegrainian solar array development 10 p2968 N93-27808
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433

BOXES (CONTAINERS)
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878

BPSK
U BINARY PHASE SHIFT KEYING

BRACKETS
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450

BRAGG ANGLE
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Experimental considerations of higher order parametric x rays from silicon crystals of varying thicknesses
[AD-A256082] 04 p0990 N93-14260
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178

BRAGG CELLS
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing
[AD-A254035] 01 p0071 N93-10240
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
An analysis of the effect of acoustic non-linearities in wide bandwidth acousto-optic bragg cells
[AD-A256579] 04 p0973 N93-14269

BRAIDED COMPOSITES
Advances in 3-dimensional braiding 04 p0833 N93-14748
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Tensile properties of textile composites 04 p0834 N93-14754
Modeling of Euclidean braided fiber architectures to optimize composite properties 04 p0834 N93-14755
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
Method and apparatus for three dimensional braiding
[NASA-CASE-LAR-14047-1] 06 p1500 N93-19038
Production of highly integrated FRP parts in the braiding technology 07 p1835 N93-21136
Automated manufacturing of continuous fibre composite structures for aerospace applications 08 p2212 N93-23942
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107

BRAIN
NT BRAIN STEM
NT CEREBRAL CORTEX
NT CEREBRUM
NT HIPPOCAMPUS
NT HYPOTHALAMUS
NT PINEAL GLAND
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
A core facility for the study of neurotoxins of biological origin
[AD-A254359] 03 p0674 N93-12945
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
AFRRI Reports --- Radiobiology
[AD-A257231] 05 p1221 N93-15965
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
Adaptive filters for monitoring localized brain activity from surface potential time series
[DE93-003795] 08 p2420 N93-22774
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Theory of synaptic plasticity in visual cortex
[AD-A260052] 08 p2424 N93-23960
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
Imaging regional changes in the spontaneous activity of the brain: An extension of the minimum-norm least-squares estimate
[AD-A261593] 09 p2798 N93-26436
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Analysis of neural systems involved in modulation of memory storage
[AD-A262418] 10 p3084 N93-27654
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160

BRAIN CIRCULATION
Cerebral autoregulation in microgravity 07 p1809 N93-21112
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400

BRAIN DAMAGE
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160

BRAIN STEM
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093

BRAKES (FOR ARRESTING MOTION)
NT AIRCRAFT BRAKES
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT TRAILING EDGE FLAPS
NT WING FLAPS
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Turbine turbobrake systems 09 p2717 N93-25268
Single acting translation/rotational brake
[NASA-CASE-LAR-14738-1] 11 p3443 N93-29175

BRAKING
Turbine turbobrake systems 09 p2717 N93-25268

BRANCHING (MATHEMATICS)
Instabilities and patterns in Taylor-Couette flow 03 p0593 N93-13965
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Using an interior point cutting plane method to solve integer programming problems
[AD-A256041] 04 p0945 N93-14659
Polling systems and multiple branching processes
[CWI-BS-R9128] 05 p1267 N93-16726
Inclusive beauty decays and the spectator model
[PREPRINT-790] 07 p2061 N93-20850
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Bifurcation of limit cycles in a particular class of quadratic systems with two centres
[REPT-92-43] 10 p3119 N93-27931
On the Bogdanov-Takens bifurcation for planar diffeomorphisms
[W-9202] 10 p3121 N93-28124
Mixed spectra and rotational symmetry
[W-9212] 10 p3121 N93-28139
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154
A normally elliptic Hamiltonian bifurcation
[W-9201] 11 p3548 N93-28753
Bifurcations phenomena in a nonlinear oscillator: Approximate analytical studies versus computer simulation results 11 p3407 N93-29037
Short-circuit evaluation of Boolean expressions
[CS-9205] 11 p3552 N93-31014
On global bifurcations caused by the unfolding of a homoclinic orbit
[W-9221] 12 p3806 N93-31524
A normally elliptic Hamiltonian bifurcation
[W-9214] 12 p3807 N93-31623

Homoclinic twist bifurcations with Z2 symmetry
[W-9215] 12 p3807 N93-31627
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096

BRANCHING (PHYSICS)
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328
Dynamic crack division in brittle solids
01 p0048 N93-10489
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
Measurement of the branching ratio for D(+) yields (bar-K)*(892)(sup 0)mu(+)nu
[DE93-002414] 05 p1295 N93-17624

BRASSES
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151

BRAYTON CYCLE
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Design of a pressurized lunar rover
[NASA-CR-192033] 06 p1545 N93-18016
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems
[NASA-CR-191023] 08 p2377 N93-22879
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
The 20 kWe NEP system studies
10 p2982 N93-26971

BRAZIL
Structural aspects of the Araguainha impact structure (Brazil)
01 p0106 N93-10118
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Brazilian remote sensing community: Historical, geographical and economic aspects
[INPE-5421-PRE/1763] 03 p0634 N93-13412
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil
04 p0905 N93-14450
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789
Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795
The distribution of green areas in urban areas: Cartography and comparative analysis of LANDSAT TM and HRV/SPOT data
[INPE-5262-PRE/1686] 07 p1979 N93-21560
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
The Mavale project: Evaluation of potential pollution sources to superficial and subterranean water resources in the Paraiba do Sul Valley, Brazil
[INPE-5318-PRE/1715] 08 p2385 N93-23105
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330

BRAZILIAN SPACE PROGRAM
Brazilian remote sensing community: Historical, geographical and economic aspects
[INPE-5421-PRE/1763] 03 p0634 N93-13412

BRAZING
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011

BREADBOARD MODELS
Advanced mechanisms for robotics
02 p0330 N93-11969
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Three-phase inverter for small high speed motors
[NASA-CR-191331] 06 p1523 N93-19860
Development of a measurement of upper MID frequency errors on arbitrary grazing incidence optics
[NASA-CR-191333] 07 p2067 N93-20731
Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191989] 07 p1850 N93-21564
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Laser docking sensor engineering model
08 p2139 N93-22247
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware
08 p2141 N93-22260
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
Design of an imaging spectrometer processing chain for space application 08 p2364 N93-23792
Preliminary results of a newly designed mini-OCXO oscillator especially dedicated to space applications
09 p2621 N93-25028

BREAKAWAY
U BOUNDARY LAYER SEPARATION

BREAKDOWN
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196

BREAKERS (ELECTRIC)
U CIRCUIT BREAKERS

BREATHING
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288

BREATHING APPARATUS
NT OXYGEN MASKS
Physiological effects of positive pressure ventilation
[AD-A254809] 03 p0674 N93-12751
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
Inward contaminant leakage tests of the S-Tron Corporation emergency escape breathing device. Phase 1: Tests of the original design. Phase 2: Tests with the redesigned neck seal
[DOT/FAA/AM-92/18] 09 p2582 N93-25205
Comparison of portable crewmember protective breathing equipment (CPBE) designs
[DOT/FAA/AM-93/6] 10 p3086 N93-27121

BRECCIA
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia
01 p0110 N93-10136
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
Search for a meteoritic component at the Beaverhead impact structure, Montana 01 p0116 N93-10158
Sudbury Breccia and suevite as glacial indicators transported 800 km to Kentland Astrobleme, Indiana
01 p0117 N93-10165
Sudbury project (University of Muenster-Ontario Geological Survey): New investigations on Sudbury breccia 01 p0118 N93-10167
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
Refining the granulite suite 06 p1736 N93-18789
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815

BREEDER REACTORS
NT LIQUID METAL FAST BREEDER REACTORS
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137

BREEDING (REPRODUCTION)
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535

BREMSSTRAHLUNG
Application of the Moyer method to transverse shielding of linear Bremsstrahlung sources
[DE92-017027] 02 p0443 N93-11493
Bremsstrahlung absorption in plasmas
02 p0321 N93-12047
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
Predictions of dose from electrons in space
[NASA-CR-191617] 04 p1051 N93-15580
An experimental test of the LPM effect: Bremsstrahlung suppression at high energies
[DE93-004019] 06 p1660 N93-19495
Neutron-proton bremsstrahlung experiments
[DE93-003737] 07 p2065 N93-21968
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
Hard photon emission from high energy electrons and positrons in single crystals
[DE93-606328] 11 p3600 N93-30770

BRICKS
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212

BRIDGES (STRUCTURES)
Fracture-mechanical analysis of the residual service life of the welded main girders of the highway bridges of Ruedersdorf 07 p1949 N93-21329
Fatigue of old metallic railroad bridges
07 p1949 N93-21330
Fatigue life assessment of service damaged and corroded members of structural steel
07 p1949 N93-21331

Fatigue resistance of orthotropic plates with trapezoidal stiffeners
[TRL-TRANS-T3908] 09 p2726 N93-25419

BRIDGMAN METHOD
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces 04 p0995 N93-15311
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique 04 p0995 N93-15312
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Growth and characterization of isotopically enriched Ge-70 and Ge-74 single crystals
[DE93-004697] 08 p2510 N93-24050

BRIGHTNESS
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Perception of lightness and brightness in complex patterns
[AD-A254093] 01 p0133 N93-10658
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130
Lightcurve of comet Austin(1989c1) and its dust mantle development 06 p1707 N93-19167
Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
A new activity index for comets 06 p1699 N93-19261
Robot motion vision by fixation
[AD-A259456] 07 p2046 N93-20241
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Self-amplified spontaneous emission for short wavelength coherent radiation
[DE93-004724] 08 p2307 N93-22490
Near-Earth asteroids: Observer alert network and physical observations 10 p3168 N93-26699
Low surface brightness galaxies and tidally triggered star formation 10 p3178 N93-26745
Massive low surface brightness galaxies 10 p3178 N93-26746
Oxygen abundances in low surface-brightness galaxies 10 p3178 N93-26747
Chemical abundances in low surface brightness galaxies: Implications for their evolution 10 p3178 N93-26748
Low surface brightness galaxies 10 p3178 N93-26750
Gas distribution and starbursts in shell galaxies 10 p3183 N93-26780
Removing Malmquist bias from linear regressions 10 p3122 N93-26872
Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659
Predicting Ly-alpha intensities in coronal streamers 12 p3870 N93-31360
Ly-alpha radiation from coronal transients 12 p3870 N93-31363
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375
Morphology of coronal loop interactions 12 p3873 N93-31379
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

BRIGHTNESS DISTRIBUTION
Near-infrared imaging polarimetry of bipolar nebulae 02 p0481 N93-11248
Evolution of galaxies in compact groups 03 p0750 N93-13148
X ray scattering by cosmic dust grains 03 p0750 N93-13294
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
A strong 3.4 micron emission feature in comet Austin 1989c1 06 p1706 N93-19162
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Using x ray images to detect substructure in a sample of 40 Abell clusters 10 p3194 N93-26844

BRIGHTNESS TEMPERATURE
Spatial resolution enhancement of SSM/I microwave brightness temperatures and its impact on rainfall retrieval algorithms
[AD-A254382] 03 p0661 N93-12861
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor
[AD-A256699] 05 p1212 N93-16153
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR) 07 p2007 N93-20089
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia 08 p2407 N93-23721
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
Influence due to antenna pattern change in brightness temperature estimation for a space-based microwave radiometer 09 p2753 N93-24868
Cloud properties as inferred from HIRS/2 multi-spectral data 09 p2782 N93-25293
Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637
Vector radiative transfer model: Application to rainfall retrieval with microwave radiometric data 09 p2784 N93-25743
Brightness temperature and attenuation diversity statistics at 20.6 and 31.65 GHz for the Colorado Research Network 09 p2684 N93-26473

BRILLOUIN EFFECT
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887
Numerical modelling of the suppression of stimulated Brillouin scattering due to finite laser bandwidth
[DE92-018064] 03 p0606 N93-13534
Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507
A laser spectroscopy technique for evaluating in-situ degradation of composite materials
[AD-A256983] 05 p1097 N93-16255
Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471
Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal
[AD-A258824] 06 p1675 N93-19088
Stimulated Brillouin backscattering for nonlinear ionic sound waves in laser plasmas
[ETN-93-93415] 07 p2074 N93-21208
Comparison of the efficiencies of lidar techniques for atmospheric-temperature measurement based on rotational Raman, and Rayleigh scattering 07 p1960 N93-21614
Stimulated Brillouin scattering switching in mid fibers
[AD-A260456] 08 p2487 N93-22948
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556

BRINES
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
Mars brine formation experiment 12 p3864 N93-31949
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354

BRITISH COLUMBIA
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903

BRITTLE MATERIALS
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Bifurcations in elastic-damaging materials
[DE92-018818] 03 p0624 N93-13072
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Fracture of glass 11 p3293 N93-30969
Evaluation of the chevron notch fracture toughness test for brittle materials
[NPL-DMM(A)-72] 12 p3742 N93-32384

BRITTLENESS
Structural review of the Vredefort dome 01 p0108 N93-10127
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
The mechanics of dislocation nucleation at a crack tip 04 p0896 N93-14214
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites
[AD-A256826] 05 p1096 N93-15705
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086
Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress
[DE92-041375] 05 p1185 N93-16270
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Ductility and fracture in L1(sub 2) intermetallic alloys
[DE93-001644] 06 p1487 N93-18534
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1960 N93-21491
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842

BROADBAND
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160

Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Broadband vibroacoustic frequency control via piezoelectric films
[ONERA-RT-8/3654-RY-010-R] 04 p0974 N93-15129
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Broadband quadrifilar phased array helix
[AD-D015508] 05 p1139 N93-16519
Variable wide band fiber optic delay line
[AD-D015539] 06 p1662 N93-18318
The broad-band x ray spectral variability of Mkn 841 06 p1561 N93-18711
Application of multirate digital filter banks to wideband all-digital phase-locked loops design 06 p1505 N93-18908
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Widebanding techniques for VHF antennas, 1
[AD-A259301] 08 p2260 N93-22399
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Very wide bandwidth HF crystal filters 09 p2693 N93-25039
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering
[AD-D015642] 09 p2852 N93-25358
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
Satellites and the BISDN: An overview of NASA R/D
[NASA-TM-106108] 10 p3025 N93-26903
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
A stochastic approach to robust broadband structural control 10 p3058 N93-27892
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878

BROADBAND AMPLIFIERS
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895

BROADCASTING
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
An application of exponential neural networks to event-train recognition
[AD-A254948] 03 p0690 N93-12548
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
Selected worldwide Marine weather broadcasts
[PB93-118164] 07 p2013 N93-21294
Review of the Year 1991 07 p1886 N93-21558
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
WARC 92 and some thoughts as to its impact on the NASA propagation program 09 p2684 N93-26475
Digital audio and video broadcasting by satellite 10 p3023 N93-26645
Mugunghwa: The first Korean domestic satellite for FSS and DBS services 10 p3023 N93-26651
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations
[NASA-TM-106172] 10 p2956 N93-27064

BROKEN SYMMETRY
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Relativistic condensate and cosmology 02 p0486 N93-12330
The low-energy structure of compactified superstring models 04 p0997 N93-14116
The dynamics of spatially extended lasers 04 p0883 N93-14123
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Weak-electromagnetic interference in polarized eD scattering
[DE93-001763] 04 p0978 N93-15486
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
The Cabibbo-Kobayashi-Maskawa mixing matrix
[DE93-001255] 05 p1283 N93-15976
Studies in theoretical particle physics
[DE93-000648] 05 p1284 N93-16161
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Global continuous symmetry and the 17keV neutrino
[PREPRINT-868] 05 p1288 N93-16966
CP violation in B(sub C) decays
[PREPRINT-871] 05 p1288 N93-16977
Instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
Regularization of chiral gauge theories
[PREPRINT-888] 05 p1330 N93-17024
Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
CP violation in the decays B(sup 0) yields (psi)K(sub s) and B(sup 0) yields (pi)(+)(pi)(-): A probe for new physics
[DE93-002413] 05 p1331 N93-17364
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Phase structure of three- and four-dimensional phi(exp 4) field theory
[DE93-606069] 11 p3605 N93-30782
Schroedinger equations of higher (greater than 2) order
[DE92-644677] 11 p3552 N93-30984
Lepton-quark families, cosmic strings and democratic mass matrix
[DE93-608263] 12 p3832 N93-31809

BROMIDES
NT SILVER BROMIDES
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105
Determination of the weight average molecular weight of SRM 1480
[PB92-222934] 03 p0553 N93-13785
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629

BROMINE
Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants 07 p1839 N93-21164
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933

BROMINE COMPOUNDS
NT BROMIDES
NT SILVER BROMIDES
Ozone depletion and chlorine loading potentials 02 p0351 N93-11093

BRONCHI
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153

BRONCHIAL TUBES
U BRONCHI

BRONZES
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667

BRORSEN-METCALF COMET
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Heliocentric distance dependencies of the C2 lifetime and C2 parent production rate in comet P/Brorsen-Metcalf (1989o) 06 p1711 N93-19195

BROWN DWARF STARS
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070

BROWNIAN MOVEMENTS
Brownian motion
[PREPRINT-797] 05 p1280 N93-16418
Fractional brownian motion, wavelets, and infrared detector noise
[AD-A262956] 10 p3129 N93-28290
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506

BRUCETON TEST
U STATISTICAL TESTS

BRUNEI
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811

BRUSH SEALS
Brush seal bristle flexure and hard-rub characteristics
[NASA-TM-105864] 06 p1547 N93-18321
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Brush seal low surface speed hard-rub characteristics
[NASA-TM-106169] 10 p3039 N93-27132
Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627

BRUSHES
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380

BSCCO SUPERCONDUCTORS
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130

Method of producing Bi-Sr-Ca-Cu-O superconducting materials in cast form
[AD-D015532] 07 p2080 N93-20777
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219
Analysis of the gap in high-temperature superconductors using photoemission spectroscopy
09 p2865 N93-25744
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Effect of lead addition on the formation of superconducting phases in Bi-Sr-Ca-Cu-O ceramics
[DE93-606893] 11 p3339 N93-30773

BUBBLE CHAMBERS
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307

BUBBLES
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
Pressure and noise induced by a cavitating marine screw propeller
[VTT-PUBS-87] 02 p0299 N93-11360
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
An analytic description of thick-wall bubbles
[DE92-016465] 02 p0432 N93-11759
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162
Two-phase flow modeling with discrete particles
[DE92-017850] 03 p0583 N93-13356
H I shells and supershells: Observations and theory
03 p0751 N93-13360
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
Numerical and experimental study of bubble growth in highly viscous fluids 04 p0874 N93-14465
Nucleate pool boiling in the long duration low gravity environment of the Space Shuttle
[NASA-TM-105973] 04 p0855 N93-15420
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
Present state-of-the-art of two-phase flow model calculations
[DE92-041124] 05 p1156 N93-16159
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 1
[CTN-93-60610] 05 p1157 N93-16425
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3
[CTN-93-60611] 05 p1158 N93-16544
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
A numerical simulation of flows around a deformable gas bubble 06 p1413 N93-19300
Numerical and physical modelling of bubbly flow phenomena
[DE93-003145] 06 p1535 N93-19500
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564
Gas bubble generation in low gravity
07 p1805 N93-21090
An experiment on producing foam metals in a microgravity environment aboard NASA KC-135 aircraft
07 p1808 N93-21109
Gas bubbles in liquid metals 07 p1808 N93-21110
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Theoretical and pragmatic modelling of governing equations for a two-phase flow in bubbly and annular flow regimes
[DE93-004200] 08 p2289 N93-22757
A study of the accuracy of neutrally buoyant bubbles used as flow tracers in air
[NASA-CR-191088] 08 p2111 N93-23399
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
Modeling of bubble and drop formation in flowing liquids in terrestrial and microgravity environments
09 p2664 N93-25390
Simulation of vortex bursting
09 p2580 N93-25881
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887
Potential distributions at gas evolving electrodes
[DLR-FB-92-20] 12 p3702 N93-31319

BUCKLING
NT ELASTIC BUCKLING
NT THERMAL BUCKLING
Effects of gravity in folding --- of geological layers
01 p0124 N93-10324
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination
01 p0047 N93-10480
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538
On the stability of confined shells under external pressure 02 p0335 N93-11202
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
04 p0897 N93-14251
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Cytherean crustal bending at Salme Dorsa
04 p1039 N93-14364
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
Buckling problems of sandwich shells
[LR-690] 05 p1185 N93-16286
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
Equivalent lengths of struts (for use in buckling calculations)
[ESDU-92038] 06 p1554 N93-18046
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
Delamination buckling in circular plates
07 p1931 N93-20653
Buckling of clamped angle-ply laminated plates under inplane loads 07 p1931 N93-20654
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
Buckling and dynamic instability phenomena of tapered bar with localized flaw subjected to an intermediate periodic axial load 07 p1935 N93-20675
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
The flexural behaviour of thin-walled singly symmetric columns
[PB92-225408] 07 p1946 N93-21020
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
Buckling and post-buckling behavior of a delamination in a carbon-epoxy laminated structure: Experiments and modelling 07 p1841 N93-21514
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Advanced buckling analyses of beams with arbitrary cross sections
[ISBN-90-02808-0] 10 p3059 N93-27944
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications
11 p3306 N93-30861
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression
11 p3307 N93-30872
Web crippling of cold-formed steel members
[ISBN-9-03-860122-0] 12 p3705 N93-31540
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels
[ATN-9301] 12 p3742 N93-32331

BUCKMINSTERFULLERENE
The adsorption of C60 and the co-adsorption of C60 and H2O on (alpha)-Al2O3 (1 -1 0 2)-(2x1)
[DE92-018002] 02 p0465 N93-12093
C60 transformations at high pressures
[DE92-019546] 03 p0701 N93-12806
Fullerenes formation in flames
07 p1853 N93-20187
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995

BUDGETING
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
Lunar interferometric astronomy: Some basic questions 03 p0746 N93-13592
Selected data on Federal funds for research and development: Fiscal years 1990, 1991, and 1992
[NSF-92-319] 03 p0741 N93-13657
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658

Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
National Aeronautics and Space Administration: Statement of Joanne Padron, American Institute of Aeronautics and Astronautics 07 p2093 N93-21678
Columbus programme overview 08 p2155 N93-24337
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Air Force CALS business practices
[AD-A264789] 11 p3610 N93-30177

BUFFER STORAGE
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Simulation and analysis of support hardware for multiple instruction rollback
[NASA-CR-190972] 02 p0406 N93-12541
Magnetic bearings for a high-performance optical disk buffer, volume 2
[NASA-CR-190874] 03 p0615 N93-13608
Magnetic bearings for a high-performance optical disk buffer, volume 1
[NASA-CR-190873] 03 p0616 N93-13706
Proposal for massively parallel data storage system 04 p0960 N93-15510
Spacecraft optical disk recorder memory buffer control 05 p1170 N93-16773
An investigation of memory latency reduction using an address prediction buffer
[AD-A261010] 09 p2806 N93-25858
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193102] 10 p3090 N93-27239
Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193175] 11 p3527 N93-29170

BUFFETING
Navier-Stokes dynamics and aeroelastic computations for vortical flows, buffet and aeroelastic applications
[NASA-CR-190692] 01 p0002 N93-10098
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
Fluid/structures interactions. Aircraft considerations 07 p1787 N93-20628
Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034

BUILDING MATERIALS
U CONSTRUCTION MATERIALS

BUILDING STRUCTURES
U BUILDINGS

BUILDINGS
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Survey of protocols for conducting indoor air quality investigations in large buildings
[PB93-119865] 07 p2026 N93-21215
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
Concept design example, Computer Aided Structural Modeling (CASM). Scheme A
[AD-A264759] 11 p3529 N93-29657
Concept design example, Computer Aided Structural Modeling (CASM). Scheme B
[AD-A264760] 11 p3529 N93-29658
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651
ELF/VLF spectrum measurements 11 p3398 N93-30745

BULGING
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
The multicomponent structure of bulges 10 p3187 N93-26800

BULK MODULUS
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
The development of new, low-cost perfluoroalkylether fluids with excellent low and high-temperature properties
[NASA-CR-190865] 06 p1492 N93-18229

BULKHEADS
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597

BUMPERS
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583

BUNCHING
NT ELECTRON BUNCHING
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
Analysis of the prebuncher for the KEK 40-MeV proton linac
[DE92-514988] 02 p0444 N93-11525
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
Pre-compression of bunch length in the SLC damping rings
[DE92-018154] 02 p0446 N93-12497
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity
[DE92-018153] 03 p0707 N93-13090
Beam loading compensation with variable group velocity
[DE93-001810] 05 p1297 N93-16199
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625

BUNDLES
Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698
Powder towpreg process development 11 p3303 N93-30844

BUOYANCY
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames 07 p1853 N93-20189
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Flame spread across liquid pools 07 p1854 N93-20209
Combustion experiments in reduced gravity with two-component miscible droplets 07 p1854 N93-20214
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
Space Station Freedom combustion research 08 p2190 N93-22643
Boiling under microgravity conditions 08 p2249 N93-22847
Surface tension and buoyancy driven Stokes flow in cavities 08 p2250 N93-22856
Heat transfer in rotating serpentine passages with selected model orientation for smooth or skewed trip walls
[NASA-TM-106126] 09 p2667 N93-25177
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Combined forced and free convection in a curved duct 10 p2937 N93-27461
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031

BUOYS
Dredging research program: Feasibility of a kinematic differential Global Positioning System
[AD-A248953] 02 p0205 N93-11419
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652

BURAN SPACE SHUTTLE
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304

BURGER EQUATION
Incremental, quasistatic, uniaxial finite element analysis in the linear viscoelasticity theory, exemplarily demonstrated by the Burger material
[ETN-93-93422] 08 p2324 N93-22680
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Wavelet local extrema applied to image processing
[AD-A262362] 10 p3118 N93-27691
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857

BURNERS
Annular vortex combustor
[AD-D015462] 05 p1103 N93-16462
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Study of multi jet burner for gases
[INPE-5416-TDI/480] 07 p1846 N93-20320
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220

BURNING
U COMBUSTION

BURNING PROCESS
U COMBUSTION

BURNING RATE
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Calculation of chemical reaction rates in turbulent combustion 04 p0841 N93-14625
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215

Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Calculations of combustion response profiles and oscillations
[NASA-TM-106135] 09 p2623 N93-25236
The burning rate behavior of pure nitrocellulose propellant samples
[AD-A261009] 09 p2661 N93-25857
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity
09 p2626 N93-26020
Improved burn rate determination techniques
09 p2627 N93-26021
Determination of burn rate requirements from ASRM performance specifications 09 p2627 N93-26023
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
An experimental and analytical study of the unsteady combustion of homogeneous energetic solids using the laser-recoil method 09 p2630 N93-26042
Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique
09 p2631 N93-26043
The effects of small changes in the input data on the determination of closed-bomb burning rates and surface area
[AD-A261969] 10 p3156 N93-27952
A summary of the JANNAF Workshop on Methods for Exchange of Gun Propellant Burning Rate Information
[AD-A264113] 12 p3713 N93-32030

BURNING TIME
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Improved burn rate determination techniques
09 p2627 N93-26021

BURNOUT
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946

BURNS (INJURIES)
Mechanisms of immune failure in burn injury
02 p0376 N93-11285
The effect of pain on task performance: A review of the literature
[AD-A254336] 04 p0938 N93-15216

BURNTHROUGH (FAILURE)
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519

BURSTS
NT GAMMA RAY BURSTS
NT SOLAR RADIO BURSTS
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
Plasma flow bursts in the auroral zone
06 p1726 N93-19550
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft
12 p3856 N93-31699

BUS CONDUCTORS
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
An optical fiber multi-terminal data bus system for aircraft
[NAL-TR-1125] 02 p0209 N93-12370
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852
Study and development of a multiprocessor interface circuit, volume 1
[ECL-91-11-VOL-1] 07 p2044 N93-21000
Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259
Investigation of the possibility of success of the Futurebus+ as a military and commercial standard in the current context, revision A
[CTN-93-60712] 08 p2445 N93-22474

BUSINESS MANAGEMENT
U INDUSTRIAL MANAGEMENT

BUTANES
Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685

BUTT JOINTS
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728

BUTTONS
Gloved operator performance study
[AD-A256894] 05 p1227 N93-16048

BUTYLENE OXIDES
U TETRAHYDROFURAN

BY-PRODUCTS
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Application of manufactured products
05 p1383 N93-16902
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158

BYPASS RATIO
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140] 06 p1404 N93-17880
Transient performance of fan engine with water ingestion
[NASA-CR-190778] 09 p2573 N93-25134
By-passing of heat exchangers in gas turbines
10 p2922 N93-27189

BYPASSES
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
A variable current bypass shunt for electromagnets
[DE93-004273] 08 p2278 N93-22686
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503

C

C (PROGRAMMING LANGUAGE)
NT C++ (PROGRAMMING LANGUAGE)
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Optimization of expressions involving array classes
[DE92-019421] 02 p0411 N93-11536
Reengineering using a data abstraction based specification language
[AD-A254726] 02 p0414 N93-12341
An interactive office accounting program written in UNIX and C
[AD-A255077] 03 p0683 N93-12740
Introduction to IND and recursive partitioning, version 1.0
[NASA-CR-191220] 03 p0685 N93-13063
Circuit design tool. User's manual, revision 2
[NASA-CR-191361] 03 p0687 N93-13734
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674
A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959
The Cheetah data management system
[DE93-004010] 07 p2092 N93-21973
A software package for neural network applications development 09 p2827 N93-25610
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482

C BAND
Project and test of a reconfigurable multiple feed system in C-band
[MBB-UK-0162-92-PUB] 02 p0278 N93-11009
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
Remotely controlled C band signal generator
[AD-D015602] 07 p1880 N93-20014
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478

C STARS
U CARBON STARS

C++ (PROGRAMMING LANGUAGE)
An MCM/chip concurrent engineering validation
[AD-A253783] 01 p0136 N93-10237
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
The design and implementation of a parallel persistent object system
[AD-A257447] 05 p1233 N93-15869
MP-DIT: Mathematical program data interchange tool
[MEMO-COSOR-92-31] 10 p3095 N93-27385
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482

C-M DIAGRAM
U COLOR-MAGNITUDE DIAGRAM

C-130 AIRCRAFT
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force
10 p2926 N93-27210

C-135 AIRCRAFT
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
Acceleration levels on the KC-135
07 p1784 N93-21124
Materials science on parabolic aircraft: The FY 1987-1989 KC-135 microgravity test program
[NASA-TM-4456] 08 p2252 N93-23171

C-160 AIRCRAFT
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
RAMSES: Multi-spectral experimental radar station installed on board the Transall 06 p1446 N93-19925

CABIN ATMOSPHERES
NT SPACECRAFT CABIN ATMOSPHERES
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
A model study of the aircraft cabin environment resulting from in-flight fires
[DOT/FAA/CT-90/22] 07 p1764 N93-21557

CABLE TELEVISION
The information age as a work in progress: Implications for technical communicators
[DE92-019780] 04 p1008 N93-15275

CABLES
Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles
09 p2693 N93-24903

CABLES (ROPES)
The theoretical background to BS7167: 1990 - specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Cable-line shortening device
[AD-D015427] 04 p0891 N93-14822

Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
Numerical stabilities aspects of cable dynamics simulation 07 p1931 N93-20650
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028

CAD (DESIGN)
U COMPUTER AIDED DESIGN

CADASTRAL MAPPING
Measurement-based multipurpose cadastral systems 04 p0904 N93-14220
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
Reports on Cartography and Topography, series 1, report no. 103
[ETN-90-97325] 12 p3744 N93-31256
European Road Database: Activities within the ATKIS 12 p3744 N93-31257
Digital reading of road network data in developing a cartographic information system 12 p3744 N93-31259

CADMIUM
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497

CADMIUM ALLOYS
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Proceedings of Symposium F on New Aspects on the Growth, Characterization and Applications of CdTe and related Cd rich alloys 5, 1992
[AD-A263541] 11 p3597 N93-29974

CADMIUM COMPOUNDS
NT CADMIUM SELENIDES
NT CADMIUM SULFIDES
NT CADMIUM TELLURIDES

CADMIUM MERCURY TELLURIDES
U MERCURY CADMIUM TELLURIDES

CADMIUM NICKEL BATTERIES
U NICKEL CADMIUM BATTERIES

CADMIUM SELENIDES
Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study 07 p1803 N93-21079
Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983

CADMIUM SULFIDES
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650

CADMIUM TELLURIDES
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept 07 p1803 N93-21078
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626
Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988
Proceedings of Symposium F on New Aspects on the Growth, Characterization and Applications of CdTe and related Cd rich alloys 5, 1992
[AD-A263541] 11 p3597 N93-29974

CAFFEINE
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894
Effects of caffeine on mental performance and mood: Implications for aircrew members 12 p3783 N93-32269

CAI
U COMPUTER ASSISTED INSTRUCTION

CALCINATION
U ROASTING

CALCIUM
NT CALCIUM ISOTOPES
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852

CALCIUM CHLORIDES
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148

CALCIUM COMPOUNDS
NT CALCIUM CHLORIDES
NT CALCIUM FLUORIDES
NT CALCIUM OXIDES
NT CALCIUM PHOSPHATES
NT FLUORITE
NT PEROVSKITES
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

CALCIUM FLUORIDES
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

CALCIUM ISOTOPES
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048

CALCIUM OXIDES
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
A study of parameters that influence growth and stability of the (Bi(1-x)Pb(x))2 Sr2Ca2Cu3O(y) phase
[DE92-015187] 02 p0462 N93-11703
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape
[DE92-041314] 05 p1321 N93-16533
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437
Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148

CALCIUM PHOSPHATES
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
Fabrication and properties of Si3N4 with rare earth apatite grain boundary phases
[DE93-005752] 08 p2505 N93-23037

CALCIUM 45
U CALCIUM ISOTOPES

CALCULATION
U COMPUTATION

CALCULUS
NT ASYMPTOTIC SERIES
NT COLLINEARITY
NT CONTINUITY (MATHEMATICS)
NT COPLANARITY
NT DIFFERENTIAL CALCULUS
NT FOURIER SERIES
NT INTEGRAL CALCULUS
NT LIMITS (MATHEMATICS)
NT POWER SERIES
NT PRONY SERIES
NT SERIES (MATHEMATICS)
NT TAYLOR SERIES
NT VECTOR ANALYSIS
NT VORTICITY
A theory of reference graphs in relational databases 03 p0739 N93-13912
A proof of the Church-Rosser theorem and its representation in a logical framework
[AD-A256574] 04 p0942 N93-14268
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077
Strong sequentiality of left-linear overlapping rewriting systems
[CWI-CS-R9146] 05 p1267 N93-16721
Open problems in rewriting
[CWI-CS-R9114] 05 p1267 N93-16727
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
The Lambek calculus enriched with additional connectives
[LP-91-04] 06 p1642 N93-17826
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
Specification and generation of a lambda-calculus environment
[CWI-CS-R9233] 10 p3101 N93-27997
A simple proof of confluence for weakly orthogonal combinatory reduction systems
[CWI-CS-R9234] 10 p3119 N93-27998
The mechanization of lambda calculus
[REPT-92-60] 12 p3805 N93-31499
A single recursion operator is sufficient
[REPT-92-59] 12 p3805 N93-31500
A note on dynamic arrow logic
[LP-92-11] 12 p3788 N93-31532

CALCULUS OF VARIATIONS
Consistent shear constitutive relations for laminated plates 01 p0028 N93-10509
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556

A variational approach for coupled creeping-flow problems 01 p0062 N93-10557
A variational method for finite element stress recovery: Applications in one-dimension 05 p1189 N93-16785
Variational iterative method for the calculation of heat flux and mean energy balance
[INPE-5236-RPQ/648] 06 p1583 N93-19824
Incompressible spectral-element method: Derivation of equations
[NASA-TM-106109] 09 p2708 N93-26554
Finite volume methods constructed by mixed variational formulation. Part 2: Error estimates in discrete energetic norms
[REPT-92-86] 12 p3805 N93-31488
Finite volume methods constructed by mixed variational formulation. Part 1: Description of the discretization technique
[REPT-92-85] 12 p3805 N93-31489

CALDERAS
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356

CALENDARS
Calendar of selected aeronautical and space meetings, July 1991 onwards
[AGARD-CAL-91/2] 06 p1683 N93-19639

CALIBRATING
NT WIND TUNNEL CALIBRATION
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Ground/space co-operation for interferometry 01 p0178 N93-10946
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet 02 p0482 N93-11373
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
EUROMET project no. 231: Uncertainties in mass measurement. NPL's analysis of data from the calibration of weight set NPLW43
[NPL-MOM-107] 02 p0432 N93-11666
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Journal of Research of the National Institute of Standards and Technology, May-June 1992, volume 97, number 3
[PB92-217637] 03 p0698 N93-12805
Radiometric calibration of SAR systems 03 p0564 N93-13055
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment 03 p0752 N93-13469
Electronic triple point cell
[AD-D015374] 03 p0597 N93-13501
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat flux microsensor measurements and calibrations 03 p0599 N93-13665
Determination of the weight average molecular weight of SRM 1480
[PB92-222934] 03 p0553 N93-13785
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument
[AD-A256830] 05 p1166 N93-15688
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
Single and cross hot wire anemometry in incompressible flow
[LR-663] 05 p1167 N93-16280
Calibration of the Aronson 6-DOF robotic platform
[NASA-CR-191856] 05 p1087 N93-16661
Results of the 1992 NASA/JPL Balloon Flight Solar Cell Calibration Program
[NASA-CR-191630] 05 p1197 N93-16698
Calibration of phoswich detectors
[KVI-891] 05 p1169 N93-17404
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
Positioning a camera from a photograph and a scene model
[TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
Calibration of the ARID robot 06 p1552 N93-19394
ARID relative calibration experimental data and analysis 06 p1552 N93-19395
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Experimental evaluation of software-driven digital gain-drift compensation in scintillator gamma ray spectroscopy
[DE93-002623] 06 p1657 N93-19616
High precision navigation for flight testing (AERONAV) 06 p1434 N93-19920
Use of a triaxial laser velocimeter for anemometric calibration on an A340 airbus 06 p1446 N93-19926
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
AMPR/SSMI data comparisons 07 p2005 N93-20081
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
Solar cell calibration by balloon flight 07 p1800 N93-20479
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
Principles and applications of measurement and uncertainty analysis in research and calibration
[DE93-000034] 07 p1907 N93-21251
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
The WAM model and ERS-1 07 p1960 N93-21609
Calibration methods for explosives detectors 07 p1773 N93-21911
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
Position calibration software for the form assessment of complex workpieces
[NPL-DITC-203/92] 08 p2435 N93-22450
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
Icing research tunnel rotating bar calibration measurement system
[NASA-TM-106010] 08 p2303 N93-22598
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-192273] 08 p2554 N93-23096
NIST measurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Standardization work for the calibration of intensities of celestial objects
[NASA-CR-192831] 08 p2543 N93-23502
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
Calibration of a standard transducer using a laser interferometer (TTCP calibration round-robin)
[NRC-34387] 08 p2305 N93-24289
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory 09 p2600 N93-24697
Real-time attitude determination and gyro calibration 09 p2602 N93-24708
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors 09 p2606 N93-24733
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
The scope of DLR's SAR calibration program 09 p2738 N93-24778
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
An atlas of selected calibrated stellar spectra
[NASA-CR-177604] 09 p2888 N93-25135
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
System for calibrating a gyro navigator
[AD-D015668] 09 p2586 N93-26093
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
VETA-I x ray test analysis
[NASA-CR-192321] 09 p2854 N93-26183
Precision of the calibration of the AXAF engineering test article (VETA) mirrors 09 p2855 N93-26189
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I 09 p2855 N93-26191
The x ray reflectivity of the AXAF VETA-I optics 09 p2855 N93-26192
Neural networks for calibration tomography
[NASA-TM-106352] 10 p3045 N93-26906
Calibration of a shock wave position sensor using artificial neural networks
[NASA-TM-106138] 10 p3045 N93-27001
Calibrating the BKW-EOS with a large product species data base and measured C-J properties
[DE93-007606] 10 p3008 N93-28151
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357

Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779
What is the center of the image?
[AD-A263550] 11 p3579 N93-29824
The possible direct use of satellite radiance measurements by the Atmospheric Radiation Measurement Program
[DE93-009819] 11 p3462 N93-30049
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
VLF/LF propagation measurements 11 p3395 N93-30732
Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
The ZEUS uranium calorimeter: Main characteristics and first operating experience
[NIKHEF-H/92-15] 12 p3728 N93-31117
Calibration system for testing laboratory
[VTT-TIED-1401] 12 p3738 N93-31172
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers 12 p3880 N93-31423
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859

CALIFORNIA
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Seismic studies of crustal structure and tectonic evolution across the central California margin and the Colorado Plateau margin 03 p0657 N93-13794
Lithospheric dynamics near plate boundaries
[NASA-CR-192108] 07 p1997 N93-20310
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Geologic structure and processes of the eastern Pacific margin: California and Costa Rica 09 p2771 N93-25424
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861

CALIFORNIUM
NT CALIFORNIUM ISOTOPES

CALIFORNIUM ISOTOPES
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870

CALIFORNIUM 252
U CALIFORNIUM ISOTOPES

CALORIC REQUIREMENTS
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Trial of emergency ration of the Spanish Air Force 12 p3778 N93-32247
The effects of an antijet lag diet 12 p3781 N93-32263

CALORIMETERS
The electron-beam water calorimeter project at the National Physical Laboratory
[NPL-RSA(EXT)-30] 02 p0310 N93-11410
Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
First results from the SLD silicon calorimeters
[DE93-001805] 05 p1167 N93-16219
The first level energy trigger of the L3 experiment/description of the hardware
[NOTA-INTERNA-987] 06 p1659 N93-17937
The electromagnetic calorimeter for the STAR experiment at RHIC
[DE93-002780] 07 p2062 N93-21480
Pyroelectric anemometers and kinetic calorimeters
[PB93-141919] 08 p2303 N93-23230
Compressor calorimeter performance of refrigerant blends: Comparative methods and results for a refrigerator/freezer application
[DE93-006734] 09 p2667 N93-24970
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
The emulsion chamber technology experiment 11 p3268 N93-28743
Measurement of W-Z interference from neutrino-electron scattering
[DE93-010724] 11 p3566 N93-29313

CALORIMETRY
U HEAT MEASUREMENT

CALUTRONS
U CYCLOTRONS

CAM (MANUFACTURING)
U COMPUTER AIDED MANUFACTURING

CAMBER
NT WING CAMBER
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control 09 p2576 N93-25274
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes 11 p3306 N93-30863

CAMBODIA
Report on the international Cambodian crater expedition, 1992 01 p0113 N93-10147

CAMERA SHUTTERS
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
A cryogenic shutter for the VLT NIR camera
[MPE-237] 07 p1906 N93-20855

CAMERA TUBES
NT VIDICONS

CAMERAS
NT FAINT OBJECT CAMERA
NT FRAMING CAMERAS
NT HIGH SPEED CAMERAS
NT MULTISPECTRAL BAND CAMERAS
NT PANORAMIC CAMERAS
NT PINHOLE CAMERAS
NT SCHMIDT CAMERAS
NT STREAK CAMERAS
NT TELEVISION CAMERAS
First results of an imaging FTS with a NICMOS camera 01 p0086 N93-10936
An autonomous vehicle: Constrained test and evaluation
[PB92-205608] 02 p0325 N93-11427
Fuzzy logic control for camera tracking system 02 p0314 N93-11935
Autoguidance video sensor for docking 02 p0230 N93-11954
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
Manned observations technology development, FY 1992 report
[NASA-CR-185704] 03 p0597 N93-13373
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Millisecond readout CCD camera
[DE93-000694] 05 p1167 N93-16359
Advanced imaging system
[NASA-CR-191800] 05 p1303 N93-16712
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
Positioning a camera from a photograph and a scene model
[TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924
Dark-cycle monitoring of biological subjects on Space Station Freedom
[NASA-TM-103976] 06 p1500 N93-19103
Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres 06 p1698 N93-19236
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
A cryogenic shutter for the VLT NIR camera
[MPE-237] 07 p1906 N93-20855
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Video guidance sensor 07 p1812 N93-21409
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Comparison of mapping with different satellite images 08 p2348 N93-23540
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
How to get unlimited observing time on a 4 metre telescope 10 p3171 N93-26707
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029
Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
Binocular spherical disparity: A study in representation for a forward translating camera
[PB93-184422] 11 p3579 N93-29667
What is the center of the image?
[AD-A263550] 11 p3579 N93-29824

Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119

CAMOUFLAGE
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213

CAMS
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Minimum size of disc cams with radial translating roller followers
[ESDU-92005] 06 p1544 N93-17998
Blending profiles of disc cams with radial translating roller followers. Part 1: To reduce segment angle, reduce reference circle radius or increase follower lift
[ESDU-92014] 06 p1545 N93-18041
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378

CANADA
NT BRITISH COLUMBIA
NT MANITOBA
NT ONTARIO
International Conference on Large Meteorite Impacts and Planetary Evolution
[NASA-CR-190677] 01 p0105 N93-10112
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study 01 p0117 N93-10163
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism 01 p0118 N93-10169
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
Aerospace Industries Association of Canada
[CTN-92-60345] 01 p0192 N93-10640
Aerospace Industries Association of Canada
[CTN-92-60590] 01 p0001 N93-10644
Aerospace industry profile, 1990-1991
[CTN-92-60513] 01 p0001 N93-10651
Aerospace and defence-related industries statistical survey report, 1991
[CTN-92-60514] 01 p0002 N93-10652
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
United States/Canada Air Quality Agreement
[PB92-228030] 02 p0356 N93-12525
Space education: A self-perservation strategy for the Canadian space industry 04 p0808 N93-14937
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Temd). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
The Canadian mobile satellite system 08 p2275 N93-23515
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters 08 p2359 N93-23762
Activities of the Institute for Mechanical Engineering
[NRC-33578] 08 p2319 N93-24287
Activities of the Industrial Materials Institute
[NRC-34380] 08 p2207 N93-24288
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733

CANADAIR AIRCRAFT
NT CL-84 AIRCRAFT

CANADAIR CF-104 AIRCRAFT
U F-104 AIRCRAFT

CANADAIR CL-84 AIRCRAFT
U CL-84 AIRCRAFT

CANADIAN SPACE PROGRAM
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
Canada's role in pushing back the frontiers of space 04 p0806 N93-14928
Space education: A self-perservation strategy for the Canadian space industry 04 p0808 N93-14937
Applications of the mobile servicing system to the space exploration initiative 04 p0809 N93-14946
Earth environment space initiative 04 p0811 N93-14953
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Space science overview 07 p1802 N93-21071
Space station user development program: Future prospects 07 p1802 N93-21072
Space life sciences overview 07 p1802 N93-21074
Microgravity science activities in Canada 07 p1803 N93-21075
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
Canadian microgravity experiments flown in 1990-1991 07 p1807 N93-21101
CSAR-1: The first Canadian microgravity sounding rocket flight 07 p1807 N93-21103
Canada's longterm space plan and ISY activities 07 p1819 N93-21284
Canadian Space Agency Space Station Freedom utilization plans 08 p2185 N93-22617
Canadian Earth observation program 08 p2373 N93-23847

CANADIAN SPACECRAFT
NT ALOUETTE SATELLITES
NT ANIK SATELLITES
NT RADARSAT
The Canadian Solar Sail Project 04 p0804 N93-14921
Canadian EHF MILSATCOM research and development project 11 p3362 N93-30264
FASSET: A development model for a Canadian EHF MILSATCOM system 11 p3363 N93-30268

CANARD CONFIGURATIONS
Pitch control trimming system for canard design aircraft
[CA-PATENT-APPL-SN-2013236] 01 p0010 N93-10374
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336
Effect of canard wing positions on aerodynamic characteristics of swept-forward wing
[AD-A262373] 11 p3238 N93-28493

CANCELLATION
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
Issues in requirements elicitation
[AD-A258932] 06 p1627 N93-19448

CANCELLATION CIRCUITS
A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379

CANCER
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
Clinical types of Hepatitis B 02 p0376 N93-11286
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer
[DE93-007183] 08 p2273 N93-24466
Digital mammography, cancer screening: Factors important for image compression 08 p2424 N93-24551
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Measuring the metastatic potential of cancer cells 09 p2794 N93-25566
Immunoconjugates: Magic bullets for cancer therapy? 09 p2796 N93-25567
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568

CANISTERS
U CANS

CANNONS
U GUNS (ORDNANCE)

CANONICAL FORMS
A linear constraint technology for interactive graphic systems 04 p0957 N93-15568
Proof elimination in type theory
[CS-9202] 05 p1278 N93-16351
Open problems in rewriting
[CWI-CS-R9114] 05 p1267 N93-16727
Bose realisation of a noncanonical Heisenberg algebra
[PREPRINT-844] 05 p1269 N93-16958
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
The canonical forms of a lattice rule
[DE93-005686] 08 p2466 N93-22759
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Quantized discrete space oscillators 10 p3146 N93-27349
Algebraic conformal field theory
[NIKHEF-H/91-26] 10 p3128 N93-27507
The method of minimal normal forms — for solving nonlinear differential equations
[DE93-008060] 10 p3118 N93-27627
Integrable symplectic maps
[SSCL-PREPRINT-744] 10 p3122 N93-28387

CANOPIES
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106

CANOPIES (VEGETATION)
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation
[NASA-CR-191886] 05 p1190 N93-16382
A microwave scattering model for layered vegetation 06 p1565 N93-18074
Modeling energy and mass fluxes from prairie canopies
[NASA-CR-191801] 06 p1566 N93-18232
Variational iterative method for the calculation of heat flux and mean energy balance
[INPE-5236-RPQ/648] 06 p1583 N93-19824
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Remote sensing of agricultural vegetation: Status and perspectives 11 p3458 N93-28922
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830

CANS
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374

CANT
U SLOPES

CANTILEVER BEAMS
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials
[NASA-TM-104222] 03 p0532 N93-13428
Vibration damping response of composite materials 03 p0533 N93-13748

Finite elements for free edge delaminations and delaminated anisotropic beams
03 p0535 N93-13967
Green's function method for vibration of structures
07 p1934 N93-20667
Edge delamination of composite laminates
07 p1842 N93-21519
The effects of delamination on the vibrational characteristics of composite structural elements
08 p2210 N93-23202
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
A preliminary structural analysis of space-based inflatable tubular frame structures
10 p3086 N93-27849
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650

CANTILEVER MEMBERS
NT CANTILEVER BEAMS

CANTILEVER WINGS
U WINGS

CANYONS
NT GRAND CANYON (AZ)

CAP CLOUDS
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874

CAPACITANCE
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Measurement of AC electrical characteristics of SSC superconducting dipole magnets
[DE92-018888] 02 p0431 N93-11625
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813
Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473
Capacitive skin characterization
[NASA-CR-191261] 03 p0598 N93-13567
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Driven shielding capacitive proximity sensor
[NASA-CASE-GSC-13377-1] 04 p0962 N93-14701
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
Capacifiector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
Conducting polymers as potential active materials in electrochemical supercapacitors
[DE93-003827] 07 p1861 N93-21675
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598

CAPACITANCE SWITCHES
OSCCAR: Oscillator-compensated with a capacitance array 09 p2693 N93-25002

CAPACITANCE-VOLTAGE CHARACTERISTICS
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Liquid filled variable capacitor
[AD-D015639] 09 p2687 N93-25212
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications
10 p3012 N93-27734
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Method and apparatus for characterizing the quality for electrically thin semiconductor films
[AD-D015734] 12 p3830 N93-32206

CAPACITORS
Development of electrosupercapacitors
[AD-A252208] 01 p0071 N93-10250
Critical technology demonstration of plasma focus type MPD thrusters
[AD-A252428] 01 p0026 N93-10638
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
Capacitive skin characterization
[NASA-CR-191261] 03 p0598 N93-13567
Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13940
Reliability of sol-gel derived ferroelectric memories
[AD-A255358] 04 p0991 N93-14560
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
High energy and high power density ultracapacitors and supercapacitors
[NASA-CASE-NPO-18568-1-CU] 05 p1149 N93-17274
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU] 05 p1150 N93-17277
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU] 06 p1519 N93-18278
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Conducting polymers as potential active materials in electrochemical supercapacitors
[DE93-003827] 07 p1861 N93-21675
High-voltage failure mechanisms in liquid-filled, Fluorinert FC-40, capacitors
[DE93-006286] 08 p2282 N93-23677
Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Liquid filled variable capacitor
[AD-D015639] 09 p2687 N93-25212
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

CAPE KENNEDY LAUNCH COMPLEX
Toxic substances registry system: Index of material safety data sheets
[NASA-TM-108582] 07 p2024 N93-20998
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
Ground Robotic Hand Applications for the Space Program study (GRASP)
[NASA-CR-193571] 12 p3737 N93-32235

CAPILLARY CIRCULATION
U CAPILLARY FLOW

CAPILLARY FLOW
Structure of thermocapillary flow in narrow cavities
01 p0061 N93-10552
Advanced two-phase heat transfer systems
02 p0229 N93-12459
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
Control of thermocapillary convection in a two-layer liquid system 04 p0809 N93-14945
Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Instrumental and theoretical development of capillary electrophoresis and its application to biological systems
[DE93-001220] 05 p1106 N93-17348
Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout
[AD-A258852] 06 p1534 N93-19367
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation
08 p2251 N93-22857
Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process
[NASA-CR-192695] 08 p2252 N93-23122
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems
09 p2700 N93-25472
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
Pulse mitigation and heat transfer enhancement techniques. Volume 5: Transient liquid movement in heat pipe wicks
[AD-A264513] 11 p3426 N93-30403

CAPILLARY TUBES
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography
[ETN-92-92818] 05 p1104 N93-16473
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
A first approximation to the effects of mean flow on sound propagation through cylindrical capillary tubes
[MATHS-REPT-A-181] 12 p3815 N93-31599

CAPILLARY WAVES
NT BAROCLINIC WAVES
NT GRAVITY WAVES
NT RIPPLES
Inexpensive capillary discharge x ray laser driver, phase 1
[AD-A259032] 06 p1542 N93-19372
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
A study of capillary and capillary-gravity wind waves: Their structures, distributions, and energy balances
12 p3771 N93-32215

CAPTIVE TESTS
NT STATIC TESTS

CAPTURE CROSS SECTIONS
U ABSORPTION CROSS SECTIONS

CAPTURE EFFECT
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869

Carrier capture in 3-5 semiconductor quantum wells
[ETN-93-94054] 12 p3828 N93-31620

CARBAMATES (TRADENAME)
NT URETHANES

CARBENES
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653

CARBIDES
NT BORON CARBIDES
NT CHROMIUM CARBIDES
NT NIOBIUM CARBIDES
NT SILICON CARBIDES
NT TANTALUM CARBIDES
NT TITANIUM CARBIDES
NT TUNGSTEN CARBIDES
NT URANIUM CARBIDES
NT ZIRCONIUM CARBIDES

Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

CARBOHYDRATE METABOLISM
NT HYPOGLYCEMIA

Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates
[AD-A262762] 11 p3493 N93-28939
Nutrition, Metabolic Disorders and Lifestyle of Aircrew
[AGARD-CP-533] 12 p3777 N93-32240

CARBOHYDRATES
NT ADENINES
NT CELLULOSE
NT CITRIC ACID
NT GLUCOSE
NT GLYCOGENS
NT MONOSACCHARIDES
NT POLYSACCHARIDES
NT SUGARS
NT XYLOSE

Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB] 08 p2216 N93-22036
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351
Correlation of life-style and dietary concomitants of Greek pilots with serum analytes 12 p3780 N93-32256

CARBON
NT CARBON ISOTOPES
NT CARBON 12
NT CARBON 13
NT CARBON 14

An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils
[DE93-000792] 05 p1293 N93-17381
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966
Ion produced cometary organic crust
06 p1701 N93-19122
The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139
Heliocentric distance dependencies of the C2 lifetime and C2 parent production rate in comet P/Brorsen-Metcalf (1989o)
06 p1711 N93-19195
Carbon petrology in cometary dust
06 p1716 N93-19232
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
[NASA-TM-105943] 08 p2206 N93-22586
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae
08 p2547 N93-23208
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates
08 p2395 N93-23493
Plasma treatment of glass surfaces
[AD-D015619] 08 p2241 N93-24229
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188

CARBON COMPOUNDS
NT BORON CARBIDES
NT CARBIDES
NT CARBON DIOXIDE
NT CARBON DISULFIDE
NT CARBON MONOXIDE
NT CARBON TETRACHLORIDE
NT CARBON TETRAFLUORIDE
NT CARBONATES
NT CHLOROCARBONS
NT CHROMIUM CARBIDES
NT DOLOMITE (MINERAL)
NT FLUOROCARBONS
NT HALOCARBONS
NT NIOBIUM CARBIDES
NT POLYCARBONATES
NT SILICON CARBIDES
NT TANTALUM CARBIDES
NT TITANIUM CARBIDES
NT TUNGSTEN CARBIDES
NT URANIUM CARBIDES
NT ZIRCONIUM CARBIDES

Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals
06 p1708 N93-19173
Fullerenes formation in flames
07 p1853 N93-20187
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372

CARBON CYCLE
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California
[DE92-019172] 02 p0373 N93-11734
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Earth observation in the TIGER programme of the UK Natural Environment Research Council
07 p1953 N93-21572
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860

The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366] 08 p2389 N93-24089
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056

CARBON DIOXIDE
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE92-011856] 01 p0128 N93-10621
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance 04 p1047 N93-14918
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
Natural and anthropogenic climate change
[DE93-000898] 05 p1200 N93-16162
Measurements of carbon dioxide in the Southern Ocean along the WOCE S-4 section
[DE92-040334] 05 p1220 N93-16294
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Radiation properties of high-temperature flames 06 p1485 N93-18477
Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances 06 p1717 N93-19240
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Condensation phase of the Martian south polar cap 06 p1740 N93-19804
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
Evolution of the Martian atmosphere: The role of the polar caps 06 p1741 N93-19809
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain 06 p1741 N93-19811
Is CO2 ice permanent? 06 p1742 N93-19813
Dust transport into Martian polar latitudes 06 p1742 N93-19815
Screening analysis of CO2 utilization and fixation
[DE93-004313] 07 p1994 N93-21850
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
Investigation and study scenarios to introduce CO2 fixation technologies in the energy sector
[DE93-761912] 08 p2378 N93-22958
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
On the cold start problem in transient simulations with coupled atmosphere-ocean models
[MPIM-83] 08 p2397 N93-23859
The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Trend survey of the global environment adaptation type industry technology
[DE93-781442] 10 p3066 N93-28435
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
A preliminary review of global CO2 exchange between ocean and atmosphere
[AD-A264019] 11 p3472 N93-30015
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Total CO2 and nitrate measurements in the southwest pacific during austral autumn, 1990
[PB93-188415] 12 p3769 N93-31333
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959

CARBON DIOXIDE CONCENTRATION
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
Climate sensitivity study with energy balance models 03 p0666 N93-13817
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Forward model and CO retrieval algorithm
[NASA-CR-191306] 06 p1620 N93-18414
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
A 2 x CO2 experiment with prescribed changes in sea surface temperature 07 p1958 N93-21598
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Mars brine formation experiment 12 p3864 N93-31949

CARBON DIOXIDE LASERS
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4528] 02 p0315 N93-11388
A study of the CO2 laser near threshold 02 p0316 N93-11720
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Development summary of a sympathetic discharge CO2 laser for lidar use
[NASA-CR-184433] 02 p0323 N93-12516
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656

CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
Phase conjugation using CO2 lasers
03 p0607 N93-13812
A study of small solid-state switched TEA CO2 lasers
03 p0607 N93-13814
Results of the laser sensor technology transition investigation
[AD-A255845] 03 p0608 N93-14085
The dynamics of spatially extended lasers
04 p0883 N93-14123
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
High power picosecond CO2 laser system for ATF electron accelerator project
[DE92-040497] 05 p1171 N93-15832
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Computer modeling of pulsed CO2 lasers for lidar applications
07 p1913 N93-20106
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Construction and operation of a gas transport CO2 laser
[AD-A263102] 11 p3438 N93-29797
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

CARBON DIOXIDE REMOVAL
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860
Technologies for ECLSS evolution
10 p2965 N93-27720
JSC ECLSS R/T program overview
10 p2966 N93-27725
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Preliminary study on costs needed for solution of the global environmental problem
[DE93-768474] 12 p3754 N93-32039

CARBON DISULFIDE
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy
11 p3318 N93-30073
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101

CARBON FIBER REINFORCED PLASTICS
NT CARBON-PHENOLIC COMPOSITES
Scanning electron microscopy of the effects of moisture and elevated temperature on the fibre/matrix bond in CFRP
[RAE-TM-MAT/STR-1183] 02 p0240 N93-11905
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
Fracture/damage mechanics of composites: Static and fatigue properties
[DLR-MITT-92-03] 04 p0835 N93-15075
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core
05 p1082 N93-15759
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure
05 p1084 N93-15775
Experiences with large CFRP-radiotelescope reflectors
05 p1084 N93-15777
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
A literature survey on the fatigue behaviour of hybrid composites
[NLR-TP-91345-U] 05 p1099 N93-17541
Manufacturing and inspection of artificial delaminations in composite materials
[NLR-TP-91085-U] 05 p1099 N93-17582
Creep damage of carbon fiber reinforced PEEK
07 p1862 N93-20639
Creep of PEEK-graphite fibre composite material
07 p1930 N93-20644
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
Knitted carbon fiber reinforced thermoplastics: Structural characterization with image analysis
07 p1839 N93-21163
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
[MBB-FE-221-S-PUB-0483] 07 p1840 N93-21462
Debonding/Delamination of Composites
[AGARD-CP-530] 07 p1840 N93-21507
GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations
07 p1841 N93-21513
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Delamination development under fatigue loading
07 p1842 N93-21521
Mode 2 damage development in carbon fibre reinforced plastics 07 p1842 N93-21523
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
07 p1844 N93-21531
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use
07 p1844 N93-21534
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Experimental investigation of consolidation of thermoplastic tape using laser energy
08 p2212 N93-23944
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
Composite laminated bend analysis and experiments
10 p2921 N93-27181
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044
GARTEUR compression behaviour of advanced CFRP
[NLR-TP-91290-U] 12 p3701 N93-32202
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

CARBON FIBERS
Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading
[NPL-DMM(A)-47] 02 p0266 N93-11397
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center
02 p0228 N93-12455
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials
[NASA-TM-104222] 03 p0532 N93-13428
Polymer infiltration studies
[NASA-CR-191652] 04 p0852 N93-15431
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites
[AD-A256826] 05 p1096 N93-15705
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
Recent developments of carbon fiber in Japan
[MTL-TR-92-48] 05 p1098 N93-16591
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
Heat transfer device
[NASA-CASE-LEW-14162-4] 07 p1832 N93-20568
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133
Near net shape knitting of fiber glass and carbon for composites 07 p1836 N93-21145
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150
Activated carbon fibers in composites, chemically protective clothing and air purification
07 p1837 N93-21152
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe
07 p1838 N93-21160
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A]
07 p1783 N93-21401
Finite element analysis of a composite artificial ankle
08 p2423 N93-22189
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 08 p2210 N93-23719
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Zoning of aircraft by electric field modelling
09 p2583 N93-24894
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
The corrosion of metal matrix composites
09 p2638 N93-25723
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
A photovoltaic catenary-tent array for the Martian surface
[NASA-CR-191144] 10 p2976 N93-26703
Fiber shape effects on metal matrix composite behavior
[NASA-TM-106067] 10 p2989 N93-26704
Apparatus for intercalating large quantities of fibrous structures
[NASA-CASE-LEW-15077-2] 11 p3298 N93-29609
Powder towpreg process development
11 p3303 N93-30844
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847

Characterization of multiaxial warp knit composites
11 p3304 N93-30851
Method for producing hybrid graphite composite
[NASA-CASE-LEW-15241-2] 12 p3700 N93-31296
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428

CARBON ISOTOPES
NT CARBON 12
NT CARBON 13
NT CARBON 14
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana
01 p0122 N93-10191
Isotopic composition of galactic cosmic ray boron, carbon, nitrogen, and oxygen 04 p1020 N93-14866
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485

CARBON MONOXIDE
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
Molecular clouds in the distant outer galaxy
03 p0758 N93-14095
The isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
04 p0913 N93-14207
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances
06 p1717 N93-19240
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
The generation of carbon monoxide in compartment fires 08 p2117 N93-23093
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
The case of missing CO-13 in mergers
10 p3189 N93-26819
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
Variations of time-to-incapacitation and carboxyhemoglobin values in rats exposed to two carbon monoxide concentrations
[DOT/FAA/AM-93/7] 10 p3082 N93-27152
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Vibrational spectroscopy of shock-compressed fluids
11 p3318 N93-30072
Submillimeter CO observations of warm gas around T-Tauri stars
[MPE-PREPRINT-232] 11 p3631 N93-30615
CO lines toward NGC 2024 and other star forming regions: A closer look at the warm gas component
[MPE-PREPRINT-223] 11 p3637 N93-30639
Carbon monoxide exposure of subjects with documented cardiac arrhythmias
[PB93-179943] 11 p3497 N93-30890
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9
[ETN-93-94203] 12 p3851 N93-31050
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085

CARBON MONOXIDE POISONING
Variations of time-to-incapacitation and carboxyhemoglobin values in rats exposed to two carbon monoxide concentrations
[DOT/FAA/AM-93/7] 10 p3082 N93-27152

CARBON STARS
A study of the abundance distributions along the minor axis of the Galactic bulge 04 p1015 N93-14136
Faint high-latitude carbon stars
04 p1019 N93-14638
Radial velocity measurements of carbon stars
09 p2895 N93-25713

CARBON STEELS
NT LOW CARBON STEELS
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel
07 p1950 N93-21335
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102

CARBON TETRACHLORIDE
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309

CARBON TETRAFLUORIDE
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Global warming potential for CF4
[DE93-005740] 09 p2762 N93-25146

CARBON 12
Evidence for alpha-particle chain configurations in Mg-24
[DE92-018790] 03 p0705 N93-13546

CARBON 13
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834
C-13 solid-state NMR study of ethylene oxidation over supported silver catalysts
[DE92-040584] 05 p1102 N93-16016
The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta*-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454
NMR study of triazone compound formation
07 p1839 N93-21165
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
The case of missing CO-13 in mergers
10 p3189 N93-26819
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568

CARBON 14
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950

CARBON-CARBON COMPOSITES
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
High temperature oxidation protection of carbon/carbon composites
[REPT-921-430-105] 02 p0239 N93-11589
Aerospatiale processes for three dimensional preforms
[REPT-921-430-147] 02 p0239 N93-11590
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Predicted and tested performance of durable TPS
02 p0228 N93-12454
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center
02 p0228 N93-12455
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites
[AD-A256826] 05 p1096 N93-15705
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 2: Reliability and failure analyses of 2-D carbon-carbon structural components
[AD-A257460] 05 p1089 N93-15838
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 1: Experimental determination of mechanical properties for a carbon-carbon composite
[AD-A257459] 05 p1090 N93-16010
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
Research on heat-resistance technology for HOPE
07 p1791 N93-20426
Traction and shearing dynamics of a three dimensional carbon/carbon composite
[REPT-921-430-109] 07 p1833 N93-20931
Carbon/carbon and ceramic composites made by Aerospatiale
[REPT-921-430-106] 07 p1840 N93-21457
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads
09 p2726 N93-25533

Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry [AD-A260794] 09 p2639 N93-25918
Exploration of multilayer concepts for oxidation protection of carbon-carbon composites [AD-A262380] 10 p2991 N93-27653
Joining carbon composite fins to titanium heat pipes [AD-A261970] 10 p2991 N93-27667
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites [AD-A262102] 10 p2991 N93-27672
Method for producing hybrid graphite composite [NASA-CASE-LEW-15241-2] 12 p3700 N93-31296

CARBON-PHENOLIC COMPOSITES
Nuclear thermal rocket entry heating and thermal response preliminary analysis [DE93-002460] 07 p1830 N93-21728

CARBONACEOUS CHONDRITES
NT MURCHISON METEORITE
Asteroid search program 03 p0514 N93-13550
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Fragmentation and densities of meteoroids 06 p1700 N93-19118
Volatiles in interplanetary dust particles: A comparison with CI and CM chondrites 09 p2896 N93-26062
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360

CARBONACEOUS MATERIALS
NT GRAPHITE
NT PYROLYTIC GRAPHITE
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories [AD-A249131] 02 p0241 N93-12054
Cosmic dust 06 p1592 N93-18554
Ion produced cometary organic crust 06 p1701 N93-19122

CARBONACEOUS METEORITES
NT CARBONACEOUS CHONDRITES
NT MURCHISON METEORITE

CARBONACEOUS ROCKS
NT COAL

CARBONATES
NT DOLOMITE (MINERAL)
NT POLYCARBONATES
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes [AD-A254817] 03 p0545 N93-12754
Oxygen electrode reaction in molten carbonate fuel cells [DE92-040180] 03 p0636 N93-12812
Understanding of carbonate fuel cell resistance issues for performance improvement [DE92-019976] 03 p0638 N93-13039
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C [AD-A253606] 03 p0537 N93-13096
Effects of coal-derived trace species on performance of molten carbonate fuel cells [DE93-000203] 03 p0639 N93-13427
An update of ERC's carbonate fuel cell development program [DE92-019971] 03 p0640 N93-13621
Simulated coal-gas-fueled molten carbonate fuel cell development program [DE93-000205] 06 p1570 N93-18527
The cyclic carbonates of the Latemar Massif: Evidence for the orbital forcing of a carbonate platform during the Middle Triassic 06 p1582 N93-18976
Integration of carbonate fuel cells with advanced coal gasification systems [DE93-003485] 06 p1572 N93-19622
Gasifiers optimized for fuel cell applications [DE93-003486] 07 p1988 N93-21781
Non-proprietary stack research [DE93-007523] 08 p2376 N93-22535
Mars brine formation experiment 12 p3864 N93-31949
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959
Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites 12 p3867 N93-31962

CARBONIC ACID
Possible recent and ancient glacial ice flow in the south polar region of Mars 06 p1742 N93-19812

CARBONIC ANHYDRASE
Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments [ITN-93-85183] 05 p1105 N93-16854

CARBONYL COMPOUNDS
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics [AD-A250930] 01 p0088 N93-10247
Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces [AD-A252544] 02 p0250 N93-11808
Biological conversion of synthesis gas culture development [DE92-001279] 02 p0375 N93-12482
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C [AD-A253606] 03 p0537 N93-13096
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
NASA Space Engineering Research Center for utilization of local planetary resources [NASA-CR-191989] 07 p1850 N93-21564
Processable precursors to high performance liquid crystalline polymers [AD-A260466] 08 p2240 N93-24116
A novel process for methanol synthesis [DE93-008037] 09 p2659 N93-25118
The structure and energetics of Cr(CO)6 and Cr(CO)5 [NASA-CR-192889] 09 p2848 N93-25450

CARBORANE
Electronically active cyclocarborane-metal-arene assemblies [AD-A256288] 04 p0865 N93-14457
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites [AD-A256826] 05 p1096 N93-15705

CARBOXYHEMOGLOBIN
Carboxyalkylated hemoglobin as a potential blood substitute [AD-A252329] 02 p0384 N93-11561
Carbon monoxide exposure of subjects with documented cardiac arrhythmias [PB93-179943] 11 p3497 N93-30890

CARBOXYL GROUP
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges [AD-A261230] 09 p2851 N93-26518

CARBOXYLATES
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver [DE93-002526] 05 p1126 N93-17467

CARBOXYLATION
Morphological analysis of ionomers [DE92-040162] 04 p0852 N93-15415
A novel process for methanol synthesis [DE93-013070] 11 p3314 N93-30188

CARBOXYLIC ACIDS
NT ACETIC ACID
NT CITRIC ACID
NT DICARBOXYLIC ACIDS
NT FORMIC ACID
NT LACTIC ACID
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver [DE93-002526] 05 p1126 N93-17467
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST) [NASA-CR-192976] 09 p2763 N93-25287
Energetic materials from cubane [AD-A261317] 09 p2662 N93-26308

CARBURIZING
Growth, characterization and device development in monocrystalline diamond films [AD-A256283] 04 p0994 N93-15244

CARCINOGENS
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system 06 p1496 N93-19402
The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer [DE93-007183] 08 p2273 N93-24466
Gene transcription and electromagnetic fields [DE93-010854] 11 p3490 N93-28848

CARCINOMA
U CANCER

CARDIAC OUTPUT
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men [NASA-TM-103949] 02 p0374 N93-12014

CARDIOGRAPHY
NT ELECTROCARDIOGRAPHY
NT MAGNETOCARDIOGRAPHY
Cardiovascular stress test with non-invasive techniques 08 p2165 N93-24399

CARDIOLOGY
Nonlinear dynamics research in the former Soviet Union [PB93-146496] 08 p2333 N93-24571

CARDIOVASCULAR SYSTEM
NT HEART
NT MYOCARDIUM
Metabolic factors influencing myocardial recovery from acidosis (CiC3) [AD-A252376] 01 p0132 N93-10796
Assessment of programs in space biology and medicine [NASA-CR-190930] 03 p0672 N93-13327
AFRRI Reports --- Radiobiology [AD-A257231] 05 p1221 N93-15965
Nifedipine for treatment of high altitude pulmonary edema [AD-A256959] 05 p1225 N93-16187
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin [AD-A258185] 06 p1595 N93-17900
A review of models of the human temperature regulation system [AD-A258023] 06 p1595 N93-17918
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990 [NASA-CR-4475] 06 p1598 N93-18376
Cardiopulmonary discipline science plan [NASA-TM-108040] 06 p1599 N93-19648
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise [NASA-TM-103942] 09 p2795 N93-26133
The physiological limitations of man in the high G environment 11 p3503 N93-28861
Lipodystrophies in the French military flight crew 12 p3774 N93-32249
Blood lipids in aircrew recruits and in RAF aviators 12 p3774 N93-32251
Cardiovascular risk factors in an Italian Air Force population: Preliminary report 12 p3775 N93-32252
Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces 12 p3775 N93-32254
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces 12 p3781 N93-32260

CARDS
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583
A novel method for characterization of superconductors: Physical measurements and modeling of thin films 09 p2871 N93-25584

CARGO
NT AIR CARGO
NT BAGGAGE
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989 [PB92-910402] 02 p0204 N93-12193
Beamed energy propulsion 05 p1095 N93-16917
NASA Automated Rendezvous and Capture Review. Executive summary [NASA-TM-108597] 07 p1812 N93-21407
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom 08 p2140 N93-22252
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307

CARGO AIRCRAFT
NT C-130 AIRCRAFT
NT C-135 AIRCRAFT
NT C-160 AIRCRAFT
Hermes CX-7: Air transport system design simulation [NASA-CR-192082] 06 p1437 N93-18056
Arrow 227: Air transport system design simulation [NASA-CR-192053] 06 p1437 N93-18063
JEFF: Air transport system design simulation [NASA-CR-192069] 06 p1439 N93-18350

Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035

CARGO SPACECRAFT
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
Collision avoidance for CTV: Requirements and capabilities 07 p1817 N93-21437
On-orbit operational scenarios, tools, and techniques 07 p1817 N93-21442
Cargo vehicle architecture options 08 p2172 N93-22082
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
The 100-500 kWe NEP systems 10 p2983 N93-26984
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758

CARIBBEAN REGION
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928

CARIBBEAN SEA
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534

CARNOT CYCLE
Reversible thermodynamic cycle for AMTEC power conversion
[DE92-016814] 03 p0571 N93-13197
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet
[DE93-000448] 05 p1134 N93-15896

CARRIER DENSITY (SOLID STATE)
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors 03 p0725 N93-13844
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561

CARRIER FREQUENCIES
Structure and utility of blind speed intervals associated with Doppler measurements of range rate
[DOT/FAA/CT-TN92/27] 08 p2122 N93-23063
Irregular media effects on radiowave signals used in navigation and positioning systems 08 p2266 N93-23606
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279

CARRIER INJECTION
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles 09 p2693 N93-24903

CARRIER MOBILITY
NT ELECTRON MOBILITY
NT HOLE MOBILITY
Minority carrier transport in heavily doped silicon
[ETN-92-92527] 05 p1327 N93-17563
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514

CARRIER MODULATION
U MODULATION

CARRIER ROCKETS
U LAUNCH VEHICLES

CARRIER SYSTEMS
U WIRELESS COMMUNICATION

CARRIER TRANSPORT (SOLID STATE)
Transport in heterostructures and device in microwave and millimeter wave regimes
[AD-A255975] 04 p0858 N93-14408
Basic studies of 3-5 high efficiency cell components
[DE92-010563] 08 p2382 N93-24432
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002

CARRIER WAVES
GPS azimuth determination using short baseline carrier wave interferometry
[AD-A254257] 01 p0006 N93-10265
Carrier wave signals interfering with Loran-C
[ETN-92-92528] 05 p1059 N93-17584
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
The use of subcarriers in future DSN missions 06 p1507 N93-18915
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier 11 p3386 N93-29599

CARRINGTON ROTATION
U SOLAR ROTATION

CARTAN SPACE
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810

CARTESIAN COORDINATES
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273
Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
Variational nodal solution algorithms for multigroup criticality problems
[DE93-003462] 07 p2042 N93-21964
Differential small displacements and rotation extensions in three dimensional coordinate systems
[SER-B-295] 12 p3804 N93-31338
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

CARTILAGE
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747

CARTOGRAPHY
U MAPPING

CARTRIDGE ACTUATED DEVICES
U ACTUATORS
U EXPLOSIVE DEVICES

CARTRIDGES
Mechanical shielding for electric primer
[AD-D015417] 04 p0860 N93-14889
Network accessible multi-terabyte archive 05 p1354 N93-16326
Determination of pyrotechnic functional margin 07 p1863 N93-20134
Development of a NASA standard gas generator 07 p1863 N93-20135
The redwood project: An overview 12 p3841 N93-31979

CASCADE FLOW
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
An experimental investigation into flow induced acoustic resonances in an annular cascade
[PNR-90959] 02 p0433 N93-11322
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Cascade processes and fully developed turbulence 03 p0591 N93-13901
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543
Problems on numerical analysis relating to gas turbines
[DE93-753796] 08 p2130 N93-24002
Measurement and prediction of tip-clearance effects in a linear turbine cascade
[ISBN-0-315-68826-2] 08 p2130 N93-24176
Flow and heat transfer experiments in the turbine airfoil/endwall region 09 p2704 N93-25725
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968

CASCADES
Cascaded convolutional codes 06 p1458 N93-19429
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936

CASCADES (FLUID DYNAMICS)
U FLUID DYNAMICS

CASCODE MOSFET
U FIELD EFFECT TRANSISTORS

CASE BONDED PROPELLANTS
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008

CASE HISTORIES
Selected case studies of technology transfer from mission-oriented applied research
[DE92-018957] 02 p0481 N93-12067
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring 11 p3289 N93-29570
Technology transfer in the NASA Ames Advanced Life Support Division 11 p3628 N93-30724

CASES (CONTAINERS)
NT ROCKET ENGINE CASES
Sample container technology 05 p1078 N93-15728

CASING
Design and performance of nozzle-less volute casings for inward flow radial turbines 09 p2593 N93-25471

CASSEGRAIN ANTENNAS
A note on the computation of antenna-blocking shadows 11 p3385 N93-29593
A dual polarized broadband multifrequency Earth station feed 11 p3371 N93-30319

CASSEGRAIN OPTICS
Miniaturized Cassegrainian solar array development 10 p2968 N93-27808
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035

CASSINI MISSION
Cassini: Mission to Saturn and Titan 06 p1592 N93-18559
The comet rendezvous asteroid flyby mission 06 p1720 N93-19260
GPHS-RTGs in support of the Cassini mission
[DE93-002035] 07 p1825 N93-21702
Cassini/Huygens: A mission to Saturn and Titan 08 p2539 N93-23918
Data compression for the Cassini radio and plasma wave instrument 08 p2432 N93-24555
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660

CAST ALLOYS
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Design and development of Ni-base superalloy and Ti alloys
[NRIM-SR-92-01] 02 p0261 N93-12322
Magnetic hardening studies and novel techniques for preparation of high performance magnets
[AD-A254761] 03 p0698 N93-12865
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
On the drag of model dendrite fragments at low Reynolds number
[NASA-TM-105916] 07 p1855 N93-19974
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773

Material analysis of austempered ductile iron
[AD-A261953] 10 p3000 N93-27921
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646

CASTING
NT CENTRIFUGAL CASTING
NT INVESTMENT CASTING
NT PROPELLANT CASTING
NT SAND CASTING
NT SLIP CASTING
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Method of producing Bi-Sr-Ca-Cu-O superconducting materials in cast form
[AD-D015532] 07 p2080 N93-20777
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852
Development of resins for composites by resin transfer molding 11 p3305 N93-30853
Mechanical and analytical screening of braided composites for transport fuselage applications
11 p3305 N93-30855
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646

CASTING SOLVENTS
U PLASTICIZERS

CASTINGS
NT INGOTS
NT PROPELLANT CASTING
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Fatigue assessment of a cast component for a timber crane 07 p1924 N93-20353
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Indigenous lunar construction materials
09 p2670 N93-26413
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192

CASTS
Indigenous lunar construction materials
09 p2670 N93-26413

CASUALTIES
World Data Center A for Solid Earth Geophysics. Catalog of significant earthquakes 2150 B.C.-1991 A.D. including quantitative casualties and damage
[PB93-118198] 07 p2000 N93-21693

CAT SCANNER
U COMPUTER AIDED TOMOGRAPHY

CATACLYSMIC VARIABLES
Disc structure and variability in dwarf novae
04 p1017 N93-14460
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
Origin and evolution of cataclysmic variables
09 p2893 N93-25245
Radial velocity studies of the secondary in cataclysmic variables 09 p2888 N93-25286
IUE observations of cataclysmic variable
[NASA-CR-193188] 11 p3629 N93-28634

CATALOGS
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Computer security training and awareness course compendium
[PB92-205442] 02 p0404 N93-11258
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065

CATALOGS (PUBLICATIONS)
NT ASTRONOMICAL CATALOGS
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
A catalog of moderately distant galaxy clusters
03 p0749 N93-13011
Composites: A catalogue of books and conference proceedings available in the NAL library
[NAL-SP-IC-9201] 03 p0737 N93-13368
Facilities and capabilities catalog for landing and escape systems
[NASA-RP-1282] 04 p0814 N93-14495
Source header list. Volume 2: K through Z
[AD-A256001] 04 p1007 N93-15112
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
TRADOC Library and Information Network (TRALINET). Union list of periodicals (TULIP)
[AD-A258935] 06 p1688 N93-19451
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Pyrotechnically actuated systems database and applications catalog 07 p1864 N93-20136
Satellite situation report, volume 32, no. 4
[NASA-TM-108203] 07 p1824 N93-20999
Publications of the National Institute of Standards and Technology 1991 catalog
[PB92-217579] 07 p2091 N93-21344
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
World Data Center A for Solid Earth Geophysics. Catalog of significant earthquakes 2150 B.C.-1991 A.D. including quantitative casualties and damage
[PB93-118198] 07 p2000 N93-21693
Department of Energy new technology
[DE92-041170] 08 p2522 N93-22058
COSMIC software catalog, 1993
[NASA-CR-191005] 08 p2434 N93-22205
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Publications Office of Science and Technology: Catalog
[PB93-152577] 08 p2529 N93-24560
NASA scientific and technical publications: A catalog of special publications, reference publications, conference publications, and technical papers, 1991-1992
[NASA-SP-7063(06)] 08 p2529 N93-24654
A revised and expanded catalogue of mass ejections observed by the Solar Maximum Mission coronagraph
[NASA-CR-193146] 09 p2899 N93-26556
Space Station Freedom biomedical monitoring and countermeasures: Biomedical facility hardware catalog
[NASA-CR-193156] 10 p3081 N93-26700
NASA SBIR product catalog, 1990
[NASA-TM-105103] 10 p3163 N93-27028
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
NASA SBIR product catalog, 1991
[NASA-TM-108080] 10 p3163 N93-27591
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
Publication catalogue of VTT in 1991
[VTT-TIED-1340] 12 p3838 N93-31535

CATALYSIS
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Selective carbon oxygen bond scission during reactions of oxygenates on single crystal catalysts
[DE92-018687] 02 p0247 N93-11439
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
Homogeneous-heterogeneous combustion: Thermal and chemical coupling
[DE93-002881] 05 p1100 N93-15840
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Kinetics and dynamics of reacting systems
[AD-A264046] 11 p3313 N93-30030
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435

CATALYSTS
NT ELECTROCATALYSTS
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082

NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
A novel process for methanol synthesis
[DE92-019719] 03 p0539 N93-13617
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
C-13 solid-state NMR study of ethylene oxidation over supported silver catalysts
[DE92-040584] 05 p1102 N93-16016
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539
Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021
Atomic oxygen protective coating with resistance to undercutting at defect sites
[NASA-CASE-LEW-15306-1] 07 p1859 N93-20566
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Direct catalytic decomposition of nitric oxide
[DE93-008107] 08 p2389 N93-24515
Design of a high activity and selectivity alcohol catalyst
[DE93-008100] 08 p2225 N93-24575
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Design of a high activity and selectivity alcohol catalyst
[DE93-008101] 09 p2659 N93-25111
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Probe molecule studies: Active species in alcohol synthesis
[DE93-008097] 09 p2659 N93-25119
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Probe molecule studies: Active species in alcohol synthesis
[DE93-009685] 10 p2993 N93-26616
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Development of vanadium-phosphate catalysts for methanol production by selective oxidation of methane
[DE93-012568] 10 p2996 N93-28374
Method for retarding oxidation of an organic substrate
[NASA-CASE-LEW-15306-2] 10 p3006 N93-28425
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435

CATALYTIC ACTIVITY
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761

CATARACTS
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593

CATCHMENT AREAS
U WATERSHEDS

CATECHOLAMINE
NT NOREPINEPHRINE

CATEGORIES
Compactness and Loewenheim-Skolem properties in pre-institution categories
[MEMO-INF-92-27] 04 p0968 N93-15094
Congruences and quotients in categories of algebras
[RUU-CS-92-23] 10 p3120 N93-28064
Information systems as coalgebras
[ML-92-08] 12 p3838 N93-31481

CATHETERIZATION
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259

CATHODE RAY TUBES
NT PICTURE TUBES
The locator system for wandering individuals
[NASA-TM-104754] 02 p0388 N93-11649
Field-emitter arrays for RF vacuum microelectronics
[AD-A258211] 06 p1518 N93-18203
Emerging large-screen display technology
[AD-A261066] 09 p2681 N93-26241
Low-cost helmet-mounted displays
[AD-A262616] 11 p3501 N93-28479

CATHODES
NT CELL CATHODES
NT HOLLOW CATHODES
NT HOT CATHODES
NT PHOTOCATHODES
NT THERMIONIC CATHODES
NT TUBE CATHODES
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
Lithium rechargeable cell with a poly 3-methylthiophene cathode
[AD-A255436] 04 p0866 N93-14552
Arc-cathode interaction study
[NASA-CR-191356] 04 p0867 N93-14721
Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Cathodes for molten-salt batteries 07 p1987 N93-20525
Pyrite cathode material for a thermal battery
[AD-D015600] 07 p1891 N93-20792
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
Reversible potassium vanadium bronze cathodes (K(x)V6O(13+y)) with various potassium to vanadium ratios
[CTN-93-60709] 08 p2285 N93-24291
DARPA advanced high current density cathodes for defense applications: Development phase
[AD-A261949] 10 p3032 N93-27919
Field-emitter arrays for RF vacuum microelectronics
[AD-A262677] 11 p3404 N93-28483
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188

CATHODIC COATINGS
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597

CATHODOLUMINESCENCE
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
Method and apparatus for a high resolution, flat panel cathodoluminescent display screen
[AD-D015400] 04 p0868 N93-15107
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892

Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292

CATIONS

Alternative materials for solid oxide fuel cells: Factors affecting air-sintering of chromite interconnections [DE92-019356] 03 p0638 N93-13082

Fundamental studies of passivity and passivity breakdown [DE93-002747] 05 p1108 N93-17762

Poly(ethylene oxide)-based Zn(2) halide electrolytes [AD-A258331] 06 p1492 N93-18157

Cation production and reactions induced by electron impact on tetraethoxysilane [AD-A258830] 06 p1675 N93-19064

Novel gas phase ion molecule reactions of C60(++) with O2 [AD-A262821] 10 p3136 N93-28225

Synthesis and properties of a cation-conducting, high temperature polymer electrolyte [AD-A263557] 11 p3334 N93-29825

CATV

U CABLE TELEVISION

CAUCHY PROBLEM

A three dimensional high resolution upwind finite volume Euler solver [VKI-TN-180] 02 p0198 N93-11686

Hyperbolic conservation laws with umbilic points, 1 [AD-A254431] 03 p0696 N93-12594

Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884

A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions [PREPRINT-851] 05 p1270 N93-17071

Comparing the theory of representations and constructing mathematics [ML-92-01] 06 p1644 N93-17913

Infinite relativistic Toda lattice: Scattering problem and canonical structure [PREPRINT-785] 06 p1645 N93-18187

Self-similar fluid dynamic limits for the Broadwell system [AD-A257950] 06 p1527 N93-18215

On homogeneous quasilinear evolution equation [REPT-91-65] 07 p2052 N93-20854

Activity report [AD-A261933] 09 p2829 N93-26199

Godunov-type schemes applied to detonation flows [NASA-CR-191447] 10 p2929 N93-27090

A Riemann problem for an elastic bar that changes phase [AD-A262827] 11 p3452 N93-29432

Quantum field theory in spaces with closed time-like curves [DE93-010564] 11 p3605 N93-30481

CAUCHY-RIEMANN EQUATIONS

Difference approximations for hyperbolic conservation laws and consistency with characteristics [NAL-TR-1098T] 02 p0428 N93-12350

CAUSTICS

U ALKALIES

CAUSTICS (OPTICS)

Dynamic measurement of the J integral in ductile metals using the optical method of caustics 01 p0049 N93-10492

CAVES

Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447

CAVITATION

U CAVITATION FLOW

CAVITATION FLOW

Characteristics of separated flows including cavitation effects 01 p0084 N93-10874

Pressure and noise induced by a cavitating marine screw propeller [VTT-PUBS-87] 02 p0299 N93-11360

Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.) [ESDU-92037] 05 p1177 N93-16528

Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets [NASA-CR-191222] 05 p1104 N93-16647

Experimental investigations of radial loads induced by partial cavitation with the LH2 Vulcain inducer [ETN-93-93023] 06 p1525 N93-18094

Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics [AD-A258938] 06 p1652 N93-19082

Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307

Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400

Integrating real-time digital signal processing capability into a large research and development facility [DE93-003085] 07 p2060 N93-21957

Visible spectrum of stable sonoluminescence [AD-A262096] 10 p3032 N93-28188

CAVITIES

Advanced transport systems for electron beams in high-brightness accelerators and FEL's [AD-A253314] 01 p0088 N93-10286

Failure processes in elastomeric composites 01 p0046 N93-10475

Non-propulsive aerodynamic noise 01 p0149 N93-10673

A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite [NASA-TM-105780] 02 p0333 N93-10967

Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems [ISBN-0-315-64278-5] 02 p0298 N93-11241

10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems [AD-A253246] 02 p0290 N93-11504

Navier-Stokes simulations of unsteady transonic flow phenomena [NASA-TM-103962] 03 p0491 N93-12721

Heat transfer in a liquid metal crucible with an integral blackbody cavity [DE92-019640] 03 p0576 N93-12825

Damping the (pi)-mode instability in the SLC damping rings with a passive cavity [DE92-018153] 03 p0707 N93-13090

CO2 laser preionisation [NASA-CR-184424] 03 p0607 N93-13797

Transonic flow calculations for a cavity with and without a store [AD-A255954] 04 p0873 N93-14421

Boundary element analysis of low frequency cavity acoustical problems [MATHS-REPT-A-158] 04 p0974 N93-15073

Calculation of mechanical vibration frequencies of stiffened superconducting cavities [DE92-040228] 04 p0903 N93-15423

Design features of a seven-cell high-gradient superconducting cavity [DE92-040229] 04 p0870 N93-15424

A finite element-boundary integral method for cavities in a circular cylinder [NASA-CR-191381] 05 p1136 N93-15715

Endoscopic measurements using a panoramic annular lens [NASA-CR-184501] 05 p1167 N93-16453

Power coupler and cold window for seven-cell superconducting cavity vertical tests [DE93-000791] 05 p1150 N93-17380

High speed laminar flow over cavities [AERO-REPT-9110] 06 p1526 N93-18130

Computer codes for RF cavity design [DE93-004002] 06 p1515 N93-19509

Design of RF conditioner cavities [DE93-002576] 06 p1543 N93-19895

Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development [NASA-CR-192171] 07 p1910 N93-20298

A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633

Hydrophobic effects from cavity statistics [DE93-003698] 07 p1904 N93-21734

Magnetron sputtering on 3D components with less accessible areas [MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745

Jet Engine hot parts IR Analysis Procedure (J-EIRP) [NASA-TM-105914] 08 p2125 N93-22588

Surface tension and buoyancy driven Stokes flow in cavities 08 p2250 N93-22856

Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell [NASA-CR-191439] 08 p2473 N93-22878

Cavities in He-implanted Si: Internal surface science [DE93-005340] 08 p2509 N93-24012

Surface discharge photoinitiation of pulsed chemical lasers [DE93-006337] 09 p2712 N93-24967

Poly-coil design for a 60 tesla quasi-stationary magnet [DE93-007353] 09 p2688 N93-25313

A model for the filling of cold cavities with solidifying, semi-crystalline polymers [DE93-003817] 09 p2655 N93-25507

Ultrasonic polishing 09 p2670 N93-25580

Another look at the driven cavity problem [AD-A261903] 09 p2708 N93-26543

The fatigue behaviour of T- and X-joints made of square hollow sections [ETN-93-93598] 10 p3058 N93-27872

Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947

Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948

Development of a CFD code for casting simulation [NASA-CR-192577] 11 p3427 N93-30492

Temperature dependence of the femtosecond optical response in doped high temperature superconductors [DE93-009514] 12 p3829 N93-31988

CAVITY FLOW

Navier-Stokes simulations of unsteady transonic flow phenomena [NASA-TM-103962] 03 p0491 N93-12721

Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141

Computer modeling of flow and transport interactions for compressible Navier-Stokes equations 03 p0589 N93-13825

Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel [NASA-TM-4436] 08 p2110 N93-22876

Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540

Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542

Parallel solution of high-order numerical schemes for solving incompressible flows [NASA-TM-4451] 10 p3106 N93-27040

Experimental investigation of turbine disk cavity aerodynamics and heat transfer [NASA-CR-193831] 10 p2943 N93-27115

CAVITY RESONATORS

NT SUPERCONDUCTING CAVITY RESONATORS

A new model for interpreting experimental data from a circular waveguide cavity [AD-A254067] 01 p0075 N93-10785

Extended-interaction klystron for the AN/TPS-43-E radar system [AD-A253166] 01 p0076 N93-10882

Higher-order-mode damping and microwave absorption at 2 K [DE92-016960] 02 p0442 N93-11077

The foxhole accelerating structure [DE92-019052] 02 p0443 N93-11429

Alternating-phase focusing: A model to study nonlinear dynamics [DE92-019027] 02 p0431 N93-11511

Research and development of superconducting linear accelerators for neutral particle beam applications [DE92-019043] 02 p0444 N93-11652

On some practical consideration of the electron beam breakup transit time oscillator [DE92-017406] 02 p0445 N93-11919

Damping the (pi)-mode instability in the SLC damping rings with a passive cavity [DE92-018153] 03 p0707 N93-13090

Nonlinear stability of combustion-driven acoustic oscillations in resonance tubes [DE92-012153] 03 p0699 N93-13262

Precision liquid-level measurement in deep tanks using a swept-RF resonant cavity [DE92-017236] 03 p0597 N93-13267

Special MAFIA postprocessors for the analysis of RF structures [DE92-040248] 03 p0565 N93-13510

Analysis and experimental results for an extraction cavity for the split-cavity oscillator [DE92-040262] 03 p0566 N93-13512

Determining optimum C-field settings that minimize output frequency variations in cesium atomic frequency standards [AD-A255902] 04 p0971 N93-14108

Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films [AD-A256329] 04 p0869 N93-15194

SCRUNCHER phase and amplitude control [DE92-040225] 04 p0870 N93-15421

Design features of a seven-cell high-gradient superconducting cavity [DE92-040229] 04 p0870 N93-15424

Large orbit gyroklystron development at Los Alamos [DE92-040370] 05 p1144 N93-15938

Transient x ray laser schemes at 1 millimicron and at 2 millimicron [DE92-040670] 05 p1171 N93-15948

High power RF window and waveguide component development and testing above 100 MW at X-band [DE93-001809] 05 p1138 N93-16220

Design and test of a superconducting structure for high-velocity ions [DE93-000513] 05 p1326 N93-17377

Power coupler and cold window for seven-cell superconducting cavity vertical tests [DE93-000791] 05 p1150 N93-17380

Experimental study of the selective properties of coaxial resonators
[INPE-5375-PRE/1748] 06 p1522 N93-19740
Suppression of mode-beating in a saturated hole-coupled FEL oscillator
[DE93-002554] 06 p1542 N93-19745
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
Basic design of a spaceborne hydrogen maser 09 p2716 N93-25024
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478
Experimental test of hole-coupled FEL resonator designs using a CW-HeNe laser
[DE93-010439] 11 p3440 N93-30530
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970

CCD
U CHARGE COUPLED DEVICES

CCD STAR TRACKER
A Star Pattern Recognition Sensor (SPRS) of high accuracy: A contribution to new possibilities of autonomous attitude determination 08 p2201 N93-23532

CD-ROM
Data management for the coordinated Eastern Arctic experiment
[AD-A255648] 04 p1000 N93-14182
CD-ROM applications in Professional Military Education (PME)
[AD-A256662] 05 p1231 N93-15914
OCEAN-PC and a distributed network for ocean data 09 p2734 N93-24928
Satellite altimetry 09 p2734 N93-24930
US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403

CDMA
U CODE DIVISION MULTIPLE ACCESS

CEILINGS (ARCHITECTURE)
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650

CEILINGS (METEOROLOGY)
The influence of high clouds on climate 07 p1956 N93-21588

CEILOMETERS
U CLOUD HEIGHT INDICATORS

CELESTIAL BODIES
NT A STARS
NT ACHONDRITES
NT ACTIVE GALAXIES
NT AMOR ASTEROID
NT ANDROMEDA GALAXY
NT APOLLO ASTEROIDS
NT ASTEROID BELTS
NT ASTEROIDS
NT ASYMPTOTIC GIANT BRANCH STARS
NT AUSTIN COMET
NT B STARS
NT BARRED GALAXIES
NT BINARY STARS
NT BL LACERTAE OBJECTS
NT BLACK HOLES (ASTRONOMY)
NT BLAZARS
NT BLUE STARS
NT BOLIDES
NT BRORSEN-METCALF COMET
NT BROWN DWARF STARS
NT CARBON STARS
NT CARBONACEOUS CHONDRITES
NT CATACLYSMIC VARIABLES
NT CEPHEID VARIABLES
NT CERES ASTEROID
NT CHARON
NT CHIRON
NT CHONDRITES
NT COMET NUCLEI
NT COMET TAILS
NT COMETS
NT COMPACT GALAXIES
NT COMPANION STARS
NT CRAB NEBULA
NT DEIMOS
NT DISK GALAXIES
NT DOUBLE STARS
NT DWARF GALAXIES
NT DWARF NOVAE
NT DWARF STARS
NT EARLY STARS
NT EARTH (PLANET)
NT ECLIPSING BINARY STARS
NT ELLIPTICAL GALAXIES
NT EUROPA
NT EXTRAGALACTIC RADIO SOURCES
NT EXTRASOLAR PLANETS
NT FAINT OBJECTS
NT FLARE STARS
NT GALACTIC CLUSTERS
NT GALAXIES
NT GALILEAN SATELLITES
NT GAS GIANT PLANETS
NT GEMINID METEOROIDS
NT GIACOBINI-ZINNER COMET
NT GIANT STARS
NT GLOBULAR CLUSTERS
NT GRIGG-SKJELLERUP COMET
NT H I REGIONS
NT H II REGIONS
NT HALLEY'S COMET
NT HERBIG-HARO OBJECTS
NT HERCULES NOVA
NT HORIZONTAL BRANCH STARS
NT HOT STARS
NT ICY SATELLITES
NT INFRARED SOURCES (ASTRONOMY)
NT INFRARED STARS
NT INTERACTING GALAXIES
NT IO
NT IRREGULAR GALAXIES
NT JUPITER (PLANET)
NT LATE STARS
NT LEONID METEOROIDS
NT M STARS
NT MAFFEI GALAXIES
NT MAGELLANIC CLOUDS
NT MAIN SEQUENCE STARS
NT MARKARIAN GALAXIES
NT MARS (PLANET)
NT MARS SATELLITES
NT MASSIVE STARS
NT METALLIC STARS
NT METEORITES
NT METEOROID SHOWERS
NT METEOROIDS
NT MICROMETEORITES
NT MICROMETEOROIDS
NT MILKY WAY GALAXY
NT MIRA VARIABLES
NT MOON
NT MURCHISON METEORITE
NT NAKHLITES
NT NATURAL SATELLITES
NT NEBULAE
NT NEPTUNE (PLANET)
NT NEREID
NT NEUTRON STARS
NT NOVAE
NT O STARS
NT OPEN CLUSTERS
NT ORION NEBULA
NT PECULIAR GALAXIES
NT PHOBOS
NT PLANETARY NEBULAE
NT PLANETARY RINGS
NT PLANETS
NT PLUTO (PLANET)
NT PRE-MAIN SEQUENCE STARS
NT PROTOPLANETS
NT PROTOSTARS
NT PULSARS
NT QUADRANTID METEOROIDS
NT QUASARS
NT RADIO GALAXIES
NT RADIO JETS (ASTRONOMY)
NT RADIO METEORS
NT RADIO SOURCES (ASTRONOMY)
NT RADIO STARS
NT RED GIANT STARS
NT REFERENCE STARS
NT REFLECTION NEBULAE
NT RING GALAXIES
NT SATURN (PLANET)
NT SCHWASSMANN-WACHMANN COMET
NT SEYFERT GALAXIES
NT SHELL GALAXIES
NT SOLAR SYSTEM
NT SPIRAL GALAXIES
NT SPORADIC METEOROIDS
NT STAR CLUSTERS
NT STARBURST GALAXIES
NT STARS
NT STELLAR SYSTEMS
NT SUBGIANT STARS
NT SUN
NT SUPERGIANT STARS
NT SUPERNOVA 1987A
NT SUPERNOVAE
NT T TAURI STARS
NT TAURID METEOROIDS
NT TEKTITES
NT TEMPEL 2 COMET
NT TERRESTRIAL PLANETS
NT TITAN
NT TRITON
NT URANUS (PLANET)
NT VARIABLE STARS
NT VENUS (PLANET)
NT VIRGO GALACTIC CLUSTER
NT WHITE DWARF STARS
NT WOLF-RAYET STARS
NT X RAY BINARIES
NT X RAY STARS
NT ZODIACAL DUST
Infrared studies of star-forming regions 06 p1696 N93-18497
Optimal control of the Starfire Beam Director
[AD-A258839] 06 p1455 N93-19363
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Standardization work for the calibration of intensities of celestial objects
[NASA-CR-192831] 08 p2543 N93-23502
Life in and from space 08 p2161 N93-24373

CELESTIAL MECHANICS
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335
On the stability of a stringy black hole
[PREPRINT-879] 05 p1365 N93-16983
1991 DA: An asteroid in a bizarre orbit 06 p1718 N93-19247
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358
On the normalized Hamiltonian formulation of the restricted three-body problem 07 p1944 N93-20727
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648
Atomic time scales for dynamical astronomy 09 p2832 N93-24984
Annular Solar Eclipse of 10 May 1994
[NASA-RP-1301] 10 p3169 N93-27057

CELESTIAL OBSERVATION
U ASTRONOMY

CELESTIAL REFERENCE SYSTEMS
Atomic time scales for dynamical astronomy 09 p2832 N93-24984

CELESTIAL SPHERE
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
Asteroid detection and monitoring using a satellite-borne visible scanner
[AD-A259797] 08 p2543 N93-23455

CELL ANODES
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101

CELL CATHODES
Overcharge and overdischarge protection of ambient temperature secondary lithium cells
[NASA-CASE-NPO-18343-1-CU] 02 p0290 N93-11456

CELL DIVISION
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552

CELL MEMBRANES (BIOLOGY)
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick
11 p3291 N93-30953

CELLS (BIOLOGY)
NT AXONS
NT BLOOD CELLS
NT EOSINOPHILS
NT ERYTHROCYTES
NT EUKARYOTES
NT LYMPHOCYTES
NT NEURONS
NT PROKARYOTES
NT PROTOPLASTS
NT SPERMATOZOA
Method for culturing mammalian cells in a perfused bioreactor
[NASA-CASE-MSC-21293-2] 01 p0129 N93-10109
Method for culturing mammalian cells in a horizontally rotated bioreactor
[NASA-CASE-MSC-21294-2] 01 p0129 N93-10110
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Establishing laboratory standards for biological flight experiments
[NASA-CR-184402] 03 p0671 N93-12901
Tagging insulin in microgravity
03 p0510 N93-13172
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Mechanisms of microwave induced damage in biologic materials
[AD-A255799] 04 p0933 N93-14648
High density cell culture system
[NASA-CASE-MSC-22060-1] 06 p1593 N93-19037
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Measuring the metastatic potential of cancer cells
09 p2794 N93-25566
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613
The Gordon Research Conference on Pineal Cell Biology
[AD-A264840] 11 p3497 N93-30904
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035

CELLULAR MATERIALS (NON BIOLOGICAL)
U FOAMS

CELLULOSE
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Special fibres from natural polymers
07 p1837 N93-21151
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB]
08 p2216 N93-22036

CELLULOSE NITRATE
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223
The burning rate behavior of pure nitrocellulose propellant samples
[AD-A261009] 09 p2661 N93-25857

CEMENTATION
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013

CEMENTS
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Lunar cement 05 p1382 N93-16897
Cement and concrete 05 p1383 N93-16901
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605

CENSORED DATA (MATHEMATICS)
The total time on test statistic and age-dependent censoring
[AD-A253622] 01 p0147 N93-10798
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711

CENSUS
Report on phase 2 of 1990 OSSA data census
[NASA-TM-107992] 03 p0735 N93-12991
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808

CENTAUR LAUNCH VEHICLE
Acoustic and thermal testing of the Titan/Centaur upper stage 04 p0814 N93-15621
NASA Center update: Jet Propulsion Laboratory
07 p1983 N93-20492
An overview of autonomous rendezvous and docking system technology development
07 p1816 N93-21431
An overview of autonomous rendezvous and docking system technology development at General Dynamics
08 p2145 N93-22281
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics
08 p2147 N93-22293

CENTAUR VEHICLE
U CENTAUR LAUNCH VEHICLE

CENTAURUS CONSTELLATION
The planetary nebula system and the dynamics of the galaxy Centaurus A 03 p0754 N93-13645
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139

CENTER OF GRAVITY
Problems involving combined loading
05 p1189 N93-17314
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828

CENTER OF MASS
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531

CENTER OF PRESSURE
New methods for predicting nonlinear lift, center of pressure, and pitching moment on missile configurations
[AD-A255078] 03 p0492 N93-12741

CENTERBODIES
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137

CENTIMETER WAVES
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875

CENTRAL BULGE (GALAXIES)
U GALACTIC BULGE

CENTRAL NERVOUS SYSTEM
NT BRAIN
NT BRAIN STEM
NT CEREBRAL CORTEX
NT CEREBRUM
NT HIPPOCAMPUS
NT HYPOTHALAMUS
NT PINEAL GLAND
NT SPINAL CORD
A core facility for the study of neurotoxins of biological origin
[AD-A254359] 03 p0674 N93-12945
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882

CENTRAL NERVOUS SYSTEM STIMULANTS
Effects of dextromethamphetamine on subjective fatigue
[AD-A258252] 06 p1594 N93-17822

CENTRAL PROCESSING UNITS
NT ARITHMETIC AND LOGIC UNITS
Parallel architecture for image processing with optic fiber guided missile
[REPT-921-320-101] 02 p0418 N93-11584
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Bottom-up parallelization of Tomita's algorithm
07 p2031 N93-20229
Review on radiation resistant 32 bit MPU
07 p1799 N93-20474
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
Using a Cray Y-MP as an array processor for a RISC Workstation
[NASA-TM-103961] 09 p2809 N93-25246
The database Query Support Processor (QSP)
09 p2807 N93-25577
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193102] 10 p3090 N93-27239
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001
Processor-management in distributed systems with a compute-intensive workload
[REPT-92-52] 12 p3787 N93-31486
Decay-usage scheduling in multiprocessor and distributed systems. 1: Theory
[REPT-92-105] 12 p3795 N93-31864

CENTRIFUGAL CASTING
Mechanical properties of centrifugally cast metal matrix composites
[AD-A254321] 02 p0243 N93-12483
Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236

CENTRIFUGAL COMPRESSORS
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
Alternative systems for fuel gas boosters for small gas turbine engines
[PB92-223049] 03 p0612 N93-12977
Active control of stall and surge
06 p1530 N93-18725
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
Three-phase inverter for small high speed motors
[NASA-CR-191331] 06 p1523 N93-19860

Numerical modelling of viscous turbomachinery flows with a pressure correction method
09 p2594 N93-25702
Active magnetic bearings applied to industrial compressors 10 p2961 N93-27570

CENTRIFUGAL FORCE
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials
01 p0045 N93-10470
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region
06 p1413 N93-19304
A numerical and experimental studies of flow characteristics in centrifugal fans
09 p2577 N93-25339
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
Combined forced and free convection in a curved duct
10 p2937 N93-27461
Combined centrifugal force/gravity gas/liquid separator system
[AD-D015726] 11 p3444 N93-29288

CENTRIFUGAL PUMPS
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332

CENTRIFUGES
NT HUMAN CENTRIFUGES
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Parametric study of air sampling cyclones
04 p0779 N93-14173
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Research opportunities with the Centrifuge Facility
08 p2187 N93-22627
Action of an acceleration field on premixed methane/air flames 08 p2226 N93-22838
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Combined centrifugal force/gravity gas/liquid separator system
[AD-D015726] 11 p3444 N93-29288
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
Rotational speed control 12 p3689 N93-31457
Vibration isolation 12 p3690 N93-31458

CENTRIPETAL FORCE
Chaotic oscillation of a high speed flexible arm robot
01 p0065 N93-10574
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072

CENTROIDS
An analogue of Philon's line in n dimensions
[MEMO-1032] 07 p2054 N93-20957
Geometric distortion analysis of a wide-field astrograph 09 p2621 N93-26111

CEPHEID VARIABLES
Ultraviolet studies of Cepheids
[NASA-CR-190857] 02 p0481 N93-11073

CEPSTRAL ANALYSIS
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
A new passive SSL technique for HF radiolocation
08 p2267 N93-23609
Examinations of perturbation reduction by automatic speech dependent recognition of separately spoken single words
[ETN-93-94180] 11 p3394 N93-30672

CERAMAL PROTECTIVE COATINGS
U CERMETS
U PROTECTIVE COATINGS

CERAMALS
U CERMETS

CERAMIC BONDING
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Analytical and experimental evaluation of joining silicon carbide to silicon carbide and silicon nitride to silicon nitride for heat engine applications
[DE92-041376] 04 p0837 N93-15454
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Method to produce ceramic superconducting filaments bonded to metals
[AD-D015595] 07 p1859 N93-20786
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites
[DE93-004063] 07 p1844 N93-21842

CERAMIC COATINGS
Ceramic Technology Project
[DE92-018748] 02 p0266 N93-11442
High temperature oxidation protection of carbon/carbon composites
[REPT-921-430-105] 02 p0239 N93-11589
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Advanced ceramic matrix composites for TPS
02 p0228 N93-12450
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Impact on ceramic faced armour
[ETN-92-92797] 05 p1124 N93-16569
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe
07 p1838 N93-21160
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel
07 p1950 N93-21335
Development of fire protective coatings for GRP composites using plasma deposition technology, phase 2
[DREA-CR-91-453] 08 p2239 N93-23121
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance
[ONERA-NT-1992-9] 12 p3709 N93-31597

CERAMIC FIBERS
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Materials: Toward the non-metallic engine
[PNR-90915] 02 p0209 N93-11019
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
A new route for fibre management in metal matrix composites 03 p0534 N93-13779
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836
Properties of textile grade ceramic fibers
04 p0833 N93-14751
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451
Passive vibration damping materials: Piezoelectric ceramics composites for vibration damping applications
[AD-A260792] 09 p2727 N93-25690
The corrosion of metal matrix composites
09 p2638 N93-25723
International Workshop on Advances in Inorganic Fibre Technology
[AD-A260719] 09 p2639 N93-25908
Ceramic fiber reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15262-1] 09 p2640 N93-26100
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

CERAMIC HONEYCOMBS
Theoretical and experimental study of thermoacoustic engines
[AD-A261934] 11 p3561 N93-28995

CERAMIC MATRIX COMPOSITES
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Analysis of failure modes in ceramic matrix composite
01 p0028 N93-10508
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Processing of ceramic matrix composites
[PNR-90914] 02 p0263 N93-11018
Aero engine ceramics: The vision, the reality, and the progress
[PNR-90983] 02 p0264 N93-11066
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Ceramic Technology Project
[DE92-018748] 02 p0266 N93-11442
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-101] 02 p0239 N93-11586
Silicon carbide matrix composites
[REPT-921-430-103] 02 p0239 N93-11588

Study of the behavior of titanium and ceramic fiber matrix composite alloy
[ETN-92-92087] 02 p0240 N93-11708
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181
Advanced ceramic matrix composites for TPS
02 p0228 N93-12450
Superplastic forming of ceramic insulation
02 p0228 N93-12452
Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836
X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites
04 p0864 N93-14190
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Fiber reinforced composites: A new class of glass and glass ceramic materials for thermomechanical applications
[REPT-921-430-104] 04 p0838 N93-15490
Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032
SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
Interface fracture in composite materials
06 p1560 N93-19381
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
Adherence and reactivity of graphite base multimaterials
[ECL-92-04] 07 p1859 N93-20542
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
Advanced industrial materials. An overview
07 p1845 N93-20623
Microgravity processing of ceramic composites
07 p1809 N93-21115
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-118] 07 p1839 N93-21295
Carbon/carbon and ceramic composites made by Aerospatiale
[REPT-921-430-106] 07 p1840 N93-21457
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites
09 p2638 N93-25760
International Workshop on Advances in Inorganic Fibre Technology
[AD-A260719] 09 p2639 N93-25908
Processing and properties of silicon carbide reinforced reaction bonded silicon nitride composites
[AD-A260570] 09 p2640 N93-26236
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Interactive reliability model for whisker-toughened ceramics
[NASA-CR-191048] 10 p3002 N93-27006
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Fracture micromechanics of ceramic composites
10 p2920 N93-27172
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics
[AD-A262403] 11 p3329 N93-28495
Ultrahigh temperature assessment study: Ceramic matrix composites
[AD-A262740] 11 p3295 N93-28592
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Whisker toughening of ceramic materials: A review
[DE93-011565] 11 p3336 N93-30129
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
Wetting and dispersion in ceramic/polymer melt injection molding systems
[DE93-013240] 11 p3338 N93-30801
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982
Ceramic technology project database
[DE93-012429] 12 p3710 N93-32161

CERAMIC NUCLEAR FUELS
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920

CERAMIC-METAL COMPOSITES
U CERMETS

CERAMICS
NT CERAMIC NUCLEAR FUELS
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082
Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10085
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A253660] 01 p0041 N93-10779
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Ceramic component reliability with the restructured NASA/CARES computer program
[NASA-TM-105856] 02 p0334 N93-11004
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077

The dressing of resin bonded diamond grinding wheels
[PNR-90965] 02 p0264 N93-11086
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Ceramic Technology Project
[DE92-018748] 02 p0266 N93-11442
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB] 02 p0333 N93-12204
Nanophase ceramics
[AD-A254661] 02 p0272 N93-12246
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Advanced ceramic matrix composites for TPS 02 p0228 N93-12450
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Superplastic forming of ceramic insulation 02 p0228 N93-12452
Ceramic TBS/porous metal compliant layer 02 p0228 N93-12453
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Cost-effective Sintered Reaction-Bonded Silicon Nitride (SRBSN) for structural ceramics
[DE92-019285] 03 p0549 N93-12821
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022
Method of applying a thermal barrier coating system to a substrate
[NASA-CASE-LEW-15020-2] 04 p0832 N93-14706
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Three-dimensional nuclear magnetic resonance imaging of green-state ceramics
[DE93-000930] 04 p0851 N93-15282
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Development of low-expansion ceramics for diesel engine applications
[DE92-041380] 04 p0853 N93-15438
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
Analytical and experimental evaluation of joining silicon carbide to silicon carbide and silicon nitride to silicon nitride for heat engine applications
[DE92-041376] 04 p0837 N93-15454
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Innovative techniques for studying new materials and new developments in solid state physics
[AD-A256394] 04 p0996 N93-15465
Study of the glass formation of high temperature superconductors
[NASA-TM-108389] 04 p0997 N93-15500
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Advanced materials: The key to attractive magnetic fusion power reactors
[DE92-040637] 05 p1307 N93-16103
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress
[DE92-041375] 05 p1185 N93-16270
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Microwave processing of ceramics: Guidelines used at the Oak Ridge National Laboratory
[DE92-040862] 05 p1123 N93-16297
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
The hydrothermal synthesis of ceramic powders
[ETN-92-92785] 05 p1125 N93-16607
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Glass and ceramics --- lunar resources 05 p1383 N93-16900
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Molecular-scale hybrid polymer ceramics 06 p1496 N93-18487
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
Ultrastructure processing of advanced materials
[AD-A258805] 06 p1479 N93-18984
Nanostructured materials
[DE93-002990] 06 p1656 N93-19499
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
Polycrystalline tetragonal zirconia in the system CeO2-ZrO2 (Ce-TZP)
[INPE-5285-TAE/007] 06 p1676 N93-19643
Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
Principles of gas phase processing of ceramics during combustion 07 p1862 N93-20188
Combustion synthesis of ceramic and metal-matrix composites 07 p1854 N93-20203
Advanced industrial materials. An overview 07 p1845 N93-20623
Advanced structural ceramics 07 p1862 N93-20627
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
Method to produce ceramic superconducting filaments bonded to metals
[AD-D015595] 07 p1859 N93-20786
High-temperature flexure fixture for advanced ceramics
[PB92-222959] 07 p1860 N93-21030
Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116
Advanced lightweight ceramic candle filter module
[DE93-000211] 07 p1860 N93-21252
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1860 N93-21491
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
Overview of Advanced Turbine Systems Program
[DE93-003193] 08 p2311 N93-22413
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880
Charge trapping centers in ferroelectric ceramics
[DE93-005359] 08 p2238 N93-22954
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
Statistical process control program at a ceramics vendor facility
[DE93-006043] 08 p2238 N93-23025
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294

High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Organosilicon compounds and polymers and silicon ceramics
[AD-A260056] 08 p2242 N93-24408
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction
[DE93-006796] 08 p2243 N93-24461
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
The design of mechanically compatible fasteners for human mandible reconstruction
09 p2796 N93-25569
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill
09 p2659 N93-25585
Electroelastic equations for electroded thin plates subject to large driving voltages
[AD-A261123] 09 p2675 N93-25772
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Processing and properties of silicon carbide reinforced reaction bonded silicon nitride composites
[AD-A260570] 09 p2640 N93-26236
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Densification of ceramics by gas overpressure sintering
[MTL-TR-92-45] 09 p2657 N93-26432
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638
Melt-processing of lunar ceramics
10 p3007 N93-26685
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Silicon-Film(tm) on ceramic solar cells
[DE93-009608] 10 p3065 N93-27108
Radial basis function network learns ceramic processing and predicts related strength and density
[NASA-TM-106048] 10 p2990 N93-27129
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Ceramics technical activities, 1992 (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173508] 10 p3003 N93-27400
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616
Bismuth based ceramic superconductors: An experimental study on crystal growth and vortex dynamics
[ETN-93-93665] 10 p3004 N93-27945
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423
Refractory metal disilicides research
[AD-A262416] 11 p3320 N93-28499
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Ultrahigh temperature assessment study: Ceramic matrix composites
[AD-A262740] 11 p3295 N93-28592
Soft computing in design and manufacturing of advanced materials
[NASA-TM-106032] 11 p3295 N93-28624
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248
Microwave processing of ceramics
[DE93-010708] 11 p3332 N93-29252
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404
Crystallization of nanocomposite glasses made by the SSG process
[AD-A262892] 11 p3333 N93-29511
Properties of superconducting YBa2Cu3O(6+4) ceramic materials: Effect of processing parameters
[AD-A263441] 11 p3334 N93-29790
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
The drive to cost-effective structural ceramics
[DE93-009722] 11 p3335 N93-30047
Materials for adaptive structural acoustic control, volume 1
[AD-A264619] 11 p3562 N93-30121
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385
A ceramic fracture model for high velocity impact
[AD-A264728] 11 p3454 N93-30545
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Effect of lead addition on the formation of superconducting phases in Bi-Sr-Ca-Cu-O ceramics
[DE93-606893] 11 p3339 N93-30773
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
New materials: Fountainhead for new technologies and new science 11 p3291 N93-30952
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089
Thermal shock and fatigue behavior of ceramic tubes
12 p3739 N93-31139
Zirconia ceramics and mechanical surface interactions
[ETN-93-94049] 12 p3709 N93-31541
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993
Ceramic technology project database
[DE93-012429] 12 p3710 N93-32161
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187

CEREBRAL CORTEX

Functional MRI studies of human vision on a clinical imager
[DE92-017448] 03 p0674 N93-12566
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788

Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
Imaging regional changes in the spontaneous activity of the brain: An extension of the minimum-norm least-squares estimate
[AD-A261593] 09 p2798 N93-26436
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603

CEREBRUM
NT CEREBRAL CORTEX
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness
[AD-A255485] 04 p0935 N93-14789
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900

CERENKOV COUNTERS
A program to study antiprotons in the cosmic rays: Arizona collaboration
[NASA-CR-191272] 03 p0772 N93-13306
The sapphire Cerenkov laser
03 p0605 N93-13365
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources
04 p1050 N93-14639
Milagro: A low energy threshold extensive air shower array
[DE93-000852] 05 p1400 N93-17383
The Sudbury Neutrino Observatory
[DE93-007697] 09 p2899 N93-25327
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

CERENKOV EFFECT
U CERENKOV RADIATION

CERENKOV RADIATION
The sapphire Cerenkov laser
03 p0605 N93-13365
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

CERES ASTEROID
The mass of (1) Ceres from perturbations on (348) May
06 p1720 N93-19262

CERIUM
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905

CERIUM COMPOUNDS
NT CERIUM OXIDES

CERIUM OXIDES
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944

CERMETS
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404

CERTIFICATION
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535
Guide for aviation medical examiners
[PB92-219690] 07 p2024 N93-21047
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Space assembled entry systems certification
08 p2176 N93-22106
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
The role of fatigue testing in the design, development, and certification of the ATR 42/72
[ETN-93-93704] 08 p2127 N93-23969
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
Zoning of aircraft: A review of the definitions
09 p2583 N93-24880
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft
11 p3249 N93-29775
Helicopter simulator standards
11 p3236 N93-30675
Helicopter simulation: An aircrew training and qualification perspective 11 p3236 N93-30676
NIST scoring package certification procedures in conjunction with NIST special databases 2 and 6
[PB93-188126] 12 p3838 N93-31331

CESIUM
NT CESIUM 137
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Spin effects in electron-atom collisions
06 p1659 N93-18494
A simple and compact source of cold atoms for cesium fountains and microgravity clocks
09 p2831 N93-24981
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Miniature optically-pumped cesium beam resonator
09 p2833 N93-24990
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator
09 p2833 N93-24991
A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065

CESIUM ALLOYS
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717

CESIUM COMPOUNDS
NT CESIUM FLUORIDES
NT CESIUM IODIDES

CESIUM FLUORIDES
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

CESIUM HALIDES
NT CESIUM FLUORIDES
NT CESIUM IODIDES

CESIUM IODIDES
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512

CESIUM IONS
NPB cesium space experiment
11 p3267 N93-28733
Measurement of work function of a plasma grid in a cesium seeded negative ion source
[DE93-764153] 11 p3589 N93-30190

CESIUM ISOTOPES
NT CESIUM 137

CESIUM 137
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell
[DE93-004519] 08 p2317 N93-24049
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456

CESSNA MILITARY AIRCRAFT
U MILITARY AIRCRAFT

CF-104 AIRCRAFT
U F-104 AIRCRAFT

CFCS
U CHLOROFLUOROCARBONS

CFRP
U CARBON FIBER REINFORCED PLASTICS

CH-53 HELICOPTER
U H-53 HELICOPTER

CH-47 HELICOPTER
Onboard System Evaluation of Rotors Vibration, Engines (OBSERVE) monitoring system
[AD-A255366] 04 p0792 N93-15227

CHAINS
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
A group-theoretical setting for some intersecting Sperner families
[MEMO-1060] 10 p3120 N93-28011

CHAIRS
U SEATS

CHALCOGENIDES
NT ALUMINUM OXIDES
NT ANHYDRIDES
NT BARIUM OXIDES
NT BERYLLIUM OXIDES
NT BISMUTH OXIDES
NT BORON OXIDES
NT BSCCO SUPERCONDUCTORS
NT CADMIUM SELENIDES
NT CADMIUM SULFIDES
NT CADMIUM TELLURIDES
NT CALCIUM OXIDES
NT CARBON DIOXIDE
NT CARBON DISULFIDE
NT CARBON MONOXIDE
NT CERIUM OXIDES
NT CHLORINE OXIDES
NT CHROMIUM OXIDES
NT COBALT OXIDES
NT COESITE
NT COPPER OXIDES
NT COPPER SELENIDES
NT DIOXIDES
NT DISULFIDES
NT GALLIUM OXIDES
NT GALLIUM SELENIDES
NT GERMANIUM OXIDES
NT HEMATITE
NT HYDROGEN PEROXIDE
NT HYDROGEN SULFIDE
NT ILMENITE
NT INORGANIC PEROXIDES
NT IRON OXIDES
NT LANTHANUM OXIDES
NT LEAD OXIDES
NT LEAD SELENIDES
NT LEAD SULFIDES
NT LITHIUM OXIDES
NT MAGNESIUM OXIDES
NT MANGANESE OXIDES
NT MERCURY CADMIUM TELLURIDES
NT MERCURY TELLURIDES
NT METAL OXIDES
NT MIXED OXIDES
NT MOLYBDENUM DISULFIDES
NT MOLYBDENUM OXIDES
NT NICKEL OXIDES
NT NITRIC OXIDE
NT NITROGEN DIOXIDE

NT NITROGEN OXIDES
NT NITROUS OXIDES
NT ORGANIC PEROXIDES
NT OXIDES
NT PEROXIDES
NT POLYSULFIDES
NT PYRITES
NT PYROXENES
NT QUARTZ
NT RUTILE
NT SAPPHIRE
NT SELENIDES
NT SILICON DIOXIDE
NT SILICON OXIDES
NT STISHOVITE
NT STRONTIUM OXIDES
NT SULFIDES
NT SULFUR DIOXIDES
NT SULFUR OXIDES
NT TELLURIDES
NT TIN OXIDES
NT TITANIUM OXIDES
NT TUNGSTEN OXIDES
NT URANIUM OXIDES
NT VANADIUM OXIDES
NT WURTZITE
NT YBCO SUPERCONDUCTORS
NT YTTRIUM OXIDES
NT ZINC OXIDES
NT ZINC SELENIDES
NT ZINC SULFIDES
NT ZINC TELLURIDES
NT ZIRCONIUM OXIDES

Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186

The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505

Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498

Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667

Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988

Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047

CHALLENGER (ORBITER)

Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111

Implementation of the recommendations of the Presidential Commission on the Space Shuttle Challenger Accident
[NASA-TM-108646] 07 p1820 N93-19990

Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident
07 p1820 N93-20036

CHANCE-VOUGHT MILITARY AIRCRAFT

U MILITARY AIRCRAFT

CHANGE DETECTION

Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373

Change analysis
[AD-A253567] 01 p0146 N93-10795

Auditory perception
[AD-A255061] 02 p0385 N93-12469

Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013

Inverse sequential detection of parameter changes in developing time series
[NASA-CR-191996] 07 p2059 N93-21191

The global climate system. Climate system monitoring
07 p2014 N93-21450

Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575

Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM
08 p2354 N93-23573

NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750

The regional planning and control using the satellite data 09 p2740 N93-24788

Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790

Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791

Hel's peninsula coastal zone changes in the last 40 years on a base of remote sensing methods
09 p2747 N93-24832

Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834

The national parks of Bavarian Forest and Sumava: A Landsat TM perspective on the structure and dynamics of the largest woodland of Central Europe
09 p2748 N93-24837

Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839

Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842

Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848

CHANNEL CAPACITY

NPR and intermodulation in mobile satellite systems
04 p0806 N93-14931

A slotted Aloha satellite channel simulator
11 p3360 N93-30250

CHANNEL FLOW

Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019

Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126]
01 p0083 N93-10859

Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860

Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598

Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082

Probability density functions in turbulent channel flow
[NASA-CR-4454] 02 p0202 N93-12399

Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303

Self-actuating slide valve system
[AD-D015456] 05 p1177 N93-16435

Drag reduction mechanism and coherent structure in near wall turbulence with riblets
05 p1162 N93-16827

Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106

LES turbulence modeling using DNS data base
06 p1409 N93-19274

Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307

Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893

La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948

Tests of random flight and closure models in predicting turbulent scalar transport
[DE93-004123] 08 p2288 N93-22521

Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180

Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865

Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132

Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282

Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434

Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082

Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness
09 p2701 N93-25483

Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698

The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432

Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617

A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626

An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3418 N93-29009

CHANNEL NOISE

Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343

CHANNELS

Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303

Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357

CHANNELS (DATA TRANSMISSION)

Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335

ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657

Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716

Scalable parallel communications
02 p0279 N93-11117

A simple, effective media access protocol system for integrated, high data rate networks
02 p0279 N93-11119

Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343

Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538

HIPPI and Fibre Channel
[DE92-040346] 03 p0689 N93-13046

Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031

The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774

Storage needs in future supercomputer environments
04 p1003 N93-14780

Requirements for a network storage service
04 p1003 N93-14781

A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784

The role of HiPPI switches in mass storage systems: A five year prospective 04 p1006 N93-15044

Co-channel speaker separation
[AD-A256443] 04 p0861 N93-15317

A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922

Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052

Advanced cockpit-mission and image management
06 p1607 N93-19760

Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161

Error control techniques for satellite and space communications
[NASA-CR-192368] 07 p1884 N93-20613

Study and development of a multiprocessor interface circuit, volume 1
[ECL-91-11-VOL-1] 07 p2044 N93-21000

Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259

Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367

Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761

Figure of merit for direct-detection optical channels
09 p2678 N93-26117

Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289

Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190

Generic Application Layer for PC-controlled VME measuring systems (GAL PC-VME)
[OEFZS-4630] 10 p3103 N93-28204

Modal testing using a full instrumentation technique
[DE93-009635] 10 p3046 N93-28373

A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245

T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892

Tactical satellites 11 p3284 N93-29893

TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO
11 p3284 N93-29896
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Characteristics of high-frequency signals, noise, availability, and duration of bandwidths based on ROTHR Amchitka spectrum measurements
[AD-A264480] 11 p3393 N93-30423
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046

CHAOS
Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Chaotic oscillation of a high speed flexible arm robot
01 p0065 N93-10574
Adequate sampling of a chaotic time series
[AD-A254170] 01 p0127 N93-10664
Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A254320] 02 p0284 N93-12095
Laminar boundary-layer breakdown
[AD-A254489] 02 p0306 N93-12162
Singularities of the Euler equation and hydrodynamic stability
[NASA-CR-189720] 02 p0306 N93-12173
Chaotic vortical motion in the near region of a plane jet 03 p0493 N93-13493
Nonlinear dynamics of optical systems
04 p0979 N93-14124
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
The use of chaos metrics to analyze Lagrangian particle diffusion models
[AD-A256142] 04 p0967 N93-14255
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Instability of spatially periodic flows
05 p1160 N93-16810
Chaotic behaviour of x ray lightcurves of AGN?
05 p1366 N93-17101
Quantum chaos without classical counterpart
[PREPRINT-830] 05 p1331 N93-17215
Lagrangian chaos: Transport, mixing, and diffusion in fluids
[NOTA-INTERNA-988] 06 p1651 N93-17939
Chaotic dynamics of atoms 06 p1659 N93-18491
Approximation of attractors and applications
[DE93-002420] 06 p1535 N93-19475
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
Hamiltonian for the toroidal helical magnetic field lines in the vacuum
[NIFS-201] 06 p1669 N93-19885
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Nonlinear ocean waves
[AD-A259335] 07 p2019 N93-21260
Topological organization of (low-dimensional) chaos
[DE93-003693] 08 p2514 N93-22753
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Chaotic dynamics in accelerator physics
[DE93-004600] 08 p2515 N93-22766
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
Chaos theory and its application in the atmosphere
08 p2398 N93-24082
A global approach to parameter estimation of chaotic dynamical systems
[AD-A259932] 08 p2463 N93-24130
Spatial development of chaos in an open flow system
08 p2515 N93-24293
Stochastic inflation and inflationary density fluctuations
08 p2473 N93-24457
Introduction of chaotic dynamical systems
[AD-A261747] 09 p2872 N93-26250
Information transmission using CHAOS
[AD-A261519] 09 p2883 N93-26377
Chaos metrics for testing lagrangian particle models
[AD-A261429] 09 p2776 N93-26454
1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics
[SSCL-PREPRINT-725] 10 p3126 N93-28098
Self-consistent chaos in the beam-plasma instability
[DE93-009581] 11 p3584 N93-28599
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Bifurcations phenomena in a nonlinear oscillator: Approximate analytical studies versus computer simulation results 11 p3407 N93-29037
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565
Study of effects of small perturbations on chaotic systems
[DE93-009762] 11 p3557 N93-30048
Chaotic quantum systems
[DE93-606030] 11 p3606 N93-30802
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803
General scalar-tensor theories for induced gravity inflation
[DE93-602505] 11 p3479 N93-30940
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289
Instabilities and nonstatistical behavior in globally coupled systems
[DE93-608185] 12 p3831 N93-31302
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669
Desktop chaotic systems: Intuition and visualization
[NASA-TM-106258] 12 p3808 N93-31847
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036
Investigation of transitions from order to chaos in dynamical systems
[DE93-014437] 12 p3833 N93-32290
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

CHAOTIC CLOUD PATTERNS
U CLOUDS (METEOROLOGY)

CHAPLYGIN EQUATION
Nonholonomic geometry, mechanics and control
09 p2724 N93-25270

CHAPMAN SHEAR LAYER
U SHEAR LAYERS

CHAPMAN-JOUGET FLAME
U CHEMICAL EQUILIBRIUM
U DETONATION
U FLAME PROPAGATION

CHARACTER RECOGNITION
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
Research in text processing
[AD-A259434] 07 p2087 N93-20010
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011
The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
Editing images of text
[PB93-149896] 08 p2443 N93-24576
Machine-assisted human classification of segmented characters for optical character recognition testing and training
[PB93-152155] 08 p2529 N93-24631
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Comparison of crisp and fuzzy character networks in handwritten word recognition 11 p3514 N93-29545
NIST scoring package certification procedures in conjunction with NIST special databases 2 and 6
[PB93-188126] 12 p3838 N93-31331
Optimization of adaptive resonance theory network with boltzmann machine
[PB93-188134] 12 p3797 N93-31332

CHARACTERISTIC EQUATIONS
U EIGENVALUES
U EIGENVECTORS

CHARACTERISTIC FUNCTIONS
U EIGENVALUES
U EIGENVECTORS

CHARACTERISTIC METHOD
U METHOD OF CHARACTERISTICS

CHARACTERIZATION
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Capacitive skin characterization
[NASA-CR-191261] 03 p0598 N93-13567
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Method of characterizing residual stress in ferromagnetic materials using a pulse histogram of acoustic emission signals
[NASA-CASE-LAR-14239-1] 04 p0845 N93-14705
Workshop on noninvasive geophysical site characterization
[LA-12311-C] 04 p0914 N93-14724
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Offloading techniques for large deployable space structures 04 p0821 N93-15605
Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755
Fatigue characterization of Ni-base alloys
05 p1081 N93-15756
COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264
Growth and characterization of single crystals
[NOTA-INTERNA-984] 06 p1670 N93-17935
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
X ray characterization of Au/Ni multilayer thin films
[NIAR-92-7] 06 p1678 N93-19881
Eagle-Picher Industries Sodium Sulfur Program
07 p1987 N93-20523
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Lunar science measurements and instruments for resource characterization
[DE93-005436] 08 p2553 N93-22905
Electrical characterization of conducting polymers and polymeric semiconductor devices
[ACTA-POL-SCAND-PH-178] 08 p2238 N93-23006
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955

Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579
Acceleration Studies
[NASA-CR-192547] 10 p2947 N93-26948
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme 11 p3397 N93-30743
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

CHARACTERS
U SYMBOLS

CHARCOAL
NT ACTIVATED CARBON

CHARGE CARRIERS
NT HOLES (ELECTRON DEFICIENCIES)
NT MINORITY CARRIERS
Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors 03 p0725 N93-13844
Time-resolved optical studies of 3-5 semiconductors 04 p0990 N93-14183
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996
The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Charge separation in bipolar transistors
[DE93-009624] 11 p3413 N93-30650
Carrier capture in 3-5 semiconductor quantum wells
[ETN-93-94054] 12 p3828 N93-31620
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

CHARGE COUPLED DEVICES
Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
GAMCIT: A gamma ray burst detector 03 p0510 N93-13173
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814
Performance characteristics of STIS detectors
[NASA-CR-191636] 04 p0868 N93-14915
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Millisecond readout CCD camera
[DE93-000694] 05 p1167 N93-16359
Advanced imaging system
[NASA-CR-191800] 05 p1303 N93-16712
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
CCD imaging of the inner coma jets of comet P/Halley 06 p1702 N93-19133
Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres 06 p1698 N93-19236
IRCCD research 07 p1790 N93-20417
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2 08 p2365 N93-23801
The detection and amplification processes in low light level cameras with CCD and image intensifier
[FFI-92/7017] 08 p2490 N93-24646
Star tracker operation in a high density proton field 09 p2600 N93-24699
High resolution stereo imaging and data compression 09 p2753 N93-24867
How to get unlimited observing time on a 4 metre telescope 10 p3171 N93-26707
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188
Solid state research
[AD-A262874] 10 p3154 N93-28247
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
A new tubeless nanosecond streak camera based on optical deflection and direct CCD imaging
[DE93-011893] 11 p3433 N93-30491
Advanced research in sky surveillance: A search for low-luminosity objects
[AD-A264832] 11 p3631 N93-30629
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

CHARGE DISTRIBUTION
A continuum string model for D greater than 1
[PREPRINT-853] 05 p1329 N93-16960
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils
[DE93-000792] 05 p1293 N93-17381
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
Development and utilization of a semi-analytic alternative charge process for the rapid calculation of potential distributions and electron orbits
[ETN-93-93416] 07 p2062 N93-21209
Transport in amorphous semiconductors 08 p2506 N93-23101
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751

CHARGE EFFICIENCY
Thermally stable electrolytes for rechargeable lithium batteries, phase 2
[NASA-CR-190878] 03 p0573 N93-13610
Mechanisms for capacity fading in the NiH2 cell and its effects on cycle life 07 p1983 N93-20496
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497

CHARGE EXCHANGE
NT RESONANCE CHARGE EXCHANGE
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
Helium transport studies on D3-D
[DE92-016251] 02 p0455 N93-12307
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
Particle simulation of grid erosion in an ion thruster 03 p0527 N93-13927
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems
[PREPRINT-881] 05 p1289 N93-17017
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264
Angular distributions of charge exchange collisions at very low energies
[DE93-002338] 07 p2064 N93-21751
Negative ion detachment cross sections
[DE93-005679] 08 p2483 N93-23328
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers 12 p3880 N93-31423
Proceedings of the Workshop on Spin-Charge Transfer Reaction in Atomic Collision Process for planning of next period of cascade project
[DE93-704290] 12 p3821 N93-31834

CHARGE SEPARATION
U POLARIZATION (CHARGE SEPARATION)

CHARGE TRANSFER
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328

Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
An acoustic charge transport imager for high definition television applications
[NASA-CR-191295] 03 p0572 N93-13448
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Charge transfer processes on liquid/liquid interfaces: The first hundred years
[AD-A260421] 08 p2225 N93-24429
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701
Phase separation and superconductivity in the U equals infinity limit of the extended multiband Hubbard model
[SSCL-PREPRINT-763] 10 p3151 N93-27580
Fast interfacial electron transfer: Evidence for inverted region kinetic behavior
[AD-A262434] 10 p3133 N93-27658
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
Transport of electron-waves and single-charges in semiconductor nanostructures
[ETN-93-93609] 10 p3031 N93-27880
Superconductivity, phase separation and charge transfer instability in the U = infinity limit of the three band model of the CuO2 planes
[SSCL-PREPRINT-749] 10 p3153 N93-28140
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
High-performance visible/UV CCD focal plane technology for spacebased applications
11 p3434 N93-28771
Analytical applications of electrified interfaces between two immiscible solutions
[AD-A263085] 11 p3311 N93-29132
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Charge separation in bipolar transistors
[DE93-009624] 11 p3413 N93-30650
Effective interactions between concentration fluctuations and charge transfer in chemically ordering liquid alloys
[DE93-606724] 11 p3327 N93-30778
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

CHARGE TRANSFER DEVICES
NT CHARGE COUPLED DEVICES
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885

CHARGED PARTICLES
NT ALPHA PARTICLES
NT ANTIPROTONS
NT ARGON PLASMA
NT BETA PARTICLES
NT BOUNDARY LAYER PLASMAS
NT COLD PLASMAS
NT COLLISIONAL PLASMAS
NT COLLISIONLESS PLASMAS
NT CONDUCTION ELECTRONS
NT COSMIC PLASMA
NT DENSE PLASMAS
NT DEUTERIUM PLASMA
NT DEUTERONS
NT ELECTRON PLASMA
NT ELECTRON-POSITRON PLASMAS
NT ELECTRONS
NT ENERGETIC PARTICLES
NT EVEN-EVEN NUCLEI
NT HEAVY NUCLEI
NT HELIUM PLASMA
NT HIGH ENERGY ELECTRONS
NT HIGH TEMPERATURE PLASMAS
NT HOT ELECTRONS
NT HYDROGEN PLASMA
NT HYPERNUCLEI
NT INNER RADIATION BELT
NT IONIZED GASES
NT LASER PLASMAS
NT MAGNETIC CLOUDS
NT MAGNETICALLY TRAPPED PARTICLES
NT METALLIC PLASMAS
NT MICROPLASMAS
NT NITROGEN PLASMA
NT NONEQUILIBRIUM PLASMAS
NT NUCLEI (NUCLEAR PHYSICS)
NT ODD-EVEN NUCLEI
NT OUTER RADIATION BELT
NT OXYGEN PLASMA
NT PARTONS
NT PHOTOELECTRONS
NT PLASMA CLOUDS
NT PLASMA FOCUS
NT PLASMA JETS
NT PLASMA LAYERS
NT PLASMA SHEATHS
NT PLASMAS (PHYSICS)
NT POLARONS
NT POSITRONS
NT PROTONS
NT RADIATION BELTS
NT RADIO JETS (ASTRONOMY)
NT RECOIL PROTONS
NT RELATIVISTIC ELECTRON BEAMS
NT RELATIVISTIC PLASMAS
NT ROTATING PLASMAS
NT SOLAR ELECTRONS
NT SOLAR PROTONS
NT SOLAR WIND
NT SPACE PLASMAS
NT STELLAR WINDS
NT STRONGLY COUPLED PLASMAS
NT THERMAL PLASMAS
NT TOROIDAL PLASMAS
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
The NASA/National Space Science Data Center trapped radiation environment model program, 1964 - 1991
[NASA-TM-107993] 02 p0349 N93-11003
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
Multispectral observations of the Jovian aurora
02 p0487 N93-11167
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
Transverse phase-space evolution in non-stationary charged particle beams
[DE93-000618] 05 p1296 N93-15673
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils
[DE93-000792] 05 p1293 N93-17381
Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
On the time dependent hydrodynamic model for semiconductors
[ETN-93-93027] 06 p1518 N93-18098
Fast algorithms for transport models
[DE93-003881] 06 p1657 N93-19508
Note on the scattering of electromagnetic waves from charged dust particles in a plasma
06 p1725 N93-19539
Theory of radar scattering from dusty plasmas
06 p1516 N93-19540
Charged particle track reconstruction using artificial neural networks
[DE93-003014] 06 p1658 N93-19630
Optical tracking of charged particle beams
[AD-D015592] 07 p2061 N93-20802
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
In-situ characterization of growth and interfaces in a-Si:H devices
[DE93-000051] 08 p2504 N93-22928
Motion of charged particles in pulsar magnetospheres
08 p2550 N93-24161
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation
[AD-A260284] 08 p2483 N93-24234
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Neutron energy determination with a high-purity germanium detector
[NASA-CR-192773] 09 p2900 N93-25890
Overview of charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-007898] 10 p3131 N93-26626
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637
Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF
11 p3573 N93-29639
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791
A generalization of Dirac non-linear electrodynamics, and spinning charged particles
[DE93-609847] 12 p3821 N93-31907
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984
Investigation of transitions from order to chaos in dynamical systems
[DE93-014437] 12 p3833 N93-32290
A unified approach to classical and quantum physics
[DE93-609843] 12 p3833 N93-32411

CHARGING
Studies of the charging of a thin dust layer in a plasma 05 p1313 N93-17320

CHARM (PARTICLE PHYSICS)
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
Charm physics at Fermilab E791
[DE93-006020] 08 p2480 N93-22543
Study of heavy-flavored particles
[DE93-011535] 11 p3569 N93-30128

CHARON
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799

CHARPY IMPACT TEST
Mechanical properties of martensitic alloy AISI 422
[DE93-006563] 09 p2649 N93-25255
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972

CHARRING
Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765

CHARTS
NT BOND GRAPHS
NT FLOW CHARTS
NT GRAPHS (CHARTS)
NT METEOROLOGICAL CHARTS
NT NAUTICAL CHARTS
Design of instrument approach procedure charts: Comprehension speed of missed approach instructions coded in text or icons
[PB92-205673] 02 p0204 N93-11252
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239

CHASSIS
Activities of the Boom and Chassis Group
[NASA-CR-192028] 06 p1544 N93-17975
Boom and chassis articulation joints
[NASA-CR-192059] 06 p1546 N93-18052
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover
[DE93-008340] 10 p3052 N93-28152

CHEBYSHEV APPROXIMATION
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214
On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598

CHECKOUT
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
Structural development of flight systems 05 p1078 N93-15727
Aspect: A formal specification language for detecting bugs
[AD-A256797] 05 p1234 N93-16056
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM)
[NASA-CR-192656] 08 p2152 N93-23033
Process and event abstraction for debugging distributed programs
[ISBN-0-315-51884-7] 08 p2444 N93-24607
Source-level debugging of automatically parallelized programs
[AD-A261520] 09 p2813 N93-26378
TCMS operations and maintenance philosophy
[NASA-TM-108756] 09 p2873 N93-26418
Test, Control and Monitor System (TCMS) operations plan
[NASA-CR-193098] 09 p2873 N93-26419
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850

CHECKOUT EQUIPMENT
U TEST EQUIPMENT

CHELATE COMPOUNDS
U CHELATES

CHELATES
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577
Synthetic lubricating oil greases containing metal chelates of Schiff bases
[AD-D015694] 11 p3333 N93-29458
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665

CHEMICAL ANALYSIS
NT CHROMATOGRAPHY
NT GAS ANALYSIS
NT GAS CHROMATOGRAPHY
NT LIQUID CHROMATOGRAPHY
NT MICROANALYSIS
NT NEUTRON ACTIVATION ANALYSIS
NT OZONOMETRY
NT POTENTIOMETRIC ANALYSIS
NT QUALITATIVE ANALYSIS
NT QUANTITATIVE ANALYSIS
NT SPECTROSCOPIC ANALYSIS
NT URINALYSIS
NT VOLUMETRIC ANALYSIS
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
Fiber optic sensors for environmental applications: A brief review
[DE92-040170] 03 p0710 N93-13576
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
On the role of water growth in atmospheric aerosol 04 p0922 N93-14875
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Fingerprinting of Materials
[NASA-CR-184482] 05 p1199 N93-15916
New high temperature plasmas and sample introduction systems for analytical atomic emission and mass spectrometry
[DE92-040602] 05 p1308 N93-16145
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
The 4th International Symposium on Analysis and Detection of Explosives: Programs and abstracts
[AD-A258029] 05 p1129 N93-17751
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
The Apollo 17 region: A compositional overview 06 p1736 N93-18796
X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
A review of the associated particle imaging technique
[DE93-002238] 07 p2061 N93-20023
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements 08 p2485 N93-22184
Lunar science measurements and instruments for resource characterization
[DE93-005436] 08 p2553 N93-22905
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Proceedings of the 15th Annual EPA Conference on Analysis of Pollutants in the Environment
[PB93-152601] 08 p2388 N93-23681
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study 09 p2736 N93-24938
Studies of the analyte-carrier interface in flow injection analysis
[DE93-008374] 09 p2644 N93-25311
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Quality control: Variability in protocols
[PB93-157790] 09 p2766 N93-25876
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Chemical analyses of provided samples
[NASA-CR-193211] 10 p2993 N93-27077
CSTL technical activities 1992
[PB93-173482] 10 p3219 N93-27399
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Mars aqueous chemistry experiment
[NASA-CR-193134] 10 p3211 N93-27604
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Transcutaneous analyte measuring methods
[AD-A262861] 11 p3494 N93-29509
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244
Rapid instrumental and separation methods for monitoring radionuclides in food and environmental samples
[DE93-608744] 12 p3820 N93-31813

Low-temperature formation of magnetic iron oxides
12 p3863 N93-31946
Advances in Analysis and Detection of Explosives. Proceedings of the 4th International Symposium on Analysis and Detection of Explosives
[AD-A265002] 12 p3713 N93-32077

CHEMICAL ATTACK
NT INTERGRANULAR CORROSION
NT TRANSGRANULAR CORROSION

CHEMICAL BONDS
NT COVALENT BONDS
NT HYDROGEN BONDS
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Transformation of Cl bonding structures on Si(100)-(2x1)
[AD-A253739] 01 p0040 N93-10748
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Intermolecular potential functions from spectroscopic properties of weakly bound complexes
[DE92-018643] 03 p0701 N93-12745
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Growth on the reconstructed diamond (100) surface
[AD-A256954] 05 p1319 N93-16301
The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta*-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Charge-induced structural relaxation in amorphous semiconductors
[MBB-Z-0265-89-PUB] 05 p1151 N93-17641
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627
Defining protein electrostatic recognition processes
[AD-A264838] 11 p3571 N93-30901
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Infinite volume extrapolations of finite cluster calculations. How correct are these?
[AD-A265648] 12 p3809 N93-32170

CHEMICAL CLEANING
Cleaning of a thermal vacuum chamber with shrouds in place 04 p0814 N93-15612
ASRM process development in aqueous cleaning
[NASA-CR-191949] 07 p1829 N93-21355
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Aqueous cleaning of flux residue from solder joints
[KCP-613-4803] 09 p2652 N93-26208

CHEMICAL CLOUDS
NT BARIUM ION CLOUDS

CHEMICAL COMPOSITION
NT CARBON DIOXIDE CONCENTRATION
NT STELLAR COMPOSITION
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Protective coatings for niobium alloys and their properties
[AD-A254252] 01 p0033 N93-10706
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Laser glasses
[DE92-018061] 02 p0267 N93-11549
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
A neural network approach for the investigation of chemical phenomena
[DE92-019205] 03 p0691 N93-13079
The nature of scales grown on binary Cr-Nb alloys
[DE92-019283] 03 p0542 N93-13080
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
Density contrast shell models for planetary nebulae
03 p0756 N93-13850
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086
Aerosol and light extinction databases for North America and Europe
[AD-A256710] 05 p1213 N93-16169
Measurements of carbon dioxide in the Southern Ocean along the WOCE S-4 section
[DE92-040334] 05 p1220 N93-16294
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
Remote assessment of lunar resource potential
05 p1391 N93-17268
Cosmic dust 06 p1592 N93-18554
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Comets: Role and importance to exobiology
06 p1592 N93-18556
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503
06 p1735 N93-18788
The Apollo 17 region: A compositional overview
06 p1736 N93-18796
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221
06 p1738 N93-18807
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
Spectroscopic wear detector
[NASA-CASE-LEW-15200-1] 06 p1474 N93-18856
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
15 years of comet photometry: A comparative analysis of 80 comets 06 p1698 N93-19217
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry
[DE93-003839] 07 p2098 N93-21849
PFNA technique for the detection of explosives
07 p1765 N93-21865
Predictive sensor method and apparatus
08 p2305 N93-22202
Metallization and insulization during impact
[DE93-004708] 08 p2500 N93-22420
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendocrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Aerosol phase transformation in the atmosphere
[DE93-001903] 08 p2384 N93-22936

Thermal diffusivity measurement of diamond materials
[AD-A260431] 08 p2238 N93-22947
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036
Polybenzoxazoles via aromatic nucleophilic displacement
[NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
Cosmic ray composition investigations using ICE/ISEE-3
[NASA-CR-192808] 09 p2900 N93-25241
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Modeling of H2/N2O flames 09 p2627 N93-26026
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Accelerator Mass Spectrometry facility (AMS)
[AD-A262458] 10 p3134 N93-27829
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
The APX spectrometer for Martian missions 11 p3434 N93-28776
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434
Progress report on the Heavy Ions in Space (HIIS) experiment 11 p3573 N93-29645
Multiwavelength studies of classical nova shells 11 p3636 N93-30412
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898
Photospheric abundances 12 p3878 N93-31408
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments 12 p3863 N93-31943
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367

CHEMICAL COMPOUNDS
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279

CHEMICAL DEFENSE
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
Activated carbon fibers in composites, chemically protective clothing and air purification 07 p1837 N93-21152

CHEMICAL EFFECTS
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179

CHEMICAL ELEMENTS
NT ACTINIDE SERIES
NT ALKALI METALS
NT ALKALINE EARTH METALS
NT ALUMINUM
NT ALUMINUM ISOTOPES
NT AMERICIUM 241
NT AMORPHOUS SILICON
NT ARGON
NT ARGON ISOTOPES
NT ARSENIC
NT BARIUM
NT BERYLLIUM
NT BERYLLIUM 10
NT BISMUTH
NT BORON
NT BORON ISOTOPES
NT BORON 10
NT BROMINE
NT CADMIUM
NT CALCIUM
NT CALCIUM ISOTOPES
NT CALIFORNIUM ISOTOPES
NT CARBON
NT CARBON ISOTOPES
NT CARBON 12
NT CARBON 13
NT CARBON 14
NT CERIUM
NT CESIUM
NT CESIUM 137
NT CHLORINE
NT CHROMIUM
NT CHROMIUM ISOTOPES
NT COBALT
NT COBALT 60
NT COPPER
NT DEUTERIUM
NT DYSPROSIUM
NT ERBIUM
NT ERBIUM ISOTOPES
NT FERMIUM
NT FLUORINE
NT FLUORINE ISOTOPES
NT GADOLINIUM
NT GALLIUM
NT GALLIUM ISOTOPES
NT GERMANIUM
NT GERMANIUM ISOTOPES
NT GOLD
NT GOLD ISOTOPES
NT HAFNIUM ISOTOPES
NT HALOGENS
NT HEAVY ELEMENTS
NT HELIUM
NT HELIUM ISOTOPES
NT HOLMIUM
NT HOLMIUM ISOTOPES
NT HYDROGEN
NT HYDROGEN ISOTOPES
NT INDIUM
NT IODINE
NT IODINE ISOTOPES
NT IRIDIUM
NT IRON
NT IRON ISOTOPES
NT ISOTOPES
NT KRYPTON
NT KRYPTON ISOTOPES
NT KRYPTON 85
NT LANTHANUM ISOTOPES
NT LEAD (METAL)
NT LEAD ISOTOPES
NT LIGHT ELEMENTS
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT LIQUID HYDROGEN
NT LIQUID NITROGEN
NT LIQUID OXYGEN
NT LIQUID SODIUM
NT LITHIUM
NT LITHIUM ISOTOPES
NT MAGNESIUM
NT MAGNESIUM ISOTOPES
NT MANGANESE
NT MERCURY (METAL)
NT MERCURY ISOTOPES
NT METALLIC HYDROGEN
NT METALLOIDS
NT MOLYBDENUM
NT NEODYMIUM
NT NEODYMIUM ISOTOPES
NT NEON
NT NEPTUNIUM ISOTOPES
NT NICKEL
NT NICKEL ISOTOPES
NT NIOBIUM
NT NITROGEN
NT NITROGEN ISOTOPES
NT NUCLIDES
NT OXYGEN
NT OXYGEN ISOTOPES
NT OXYGEN 18
NT PALLADIUM
NT PHOSPHORUS
NT PLATINUM
NT PLUTONIUM
NT PLUTONIUM 239
NT POLONIUM 210
NT POTASSIUM
NT PROTACTINIUM
NT RADIOACTIVE ISOTOPES
NT RADON
NT RADON ISOTOPES
NT RARE EARTH ELEMENTS
NT RARE GASES
NT RHENIUM
NT RHODIUM
NT RUBIDIUM
NT RUBIDIUM ISOTOPES
NT RUTHENIUM
NT SAMARIUM
NT SCANDIUM ISOTOPES
NT SELENIUM
NT SILICON
NT SILICON ISOTOPES
NT SILVER
NT SODIUM
NT SODIUM VAPOR
NT STRONTIUM
NT STRONTIUM ISOTOPES
NT SULFUR
NT TANTALUM
NT TELLURIUM ISOTOPES
NT THALLIUM
NT THORIUM
NT THULIUM ISOTOPES
NT TIN ISOTOPES
NT TITANIUM
NT TRANSURANIUM ELEMENTS
NT TRITIUM
NT TUNGSTEN
NT URANIUM
NT VANADIUM
NT XENON
NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135
NT YTTERBIUM ISOTOPES
NT YTTRIUM
NT ZINC
NT ZIRCONIUM
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Thermodynamic data for fifty reference elements
[NASA-TP-3287] 07 p2084 N93-19977
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949

CHEMICAL ENERGY
NT ENERGY OF FORMATION
Determination of parameters of a new method for predicting alloy properties
[NASA-TM-105895] 02 p0257 N93-11609
Electrical power integration for lunar operations 10 p2988 N93-27966
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284

Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097

CHEMICAL ENGINEERING

Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135

Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413

Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135

CSTL technical activities 1992
[PB93-173482] 10 p3219 N93-27399

The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446

Near miss reporting in the chemical process industry
[ISBN-9-03-860181-6] 12 p3714 N93-31539

CHEMICAL EQUILIBRIUM

NT ACID BASE EQUILIBRIUM

Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436

APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817

Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152

Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683

Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470

Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471

A novel process for methanol synthesis
[DE93-008037] 09 p2659 N93-25118

NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642

A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003

Regenerable biocide delivery unit, volume 2
[NASA-CR-185701-VOL-2] 10 p3082 N93-27360

Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467

Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748

Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447

EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817

CHEMICAL EVOLUTION

Self-programming of matter and the evolution of proto-biological organizations
[DE92-015244] 01 p0129 N93-10628

The search for life's origins: Progress and future directions in planetary biology and chemical evolution
[NASA-CR-190929] 02 p0487 N93-11603

Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457

Chemical environments of submarine hydrothermal systems
[NASA-CR-191258] 03 p0669 N93-13458

Overview: Exobiology in solar system exploration 06 p1591 N93-18546

The solar system: Importance of research to the biological sciences 06 p1591 N93-18547

The Moon: Biogenic elements 06 p1591 N93-18548

Cosmic dust 06 p1592 N93-18554

Workshop on chemical weathering on Mars, part 2
[NASA-CR-192261] 08 p2554 N93-23192

Exobiology and terrestrial life 08 p2166 N93-24405

Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480

Evidence for a multiphase, inhomogeneous interstellar medium in damped Ly alpha systems 10 p3180 N93-26760

Constraints on chemical evolution models from QSOALS abundances 10 p3162 N93-26769

On the weathering of Martian igneous rocks 12 p3862 N93-31941

Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951

CHEMICAL EXPLOSIONS

NT GAS EXPLOSIONS

Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099

Detonation reactions frozen by free expansion and analyzed by mass spectrometry
[DE92-018605] 02 p0274 N93-11566

Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236

Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813

Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081

Plutonium pyrophoricity
[RFP-4517] 04 p0845 N93-14723

Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363

Static-stress analysis of dual-axis safety vessel
[DE93-001860] 05 p1187 N93-17366

Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497

Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498

Calibrating the BKW-EOS with a large product species data base and measured C-J properties
[DE93-007606] 10 p3008 N93-28151

The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296

A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251

Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836

Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077

Pressure dependence of the reaction propagation rate of TATB to 40 GPa 11 p3319 N93-30082

Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096

The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446

Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447

The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448

NTO polymorphs
[DE93-005451] 12 p3712 N93-31186

CHEMICAL EXTINGUISHERS

U FIRE EXTINGUISHERS

CHEMICAL FRACTIONATION

Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221 06 p1738 N93-18807

CHEMICAL FUELS

NT AIRCRAFT FUELS
NT AUTOMOBILE FUELS
NT CRUDE OIL
NT DIESEL FUELS
NT GASOLINE
NT HIGH ENERGY FUELS
NT HYDROCARBON FUELS
NT HYDROGEN FUELS
NT JET ENGINE FUELS
NT JP-4 JET FUEL
NT JP-5 JET FUEL
NT JP-8 JET FUEL
NT LIQUEFIED NATURAL GAS
NT LIQUID FUELS
NT METAL FUELS
NT NATURAL GAS
NT SYNTHETIC FUELS

CHEMICAL KINETICS

U REACTION KINETICS

CHEMICAL LASERS

Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234

Novel short-wavelength lasers 06 p1543 N93-18472

Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315

Selective reactivity, ultrafast energy transfer and the development of chemically pumped visible lasers
[AD-A260123] 08 p2309 N93-24071

Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137

Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967

Experimental and theoretical study of cw HF chemical laser overtone performance 09 p2713 N93-25420

Experimental and theoretical study of CW HF chemical laser residual fundamental gain 09 p2714 N93-25721

Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367

Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375

CHEMICAL MACHINING

NT ELECTROCHEMICAL MACHINING

Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649

Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011

Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043

CHEMICAL MILLING

U CHEMICAL MACHINING

CHEMICAL PROPERTIES

NT ACIDITY
NT HEAT OF COMBUSTION
NT HEAT OF FORMATION
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
NT SALINITY
NT THERMOCHEMICAL PROPERTIES

Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359

Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218

Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560

High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691

Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697

Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489

Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816

International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220

Polycrystalline tetragonal zirconia in the system CeO2-ZrO2 (Ce-TZP)
[INPE-5285-TAE/007] 06 p1676 N93-19643

Aerosol chemistry in GLOBE 07 p2009 N93-20102

On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft 07 p2011 N93-20281

Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412

Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501

Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392

Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439

Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005

Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060

Use of statistics in computational chemistry
[AD-A264307] 11 p3315 N93-30365

Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937

Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-013082] 12 p3715 N93-32163

CHEMICAL PROPULSION

NT HYBRID PROPULSION

The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001

Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932

Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991

Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614

A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501

Space chemical propulsion test facilities at NASA Lewis Research Center
[NASA-TM-106050] 08 p2204 N93-23405

Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146

On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219

Progress in optical diagnostic development for the electro-thermal chemical program
[DE93-009452] 10 p2997 N93-28452

CHEMICAL REACTION CONTROL

Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835

CHEMICAL REACTIONS

NT ATOMIC RECOMBINATION
NT CARBOXYLATION
NT CHLORINATION
NT COPOLYMERIZATION
NT CRACKING (CHEMICAL ENGINEERING)
NT DECARBONATION
NT DEHYDROGENATION
NT DEIONIZATION
NT DEPOLYMERIZATION
NT DESULFURIZING
NT DIELS-ALDER REACTIONS
NT ELECTROCHEMICAL OXIDATION
NT ENDOTHERMIC REACTIONS
NT EPOXIDATION
NT EXOTHERMIC REACTIONS
NT FERMENTATION
NT FLUORINATION
NT GLYCOLYSIS
NT HYDROGENATION
NT HYDROGENOLYSIS
NT HYDROLYSIS
NT ION RECOMBINATION
NT METATHESIS
NT METHANATION
NT MICHAEL REACTION
NT NITRATION
NT NITRIDING
NT OXIDATION
NT OXIDATION-REDUCTION REACTIONS
NT OXYGENATION
NT PHOTOCHEMICAL REACTIONS
NT PHOTODECOMPOSITION
NT PHOTOLYSIS
NT PHOTOOXIDATION
NT PHOTOSYNTHESIS
NT PYROLYSIS
NT RADIOLYSIS
NT REDUCTION (CHEMISTRY)
NT RUSTING
NT SULFIDATION
NT THERMAL DECOMPOSITION
NT THERMAL DISSOCIATION
NT TITRATION

Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099

Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216

Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336

Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398

Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416

Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011

Tropospheric processes: Observations and interpretation 02 p0351 N93-11092

Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors 02 p0235 N93-11133

Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150

Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218

Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851

Design and synthesis of molecular systems capable of supporting intracavity chemical reactions
[AD-A251024] 02 p0440 N93-11872

Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100

Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236

Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257

Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482

The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233

Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530

Thermochemistry of atmospheric metal reactions
[AD-A248651] 03 p0543 N93-13733

Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975

The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098

Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283

Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418

A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511

Method for detecting chemical vapors using a lasing dye sensor
[AD-D015424] 04 p0885 N93-14821

Variational transition state theory
[DE92-040498] 04 p0842 N93-14908

Computed potential energy surfaces for chemical reactions
[NASA-CR-190741] 04 p0843 N93-15356

Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357

A global potential energy surface for ArH2 04 p0843 N93-15358

Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504

Center for Modeling of Turbulence and Transition (CMOTT): Research Briefs, 1992
[NASA-TM-105834] 05 p1152 N93-15792

Physics and chemistry in high electric fields
[AD-A257138] 05 p1280 N93-15854

A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139

The pyro-metallurgical, physical, and mechanical behavior of weldments
[AD-A256998] 05 p1112 N93-16234

The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN
[DE92-040734] 05 p1285 N93-16268

LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614

Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358

Computed Potential Energy Surfaces for Chemical Reactions
[NASA-CR-191804] 05 p1107 N93-17407

Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels 05 p1107 N93-17408

Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409

Substituted 1,1,1-triaryl 2,2,2-trifluoroethanes and processes for their synthesis
[NASA-CASE-LEW-14345-7] 05 p1095 N93-17412

Effects of delocalization on intrinsic barriers for H-atom transfer: Implications for the radical hydrogen transfer reaction
[DE93-001565] 05 p1107 N93-17461

Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626

Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398

Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483

Energy storage in supercritical solvents 06 p1498 N93-18492

Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers
[DE93-002324] 06 p1674 N93-18521

A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step 06 p1415 N93-19316

Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470

Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491

A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840

Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859

Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055

Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269

Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386

Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424

Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515

Pressure-reaction synthesis of titanium composite materials
[PB93-135036] 08 p2208 N93-22591

Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767

Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824

Polybenzoxazoles via aromatic nucleophilic displacement
[NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077

Chemical kinetics and photochemical data for use in stratospheric modeling
[NASA-CR-192795] 08 p2392 N93-23124

Plasma edge diagnostics 08 p2495 N93-23261

Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321

Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658

Selective reactivity, ultrafast energy transfer and the development of chemically pumped visible lasers
[AD-A260123] 08 p2309 N93-24071

Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526

Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615

Design and synthesis of reactive separation systems
[DE93-008764] 09 p2642 N93-25115

The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240

Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312

Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488

Chemical dynamics studies of high energy species
[AD-A260743] 09 p2652 N93-25676

Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037

Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614
Theoretical studies of the reactions and spectroscopy of radical species relevant to combustion reactions and diagnostics
[DE93-010247] 10 p2993 N93-26619
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Silazine to silica 10 p2997 N93-28257
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials
11 p3343 N93-30063
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy
11 p3318 N93-30073
Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions
11 p3319 N93-30075
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080
Metallization at detonation fronts in solids
11 p3319 N93-30087
Microstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate
11 p3319 N93-30092
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
The kinetics of the hydriding of uranium metal 2
[DE93-004766] 12 p3704 N93-31184
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
Using the Viking biology experimental results to obtain chemical information about Martian regolith
12 p3865 N93-31955
Time accurate simulations of compressible shear flows
[NASA-CR-193410] 12 p3728 N93-32371

CHEMICAL REACTORS
Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
Molten salt reactor for potentiostatic electroplating
[AD-D015358] 03 p0551 N93-13101
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
MHD seed recovery/regeneration
[DE93-000904] 05 p1312 N93-17347
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Recent results and new hardware developments for protein crystal growth in microactivity
[NASA-CR-191994] 07 p1875 N93-21356
MHD seed recovery/regeneration, phase 2
[DE93-006008] 08 p2493 N93-22769
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Thermodynamic and stochastic theory of hydrodynamic and power-producing processes
[DE93-006891] 08 p2515 N93-23028
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638
Innovative optoelectronic materials and structures using OMVPE
[AD-A262202] 10 p3152 N93-27683
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188

CHEMICAL RELAXATION
U MOLECULAR RELAXATION

CHEMICAL RELEASE MODULES
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032

CHEMICAL SHIFT
U CHEMICAL EQUILIBRIUM

CHEMICAL TESTS
NT CHEMICAL ANALYSIS
NT CHROMATOGRAPHY
NT GAS ANALYSIS
NT GAS CHROMATOGRAPHY
NT LIQUID CHROMATOGRAPHY
NT MICROANALYSIS
NT NEUTRON ACTIVATION ANALYSIS
NT OZONOMETRY
NT POTENTIOMETRIC ANALYSIS
NT QUALITATIVE ANALYSIS
NT QUANTITATIVE ANALYSIS
NT SALT SPRAY TESTS
NT SPECTROSCOPIC ANALYSIS
NT URINALYSIS
NT VOLUMETRIC ANALYSIS

CHEMICAL VAPOR DEPOSITION
U VAPOR DEPOSITION

CHEMICAL VAPOR INFILTRATION
Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445

CHEMICAL WARFARE
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491

CHEMICALLY REACTING FLOW
U REACTING FLOW

CHEMILUMINESCENCE
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications
03 p0656 N93-13784
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144
Analysis of explosives using high speed gas chromatography with chemiluminescent detection
07 p1775 N93-21923

CHEMISORPTION
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Transformation of Cl bonding structures on Si(100)-(2x1)
[AD-A253739] 01 p0040 N93-10748
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
Atomic and electronic structure of metals and alloys: Clean surfaces and chemisorbed molecules
[DE93-004371] 06 p1487 N93-18452
Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Resonant tunneling through chemisorbed halogen atoms on Ag(111)
[AD-A261794] 09 p2868 N93-26254
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814

CHEMISTRY
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198

CHEMONUCLEAR PROPULSION
U CHEMICAL PROPULSION
U NUCLEAR PROPULSION

CHEMOTHERAPY
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population
02 p0381 N93-11307
Future approaches to vaccine development single-dose vaccines using controlled-release delivery systems
02 p0382 N93-11310
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736
Measuring the metastatic potential of cancer cells
09 p2794 N93-25566
Immunoconjugates: Magic bullets for cancer therapy?
09 p2796 N93-25567
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409

CHESAPEAKE BAY (US)
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217

Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438

CHILD-LANGMUIR LAW
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328

CHILDREN
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
Space research as a tool to acquaint children and young people with science and technology
08 p2370 N93-23831

CHILLING
U COOLING

CHIMES
U AUDITORY SIGNALS

CHIMNEYS
Investigation of a possible galactic chimney
[AD-A257133] 05 p1364 N93-16077

CHINA
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana
01 p0122 N93-10191
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
A personal viewpoint on the development of China's liquid propellant rocket engines
[AD-A254104] 01 p0027 N93-10813
On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Cloud amount and sunshine duration in the People's Republic of China, 1954-1988
[DE92-041023] 05 p1214 N93-16601
Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Satellite communication services for Tibet autonomous region by domestic satellite in China
10 p3023 N93-26650
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188

CHINA (COMMUNIST) MAINLAND
U CHINA

CHINESE AIRCRAFT
An analysis of the reliability and maintainability of the Jian 6 and Jian 7 aircraft and ways to improve them
[AD-A261060] 09 p2574 N93-26238

CHINESE PEOPLES REPUBLIC
U CHINA

CHINESE SPACE PROGRAM
International Space Year in China
07 p1975 N93-21272

CHINONE
U QUINONES

CHINOOK HELICOPTER
U CH-47 HELICOPTER

CHIPS
A three channel telemetry system
08 p2180 N93-22162

CHIPS (ELECTRONICS)
An MCM/chip concurrent engineering validation
[AD-A253783] 01 p0136 N93-10237
Methodology for the computer-aided design of silicon micromachined devices in a standard CMOS process
[PB92-191246] 01 p0136 N93-10248
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341
RF vacuum microelectronics
[AD-A253910] 02 p0290 N93-11491
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
Multichip module high speed testing
[AD-A254825] 03 p0570 N93-12731
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Silicon neuron
[AD-A255091] 03 p0674 N93-12756
Semiconductor measurement technology: Version 2.0 of the TXYZ thermal analysis program: TXYZ20
[PB92-217603] 03 p0570 N93-12978
Circuit design tool. User's manual, revision 2
[NASA-CR-191361] 03 p0687 N93-13734
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Testability design rating system: Testability handbook, volume 1
[RL-TR-92-12-VOL-1] 04 p0867 N93-14699
An MCM/chip concurrent engineering validation
[AD-A257415] 05 p1233 N93-15863
Temperature distribution and thermally induced stresses in electronic packages
[AD-A257334] 05 p1144 N93-15990
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Analysis and measurement of thermal resistance in a 3-dimensional silicon multichip module populated with assembly test chips
[DE93-000743] 07 p1888 N93-20029
Review on surface mounting components (wire wound chip resistors) development 07 p1797 N93-20459
Improvement of voltage reference Zener diode (1SZ48A) 07 p1797 N93-20462
Review on Schottky barrier diode development
07 p1798 N93-20464
CMOS circuit technique for integrated Viterbi decoders
[ETN-93-92568] 07 p1892 N93-20882
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Driving a car with custom-designed fuzzy inferencing VLSI chips and boards 08 p2451 N93-22218
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Two- and three-dimensional high performance, patterned overlay multi-chip module technology
09 p2694 N93-25581
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596
Gigabit network communications research
[AD-A260644] 09 p2675 N93-25640
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
VLSI for high-speed digital signal processing
[AD-A260754] 09 p2690 N93-25678
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934
AMPHIB: A users manual
[AD-A261769] 09 p2669 N93-26285
Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294
Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311
Planar GaAs diodes for THz frequency mixing applications 10 p3019 N93-27776
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408
Multichip module high speed testing
[AD-A262989] 11 p3408 N93-29427
An MCM/chip concurrent engineering validation
[AD-A262959] 11 p3409 N93-29513
Design of a pixel cell optimized for a data push architecture readout
[DE93-011016] 11 p3616 N93-30122
A single chip high-speed CMOS Viterbi decoder
11 p3358 N93-30238
Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560

CHIPS (MEMORY DEVICES)
Ultra-dense magnetoresistive mass memory
[NASA-CR-190955] 02 p0405 N93-12520
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596
Rutger's CAM2000 chip architecture
[NASA-CR-193078] 10 p3151 N93-27094
The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372
Spacecraft computer technology at Southwest Research Institute 11 p3522 N93-28813

CHIRAL DYNAMICS
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
Studies in theoretical particle physics
[DE93-000648] 05 p1284 N93-16161
On lattice chiral gauge theories
[PREPRINT-794] 05 p1278 N93-16415
Low energy effects of heavy chiral fermions
[PREPRINT-872] 05 p1289 N93-16978
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Non-isospectral extension of the chiral model and its geometry
[SSCL-PREPRINT-735] 10 p3128 N93-28101
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
BRST quantization of 2D-Yang Mills theory with anomalies
[NIKHEF-H/92-13] 12 p3831 N93-31122

CHIRON
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132

CHIRP
NT CHIRP SIGNALS
CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media
03 p0568 N93-14044
Two-dimensional chirp mapping of deep, fluctuating radar targets 06 p1517 N93-19543

CHIRP SIGNALS
High range resolution radar target identification using the Prony model and hidden Markov models
[AD-A259210] 07 p1883 N93-20553

Measurements of the direction of arrival of an oblique chirp sounder signal 08 p2268 N93-23616

CHLORIDES
NT ALUMINUM CHLORIDES
NT AMMONIUM CHLORIDES
NT CALCIUM CHLORIDES
NT CARBON TETRACHLORIDE
NT COPPER CHLORIDES
NT DICHLORIDES
NT HYDROCHLORIC ACID
NT IRON CHLORIDES
NT LITHIUM CHLORIDES
NT SODIUM CHLORIDES

Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644

Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105

Synthesis and conductivity of copolymer of 4,4'-diaminodiphenylamine and terephthaloyl chloride
[AD-A254880] 02 p0273 N93-12440

Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725

Predicting polymer properties by computational methods 2: A comparison of semi-empirical methods
[AD-A256856] 04 p0854 N93-15640

Passivity and stress corrosion cracking of AISI 316 stainless steel in chloride-containing solutions
[ETN-92-92783] 05 p1113 N93-16580

Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612

Stimulated Brillouin scattering phase conjugation
06 p1664 N93-18471

CHLORINATION
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290

CHLORINE
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281

Transformation of Cl bonding structures on Si(100)-(2x1)
[AD-A253739] 01 p0040 N93-10748

Cathodes for molten-salt batteries
07 p1987 N93-20525

Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310

Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551

CHLORINE COMPOUNDS
NT ALUMINUM CHLORIDES
NT AMMONIUM CHLORIDES
NT AMMONIUM PERCHLORATES
NT CALCIUM CHLORIDES
NT CARBON TETRACHLORIDE
NT CHLORIDES
NT CHLORINE OXIDES
NT CHLOROCARBONS
NT COPPER CHLORIDES
NT DICHLORIDES
NT HYDROCHLORIC ACID
NT IRON CHLORIDES
NT LITHIUM CHLORIDES
NT LITHIUM PERCHLORATES
NT PERCHLORATES
NT POTASSIUM PERCHLORATES
NT SODIUM CHLORIDES

Ozone depletion and chlorine loading potentials
02 p0351 N93-11093

Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724

A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919

CHLORINE OXIDES
Millimeter wave Atmospheric Sounder (MAS)
08 p2364 N93-23795

CHLOROAROMATICS
NT CHLOROBENZENES

CHLOROBENZENES
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675

Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290

CHLOROCARBONS
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677

Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486

A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675

An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675

CHLOROETHYLENE
Development of a replacement for trichloroethylene in the two-stage cleaning process
[KCP-613-4941] 09 p2669 N93-26207

CHLOROFLUOROCARBONS
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084

Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398

The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677

Effects of orbital exposure on Halar during the LDEF mission
03 p0549 N93-12788

New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922

Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939

Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505

An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624

Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889

Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178

High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809

Energy and global warming impacts of CFC alternative technologies for foam building insulations
[DE92-019477] 05 p1200 N93-16085

Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265

Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290

Trends in middle-atmosphere ozone
06 p1575 N93-18500

Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972

Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267

Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506

An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675

Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519

Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792

Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292

CHLOROFORM
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096

Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519

CHLOROPHYLLS
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283

Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090

New approaches to the measurement of chlorophyll, related pigments and productivity in the sea
[NASA-CR-190879] 03 p0673 N93-13612

Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189

Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356

Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577

Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data
07 p1955 N93-21578

Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975

Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing
[DE93-006411] 08 p2419 N93-24028

Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637

CHLOROPLASTS
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768

Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104

CHOICE
U SELECTION

CHOKED FLOW
Mathematical analysis of reactive multiphase flows
[AD-A253854] 01 p0083 N93-10810

Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627

CHOLERA
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304

CHOLESKY FACTORIZATION
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209

Parallel sparse Cholesky factorization algorithms for shared-memory multiprocessor systems
[DE92-016829] 01 p0141 N93-10334

Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512

Computing modified Newton directions using a partial Cholesky factorization
[DE93-009584] 10 p3128 N93-28454

Exploiting the memory hierarchy in sequential and parallel sparse Cholesky factorization
[AD-A262849] 11 p3539 N93-29508

CHOLESTEROL
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190

Lipodystrophies in the French military flight crew
12 p3774 N93-32249

Lipidemic profile of Hellenic Airforce officers
12 p3774 N93-32250

Correlation of life-style and dietary concomitants of Greek pilots with serum analytes
12 p3780 N93-32256

CHOLINERGICS
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165

CHONDRITES
NT CARBONACEOUS CHONDRITES
NT MURCHISON METEORITE

Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud
01 p0109 N93-10135

The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795

The Prospector mission
[DE93-000656] 05 p1385 N93-17194

Fragmentation and densities of meteoroids
06 p1700 N93-19118

Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships
06 p1698 N93-19210

Field and laboratory investigations of Antarctic meteorites collected by United States expeditions, 1985-1987
[PB93-182723] 12 p3861 N93-32415

CHOPPERS (ELECTRIC)
U ELECTRIC CHOPPERS

CHORDS (GEOMETRY)
Experiments on swept-wing boundary-layer transition
05 p1162 N93-16829

CHROMATES
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
Corrosion resistant chromate conversion coatings for heat-treated aluminum alloys
[AD-D015366] 02 p0266 N93-11425
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
CHROMATOGRAPHY
NT GAS CHROMATOGRAPHY
NT LIQUID CHROMATOGRAPHY
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842
Fingerprinting of materials: Technical supplement
05 p1199 N93-15917
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795
CHROME
U CHROMIUM
CHROMIC ACID
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum
03 p0544 N93-12779
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
CHROMITES
Effects of composition on sintering of current interconnects in SOFC
[DE93-004837] 10 p3065 N93-27613
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
CHROMIUM
NT CHROMIUM ISOTOPES
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Palladium-chromium static strain gages for high temperatures 03 p0600 N93-13671
The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
OPAL opacities
[DE93-002891] 06 p1733 N93-19828
Electron impact ionization of highly charged lithiumlike ions
[DE93-002895] 07 p2065 N93-21954
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
CHROMIUM ALLOYS
NT CHROMIUM STEELS
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys
[DE92-040978] 04 p0847 N93-15382
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
First-principles approach to alloy phase stability
[DE93-001323] 05 p1115 N93-17031
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396
Development of Ni-Cr-W superalloys for high temperature components in high temperature gas-cooled reactors, part 2
[DE93-764469] 11 p3326 N93-30399
CHROMIUM CARBIDES
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Electrodeposition in low gravity
09 p2663 N93-24774
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
CHROMIUM COMPOUNDS
NT CHROMATES
NT CHROMIC ACID
NT CHROMIUM CARBIDES
NT CHROMIUM OXIDES
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics
[AD-A250930] 01 p0088 N93-10247
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
CHROMIUM ISOTOPES
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
CHROMIUM OXIDES
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Alternative materials for solid oxide fuel cells: Factors affecting air-sintering of chromite interconnections
[DE92-019356] 03 p0638 N93-13082
Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
CHROMIUM STEELS
Thermal stress and strain analysis in traveling autogenous welds
[DE92-019363] 02 p0326 N93-11556
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
CHROMOSOMES
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
CHROMOSPHERE
Chromospheric structure and dynamics
01 p0180 N93-10906
Small scale processes in solar and stellar plasmas
01 p0181 N93-10917
Observation of solar flares at high resolution
01 p0182 N93-10923
Diagnostics of electron-heated solar flares
02 p0488 N93-11877
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures
03 p0770 N93-13476
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
The detection and characterization of high frequency and high-wavenumber solar oscillations
07 p2100 N93-20291
Stellar lyman alpha emission and the local interstellar medium
[NASA-CR-192635] 08 p2541 N93-22381
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
ROSAT x ray survey observations of active chromospheric binary systems and other selected sources
[NASA-CR-192933] 09 p2891 N93-26426
Chromospheric activity in algol binaries
[AD-A261440] 09 p2896 N93-26508
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
Observation of a coronal streamer at meter and decimeter wavelengths 12 p3872 N93-31373
Underneath coronal loops: MSDP observations coordinated with SERTS 4 and NIXT flights
12 p3876 N93-31397
Momentum transport through the chromosphere
12 p3852 N93-31677
Multiple flows in the solar transition region
12 p3857 N93-31704
CHRONOBIOLOGY
U RHYTHM (BIOLOGY)
CHRONOLOGY
NT GEOCHRONOLOGY
The NASA/National Space Science Data Center trapped radiation environment model program, 1964 - 1991
[NASA-TM-107993] 02 p0349 N93-11003
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain
06 p1741 N93-19811
Possible recent and ancient glacial ice flow in the south polar region of Mars 06 p1742 N93-19812
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
A direct mathematical approach to optimize the age-depth relation of deep-sea sediment cores
[MPIM-77] 08 p2414 N93-23636
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285
CHRONOTRONS
U PULSE RATE
U TIME LAG
CHUGGING
U COMBUSTION STABILITY

CHUTES
Studies of granular flow down an inclined chute
[DE92-018871] 03 p0577 N93-13074
CINDER CONES
U CONES (VOLCANOES)
CINEFLUOROGRAPHY
U MOTION PICTURES
U RADIOGRAPHY
CINERADIOGRAPHY
U MOTION PICTURES
U RADIOGRAPHY
CIRCADIAN RHYTHMS
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Sleep inertia: Is there a worst time to wake up?
[AD-A256602] 04 p0934 N93-14240
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
Study of SCN neurochemistry using in vivo microdialysis in the conscious brain: Correlation with circadian activity rhythms
[AD-A259803] 08 p2421 N93-23459
Control and circadian behavior by transplanted suprachiasmatic nuclei
[AD-A264553] 11 p3496 N93-30382
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421
Photoreceptors regulating circadian behavior: A mouse model
[AD-A264881] 11 p3497 N93-30908
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267
CIRCLES (GEOMETRY)
NT GREAT CIRCLES
The division of a circle or spherical surface into equal-area cells or pixels
[AD-A257770] 05 p1192 N93-17726
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
CIRCUIT BOARDS
A four channel 250 MHz visual counter
[DE92-016920] 01 p0086 N93-10444
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Development of high heat radiation printed boards
07 p1796 N93-20456
Vacuum multilayer lamination of printed wiring boards
[DE93-004912] 07 p1894 N93-21727
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
Aqueous cleaning of flux residue from solder joints
[KCP-613-4803] 09 p2652 N93-26208
Prototype and short-run printed circuit board creation
[AD-A263245] 11 p3409 N93-29655
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370
CIRCUIT BREAKERS
High speed solid state circuit breaker
09 p2694 N93-25598
CIRCUIT DIAGRAMS
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
CIRCUIT PROTECTION
Design and evaluation of a quasi-active delay-line limiter/filter RF protection device
[AD-A254179] 01 p0071 N93-10255
Pulse discharge laser with passive arc protection
[AD-D015601] 07 p1909 N93-20262
Characteristic and development report SA3581/MC4196 Lightning Arrestor Connector (LAC)
[DE93-010610] 11 p3412 N93-30118
Protection and regulation on direct-direct chopping converters
[CNES-NT-129] 12 p3719 N93-31475
CIRCUIT RELIABILITY
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781
VLSI reliability research
[AD-A254883] 02 p0295 N93-12360
Requirements for soldered electrical connections
[NHB-5300.4(3A-2)] 03 p0570 N93-12674
Design for reliability: Current density
[AD-A254770] 03 p0570 N93-12866
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Dynamic behavior of helix interaction circuits
[AD-A261362] 09 p2692 N93-26334
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381
CIRCUITS
NT ADDING CIRCUITS
NT ANALOG CIRCUITS
NT APPLICATION SPECIFIC INTEGRATED CIRCUITS
NT CANCELLATION CIRCUITS
NT COUNTING CIRCUITS
NT COUPLING CIRCUITS
NT DELAY CIRCUITS
NT DIGITAL ELECTRONICS
NT DIGITAL INTEGRATORS
NT DIPLEXERS
NT ELECTRIC BRIDGES
NT EQUIVALENT CIRCUITS
NT FEEDBACK CIRCUITS
NT FIRE CONTROL CIRCUITS
NT FLIP-FLOPS
NT FLUID SWITCHING ELEMENTS
NT FREQUENCY DISCRIMINATORS
NT GATES (CIRCUITS)
NT HYBRID CIRCUITS
NT INTEGRATED CIRCUITS
NT LARGE SCALE INTEGRATION
NT LC CIRCUITS
NT LIMITER CIRCUITS
NT LINEAR INTEGRATED CIRCUITS
NT LOGIC CIRCUITS
NT MAGNETIC CIRCUITS
NT MATRICES (CIRCUITS)
NT MICROWAVE CIRCUITS
NT MIXING CIRCUITS
NT NEGATIVE RESISTANCE CIRCUITS
NT PHASE DETECTORS
NT PHASE SHIFT CIRCUITS
NT POWER SUPPLY CIRCUITS
NT PRINTED CIRCUITS
NT RC CIRCUITS
NT SWITCHING CIRCUITS
NT THRESHOLD GATES
NT TRANSISTOR CIRCUITS
NT TRIGGER CIRCUITS
NT TTL INTEGRATED CIRCUITS
NT VERY LARGE SCALE INTEGRATION
NT VHSIC (CIRCUITS)
NT WHEATSTONE BRIDGES
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
Testability design rating system. Volume 2: Analytical procedure
[AD-A254333] 02 p0413 N93-12146
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
Transducer circuit
[AD-D015376] 03 p0572 N93-13472
Explanation-based knowledge acquisition of electronics
[AD-A255069] 03 p0573 N93-13650
Circuit design tool. User's manual, revision 2
[NASA-CR-191361] 03 p0687 N93-13734
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
Machine intelligence, a foreword: The brain as electronic circuitry; electronic circuitry as a brain
[AD-A255283] 04 p0962 N93-14533
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
A new multiplier-free structure for DFT based on delta modulation
[AD-A255927] 04 p0861 N93-15106
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Sun sensor implementation using solar power arrays
[AD-A257627] 05 p1198 N93-17717
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
On-line process analysis innovation: DiComp (tm) shunting dielectric sensor technology
08 p2287 N93-22200
A sparse architecture low power gated integrator for use with germanium gamma ray spectrometers in remote geochemistry measurements
[DE93-004769] 08 p2303 N93-22491
A variable current bypass shunt for electromagnets
[DE93-004273] 08 p2278 N93-22686
Analysis and correction of noise on electronic circuits in an accelerator environment
[DE93-004816] 08 p2280 N93-23319
Three dimensional transient analysis of microstrip circuits in multilayered anisotropic media
[AD-A259829] 08 p2281 N93-23433
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Asynchronous design for parallel processing architectures
[AD-A259776] 08 p2448 N93-23453
Immunizing digital systems against electromagnetic interference
[DE93-005935] 08 p2271 N93-24041
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Infrared vacuum soldering process for thick-film hybrid microcircuits
[DE93-007483] 08 p2285 N93-24451
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
A design of a fast and area efficient multi-input Muller C-element
[AD-A261002] 09 p2690 N93-25856
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit
09 p2794 N93-26073
Dynamic behavior of helix interaction circuits
[AD-A261362] 09 p2692 N93-26334
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
An MCM/chip concurrent engineering validation
[AD-A262959] 11 p3409 N93-29513
Transient analysis for ground fault distance estimation in electrical distribution networks
[VTT-PUBS-115] 12 p3720 N93-31536

Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842

CIRCULAR CONES
Passive control of supersonic asymmetric vortical flows around cones 04 p0876 N93-14692

CIRCULAR CYLINDERS
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains 03 p0593 N93-14041
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Three dimensional boundary-layer transition on a swept cylinder 05 p1161 N93-16817
A new parameter for predicting crossflow instability 05 p1162 N93-16828
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383
Experimental study of the effect of helical grooves on an infinite cylinder
[AD-A260890] 09 p2676 N93-25912
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control
[NASA-CR-191442] 10 p3037 N93-27008
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077

CIRCULAR ORBITS
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
Modeling and control of a trailing wire antenna towed by an orbiting aircraft
[AD-A256450] 04 p0859 N93-14610
Debris about asteroids: Where and how much?
06 p1703 N93-19136
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites 09 p2679 N93-26127
Evolution of molecular clouds
10 p3203 N93-26892

CIRCULAR PLATES
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials
01 p0045 N93-10470
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513
The vibrations of annular discs: A comparison of experimental and two analytical techniques
01 p0058 N93-10536
Linear and nonlinear analyses of thick composite circular plates using the finite element method
01 p0096 N93-10873
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Contact of orthotropic laminates with a rigid spherical indentor 03 p0533 N93-13778
Delamination buckling in circular plates
07 p1931 N93-20653

CIRCULAR POLARIZATION
High power millimetre-wave polarizers
[AD-A256558] 04 p0867 N93-14803
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165

CIRCULAR SHELLS
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials
02 p0339 N93-12194
Bifurcation and localization instabilities in plastic bending of cylindrical shells 03 p0630 N93-13923

CIRCULAR TUBES
Crushing behavior of tubular structures in multi-materials
[ECL-91-37] 02 p0336 N93-11579
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937

CIRCULAR WAVEGUIDES
A new model for interpreting experimental data from a circular waveguide cavity
[AD-A254067] 01 p0075 N93-10785
Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter
[AD-A257694] 05 p1141 N93-17689

CIRCULATION
NT ATMOSPHERIC CIRCULATION
NT BLOOD CIRCULATION
NT BRAIN CIRCULATION
NT COASTAL CURRENTS
NT EL NINO
NT GULF STREAM
NT OCEAN CURRENTS
NT OCULAR CIRCULATION
NT PULMONARY CIRCULATION
NT WATER CIRCULATION
NT WATER CURRENTS
NT ZONAL FLOW (METEOROLOGY)
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
Management and minimization of photographic wastes at Pantex Plant
[MHSMP-92-01] 04 p0910 N93-14739
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040

CIRCULATION CONTROL AIRFOILS
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover
03 p0497 N93-14035
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934
The numerical simulation of circulation controlled airfoil flowfields 11 p3243 N93-30947

CIRCULATION DISTRIBUTION
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249

CIRCULATORY SYSTEM
NT CARDIOVASCULAR SYSTEM
NT HEART
NT MYOCARDIUM
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823

CIRCUMFERENCES
Concerning the circumference of certain families of graphs 10 p3116 N93-27479
Cycles in tough graphs: Updating the last four years
[MEMO-1091] 12 p3810 N93-32398

CIRCUMSTELLAR MATTER
U STELLAR ENVELOPES

CIRRUS CLOUDS
Evaluation of the vertical distribution of the ice content in cirrus clouds from combined measurements of lidar and infrared radiometers
[ETN-93-92740] 06 p1587 N93-18631
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332
Modeling of cloud/radiation processes for tropical anvils
[AD-A260203] 08 p2410 N93-24470
The representativeness of various clouds as tracers of the flow 10 p3075 N93-26992
CSU FIRE 2 cirrus field experiment: Description of field deployment phase
[NASA-CR-193162] 10 p3077 N93-27292

CISLUNAR SPACE
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems
03 p0556 N93-13983
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063

CITIES
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas
04 p0909 N93-14118
Comparative analysis of the indices of vegetation in urban areas obtained from the TM-Landsat and HRV-Spot data: City of Taubate
[INPE-5418-TDI/482] 06 p1575 N93-19831
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Atlanta ozone precursor monitoring study data report
[PB92-220656] 07 p1991 N93-21495
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes
[DE93-005611] 08 p2312 N93-22737
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
A searching method in a declarative city map
12 p3746 N93-31270
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188

CITRIC ACID
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes
09 p2769 N93-25571

CIVIL AVIATION
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-190811] 02 p0204 N93-11139
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
UK airmisses involving commercial air transport, May-August 1991
[ETN-92-92260] 02 p0203 N93-11357
UK airmisses involving commercial air transport, January-April 1991
[ETN-92-92261] 02 p0298 N93-11358
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
Public-sector aviation issues: Graduate research award papers, 1990 - 1991
[PB92-222629] 03 p0498 N93-13787

Report to Congress: State Block Grant Program
[AD-A254569] 03 p0507 N93-13882
Postmortem alcohol production in fatal aircraft accidents
[AD-A255766] 03 p0498 N93-14026
Aviation accidents, incidents, and violations: Psychological predictors among US pilots
04 p0783 N93-14693
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
Unified Airport Design and Analysis Concepts Workshop
[DOT/FAA/RD-92/17] 05 p1069 N93-16309
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
The NASA High-Speed Research Program
05 p1064 N93-16761
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
The airline quality report, 1992
[NIAR-92-11] 06 p1418 N93-18036
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000
[NASA-CR-192023] 06 p1436 N93-18049
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
The international forum on airline quality teaching guide
[NIAR-92-13] 06 p1680 N93-19376
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident?
06 p1423 N93-19664
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
Criminal acts against civil aviation
[AD-A258760] 06 p1432 N93-19867
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 1: Plenary Session
[NASA-TM-108651] 07 p2085 N93-20329
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
Airline quality issues 1992: Proceedings of the International Forum on Airline Quality
[NIAR-92-10] 07 p1764 N93-21561
Definitional mission for civil aviation master plan for Poland
[PB92-213974] 07 p1760 N93-21713
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
The UK perspective on aviation security
07 p1764 N93-21858
Insights into US domestic aviation
07 p1764 N93-21859
An artificial intelligence-based structural health monitoring system for aging aircraft
08 p2465 N93-22185
Optimal recovery from microburst wind shear
08 p2107 N93-22574
Activities report of Lufthansa German Airlines
[ETN-93-93465] 08 p2117 N93-23004
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988
[PB92-917008] 08 p2117 N93-23187
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
The future role of satellite communications in an improved air traffic management
08 p2275 N93-23518
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
Aircraft fire protection system
[CA-PATENT-1-296-970] 08 p2118 N93-24592
Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-192920] 09 p2585 N93-26052
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
Satellite communications for aeronautical and navigation service 10 p3023 N93-26648
Aircraft accident report: Controlled collision with terrain GP Express Airlines, Inc., Flight 861, A Beechcraft C99, N118GP, Anniston, Alabama, 8 June 1992
[PB93-910403] 10 p2940 N93-27035
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
Rotorcraft master plan 11 p3236 N93-30677
Sandia National Laboratories
11 p3626 N93-30702
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671
Reportable accidents to UK registered aircraft, and to foreign registered aircraft in UK airspace, 1990
[CAP-600] 12 p3674 N93-31730
Civil tiltrotor transport point design: Model 940A
[NASA-CR-191446] 12 p3701 N93-32234
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351

CL-84 AIRCRAFT
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694

CLADDING
Fiber optic polishing system
[AD-D015353] 02 p0446 N93-11052
Characteristics of the Nova laser disk edge cladding epoxy
[DE92-041046] 04 p0853 N93-15462
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
Optical fiber fluorosensor
[NASA-CASE-LAR-14525-1-CU]
07 p2069 N93-22008
Transversely polarized source cladding for an optical fiber
[NASA-CASE-LAR-14652-1-SB]
08 p2486 N93-22039
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182

CLAMPS
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Automatic system for installation and replacement of Space Station components
[NASA-CASE-LEW-14906-1] 02 p0329 N93-12203
Saddle clamp assembly
[NASA-CASE-MFS-28701-1] 05 p1178 N93-17057
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
An apparatus for gripping test specimens
[NASA-CASE-LEW-15345-2] 10 p3052 N93-28127
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps
11 p3283 N93-29369
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
Service equipment for use in hostile environments
[NASA-CASE-LEW-14906-2] 12 p3734 N93-31314

CLARK Y AIRFOIL
U AIRFOIL PROFILES

CLASSICAL MECHANICS
NT ASTRODYNAMICS
NT CELESTIAL MECHANICS
NT KEPLER LAWS
NT ORBITAL MECHANICS
NT SPACE MECHANICS
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Local-equilibrium formalism applied to mechanics of solids
[DE92-016852] 01 p0170 N93-10787
The trajectory analysis of bevel planetary gear trains
[DE92-040898] 04 p0893 N93-15380
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
Classical confined particles 10 p3146 N93-27356
Transformation of the Kepler problem
10 p3156 N93-28068
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes
11 p3306 N93-30863
A unified approach to classical and quantum physics
[DE93-609843] 12 p3833 N93-32411

CLASSIFICATIONS
NT HIERARCHIES
NT INDEXES (DOCUMENTATION)
NT SUBJECTS
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Dynamics of systems with time-varying inertial properties 01 p0054 N93-10517
An evidential reasoning approach to the classification of satellite images
[DLR-FB-91-29] 02 p0342 N93-11140
Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701
Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420
Myths and legends in learning classification rules
[NASA-CR-191236] 03 p0693 N93-13366
Source hierarchy list. Volume 1: A through D
[AD-A256100] 04 p1001 N93-14265
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
Tilted cranking classification of multiband spectra
[DE92-041187] 05 p1283 N93-15959
An improved classification tree analysis of high cost modules based upon an axiomatic definition of complexity 05 p1244 N93-17167
Providing an empirical basis for optimizing the verification and testing phases of software development
05 p1244 N93-17168
A classification procedure for the effective management of changes during the maintenance process
05 p1245 N93-17169
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida
05 p1219 N93-17285
An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986
A classification and bibliography of software prototyping
[AD-A258466] 06 p1619 N93-18268
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346
A comparison between families obtained from different proper elements 06 p1721 N93-19270
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941

An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 2
[RR-875-M] 07 p2056 N93-21395
The influence of high clouds on climate 07 p1956 N93-21588
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies 07 p1959 N93-21608
Operational cloud classification with Meteosat data 07 p1962 N93-21622
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Classification of TM data as a contribution to remote sensing for a hydrological run-off model 08 p2341 N93-22448
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Assessment of actual land use by means of an integrated LIS 08 p2353 N93-23568
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm 08 p2354 N93-23576
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
Face recognition with neural networks
[AD-A259587] 08 p2462 N93-24066
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Distance metric between 3D models and 2D images for recognition and classification
[AD-A260069] 08 p2463 N93-24313
A novel recursive partitioning criterion
[AD-A259921] 08 p2464 N93-24564
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779
The regional planning and control using the satellite data 09 p2740 N93-24788
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information 09 p2741 N93-24796
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
The national parks of Bavarian Forest and Sumava: A Landsat TM perspective on the structure and dynamics of the largest woodland of Central Europe 09 p2748 N93-24837
Application of photographic remote sensing data from space for information about forests 09 p2748 N93-24838
The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845
Swedish forest information atlas 09 p2749 N93-24847
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS 09 p2751 N93-24855
Registration of the use of agricultural fields and soil erosion using satellite remote sensing 09 p2751 N93-24856
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857
Biodiversity indication by Earth observation data 09 p2751 N93-24858
Combining spectral information with crop rotation knowledge for crop classifications 09 p2752 N93-24861
Tree classification software 09 p2814 N93-25591
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942
The probabilistic neural network architecture for high speed classification of remotely sensed imagery 09 p2824 N93-25972
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements 09 p2824 N93-25974
Classifying multispectral data by neural networks 09 p2825 N93-25976
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Image classification using Markov random fields with two new relaxation methods: Deterministic pseudo annealing and modified metropolis dynamics
[INRIA-RR-1606] 11 p3553 N93-28510
Preprocessing remotely-sensed data for efficient analysis and classification
[DE93-007367] 11 p3611 N93-28580
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
Security classification of information
[DE93-012416] 11 p3612 N93-28840
Evidence-based classification of satellite image data 11 p3459 N93-28931
New classification methods 11 p3459 N93-28932
A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
A neural network based approach for machine fault diagnosis
[VTT-TIED-1274] 11 p3543 N93-29998
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
Structurally stable quadratic systems without limit cycles
[REPT-92-58] 12 p3805 N93-31501
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143
Intelligent assistance in scientific data preparation 12 p3843 N93-32144
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305

CLASSIFIERS
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
A mixed excitation vocoder with fuzzy logic classifier
[AD-A256834] 04 p0864 N93-15636
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Acoustophoresis separation method
[NASA-CASE-LAR-13388-2] 07 p1846 N93-20570
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492

CLASSIFYING
Implementation of parallel algorithms
[AD-A253638] 01 p0140 N93-10227
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Neural network cloud classification research
[AD-A264628] 11 p3484 N93-30176

CLATHRATES
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Structure and dynamics in low dimensional guest-host solids
[DE93-006498] 08 p2504 N93-22887
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230

CLAYS
NT MONTMORILLONITE
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud 01 p0109 N93-10135
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill 09 p2659 N93-25585
Composition of near-Earth asteroids 10 p3205 N93-26690
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars 12 p3864 N93-31948
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961

CLEAN ENERGY
Documentation for propane fleet conversion cost-effectiveness model
[PB93-165611] 09 p2720 N93-26590

CLEAN FUELS
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499

CLEAN ROOMS
Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892

CLEANERS
NT AIR FILTERS
ASRM process development in aqueous cleaning
[NASA-CR-191949] 07 p1829 N93-21355
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Performance of gas turbine compressor cleaners
[NLR-TP-91237-U] 12 p3681 N93-31111

CLEANING
NT CHEMICAL CLEANING
NT ULTRASONIC CLEANING
NT WASHING
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624

Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370

CLEANLINESS
Printed wiring assembly cleanliness
[DE93-006040] 08 p2277 N93-22524

CLEAR AIR TURBULENCE
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center
[NASA-CR-4474] 04 p0924 N93-15581
ExperCAT case studies
[AD-A256177] 05 p1211 N93-15871
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343

CLEARANCES
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
Measurement and prediction of tip-clearance effects in a linear turbine cascade
[ISBN-0-315-68826-2] 08 p2130 N93-24176
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275

CLEAVAGE
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys
[NASA-CR-191932] 06 p1674 N93-18593
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886

CLIMATE
Shortened Test Heating Season (STHS) 01 p0043 N93-10314
Climate Monitoring and Diagnostics Laboratory
[PB92-162346] 01 p0105 N93-10772
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
CCL working group on climate data
[WCDMP-18] 02 p0370 N93-11897
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US 03 p0664 N93-13631
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
Integration of vegetation indices and thermal measurements for ecosystem modeling 03 p0646 N93-13721
Statistical relationships between tree growth and climate in western North America 03 p0648 N93-14096
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Diagnostic studies of climate variability
[DE93-002837] 06 p1586 N93-18403
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies 06 p1741 N93-19810
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion 06 p1743 N93-19819
Global temperature variations 07 p2003 N93-20068
Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076
Life cycles of transient planetary waves 07 p2004 N93-20077
A modeling study of marine boundary layer clouds 07 p2010 N93-20105
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
The influence of high clouds on climate 07 p1956 N93-21588
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Monthly precipitation and runoff data for validation of climate models 07 p1959 N93-21605
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
A prompt start: Implementing the framework convention on climate change
[DE93-005062] 08 p2383 N93-22716
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
CHAMMP
[AD-A260190] 08 p2403 N93-22765
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
Chaos theory and its application in the atmosphere 08 p2398 N93-24082
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
Empirical determination of the effects of clouds on the Earth's Radiation Budget over the Pacific Ocean
[NASA-CR-192696] 08 p2401 N93-24485
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Verification of a climate convention: Role and limitations of a space based remote sensing system 09 p2738 N93-24781
Proceedings of the Ocean Climate Data Workshop
[NASA-TM-108711] 09 p2732 N93-24915
International organisation of ocean programs: Making a virtue of necessity 09 p2732 N93-24917
Role of the ocean in climate changes 09 p2732 N93-24918
The role of the World Data Centers in handling ocean climate data 09 p2732 N93-24919
Operational seasonal and interannual predictions of ocean conditions 09 p2733 N93-24921
Indian Ocean analyses 09 p2733 N93-24925
Ocean climate data for user community in West and Central Africa: Needs, opportunities, and challenges 09 p2735 N93-24933
International ocean services: Is it time - will it ever be time? 09 p2737 N93-24941
Computer systems 09 p2737 N93-24942
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
Evaluating climate-vegetation interactions at climate model sub-grid scales 09 p2764 N93-25476
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Land surface processes and climate modeling 09 p2783 N93-25685
National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
The Earth's climate as a dynamical system
[DE93-004666] 09 p2767 N93-26496
A prototype climate information system
[AD-A261799] 10 p3075 N93-26630
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Direct volume visualization of three-dimensional vector fields
[DE93-009233] 11 p3524 N93-28550
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
The 17th Annual Climate Diagnostics Workshop
[PB93-183895] 11 p3483 N93-29664
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043
Mars brine formation experiment 12 p3864 N93-31949
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

CLIMATE CHANGE
The current and future environmental role of atmospheric methane: Model studies and uncertainties
[NASA-CR-190662] 01 p0104 N93-10256
Evaluation of Seasat/Geosat orbits and altimetry with application to long-term sea level changes in the North Pacific 01 p0103 N93-10847
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Radiative forcing of climate 02 p0351 N93-11094
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233

Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
The broad band overlap problem in atmospheric trace gases 03 p0641 N93-12624
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
NOAA Workshop on Climate Scale Operational Precipitation and Water Vapor Products
[NOAA-TR-NESDIS-62] 03 p0662 N93-13066
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
Climate sensitivity study with energy balance models 03 p0666 N93-13817
Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Natural and anthropogenic climate change
[DE93-000898] 05 p1200 N93-16162
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Climate change and related activities
[DE93-000477] 05 p1201 N93-16191
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
Modeling the uncertain impacts of climate change
[DE92-041339] 05 p1204 N93-17370
Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Global Change Research Program: A component of the US Global Change Research Program. 1993 research opportunities
[NSF-92-77] 06 p1572 N93-18319
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
Diagnostic studies of climate variability
[DE93-002837] 06 p1586 N93-18403
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
Reports to the nation on our changing planet. Fall 1992, no. 2: Our ozone shield
[NASA-CR-190953] 06 p1573 N93-18438
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
The US global change research program: Early achievements and future directions 06 p1573 N93-18864
Orbital, Rotational, and Climatic Interactions
[NASA-CP-3185] 06 p1579 N93-18962
Geodynamic contributions to global climatic change 06 p1575 N93-18963
Modeling orbital changes on tectonic time scales 06 p1581 N93-18971
Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
The orbital record in stratigraphy 06 p1582 N93-18974
Detecting change as it occurs
[NASA-CR-191939] 06 p1574 N93-19484
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
Global change information support: A north-south coalition
[NASA-TM-108983] 06 p1575 N93-19940
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Space program in Indonesia 07 p1975 N93-21273
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
The global climate system. Climate system monitoring 07 p2014 N93-21450
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Global models of ecosystem change 07 p1953 N93-21570
Earth observation in the TIGER programme of the UK Natural Environment Research Council 07 p1953 N93-21572
Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584
A 2 x CO2 experiment with prescribed changes in sea surface temperature 07 p1958 N93-21598
Comparison of monthly precipitation analyses derived from conventional measurements, satellite estimates and model results 07 p1958 N93-21599
Lake remote sensing for global climate research 07 p1958 N93-21602
Global Change Data Base Pilot (Diskette) Project for Africa. Dase base documentation version 1.1
[PB93-117927] 07 p2000 N93-21686
US Global Change Data and Information Management Program Plan: A report by the Committee on Earth and Environmental Sciences
[PB93-101293] 07 p1993 N93-21695
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800
Screening analysis of CO2 utilization and fixation
[DE93-004313] 07 p1994 N93-21850
The Finnish research programme on climate change
[DE93-752870] 08 p2383 N93-22597
A prompt start: Implementing the framework convention on climate change
[DE93-005062] 08 p2383 N93-22716
Prognostic cloud water in the Los Alamos GCM
[DE93-000679] 08 p2404 N93-22772
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
Bibliography of global change, 1992
[NASA-SP-7102] 08 p2342 N93-23239
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
The Earth Observing System 08 p2356 N93-23749
Satellite-borne Earth observations in the framework of German global change research 08 p2357 N93-23755
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential 08 p2362 N93-23780
Broadband imaging spectrometer technology and its use potential for environmental change mission 08 p2364 N93-23791
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
Innovative interactive Earth systems science courseware for middle and high school students 08 p2334 N93-23823
GEOSCOPE: An interactive global change encyclopedia 08 p2370 N93-23833
Integrated global environmental (global change) data activities support researchers and educators 08 p2370 N93-23834
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS) 08 p2372 N93-23844
NASDA's Earth observing programs and the contribution to resolving global environment programs 08 p2372 N93-23846
A snow cover model for global climatic simulations
[MPIM-85] 08 p2388 N93-23861
Effects of UV-B and global climate change on rice
[PB93-135622] 08 p2388 N93-23874
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships 08 p2411 N93-24578
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Role of the ocean in climate changes 09 p2732 N93-24918
Sea level variation 09 p2734 N93-24929
Data management for JGOFS: Theory and design 09 p2735 N93-24935
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144

Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Inverse sequential procedures for the monitoring of time series
[NASA-CR-192959] 09 p2765 N93-25666
Response and feedbacks of forest ecosystems to global climate change
[PB93-167252] 09 p2767 N93-26510
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
Southern global change program. Determining the relationships between air pollutants, climate change, and southern forests
[PB93-176246] 10 p3069 N93-27410
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
Modeling land-surface/atmosphere dynamics for CHAMMP
[DE93-008520] 11 p3476 N93-28677
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Chemistry of the atmosphere: Its impact on global change. CHEMRAWN 7: Perspectives and recommendations
[PB93-180644] 11 p3488 N93-29670
Trend survey on the elucidation of the global warming mechanism by the governments of major industrialized nations
[DE93-776427] 11 p3470 N93-29672
Simulation of landscape disturbances and the effect of climatic change
[DE93-011615] 11 p3472 N93-30131
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883
Radar studies of the West Antarctic ice streams 12 p3760 N93-31891
Aerogeophysical evidence for active volcanism beneath the West Antarctic Ice Sheet 12 p3761 N93-31895
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926
Climatic effects of turbofan emissions in the stratosphere and the higher troposphere 12 p3753 N93-31927
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

CLIMATOLOGY
NT AGROCLIMATOLOGY
NT MICROCLIMATOLOGY
NT PALEOCLIMATOLOGY
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Radiative forcing of climate 02 p0351 N93-11094
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
CCL working group on climate data
[WCDMP-18] 02 p0370 N93-11897
Atmospheric dispersion in mountain valleys and basins 02 p0355 N93-11920
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring 03 p0664 N93-13643
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics 04 p0918 N93-14115
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Observation of the Earth-atmosphere system by NOAA satellite (acquisition, production, application, and use of NOAA data)
[BCRS-92-02] 05 p1207 N93-16221
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Radiation fluxes at the FIFE site
[NASA-CR-191717] 05 p1208 N93-16718
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
Diagnostic studies of climate variability
[DE93-002837] 06 p1586 N93-18403
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
Global rainfall monitoring by SSM/I 07 p2003 N93-20069
Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071
Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083
Climatic variation of storms 07 p2006 N93-20084
OLS data system/global survey of lightning 07 p2006 N93-20085
Atmospheric electricity/meteorology analysis 07 p2006 N93-20086
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
Infrared backscatter climatology and MACAWS 07 p2009 N93-20098
CO2 lidar backscatter experiment 07 p2009 N93-20103
Remote sensing of water vapor features 07 p2010 N93-20107
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609
Climatological study of ozone in the boundary layer above Belgium
[MISC-SER-A-127] 07 p1989 N93-20925
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
The global climate system. Climate system monitoring 07 p2014 N93-21450
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
CHAMMP
[AD-A260190] 08 p2403 N93-22765
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM 08 p2354 N93-23573
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
A snow cover model for global climatic simulations
[MPIM-85] 08 p2388 N93-23861
Effects of UV-B and global climate change on rice
[PB93-135622] 08 p2388 N93-23874
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568

Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships
08 p2411 N93-24578
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain)
09 p2738 N93-24780
The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813
World Ocean Circulation Experiment
09 p2733 N93-24922
The Global Ocean Observing System
09 p2733 N93-24923
Indian Ocean analyses 09 p2733 N93-24925
The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927
Ocean climate data for user community in West and Central Africa: Needs, opportunities, and challenges
09 p2735 N93-24933
The effects of sampling frequency on the climate statistics of the ECMWF general circulation model
[DE93-003338] 09 p2761 N93-25145
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
A climatology of polar low occurrences in the Nordic Seas and an examination of katabatic winds as a triggering mechanism
[AD-A261719] 09 p2786 N93-26245
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Advanced Earth Observing Satellite (ADEOS)
11 p3279 N93-29648
The 17th Annual Climate Diagnostics Workshop
[PB93-183895] 11 p3483 N93-29664
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874
Velocities of Thwaites and Land glaciers
12 p3760 N93-31885
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

CLIMBING FLIGHT

An experimental and a theoretical investigation of rotor pitch damping using a model rotor
01 p0008 N93-10322
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252

CLINICAL MEDICINE

Clinical types of Hepatitis B 02 p0376 N93-11286
Viral hepatitis in the US Air Force, 1980 - 1989
02 p0377 N93-11287
Hepatitis A and Hepatitis B: Risks compared to other vaccine preventable diseases and immunization recommendations 02 p0377 N93-11288
Silent HIV infection 02 p0378 N93-11293
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations
02 p0379 N93-11297
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits
02 p0381 N93-11305
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate
02 p0381 N93-11306
Phadiatop: A screening test for inhalant allergy
02 p0383 N93-11313
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
EMDABS: Design and formal specification of a datamodel for a clinical research database system
[EUT-91-E-250] 10 p3165 N93-27242
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810

CLOCKS

NT ATOMIC CLOCKS
Scan-based switching tests
[AD-A257712] 05 p1151 N93-17685
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Strategies for synchronisation in an evolving telecommunications network 09 p2687 N93-25063
The effect of clock, media, and station location errors on Doppler measurement accuracy
11 p3246 N93-29588
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361

CLOSE PACKED LATTICES

Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486

CLOSED BASINS

U STRUCTURAL BASINS

CLOSED CIRCUIT TELEVISION

Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082

CLOSED CYCLES

Plasma reactor waste management systems
03 p0680 N93-14000
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597

CLOSED ECOLOGICAL SYSTEMS

Techniques for optimal crop selection in a controlled ecological life support system
[NASA-TM-103950] 02 p0388 N93-12018
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
The environmental control and life-support system for a lunar base: What drives its design
03 p0680 N93-13991
Life systems for a lunar base
03 p0680 N93-13992
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Moon Park: A research and educational facility
03 p0519 N93-14015
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
Life support and self-sufficiency in space communities
05 p1229 N93-16866
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Characterization of the water soluble component of inedible residue from candidate CELSS crops
[NASA-TM-107557] 06 p1605 N93-18111
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
The dynamics of hydroponic crops for simulation studies of the CELSS initial reference configurations
[NASA-CR-192101] 06 p1570 N93-19943
Study on environment control and life support technology 07 p1789 N93-20413
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Zero-G life support for Space Station Freedom
08 p2189 N93-22640
Ecosystems on Earth and in space (the possible utilization of artificial ecosystems for space life support systems) 08 p2167 N93-24406
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695
Alternative processes for water reclamation and solid waste processing in a physical/chemical bioregenerative life support system 10 p2965 N93-27721
Closed ecological systems: From test tubes to Earth's biosphere 10 p3088 N93-27976
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Dust protection for environmental control and life support systems in the lunar environment
10 p3089 N93-27979

Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Earth to lunar CELSS evolution 11 p3229 N93-29727
Design of biomass management systems and components for closed loop life support systems 11 p3230 N93-29728
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
Atmospheric control systems 12 p3689 N93-31456

CLOSED FAULTS
U GEOLOGICAL FAULTS

CLOSED LOOP SYSTEMS
U FEEDBACK CONTROL

CLOSING
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672

CLOSTRIDIUM
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608

CLOSURE LAW
Turbulent fluid motion IV-averages, Reynolds decomposition, and the closure problem
[NASA-TM-105822] 04 p0880 N93-15585
Experiments with an incremental closure algorithm
[MEMO-INF-92-33] 05 p1236 N93-16336
Navier-Stokes computation of compressible turbulent flows with a second order closure, part 1
[NASA-CR-192287] 08 p2288 N93-22604
Fast parallel algorithms that compute transitive closure of a fuzzy relation
[NASA-CR-192950] 09 p2818 N93-25190

CLOSURES
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485

CLOTH
U FABRICS

CLOTHING
NT EXTRAVEHICULAR MOBILITY UNITS
NT FLIGHT CLOTHING
NT GARMENTS
NT GLOVES
NT GOGGLES
NT HELMETS
NT PROTECTIVE CLOTHING
NT SPACE SUITS
NT SUITS
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129

CLOTTING
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition)
[PB93-188670] 12 p3773 N93-31158

CLOUD CHAMBERS
Explaining cloud chamber tracks
[DE92-040502] 04 p0972 N93-15057
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139

CLOUD COVER
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
Cloud-radiative feedbacks in tropical convection 04 p0919 N93-14180
Pioneer Venus polarimetry and haze optical thickness 04 p1032 N93-14335
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Refinement and testing of the radiative transfer parameterization in the P_ global spectral model
[AD-A256840] 05 p1212 N93-15960
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Cloud amount and sunshine duration in the People's Republic of China, 1954-1988
[DE92-041023] 05 p1214 N93-16601
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Multifractal cloud properties data assessment
[DE93-002638] 05 p1218 N93-17785
RAWS 1992 progress report
[NASA-CR-191382] 06 p1587 N93-18849
Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data 07 p1956 N93-21590
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies 07 p1959 N93-21608
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images 07 p1962 N93-21624
A comparative study of estimation of partial cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630
Estimation of partial cloud cover within a pixel 08 p2335 N93-22127
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
The use of the Air Force cloud cover data to evaluate and improve cloud forecast and parameterization in mesoscale meteorology models
[AD-A260357] 08 p2409 N93-24171
Effects of cloud cover on satellite positioning
[AD-A260032] 08 p2409 N93-24252
Equatorial atmospheric weather regimes: Their structure and role 08 p2411 N93-24580
Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
Prediction of global cloud cover with a very high resolution global spectral model
[AD-A261047] 09 p2785 N93-25777
An evaluation of satellite-derived humidity and its relationship tc convective development
[NASA-CR-193077] 10 p3077 N93-27262
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Cloudiest year study: An analysis of the 3DNEPH and RTNEPH databases
[AD-A263409] 11 p3483 N93-29967
Daily sum of the global radiation: Calculation method and verification of forecast
[KNMI-TR-138] 11 p3478 N93-30113
STRATUS: A prototype expert advisory system for terminal weather forecasting 11 p3367 N93-30296
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
Preliminary evaluation of aviation-impact variables derived from numerical models
[PB93-190197] 12 p3767 N93-31202
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

CLOUD GLACIATION
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352

CLOUD HEIGHT INDICATORS
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346

CLOUD PHYSICS
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Modern methods in meteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Multifractal cloud properties data assessment
[DE93-002638] 05 p1218 N93-17785
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
A documentation of icing-relevant cloud-physical parameters on vertical soundings of stratiform clouds (continuation)
[DLR-MITT-91-19] 07 p2012 N93-21040
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
CLEOPATRA: A step towards GEWEX on the regional scale 07 p1963 N93-21628
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055

CLOUD SEEDING
Investigation of winter mountain storms in Utah during the 1989 Utah/NOAA field program
[PB93-153021] 09 p2785 N93-25849
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874

CLOUDS
Aerosol transport and global models
[DE93-001618] 05 p1209 N93-16969
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud 08 p2549 N93-23722
Formation of massive clouds and dwarf galaxies during tidal encounters 10 p3190 N93-26822

CLOUDS (METEOROLOGY)
NT BARIUM ION CLOUDS
NT CAP CLOUDS
NT CIRRUS CLOUDS
NT CONVECTION CLOUDS

NT CUMULUS CLOUDS
NT ICE CLOUDS
NT STRATOCUMULUS CLOUDS
NT STRATUS CLOUDS
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Visualizing wind velocities by advecting cloud textures
[DE92-014717] 02 p0371 N93-12154
Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
Numerical simulation of a squall line: Tests of a new cumulus parameterization scheme
03 p0662 N93-13124
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
Infrared radiative properties of clouds
04 p0919 N93-14196
Optimization of a Counterflow Virtual Impactor (CVI) for studying aerosol effects on cloud droplet number
04 p0914 N93-14861
Global survey of effective particle size in liquid water clouds by satellite observations
04 p0921 N93-14862
An investigation into the role of moist, vertical drafts in the rotational development of storms
04 p0923 N93-15087
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Cloud data set for neural network classification studies
[AD-A256666] 05 p1211 N93-15701
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Cloud and aerosol characterization for the ARM central facility: Multiple remote sensor techniques development
[DE93-000915] 05 p1202 N93-16535
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
Electromagnetic scattering in clouds
05 p1142 N93-17327
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
ARM Fourier transform spectrometer data analysis tools
[DE93-004648] 06 p1586 N93-18454
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Cloud radiative forcing effects on observed and simulated global energetics 07 p2003 N93-20072
On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
07 p2011 N93-20281
A documentation of icing-relevant cloud-physical parameters on vertical soundings of stratiform clouds (continuation)
[DLR-MITT-91-19] 07 p2012 N93-21040
The influence of high clouds on climate
07 p1956 N93-21588
Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data
07 p1956 N93-21590
Detection of polar stratospheric clouds from satellite
07 p1957 N93-21591
Microwave radiometry for monitoring the diverse cloudiness regimes on Earth: A review
07 p1958 N93-21600
Sampling properties of a spaceborne lidar (ATLID)
07 p1961 N93-21618
Operational cloud classification with Meteosat data
07 p1962 N93-21622
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images
07 p1962 N93-21624
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
Prognostic cloud water in the Los Alamos GCM
[DE93-000679] 08 p2404 N93-22772
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period
08 p2405 N93-23219
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
Empirical determination of the effects of clouds on the Earth's Radiation Budget over the Pacific Ocean
[NASA-CR-192696] 08 p2401 N93-24485
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Cloud properties as inferred from HIRS/2 multi-spectral data 09 p2782 N93-25293
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
A comparison of GMS low-level cloud motion winds with sea surface winds observed by ships over western part of the North Pacific Ocean 10 p3076 N93-26995
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Neural network cloud classification research
[AD-A264628] 11 p3484 N93-30176
Cloud classification from satellite imagery using neural computing 11 p3367 N93-30297
Cloud Impacts on DOD Operations and Systems Conference (CIDOS-91)
[AD-A264463] 11 p3484 N93-30535
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206

CLUMPS

Using conceptual clustering to learn about function, structure, and behavior in design
[INRIA-RR-1401] 06 p1633 N93-18573

CLUSTER ANALYSIS

Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
Compact objects in the disk and globular clusters
04 p1018 N93-14594
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
A metric for line segments
[CWI-BS-R9126] 05 p1268 N93-16832
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Possibilistic clustering for shape recognition
06 p1618 N93-18228
The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
Operational cloud classification with Meteosat data
07 p1962 N93-21622
Two generalizations of Kohonen clustering
08 p2449 N93-22207
Possibilistic clustering for shape recognition
08 p2450 N93-22208
Adaptive fuzzy system for 3-D vision
08 p2451 N93-22216
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Improving performance through concept formation and conceptual clustering
[NASA-CR-192726] 09 p2828 N93-25262
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
A fuzzy clustering algorithm to detect planar and quadric shapes 11 p3511 N93-29524
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm
11 p3512 N93-29535

CLUSTER MISSION

Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science
12 p3852 N93-31675
The implementation of the digital wave processor for the ESA/NASA Cluster mission
12 p3858 N93-31708
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
Plasma waves interferometry on Cluster
12 p3827 N93-31714
Distributed data systems in space physics
12 p3859 N93-31715

CLUSTERS

The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697
Electronic structure of microclusters and defect complexes
[AD-A254807] 03 p0720 N93-12750
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
Photodissociation dynamics of cluster ions
[AD-A256375] 04 p0917 N93-15463
C60 interactions with surfaces, gaseous species and photons: An overview
[DE92-040738] 04 p0978 N93-15654
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Studies of metal-semiconductor clusters
06 p1678 N93-18493
Nanostructured materials
[DE93-002990] 06 p1656 N93-19499
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Stable clusters in the condensed state and some possibilities for gas phase clusters
[DE93-004446] 07 p2064 N93-21846

Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Peculiarities of structures and meltinglike transition in gold clusters
[DE93-004810] 08 p2228 N93-22741
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Electron transfer, proton transfer and photoaddition reactions in isolated clusters
[AD-A262719] 10 p3137 N93-28398
Quantum dynamics of X2BC van der Waals clusters
[DE93-006416] 11 p3565 N93-28892
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429

CLUTTER
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
The design and implementation of radar clutter modelling and adaptive target detection techniques
02 p0283 N93-11913
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Dual waveband signal processing system
[AD-D015493] 05 p1139 N93-16438
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
Theoretical study of topside ionospheric clutter
[AD-A260982] 09 p2774 N93-25852
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Ground clutter measurements for surface-sited radar
[AD-A262472] 11 p3379 N93-28655
Multichannel detection of partially correlated signals in clutter
[AD-A261984] 11 p3381 N93-28998
Classification of radar clutter in an air traffic control environment 11 p3246 N93-30299
Adaptive filtering for clutter suppression in high frequency radar 11 p3377 N93-30355
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062

CMOS
Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
Methodology for the computer-aided design of silicon micromachined devices in a standard CMOS process
[PB92-191246] 01 p0136 N93-10248
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
A pipelined, high-precision FFT architecture
[AD-A257235] 05 p1263 N93-15969
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
Electrically modifiable nonvolatile SONOS synapses for electronic neural networks
[AD-A258318] 06 p1596 N93-18252
Development of radiation resistant HCMOSIC
07 p1798 N93-20467
Development of 256 kbit PROM
07 p1799 N93-20470
CMOS circuit technique for integrated Viterbi decoders
[ETN-93-92568] 07 p1892 N93-20882
Contribution to the development of an ISFET type integrated sensor using an ASIC thread in CMOS technology
[ECL-91-09] 07 p1892 N93-21006
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777
Low-voltage-swing CMOS transceivers
[DE93-006607] 08 p2277 N93-22511
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Microelectronic and micromechanical sensors and actuators in CMOS technology: A novel scheme toward s regularization and integration
[ISBN-0-315-60192-2] 08 p2305 N93-24609
The SSIMT: A CMOS based magnetic sensor
[ISBN-0-315-60334-8] 08 p2305 N93-24610
High-frequency BiCMOS transconductance integrators
[ISBN-0-315-60484-0] 08 p2286 N93-24612
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583
Smart microsensors for high temperature applications
[AD-A260747] 09 p2710 N93-25677
A design of a fast and area efficient multi-input Muller C-element
[AD-A261002] 09 p2690 N93-25856
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
Analog CMOS circuits for neural networks
11 p3355 N93-30223
A single chip high-speed CMOS Viterbi decoder
11 p3358 N93-30238
High-speed, CMOS dual modulus frequency divider for RF frequency synthesis 11 p3359 N93-30245
Performance enhancement of dynamic CMOS logic circuits 11 p3361 N93-30257
Generation of configurable self-synchronizing synchronous CMOS static RAMs
11 p3361 N93-30259
Hardness assurance and testing issues for bipolar/BiCMOS devices
[DE93-009623] 11 p3570 N93-30669
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061

COAGULATION
NT BLOOD COAGULATION

COAL
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
Advanced coal-fueled gas turbine systems
[DE92-018939] 02 p0327 N93-11832
Summary on comparison of radiative heat transfer solutions for a specified problem
[DE92-040098] 03 p0588 N93-13575
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Annular vortex combustor
[AD-D015462] 05 p1103 N93-16462
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Magnetohydrodynamic projects at the CDIF
[DE93-001854] 05 p1311 N93-17035
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Theoretical studies of the reactions and spectroscopy of radical species relevant to combustion reactions and diagnostics
[DE93-010247] 10 p2993 N93-26619
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649

COAL DERIVED GASES
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
Effects of coal-derived trace species on performance of molten carbonate fuel cells
[DE93-000203] 03 p0639 N93-13427
Integration of carbonate fuel cells with advanced coal gasification systems
[DE93-003485] 06 p1572 N93-19622
Heavy duty gas turbine combustion tests with simulated low BTU coal gas
[DE93-005078] 08 p2315 N93-23297
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
Development of alternative fuels from coal-derived syngas
[DE93-011629] 11 p3341 N93-28668

COAL DERIVED LIQUIDS
Production of low-cost hydrogen
[DE93-008070] 09 p2643 N93-25305
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402

COAL GASIFICATION
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
An update of ERC's carbonate fuel cell development program
[DE92-019971] 03 p0640 N93-13621
Contaminant effects in solid oxide fuel cells
[DE92-040255] 04 p0908 N93-15323
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Integration of carbonate fuel cells with advanced coal gasification systems
[DE93-003485] 06 p1572 N93-19622
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
Heavy duty gas turbine combustion tests with simulated low BTU coal gas
[DE93-005078] 08 p2315 N93-23297

Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Production of low-cost hydrogen
[DE93-008070] 09 p2643 N93-25305
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Development of alternative fuels from coal-derived syngas
[DE93-011629] 11 p3341 N93-28668
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752

COAL LIQUEFACTION
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Production of low-cost hydrogen
[DE93-008070] 09 p2643 N93-25305

COAL UTILIZATION
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
Advanced coal-fueled gas turbine systems
[DE92-018939] 02 p0327 N93-11832
Development of advanced turbine systems: Meeting tomorrow's needs
[DE92-017339] 03 p0612 N93-13103
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332

COALESCENCE
U COALESCING

COALESCING
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995

COANDA EFFECT
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2
02 p0304 N93-11881
Aerodynamic surface tip vortex attenuation system
[AD-D015606] 07 p1760 N93-20017

COARSENESS
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978

COASTAL CURRENTS
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Numerical simulation and prediction of coastal ocean circulation 08 p2416 N93-24178
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
Mesoscale and large-scale variability in California current system and its interaction with both California current and California undercurrent flows
[AD-A262195] 10 p3080 N93-27867

COASTAL ECOLOGY
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques
09 p2746 N93-24823
Hel's peninsula coastal zone changes in the last 40 years on a base of remote sensing methods
09 p2747 N93-24832
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674

COASTAL MARSHLANDS
U MARSHLANDS

COASTAL PLAINS
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2
03 p0665 N93-13776
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827

COASTAL WATER
Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast
[NASA-CR-192120] 06 p1586 N93-18360
Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
Numerical simulation and prediction of coastal ocean circulation 08 p2416 N93-24178
Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data
[ED-659-CP] 09 p2746 N93-24829
Evaluation of nearshore suspended sediment concentration through Landsat TM data: First results
09 p2747 N93-24833
Coastal environmental mapping using Landsat data
[ED-658-CP] 09 p2747 N93-24835
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Wave information studies of US coastlines: Verification of Pacific Ocean deepwater hindcast wave information
[AD-A262714] 10 p3081 N93-28396
Observations of turbulence in the surf zone
[AD-A262718] 10 p3081 N93-28397
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
A numerical study of seasonal wind forcing effects on the California current system
[AD-A264951] 12 p3770 N93-32075

COASTAL ZONE COLOR SCANNER
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278

COASTS
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data
07 p1955 N93-21578
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
Ocean governance: A new vision
[PB93-136299] 08 p2416 N93-24144
Applications of remote sensing for tidal waters, coastal areas and inland waters 09 p2745 N93-24819
Supporting the Portuguese fisheries with satellites
09 p2745 N93-24821
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190

COATING
NT ANODIZING
NT ELECTROPLATING
NT ENCAPSULATING
NT METALLIZING
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Corrosion resistant chromate conversion coatings for heat-treated aluminum alloys
[AD-D015366] 02 p0266 N93-11425
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Alternate electrode materials for the SP100 reactor
[DE92-019570] 03 p0706 N93-12970
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
Evaluation of corrosion protection methods for aluminum metal matrix composites
[AD-A255375] 04 p0832 N93-14675
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Thermal analysis of magnetron sputtering designs
[DE93-000348] 04 p0870 N93-15389

Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021
Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683
Rust transformation/rust compatible primers 08 p2244 N93-22182
Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909
Low-damage multilayer mirror for the soft x ray region
[AD-D015621] 08 p2489 N93-24231
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Asymptotic studies of gravity-driven reacting coating flows and pultrusion processes 09 p2704 N93-25683
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-2] 12 p3708 N93-31300
Epoxy self-priming topcoats
[AD-D015737] 12 p3711 N93-32209

COATINGS
NT ALUMINUM COATINGS
NT ANODIC COATINGS
NT ANTIREFLECTION COATINGS
NT BIREFRINGENT COATINGS
NT CATHODIC COATINGS
NT CERAMIC COATINGS
NT ELECTROPLATING
NT ENCAPSULATING
NT GLASS COATINGS
NT GLAZES
NT MAGNETIC FILMS
NT METAL COATINGS
NT METALLIZING
NT NICKEL COATINGS
NT PAINTS
NT PLASTIC COATINGS
NT PRIMERS (COATINGS)
NT PROTECTIVE COATINGS
NT REFRACTORY COATINGS
NT SPRAYED COATINGS
NT THERMAL CONTROL COATINGS
NT ZINC COATINGS
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
ICI optical data storage tape 05 p1354 N93-16327
Device for applying powder coatings
[AD-A256917] 05 p1124 N93-16501
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Examination of laser conditioning using atomic force microscopy
[DE93-001328] 07 p1909 N93-20020
Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
X ray, far, and extreme ultraviolet coatings for space applications 11 p3340 N93-28829
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112

COAXIAL CABLES
Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes
[DE92-017042] 02 p0276 N93-11494
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348

COAXIAL NOZZLES
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223

COAXIAL PLASMA ACCELERATORS
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Preliminary investigation of power flow and electrode phenomena in a multi-megawatt coaxial plasma thruster
[NASA-CR-191084] 09 p2633 N93-26555

COAXIAL TRANSMISSION
U COAXIAL CABLES
U TRANSMISSION

COBALT
NT COBALT 60
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films 08 p2505 N93-23100
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653

COBALT ALLOYS
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C
[NASA-TM-105765] 03 p0625 N93-13153
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
[DE93-006737] 09 p2653 N93-26500
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582

COBALT COMPOUNDS
NT COBALT OXIDES
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Dependence of buried CoSi2 resistivity on ion implantation and annealing conditions
[DE92-010080] 05 p1322 N93-16930

COBALT ISOTOPES
NT COBALT 60

COBALT OXIDES
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films 08 p2505 N93-23100

COBALT 60
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133

COBE
U COSMIC BACKGROUND EXPLORER SATELLITE

COBOL
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
COBOL Compiler Validation System (CCVS 85), user guide, version 4.2
[PB93-163178] 12 p3785 N93-31112

COCKPIT SIMULATORS
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
CVA, cockpit design and development tool 06 p1611 N93-19780
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576

Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
NASA/FAA helicopter simulator workshop
[NASA-CP-3156] 11 p3236 N93-30673
Part 1: Executive summary 11 p3236 N93-30674
Helicopter simulator standards
11 p3236 N93-30675
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance
12 p3676 N93-31276
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266

COCKPITS
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Development of measures of crew coordination
[AD-A255384] 04 p0939 N93-14651
Does cockpit management training reduce aircrew error? 04 p0785 N93-15014
Cockpit decision making 04 p0786 N93-15015
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Cockpit resource management proficiency as a factor of primary flight training
[AD-A256995] 05 p1060 N93-16262
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
Advanced cockpit-mission and image management
06 p1607 N93-19760
Aircrew acceptance of automation in the cockpit
06 p1608 N93-19761
Developing virtual cockpits 06 p1608 N93-19764
Panoramic cockpit displays 06 p1608 N93-19765
Multimodal dialog system for future cockpits
06 p1610 N93-19773
Management of avionics data in the cockpit
06 p1611 N93-19777
The integration of advanced cockpit and systems design 06 p1611 N93-19779
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential
06 p1611 N93-19782
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
User areas in aircraft cockpit, using methods of rapid prototype development
[MBB-FE-315-S-PUB-0493] 08 p2426 N93-22389
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086
Oculo-motor responses and virtual image displays
11 p3503 N93-28862
Cognitive interface considerations for intelligent cockpits 11 p3503 N93-28865
Ergonomic development of digital map displays
11 p3503 N93-28866
Overview of cockpit technology research and development programs for improvement of the man/machine interface: Review of the AGARD AVP Symposium held in Madrid, May 1992
11 p3505 N93-28872
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance
12 p3676 N93-31276

COD (CRACKS)
U CRACK OPENING DISPLACEMENT

CODE DIVISION MULTIPLE ACCESS
National Defense Science and Engineering Graduate Fellowship Program in electrical engineering
[AD-A256975] 05 p1146 N93-16254
Comparison of multiple access techniques for bandwidth limited land-mobile satellite communications
11 p3370 N93-30314

CODERS
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
A joint source/channel coder design
07 p1881 N93-20177
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
A low-delay backward-adaptive CELP speech coder
[ISBN-0-315-60461-1] 08 p2274 N93-24618
Entropy reduction via simplified image contourization
09 p2804 N93-25924
Compression of spectral meteorological imagery
09 p2804 N93-25925
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
Gravity referenced elevation encoder development
11 p3385 N93-29592
Robot arm with positional absolute encoded joints
11 p3370 N93-30312

CODES
Cascaded convolutional codes
06 p1458 N93-19429
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202

CODING
NT AMPLITUDE MODULATION
NT BINARY PHASE SHIFT KEYING
NT DECODING
NT DELTA MODULATION
NT DIFFERENTIAL PULSE CODE MODULATION
NT FREQUENCY MODULATION
NT FREQUENCY SHIFT KEYING
NT PHASE MODULATION
NT PHASE SHIFT KEYING
NT PULSE CODE MODULATION
NT PULSE DURATION MODULATION
NT PULSE MODULATION
NT PULSE POSITION MODULATION
NT QUADRATURE PHASE SHIFT KEYING
NT REDUNDANCY ENCODING
NT SIGNAL ENCODING
NT TRELLIS CODING
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
Code vector density in topographic mappings
[AD-A258222] 06 p1492 N93-18122
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
More box codes 06 p1505 N93-18906
Cascaded convolutional codes
06 p1458 N93-19429
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Prediction of success from training
06 p1430 N93-19702
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
A robust coding scheme for packet video
07 p1881 N93-20174
Compressing subbanded image data with Lempel-Ziv-based coders
[NASA-TM-105998] 07 p1882 N93-20257
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
Error control techniques for satellite and space communications
[NASA-CR-192368] 07 p1884 N93-20613
Efficient implementation of a functional language for the definition of practicable, denotational semantics
[ETN-93-93413] 07 p2055 N93-21176
Flexible high speed CODEC 08 p2287 N93-22178
The effects of display and response codes on information processing in an identification task
[AD-A259531] 08 p2427 N93-23451
Delivery of information from Earth observation satellites 08 p2350 N93-23549
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Image coding by way of wavelets
09 p2671 N93-24665
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Subband coding for image data archiving
09 p2803 N93-25922
Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components 09 p2804 N93-25923
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932
Variable pulse rate circuit
[AD-D015675] 09 p2691 N93-26233
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
The general theory of convolutional codes
11 p3385 N93-29595
Activities report of PTT Research
[ISBN-9-07-212514-2] 11 p3392 N93-30025
Feature segmentation using a multiple-stack based chain coding algorithm 11 p3359 N93-30243
Short-circuit evaluation of Boolean expressions
[CS-9205] 11 p3552 N93-31014
Code vector density in topographic mappings
[RSRE-MEMO-4669] 12 p3746 N93-31611
Fractal image coding techniques and contraction operators
[REPT-92-93] 12 p3789 N93-31632
Fractal coding of monochrome images
[REPT-92-99] 12 p3790 N93-31656
Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232

COEFFICIENT OF FRICTION
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050

Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828

COEFFICIENTS
NT ACCOMMODATION COEFFICIENT
NT AERODYNAMIC COEFFICIENTS
NT ATTENUATION COEFFICIENTS
NT COEFFICIENT OF FRICTION
NT COHERENCE COEFFICIENT
NT CORRELATION COEFFICIENTS
NT COUPLING COEFFICIENTS
NT DIFFUSION COEFFICIENT
NT DISCHARGE COEFFICIENT
NT FLOW COEFFICIENTS
NT HEAT TRANSFER COEFFICIENTS
NT RECOMBINATION COEFFICIENT
NT REGRESSION COEFFICIENTS
NT SCATTERING COEFFICIENTS
NT SORET COEFFICIENT
NT VIRIAL COEFFICIENTS
NT WIGNER COEFFICIENT
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
A semiempirical formula for calculating the coefficients for field emission tip forms
[AD-A254109] 01 p0145 N93-10857
Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992
[PB92-181106] 02 p0438 N93-11715
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
Estimation of EOF expansion coefficients from incomplete data
[AD-A255252] 03 p0697 N93-13886
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
The direct measurement of damping coefficients using an inverse eigenvalue method
[AD-A258214] 06 p1555 N93-18204
Thermodynamic data for fifty reference elements
[NASA-TP-3287] 07 p2084 N93-19977
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
Thermoelasticity in quartz 09 p2841 N93-25047
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
Gas permeability of E/EP semicrystalline diblock copolymers
[AD-A263241] 11 p3329 N93-28560
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213

COENZYMES
NT ADENOSINE TRIPHOSPHATE
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369

COERCIVITY
Magnetic hardening studies and novel techniques for preparation of high performance magnets
[AD-A254761] 03 p0698 N93-12865
Corrosion of metal particle and metal evaporated tapes 04 p0883 N93-15039

COESITE
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa 01 p0123 N93-10192

COFFEE
Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792

COGENERATION
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663

COGNITION
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
Recent developments in the NL-Soar garden path theory
[AD-A255889] 03 p0688 N93-13944
Analysis of symbolic models of cognition project (ASPM-Pitt)
[AD-A255929] 04 p0962 N93-14656
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
Enhanced Aeronautical Resource Management training alternatives 04 p0786 N93-15019
A cognitive model for training decision making in aircrews 04 p0786 N93-15020
Elements of a theory of natural decision making 04 p0786 N93-15021
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
Logic and the flow of information
[LP-91-10] 05 p1357 N93-17714
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
The central executive component of working memory
[AD-A258724] 07 p2025 N93-20326
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941
Modelling knowledge in electronic study books
[MEMO-1029] 07 p2091 N93-21032
Investigation of cognition acquisition using natural language conversational process
[MBB-FE-315-S-PUB-0498] 08 p2435 N93-22391
The effects of display and response codes on information processing in an identification task
[AD-A259531] 08 p2427 N93-23451
An ontology of knowledge graphs
[MEMO-1049] 08 p2441 N93-24063
What makes a good feature?
[AD-A259962] 08 p2463 N93-24249
CogiMir: A study of cognitive functions in microgravity 08 p2159 N93-24364
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
Comparative analytical study of evoked and event related potentials as correlates of cognitive processes
[AD-A261388] 09 p2799 N93-26446
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923
Expertise, text coherence, and constraint satisfaction: Effects on harmony and settling rate --- mental representations
[AD-A262703] 11 p3498 N93-28901
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
MoCog1: A computer simulation of recognition-primed human decision making
[NASA-TM-103868] 11 p3542 N93-29386
Predicting aircrew training performance with psychometric g
[AD-A264021] 11 p3498 N93-30026
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575
High level cognitive information processing in neural networks
[NASA-CR-193296] 12 p3800 N93-32341
Strategic control of reactive behavior in intelligent agents
[AD-A264376] 12 p3801 N93-32413

COGNITIVE PSYCHOLOGY
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
Relating cognitive function to military aviator performance in early HIV infection 02 p0379 N93-11298
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Information-seeking behavior during the decision-making process: A case study 04 p1000 N93-14206
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
How expert pilots think 04 p0786 N93-15017
Comparing performance on implicit memory tests
[AD-A258168] 06 p1602 N93-17921
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Cognitive engineering models in space systems
[NASA-CR-192001] 06 p1606 N93-18517
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
Discovery of pathways in science 06 p1689 N93-19718
The central executive component of working memory
[AD-A258724] 07 p2025 N93-20326
Correlates of creative problem solving
[AD-A258720] 07 p2085 N93-20369
On the neural substrates leading to the emergence of mental operational structures 08 p2453 N93-22355
CogiMir: A study of cognitive functions in microgravity 08 p2159 N93-24364
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815
Neural basis of motion perception
[AD-A261452] 09 p2798 N93-26349
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
Expertise, text coherence, and constraint satisfaction: Effects on harmony and settling rate --- mental representations
[AD-A262703] 11 p3498 N93-28901
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165
Background and objectives of the PARAT program 12 p3775 N93-31230

Phases of the project development and examination methodologies 12 p3775 N93-31231
The position test: A computer generated process for acquisition of inductive logic thinking 12 p3775 N93-31232
A decision-theoretic approach to the display of information for time-critical decisions: The Vista project 12 p3784 N93-32152

COHERENCE
Radio and optical interferometric imaging 03 p0744 N93-13580

COHERENCE COEFFICIENT
Two-scale solution for the mutual coherence function in the presence of turbulence [ITN-93-85178] 05 p1162 N93-16837

COHERENT ANTI-STOKES RAMAN SPECTROSCOPY
U RAMAN SPECTROSCOPY

COHERENT ELECTROMAGNETIC RADIATION
NT COHERENT LIGHT
NT LASER BEAMS
Proposal for the experimental demonstration of the coherent radiation [DE92-017695] 02 p0284 N93-12132

COHERENT LIGHT
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems [AD-A253186] 01 p0158 N93-10445
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere [AD-A253269] 02 p0363 N93-11785
Interferometer with two phase-conjugate mirrors [AD-D015420] 04 p0982 N93-14800
Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
Application of 10 GeV electron driven x ray laser in gamma ray laser research [DE93-003775] 08 p2308 N93-22773
Loss of temporal coherence of laser light propagated through simulated coastal waters [AD-A261303] 09 p2715 N93-26296
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM [DE93-007724] 10 p3030 N93-26612
Workshop on scientific applications of short wavelength coherent light sources [DE93-009617] 10 p3148 N93-28456

COHERENT RADAR
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system [AD-A247551] 02 p0322 N93-12262
SAR peculiarities, ambiguities and constraints 03 p0563 N93-13051
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields [AD-A257725] 05 p1218 N93-17701
Non-Gaussian noise models and coherent detection of radar targets [AD-A258049] 05 p1141 N93-17707
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1 [AD-A258462] 06 p1502 N93-18262
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
STARE: A new coherent radar in Scandinavia 06 p1517 N93-19572
The BICORE project 06 p1517 N93-19587
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Structure and utility of blind speed intervals associated with Doppler measurements of range rate [DOT/FAA/CT-TN92/27] 08 p2122 N93-23063
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system [AD-A259834] 08 p2343 N93-23461
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system [AD-A260779] 09 p2756 N93-25679

COHERENT RADIATION
NT COHERENT ELECTROMAGNETIC RADIATION
NT COHERENT LIGHT
NT LASER BEAMS
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices [AD-A253001] 02 p0446 N93-11071
Theory for a high power free electron laser and tactical applications [AD-A255161] 02 p0323 N93-12405
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. lifornia on 9-11 april 1991 [AD-A254682] 03 p0709 N93-12666
Theory of lasing without population inversion 03 p0605 N93-13497
Two-photon cooperative cascade superfluorescence [AD-A255690] 03 p0608 N93-14023
The dynamics of spatially extended lasers 04 p0883 N93-14123
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Geometric optics scaling laws for x-ray laser coherence [DE92-040402] 05 p1301 N93-16102
Decoherence of multimode thermal squeezed coherent states [DE93-002627] 06 p1679 N93-19489
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions [AD-A259476] 07 p1909 N93-20246
Experimental demonstration of high resolution three-dimensional x ray holography [DE93-004178] 08 p2302 N93-22072
Self-amplified spontaneous emission for short wavelength coherent radiation [DE93-004724] 08 p2307 N93-22490
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM [DE93-007724] 10 p3030 N93-26612
Undulator Spectromicroscopy Facility at the Advanced Light Source [DE93-007964] 11 p3261 N93-28490
Development of coherent x ray lasers [DE93-009288] 11 p3437 N93-29104
Optical coherent phase diversity systems [ISBN-90-9004897-9] 11 p3578 N93-29270
Microwave emission from relativistic electron beams [AD-A264102] 11 p3400 N93-30880
Measurement of the spatial coherence of a soft x ray laser [DE93-609404] 12 p3731 N93-31227

COHERENT SCATTERING
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems [AD-A253186] 01 p0158 N93-10445
Limitations of multiple feeds in a polarimetric-radar compact range [DE92-017526] 02 p0284 N93-12101
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles 06 p1517 N93-19573
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations [PB93-126092] 07 p2064 N93-21828
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering [AD-D015642] 09 p2852 N93-25358
Measurements of light scattering by small particles at an angle of zero degrees [AD-A263856] 11 p3580 N93-29887
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor [ONERA-P-1990-3] 11 p3313 N93-30109
Measurement of the spatial coherence of a soft x ray laser [DE93-609404] 12 p3731 N93-31227

COHERENT SOURCES
U COHERENT RADIATION
U RADIATION SOURCES

COHERENT TRANSMISSION
U COHERENT RADIATION

COHESION
IR materials producibility [AD-A257695] 05 p1305 N93-17691
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions [DE93-002626] 06 p1675 N93-19488
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites [DE93-004464] 08 p2209 N93-22973
Theoretical predictions of platinum-rhodium bimetallic catalysts [DE93-007540] 09 p2649 N93-25428
Determination of flow-regime boundaries for cohesive particles [DE93-011542] 10 p3042 N93-28236
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick 11 p3291 N93-30953

COHOMOLOGY
U HOMOLOGY

COLD CATHODE TUBES
NT PHOTOMULTIPLIER TUBES
NT PHOTOTUBES

COLD FLOW TESTS
Facility for cold flow testing of solid rocket motor models 01 p0011 N93-10021
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
A full-scale STOVL ejector experiment [NASA-TM-106019] 08 p2129 N93-22480
Analytical and experimental investigation of annular propulsive nozzles [AD-A262685] 10 p2945 N93-28391

COLD FORMING
U COLD WORKING

COLD FRONTS
Structure and propagation of fronts east of the Rocky Mountains and their relationship to precipitation 04 p0921 N93-14827
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data 07 p1956 N93-21590
A three-dimensional study of the influence of mountains on a front [AD-A261927] 09 p2787 N93-26545

COLD GAS
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
The interstellar medium of elliptical galaxies 03 p0757 N93-14071
Far-infrared emission, gas, and ultraluminous HII regions in M101 [NASA-CR-192791] 09 p2890 N93-25755
The detection of large amounts of cool, x ray absorbing gas in distant clusters of galaxies. What does this mean? 10 p3194 N93-26841

COLD NEUTRONS
Surface physics with cold and thermal neutron reflectometry [DE93-001986] 05 p1286 N93-16361

COLD PLASMAS
The dependence of pulsating auroral events on energetic electrons and cold plasma near the equatorial plane [DE93-000856] 05 p1376 N93-17384
Studies of metal-semiconductor clusters 06 p1678 N93-18493
The cold ionized shell around the old nova DQ Herculis 08 p2543 N93-23964
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores 10 p2997 N93-26677
Numerical modelling of the cold plasma with time-dependent, magnetohydrodynamic methods [KFK-5053] 11 p3586 N93-29081
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme 11 p3397 N93-30743
Plasma diffusion through multidipole magnetic fields [DE93-608548] 11 p3591 N93-31007

COLD ROLLING
Processing and properties of NbTi based alloys [DE92-016692] 02 p0261 N93-12445
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet [NASA-TM-105921] 04 p0847 N93-15524
Development of an electrochemical method for field testing of protective coatings [AD-A258754] 06 p1496 N93-19866
Environmental embrittlement of binary and Zr-doped Ni3Al [DE93-008575] 11 p3321 N93-28679

COLD SURFACES
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems 09 p2700 N93-25472
Thermocapillary flow near a cold wall [AD-A261050] 09 p2706 N93-25779

COLD TOLERANCE
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations [AD-A259625] 08 p2422 N93-24021
Cellular and tissue injury during nonfreezing cold injury and frostbite [AD-A260574] 09 p2795 N93-25900
Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates [AD-A262762] 11 p3493 N93-28939
Medical aspects of cold weather operations: A handbook for medical officers [AD-A263559] 11 p3496 N93-30588

An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818

COLD TRAPS
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031

COLD WALLS
U COLD SURFACES
U WALLS

COLD WATER
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291

COLD WEATHER
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations
[AD-A259625] 08 p2422 N93-24021
Medical aspects of cold weather operations: A handbook for medical officers
[AD-A263559] 11 p3496 N93-30588

COLD WEATHER TESTS
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884

COLD WORKING
NT COLD ROLLING
NT EXPLOSIVE FORMING
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396

COLEOPTERA
NT BEETLES

COLLAGENS
Hierarchical structure in polymeric solid and its influence on properties
[AD-A253818] 01 p0041 N93-10825

COLLAPSE
On the stability of confined shells under external pressure 02 p0335 N93-11202
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Advanced collapsible tank for liquid containment
[NASA-CR-188247] 11 p3353 N93-28698

COLLECTION
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
Field and laboratory investigations of Antarctic meteorites collected by United States expeditions, 1985-1987
[PB93-182723] 12 p3861 N93-32415

COLLECTORS
U ACCUMULATORS

COLLEGES
U UNIVERSITIES

COLLIMATION
NT BEAMFORMING
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371
Self-collimated unstable resonator semiconductor laser
[NASA-CASE-NPO-18386-1-CU] 06 p1540 N93-18277

COLLIMATORS
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371

COLLINEARITY
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120

COLLISION AVOIDANCE
An autonomous vehicle: Constrained test and evaluation
[PB92-205608] 02 p0325 N93-11427
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
Interactive collision detection 02 p0400 N93-11963
Advanced mechanisms for robotics 02 p0330 N93-11969
A collision avoidance algorithm for the mobile robot and the robot manipulator in multi-robot system 03 p0618 N93-14094
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Path planning for assembly of strut-based structures
[NASA-CR-191874] 05 p1260 N93-16622
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Collision avoidance for CTV: Requirements and capabilities 07 p1817 N93-21437
On-orbit operational scenarios, tools, and techniques 07 p1817 N93-21442
Domain engineering validation case study: Synthesis for the air traffic display/collision warning monitor domain version 01.00.03
[AD-A259407] 07 p1780 N93-21671
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle 08 p2451 N93-22217
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
Collision avoidance for CTV: Requirements and capabilities 08 p2147 N93-22294
A berthing and fastening strategy for orbital replacement units 08 p2151 N93-22317
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
Results of DATAS investigation of ATCRBS environment at the Los Angeles International Airport
[DOT/FAA/CT-93/6] 11 p3245 N93-28625
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771
Optimal geometric design of robots for environments with obstacles 11 p3445 N93-30149
Issues of ATC conflict resolution under real-time constraints 11 p3247 N93-30350
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

COLLISION PARAMETERS
NT COLLISION RATES
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
QCD corrections to Z pair hadronic production
[PREPRINT-832] 05 p1288 N93-16954
Investigation of neutrino properties in the process e(+)e(-) decay to nu-nu(bar)-gamma
[PREPRINT-887] 05 p1290 N93-17023
Probing the WWZ vertex at 500 GeV e(+)e(-) collider
[PREPRINT-831] 05 p1299 N93-17216
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Excitation of atomic hydrogen
[DE93-604639] 12 p3820 N93-31822

COLLISION RATES
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A 04 p1012 N93-14762
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566

COLLISION WARNING DEVICES
U COLLISION AVOIDANCE
U WARNING SYSTEMS

COLLISIONAL PLASMAS
NT STRONGLY COUPLED PLASMAS
Diagnostics and modeling of H(-) ion sources
[AD-A250684] 02 p0440 N93-11867
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606

COLLISIONLESS PLASMAS
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1665 N93-18100
Electrostatic potential in a collisionless plasma flow along open magnetic field lines
[NIFS-155] 06 p1666 N93-18421
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure 12 p3688 N93-31157
Quasi-parallel shock re-formation: Two-dimensional simulations 12 p3826 N93-31682
Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683
On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698

COLLISIONS
NT ATOMIC COLLISIONS
NT BIRD-AIRCRAFT COLLISIONS
NT COULOMB COLLISIONS
NT INELASTIC COLLISIONS
NT IONIC COLLISIONS
NT METEORITE COLLISIONS

NT MIDAIR COLLISIONS
NT MOLECULAR COLLISIONS
NT PARTICLE COLLISIONS
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
Non-perturbative studies in quantum electrodynamics
03 p0729 N93-13896
Airbus Industrie TCAS experience
04 p0789 N93-15186
A methodology for selective removal of orbital debris
[NASA-CR-192052] 06 p1459 N93-18154
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
Modeling of asteroidal dust production rates
06 p1705 N93-19150
Injecting asteroid fragments into resonances
06 p1705 N93-19152
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud
06 p1706 N93-19159
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
The two black hole problem in 3+1 general relativity: Analytical approximations and numerical solutions of the initial data 08 p2548 N93-23212
New analysis of KrF picosecond pulse experiment
[DE93-003805] 08 p2308 N93-23290
The space debris environment for remote sensing satellites 08 p2199 N93-23809
Gamma ray bursts from extragalactic sources
08 p2535 N93-23893
On colliding plane gravitational waves coupled with fluid motions
[MATHS-REPT-A-161] 08 p2398 N93-24060
The collision of gravitational waves in a stiff perfect fluid
[MATHS-REPT-A-179] 08 p2398 N93-24080
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
Atomic hydrogen in the disturbed edge-on galaxy NGC 4631 10 p3189 N93-26815
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
Stellar encounters in globular clusters
11 p3632 N93-28606
Why Blue stragglers formed via collisions may not be rapid rotators
[DE93-008708] 11 p3633 N93-28905
Do the Pop 2 field blue stragglers have a collisional origin?
[DE93-008709] 11 p3634 N93-28906
Can physical stellar collisions explain the blue stragglers in the dwarf spheroidal galaxies?
[DE93-008711] 11 p3634 N93-28907
Catastrophic collisions: Laboratory impact experiments, hydrocode simulations, and the scaling problem
11 p3635 N93-30411
Momentum transport through the chromosphere
12 p3852 N93-31677

COLLOCATION
Spurious modes in spectral collocation methods with two non-periodic directions
[NASA-CR-189713] 02 p0427 N93-12298
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide
[NASA-CR-189653-VOL-1-REV]
04 p0815 N93-14794
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Linear passive impedance 07 p1943 N93-20719
Trajectory optimization based on differential inclusion
[NASA-CR-4501] 08 p2181 N93-22459
Optimal cooperative power-limited rendezvous
09 p2607 N93-24904

COLLOIDING
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193

COLLOIDS
NT AEROSOLS
NT FOG
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
Diffusing wave spectroscopy
04 p0980 N93-14169
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
The influence of gravity on the equilibrium and the growth of tenuous structures 08 p2249 N93-22851
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Colloid formation in implanted glasses
[DE93-006763] 09 p2653 N93-24971
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552

COLOR
NT WATER COLOR
Perception of lightness and brightness in complex patterns
[AD-A254093] 01 p0133 N93-10658
The effects of luminance boundaries on color perception
[AD-A250705] 02 p0384 N93-11841
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
Method and apparatus for a high resolution, flat panel cathodoluminescent display screen
[AD-D015400] 04 p0868 N93-15107
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Forcing colorations, intervals and the perfect graph conjecture (an extended abstract)
[RR-867-M] 07 p2053 N93-20945
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
Advanced technology development multi-color holography
[NASA-CR-192451] 09 p2711 N93-26154
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
Deep, wide-field, multi-band imaging of z approximately equal to 0.4 clusters and their environs
10 p3195 N93-26848
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330
Estimating scene properties by analyzing color histograms with physics-based models
[AD-A262727] 10 p3111 N93-28399
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951

COLOR (PARTICLE PHYSICS)
U QUANTUM CHROMODYNAMICS

COLOR CENTERS
Color center laser with transverse auxiliary illumination
[AD-D015387] 04 p0887 N93-15250
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
Characterization of radiation damage in solids
06 p1659 N93-18478

COLOR CODING
Compression of color-mapped images
07 p1881 N93-20173

COLOR ENHANCEMENT
U COLOR CODING

COLOR INFRARED PHOTOGRAPHY
Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701

COLOR PERCEPTION
U COLOR VISION

COLOR PHOTOGRAPHY
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
Optically selected quasars with Z greater than 4
05 p1363 N93-17158
High resolution stereo images from the Space Station Mir 08 p2365 N93-23800

COLOR TELEVISION
Initial laboratory evaluation of color video cameras
[DE92-018274] 02 p0311 N93-11673
Guide to synchronization of video systems to IRIG timing
[AD-A254626] 02 p0285 N93-12240
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239

COLOR VISION
The effects of luminance boundaries on color perception
[AD-A250705] 02 p0384 N93-11841
Performance of color-dependent tasks of air traffic control specialists as a function of type and degree of color vision deficiency
[AD-A256614] 04 p0788 N93-14275
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0906 N93-15007
Higher order mechanisms of color vision
[AD-A256369] 04 p0938 N93-15329
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054

COLOR-COLOR DIAGRAM
Thirteen new BL Lacertae objects discovered by an efficient x ray/radio/optical technique
07 p2095 N93-20796
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects
10 p3197 N93-26857

COLOR-MAGNITUDE DIAGRAM
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718

COLORADO
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557

COLORADO PLATEAU (US)
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657

Seismic studies of crustal structure and tectonic evolution across the central California margin and the Colorado Plateau margin 03 p0657 N93-13794
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study [PB93-181618] 11 p3474 N93-30823

COLORATION
U COLOR

COLORIMETRY
Methods development for total organic carbon accountability [NASA-CR-184438] 03 p0672 N93-12949
Application of passive dosimetry for detection of leaking underground storage tanks [PB92-218270] 03 p0559 N93-13648
Effect of the concentration of two types of sediment on water colorimetry and reflectance [INPE-5331-PRE/1729] 06 p1568 N93-19822
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577

COLS
U GAPS (GEOLOGY)

COLUMBIA (ORBITER)
Chronology of KSC and KSC related events for 1992 [NASA-TM-107561] 10 p3219 N93-27285
APU diaphragm testing [NASA-TM-108254] 11 p3272 N93-29501

COLUMBIUM
U NIOBIUM

COLUMBUS SPACE STATION
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974
A home port in space [ESA-BR-37-E] 03 p0516 N93-13858
A growing dimension in space [ESA-BR-37-F] 03 p0517 N93-13902
European research plans 08 p2185 N93-22618
Activities report of the Norwegian Space Center [ETN-93-93540] 08 p2570 N93-23107
Columbus program: Ground staff training simulation [ETN-93-93694] 08 p2194 N93-23415
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories [ESA-ISY-4] 08 p2154 N93-24336
Columbus programme overview 08 p2155 N93-24337
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
JEM program status 08 p2155 N93-24339
Columbus precursor Spacelab missions 08 p2155 N93-24341
Payload operations for precursor mission E-1 08 p2155 N93-24342
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
Selection of astronauts for European space missions 08 p2156 N93-24345
Training facilities at the Crew Training Complex 08 p2156 N93-24347
Microgravity Advanced Research and Support (MARS) Center update 08 p2161 N93-24375
Telescience opportunities in the precursor flights 08 p2161 N93-24376
COMPASS: A computerized payload operations support system for Columbus 08 p2161 N93-24377
The USO-concept applied to a biological model experiment 08 p2162 N93-24379
User support for the Columbus precursor missions 08 p2162 N93-24380
Definition of a European promotion concept 08 p2162 N93-24381
Training concept for crew, end user, and ground centre personnel in the Columbus utilisation programme 08 p2162 N93-24382
Information handling as task layer of Columbus user support 08 p2163 N93-24383
Fluid science users requirements 08 p2163 N93-24385
Columbus payload requirements in human physiology 08 p2163 N93-24386
The strategic role of automation and robotics for Columbus utilization 08 p2164 N93-24389
Columbus automation testbed: A tool for users 08 p2164 N93-24390
Italian payload development status for Columbus 08 p2164 N93-24392
CEBAS-Aquarack: An artificial aquatic animal plant ecosystem as a tool for basic research in the Columbus Space Station 08 p2166 N93-24401
The Columbus Metrology Science Team: Report on activities 09 p2670 N93-24987
European space programme 10 p2920 N93-27174
Assessment of Columbus payload operations capabilities by scheduling with the MARS system [ESA-STR-235] 11 p3281 N93-30106

COLUMNS (PROCESS ENGINEERING)
Axial response and pulse behavior of a cylindrical liquid column. Part 2 [LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296
Natural axisymmetric frequencies of cylindrical liquid column with anchored free surface [LRT-WE-9-FB-3-1991] 07 p1903 N93-21297
Natural frequencies and response of spinning liquid column with partially sliding contact line [LRT-WE-9-FB-24-1991] 07 p1903 N93-21298
Response of a non-viscous liquid column with anchored liquid surface to axial excitation [LRT-WE-9-FB-4-1991] 08 p2288 N93-22677
Marangoni convection in a spinning liquid column [LRT-WE-9-FB-13-1991] 08 p2289 N93-22678

COLUMNS (SUPPORTS)
Prebuckling deflections and lateral buckling: Theory [PB92-225382] 07 p1946 N93-21018
The flexural behaviour of thin-walled singly symmetric columns [PB92-225408] 07 p1946 N93-21020
Ultimate strength of geometrically imperfect angle columns [PB93-111771] 07 p1947 N93-21235

COMA
A preliminary model of the coma of 2060 Chiron 06 p1702 N93-19132
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Spatial and temporal variations in the column density distribution of comet Halley's CN coma 06 p1717 N93-19238

COMBAT
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Neural network models of air combat maneuvering [AD-A254653] 02 p0421 N93-12096
The effects of wearing protective chemical warfare combat clothing on human performance [AD-A250716] 02 p0390 N93-12491
Walter Reed Army Institute of Research biannual report [AD-A255630] 04 p0933 N93-14162
Audio detection algorithms [AD-A256076] 04 p0973 N93-14234
RJARS: RAND's version of the jamming aircraft and radar simulation [AD-A255560] 05 p1138 N93-16059
A database approach to aircraft carrier airplan production [AD-A257737] 05 p1053 N93-17666
The evolving defense communications system [AD-A258335] 06 p1502 N93-18206
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm [AD-A258146] 06 p1597 N93-18292
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm [AD-A258156] 06 p1602 N93-18294
Air accidents in the French Air Force 06 p1425 N93-19676
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm [AD-A259243] 07 p2023 N93-20580
Trial maneuver generation and selection in the Paladin tactical decision generation system [NASA-TM-107722] 08 p2131 N93-23088
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies [AGARD-CP-520] 11 p3501 N93-28850
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack 11 p3260 N93-28851
Planning for air to air combat 11 p3501 N93-28852
Computer assisted evaluation for air close combat based on time interval characterization 11 p3504 N93-28868
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs [AD-A263011] 11 p3506 N93-29406
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation [NASA-TM-4440] 12 p3684 N93-32380

COMBINATIONS (MATHEMATICS)
Projection with a minimal system of inequalities [AD-A257237] 05 p1263 N93-15961
Monte-Carlo methods make Dempster-Shafer formalism feasible [NASA-CR-192945] 09 p2828 N93-25140
The mechanization of lambda calculus [REPT-92-60] 12 p3805 N93-31499

COMBINATORIAL ANALYSIS
NT COMBINATIONS (MATHEMATICS)
NT FACTORIALS
NT PARTITIONS (MATHEMATICS)
NT PERMUTATIONS
Polynomial dual network simplex algorithms [AD-A254340] 02 p0413 N93-12131
Decomposition of balanced matrices. Part 5: Goggles [AD-A247462] 02 p0430 N93-12217
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Fast approximation algorithms for multicommodity flow problems [AD-A254335] 03 p0685 N93-12961
A massively distributed parallel genetic algorithm [AD-A256617] 04 p0959 N93-15407
Note on the average rank of LYM-sets [MEMO-1036] 05 p1266 N93-16640
Finite type structures within combinatory algebras [ML-91-06] 05 p1273 N93-17781
Evaluation and comparative study of combinatorial optimization algorithms: Application to the problem of process placement [RR-886-I] 07 p2043 N93-20798
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects [AD-A259711] 08 p2440 N93-23638
Probability and statistics applied to the theory of algorithms [AD-A259956] 08 p2473 N93-24248
Probability and statistics applied to the theory of algorithms [AD-A261019] 09 p2830 N93-25863
A local search template [MEMO-COSOR-92-11] 10 p3092 N93-27230
A simple proof of confluence for weakly orthogonal combinatory reduction systems [CWI-CS-R9234] 10 p3119 N93-27998
Sparse arrangements and the number of views of polyhedral scenes [RUU-CS-92-24] 10 p3120 N93-28065
How to select combination operators for fuzzy expert systems using CRI 11 p3510 N93-29521
Polynomial space polynomial delay algorithms for listing families of graphs [DE93-010677] 11 p3530 N93-29808
Parametric and combinatorial problems in constrained optimization [AD-A264229] 11 p3555 N93-30363
ALGODESK: An experimental comparison of eight evolutionary heuristics applied to the QAP problem [REPT-92-052] 12 p3786 N93-31250
Multivariate problems of statistics, combinatorics, reliability, and signal processing [AD-A265213] 12 p3811 N93-32003
Parametric and combinatorial problems in constrained optimization [AD-A265595] 12 p3792 N93-32096

COMBINED CYCLE POWER GENERATION
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726

COMBINED STRESS
Micromechanical combined stress analysis: MICSTRAN, a user manual [NASA-CR-189694] 02 p0243 N93-12306

COMBUSTIBILITY
U FLAMMABILITY

COMBUSTIBLE FLOW
Theory of combustion of liquid propellants based on hydroxylammonium nitrate [AD-A248445] 01 p0042 N93-10267
Dispersion of seed vapor and gas ionization in an MHD second stage combustor and channel [DE92-016699] 01 p0163 N93-10645
Mathematical analysis of reactive multiphase flows [AD-A253854] 01 p0083 N93-10810
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies 03 p0536 N93-12836
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632

Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Combustion in supersonic flows 04 p0841 N93-14627
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713] 05 p1163 N93-16939
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Experimental and numerical investigation of hydrogen combustion in a supersonic flow 08 p2223 N93-24212
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
Influence of supercritical conditions on pre-combustion chemistry and transport behavior of jet fuels
[AD-A261813] 09 p2661 N93-26268
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373

COMBUSTION
NT AFTERBURNING
NT BOUNDARY LAYER COMBUSTION
NT DEFLAGRATION
NT EROSIVE BURNING
NT FUEL COMBUSTION
NT HYDROCARBON COMBUSTION
NT HYPERSONIC COMBUSTION
NT METAL COMBUSTION
NT PROPELLANT COMBUSTION
NT SOLID PROPELLANT COMBUSTION
NT SOLID PROPELLANT IGNITION
NT SPONTANEOUS COMBUSTION
NT SUPERSONIC COMBUSTION
NT TURBULENT COMBUSTION
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Preliminary definition of experiments and procedures for terrestrial and space examination of flame structure
[APRL-X13-8] 05 p1105 N93-16728
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Combustion Research Program: Flame studies, laser diagnostics, and chemical kinetics
[DE93-002758] 05 p1106 N93-17212
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
International Workshop on Mathematical Methods in Combustion
[AD-A258478] 06 p1482 N93-18312
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
Flow visualization and combustion diagnostic 06 p1485 N93-18480
The Second International Microgravity Combustion Workshop
[NASA-CP-10113] 07 p1868 N93-20178
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
An overview of European activities on microgravity combustion 07 p1868 N93-20181
Japan's microgravity combustion science program 07 p1868 N93-20182
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Capabilities and constraints of combustion diagnostics in microgravity 07 p1869 N93-20185
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
Principles of gas phase processing of ceramics during combustion 07 p1862 N93-20188
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames 07 p1853 N93-20189
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Modeling of microgravity combustion experiments 07 p1853 N93-20197
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
On the structure and stabilization mechanisms of planar and cylindrical premixed flames 07 p1853 N93-20199
Microgravity combustion of dust suspensions 07 p1853 N93-20201
Combustion synthesis of ceramic and metal-matrix composites 07 p1854 N93-20203
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Opposed-flow flame spreading in reduced gravity 07 p1854 N93-20206
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Metals combustion in normal gravity and microgravity 07 p1854 N93-20211
Computational/experimental studies of isolated, single component droplet combustion 07 p1854 N93-20213
Combustion experiments in reduced gravity with two-component miscible droplets 07 p1854 N93-20214
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
High-pressure droplet combustion studies 07 p1854 N93-20216
Combustion of interacting droplet arrays in a microgravity environment 07 p1854 N93-20217
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832
Electrically driven convection 08 p2247 N93-22837
Practical problems related to flammability and combustion in space 08 p2226 N93-22839
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Sandia combustion research technical review, 1992
[DE93-006399] 08 p2220 N93-23027
Heavy duty gas turbine combustion tests with simulated low BTU coal gas
[DE93-005078] 08 p2315 N93-23297
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013
A summary of the JANNAF workshop on liquid rocket atomization 09 p2625 N93-26014
Development of a second generation spray combustion code 09 p2626 N93-26016
Kinetic studies in gas-phase reaction mechanisms important to the combustion process of high energy density materials: The H2/NO2 reaction 09 p2628 N93-26027
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
An experimental and analytical study of the unsteady combustion of homogeneous energetic solids using the laser-recoil method 09 p2630 N93-26042
Cumulative reports and publications
[NASA-CR-191440] 10 p3090 N93-27063
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
Energetic material response to abnormal environments 11 p3350 N93-30095
Flammability and explosion limits of H2 and H2/CO: A literature review
[AD-A264896] 12 p3702 N93-31064
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800

COMBUSTION CHAMBERS
NT DUMP COMBUSTORS
Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Turbulence modeling of the flow field in combustors using the non-linear k-epsilon model
[DE92-014745] 01 p0080 N93-10330
Mass transfer in oscillating flows: Efficient drying via pulse combustors
[PB92-204403] 01 p0081 N93-10449
Dispersion of seed vapor and gas ionization in an MHD second stage combustor and channel
[DE92-016699] 01 p0163 N93-10645
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Magnetohydrodynamic projects at the CDIF
[DE92-018190] 01 p0164 N93-10819
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
An advanced combustion research facility for validating computational fluid dynamics codes
[PNR-90913] 02 p0296 N93-11017
Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors 02 p0235 N93-11133
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171

Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code
02 p0247 N93-11450
Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Advanced coal-fueled gas turbine systems
[DE92-018939] 02 p0327 N93-11832
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster
03 p0602 N93-13686
Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504
MHD Integrated Topping Cycle Project
[DE92-041285] 05 p1306 N93-15666
MHD Integrated Topping Cycle Project
[DE92-041284] 05 p1306 N93-15678
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
Annular vortex combustor
[AD-D015462] 05 p1103 N93-16462
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
Contribution to the study of airbreathing burner combustion instabilities
[ONERA-NT-1992-2] 06 p1482 N93-18189
Performance and heat transfer characteristics of a carbon monoxide/oxygen rocket engine
[NASA-TM-105897] 06 p1474 N93-18878
Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Shock tunnel studies of scramjet phenomena, supplement 6
[NASA-CR-191428] 08 p2289 N93-22817
Sandia combustion research technical review, 1992
[DE93-006399] 08 p2220 N93-23027
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Evaluation of the Migrating Combustion Chamber (MCC) engine
[AD-A260780] 09 p2718 N93-25682
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Solid fuel supersonic combustion
09 p2625 N93-26010
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
A summary of the JANNAF workshop on liquid rocket atomization 09 p2625 N93-26014
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances
09 p2626 N93-26015
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160
Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase
10 p2922 N93-27186
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
Experimental study of cross flow mixing in cylindrical and rectangular ducts
[NASA-CR-187141] 10 p2945 N93-27680
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
The effect of main stream flow angle on flame tube film cooling 11 p3257 N93-29953
Impingement/effusion cooling
11 p3257 N93-29954
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers
11 p3257 N93-29955
Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
Method of fabricating a rocket engine combustion chamber
[NASA-CASE-MFS-28569-1] 11 p3338 N93-30565
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

COMBUSTION CHEMISTRY

Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233
Modelling combustion zones in porous media
03 p0540 N93-13802
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Modeling of Combustion and Turbulence
[VKI-LS-1992-03] 04 p0839 N93-14617
Chemical kinetics for combustion
04 p0840 N93-14619
Calculation of chemical reaction rates in turbulent combustion 04 p0841 N93-14625
Homogeneous-heterogeneous combustion: Thermal and chemical coupling
[DE93-002881] 05 p1100 N93-15840
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614
Computerized reduction of elementary reaction sets for CFD combustion modeling 05 p1108 N93-17337
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Modeling of microgravity combustion experiments
07 p1853 N93-20197
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples
09 p2628 N93-26032
Theoretical studies of the reactions and spectroscopy of radical species relevant to combustion reactions and diagnostics
[DE93-010247] 10 p2993 N93-26619
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials
11 p3343 N93-30063
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083

Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations 11 p3319 N93-30099

COMBUSTION CONTROL
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130

COMBUSTION EFFICIENCY
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser 02 p0245 N93-11135
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Development of advanced turbine systems: Meeting tomorrow's needs
[DE92-017339] 03 p0612 N93-13103
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Experimental and numerical investigation of hydrogen combustion in a supersonic flow 08 p2223 N93-24212
Solid fuel supersonic combustion 09 p2625 N93-26010
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216
Computer-aided surface regression analysis 10 p2927 N93-27217
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223

COMBUSTION HEAT
U HEAT OF COMBUSTION

COMBUSTION INSTABILITY
U COMBUSTION STABILITY

COMBUSTION PHYSICS
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser 02 p0245 N93-11135
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
Measurements of cellular structure in spray detonation
[DE92-019580] 03 p0555 N93-12933
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Modelling combustion zones in porous media 03 p0540 N93-13802
Combustion of gaseous fuels under reduced-gravity conditions 03 p0557 N93-14012
Modeling of Combustion and Turbulence
[VKI-LS-1992-03] 04 p0839 N93-14617
Fundamentals of combustion of premixed gases 04 p0840 N93-14618
Chemical kinetics for combustion 04 p0840 N93-14619
Turbulence modeling for combustion flows 04 p0840 N93-14620
Radiative heat transfer in combustion systems 04 p0840 N93-14621
Direct simulation of turbulent combustion 04 p0840 N93-14622
PDF transport modelling 04 p0840 N93-14623
Introduction to spray combustion modelling 04 p0841 N93-14626
Combustion in supersonic flows 04 p0841 N93-14627
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
International Workshop on Mathematical Methods in Combustion
[AD-A258478] 06 p1482 N93-18312
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Modeling of microgravity combustion experiments 07 p1853 N93-20197
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
Computational/experimental studies of isolated, single component droplet combustion 07 p1854 N93-20213
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Space Station Freedom combustion research 08 p2190 N93-22643
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching 09 p2642 N93-24771
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
Calculations of combustion response profiles and oscillations
[NASA-TM-106135] 09 p2623 N93-25236
Ionization probes of molecular structure and chemistry
[DE93-008211] 09 p2847 N93-25310
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF) 09 p2598 N93-26006
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130
Progress in optical diagnostic development for the electro-thermal chemical program
[DE93-009452] 10 p2997 N93-28452
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
Combustion/explosion chemistry of bulk materials 11 p3343 N93-30062
Propulsion and detonics research in France 11 p3344 N93-30070
The outlook for understanding the combustion of solid propellants and what it will take 11 p3346 N93-30078
Dislocation roles in energetic crystal responses 11 p3348 N93-30086
Homogeneous gas phase kinetic model with gradient sensitivity analysis for high temperature particulate boron combustion in fluorine enriched environments 11 p3319 N93-30090
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877

COMBUSTION PRODUCTS
Altitude compensating nozzle evaluation 01 p0022 N93-10037
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000
Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620
Material and method for fast generation of hydrogen gas and steam
[AD-D015559] 07 p1847 N93-20781
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697

Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Evaluation of resistively heated fuel injector technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
The generation of carbon monoxide in compartment fires 08 p2117 N93-23093
Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations
[DOT/FAA/AM-93/8] 10 p3083 N93-27158
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261965] 10 p3008 N93-27666
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction 11 p3347 N93-30084
Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085
Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

COMBUSTION STABILITY
NT FLAME STABILITY
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code 02 p0247 N93-11450
A summary of the JANNAF workshop on diagnostics 02 p0248 N93-11451
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Nonlinear stability of combustion-driven acoustic oscillations in resonance tubes
[DE92-012153] 03 p0699 N93-13262
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111
Fundamentals of combustion of premixed gases 04 p0840 N93-14618
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Contribution to the study of airbreathing burner combustion instabilities
[ONERA-NT-1992-2] 06 p1482 N93-18189
International Workshop on Mathematical Methods in Combustion
[AD-A258478] 06 p1482 N93-18312
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
Calculations of combustion response profiles and oscillations
[NASA-TM-106135] 09 p2623 N93-25236
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Space transportation booster engine thrust chamber technology, large scale injector
[NASA-CR-192531] 09 p2633 N93-26557
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
Contribution to the study of the interaction between acoustic waves and coherent structures induced by a prismatic cylinder in a rectangular cavity
[ONERA-NT-1990-10] 11 p3314 N93-30203
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667

COMBUSTION SYNTHESIS
Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170

COMBUSTION TEMPERATURE
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

COMBUSTION VIBRATION
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247

COMBUSTION WAVES
U FLAME PROPAGATION

COMBUSTION WIND TUNNELS
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848

COMBUSTORS
U COMBUSTION CHAMBERS

COMET NUCLEI
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley 03 p0753 N93-13602
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra 04 p1017 N93-14230
Comet nucleus and asteroid sample return missions
[NASA-CR-192055] 06 p1699 N93-18171
Comets: Role and importance to exobiology 06 p1592 N93-18556
CRAF Mission: An opportunity for exobiology 06 p1592 N93-18558
Low cost missions to explore the diversity of near Earth objects 06 p1453 N93-19124
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
Spectroscopic observations of comet Austin (1989c) 06 p1697 N93-19169
H2O(+) structures in the inner plasma tail of comet Austin 06 p1708 N93-19174
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers 06 p1710 N93-19189
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin 06 p1710 N93-19192
Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216
Twentieth century light curves and the nucleus of comet P/Tempel 2 06 p1698 N93-19231
Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances 06 p1717 N93-19240
Cartography of asteroids and comet nuclei from low resolution data 06 p1718 N93-19249
The nature of comet nuclei 06 p1718 N93-19250
Forced precession of the cometary nucleus with randomly placed active regions 06 p1719 N93-19251
Determination of orbits of comets: P/Kearns-Kwee, P/Gunn, including nongravitational effects in the comets' motion 06 p1454 N93-19254
Rotation of split cometary nuclei 06 p1719 N93-19258
The comet rendezvous asteroid flyby mission 06 p1720 N93-19260
CoMA: A high resolution Time-Of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for in situ analysis of cometary matter 06 p1721 N93-19272

COMET RENDEZVOUS ASTEROID FLYBY MISSION
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM 03 p0514 N93-13551
CRAF Mission: An opportunity for exobiology 06 p1592 N93-18558
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156
The comet rendezvous asteroid flyby mission 06 p1720 N93-19260
CoMA: A high resolution Time-Of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for in situ analysis of cometary matter 06 p1721 N93-19272
National Aeronautics and Space Administration: Statement of the Space Science Working Group 07 p2094 N93-21682

COMET TAILS
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134

Interplanetary magnetic field changes and condensations in comet Halley's plasma tail
06 p1704 N93-19147
H2O(+) structures in the inner plasma tail of comet Austin
06 p1708 N93-19174
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background
06 p1708 N93-19175
Doppler velocities in the ion tail of comet Levy 1990c
06 p1708 N93-19176
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin
06 p1710 N93-19192
The disconnection event of 16.0 March 1986 in comet Halley
06 p1715 N93-19227
Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres
06 p1698 N93-19236

COMETARY ATMOSPHERES
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478]
03 p0751 N93-13465
Densities and abundances of hot cometary ions in the coma of P/Halley
03 p0752 N93-13466
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley
03 p0753 N93-13602
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384]
04 p1020 N93-14814
Asteroids, Comets, Meteors 1991
[NASA-CR-191879]
06 p1700 N93-19113
Ion produced cometary organic crust
06 p1701 N93-19122
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
CCD imaging of the inner coma jets of comet P/Halley
06 p1702 N93-19133
High-resolution observations of the spatial and velocity distribution of cometary hydrogen
06 p1703 N93-19135
Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141
Radio spectroscopy of comets: Recent results and future prospects
06 p1697 N93-19144
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1
06 p1697 N93-19153
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations
06 p1705 N93-19154
Lightcurve of comet Austin(1989c1) and its dust mantle development
06 p1707 N93-19167
Spectroscopic observations of comet Austin (1989c)
06 p1697 N93-19169
Metallic atoms and ions in comets: Comet Halley 1986 3
06 p1707 N93-19170
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals
06 p1708 N93-19173
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background
06 p1708 N93-19175
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers
06 p1710 N93-19189
Numerical simulations of cometary dust
06 p1711 N93-19198
Evolution of near UV Halley's spectrum in the inner coma
06 p1716 N93-19235
The role of organic polymers in the structure of cometary dust
06 p1719 N93-19256
A new activity index for comets
06 p1699 N93-19261
Velocity distributions of H and OH produced through solar photodissociation of H2O
06 p1720 N93-19266
The contribution of electron collisions to rotational excitations of cometary water
06 p1721 N93-19268

COMETARY MAGNETOSPHERES
Observations of OH in comet Levy with the Nancay radio telescope
06 p1697 N93-19129
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres
06 p1698 N93-19236

COMETS
NT AUSTIN COMET
NT BRORSEN-METCALF COMET
NT GIACOBINI-ZINNER COMET
NT GRIGG-SKJELLERUP COMET
NT HALLEY'S COMET
NT SCHWASSMANN-WACHMANN COMET
NT TEMPEL 2 COMET
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters
01 p0114 N93-10154
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream
01 p0120 N93-10180
Studies of extra-solar Oort Clouds and the Kuiper disk
[NASA-CR-190958]
03 p0769 N93-12669
Giotto: The second encounter
[ESA-BR-83]
03 p0749 N93-12965
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects
04 p1040 N93-14365
Comets: Role and importance to exobiology
06 p1592 N93-18556
Asteroids, Comets, Meteors 1991
[NASA-CR-191879]
06 p1700 N93-19113
About distribution and origin of the peculiar group of sporadic meteors
06 p1700 N93-19115
Radar meteor orbital structure of Southern Hemisphere cometary dust streams
06 p1701 N93-19120
Ion produced cometary organic crust
06 p1701 N93-19122
Stochasticity of comet P/Slaughter-Burnham
06 p1702 N93-19128
Observations of OH in comet Levy with the Nancay radio telescope
06 p1697 N93-19129
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition
06 p1702 N93-19130
High-resolution observations of the spatial and velocity distribution of cometary hydrogen
06 p1703 N93-19135
The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8)
06 p1703 N93-19140
Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141
Observations of cometary parent molecules with the IRAM radio telescope
06 p1697 N93-19143
Radio spectroscopy of comets: Recent results and future prospects
06 p1697 N93-19144
The gas production rate of periodic comet d'Arrest
06 p1705 N93-19155
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud
06 p1706 N93-19159
Lightcurve of comet Austin(1989c1) and its dust mantle development
06 p1707 N93-19167
Formation of ions and radicals from icy grains in comets
06 p1708 N93-19172
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals
06 p1708 N93-19173
Doppler velocities in the ion tail of comet Levy 1990c
06 p1708 N93-19176
Evolution of the Quadrantid meteor stream
06 p1708 N93-19177
The correlation between water production rates and visual magnitudes in comets
06 p1709 N93-19181
Particle emission from artificial cometary materials
06 p1710 N93-19188
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers
06 p1710 N93-19189
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets
06 p1710 N93-19191
Evaluating some computer exhancement algorithms that improve the visibility of cometary morphology
06 p1628 N93-19194
Polarimetric observations of comet Levy 1990c and of other comets: Some clues to the evolution of cometary dust
06 p1711 N93-19196
The state of knowledge concerning the Kuiper belt
06 p1711 N93-19197
Numerical simulations of cometary dust
06 p1711 N93-19198
Dynamical timescales in the Jupiter family
06 p1712 N93-19201
Activity in distant comets
06 p1712 N93-19202
Cometary orbital evolution in the outer planetary region
06 p1712 N93-19204
The eleven observations of comets between 687 AD and 1114 AD recorded in the Anglo Saxon Chronicle
06 p1698 N93-19205
Comet nongravitational forces and meteoritic impacts
06 p1712 N93-19207
CCD-photometry of comets at large heliocentric distances
06 p1698 N93-19213
Long-term orbital evolution of short-period comets found in Project Cosmo-DICE
06 p1454 N93-19215
15 years of comet photometry: A comparative analysis of 80 comets
06 p1698 N93-19217
The importance of guiding on the motion of a comet in astrometric observations
06 p1698 N93-19219
Observations of comet Levy 1990c in the (OI) 6300-A line with an imaging Fabry-Perot
06 p1698 N93-19224
Laboratory studies on cometary crust formation: The importance of sintering
06 p1715 N93-19228
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
Carbon petrology in cometary dust
06 p1716 N93-19232
Chemical and physical effects in the bulk of cometary analogs
06 p1716 N93-19234
Submillimeter molecular line observations of cometary Levy (1990c)
06 p1698 N93-19237
The vicinity of Jupiter: A region to look for comets
06 p1719 N93-19253
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data
06 p1699 N93-19257
A new activity index for comets
06 p1699 N93-19261
Formation of the Leonid meteor stream and storm
06 p1721 N93-19267
Near-earth object interception workshop summary
[DE93-003793]
08 p2546 N93-22403
Studies of extra-solar OORT clouds and the Kuiper disk
[NASA-CR-192759]
08 p2555 N93-22476
Reports of planetary astronomy - 1991
[NASA-TM-4459]
08 p2542 N93-23055
The German space science programme
08 p2536 N93-23903
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253]
08 p2195 N93-24057
Temporal and spatial inhomogeneities in comets
08 p2551 N93-24188
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785]
08 p2552 N93-24480
Extraction of volatiles and metals from extraterrestrial materials
10 p2997 N93-26682
Molecular processes in comets
[NASA-CR-193143]
10 p3204 N93-27537
ROSETTA: The ESA sample return mission
10 p2953 N93-28049
Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716]
11 p3634 N93-29246
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF)
11 p3638 N93-29371
Sungrazing comet observations associated with SOHO
12 p3871 N93-31369

COMFORT
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720]
11 p3496 N93-30659

COMMAND AND CONTROL
Analysis of observation report databases/knowledge bases
[AD-A252636]
01 p0172 N93-10428
Implementing system simulation of C3 systems using autonomous objects
[NASA-CR-190845]
02 p0283 N93-11716
Distributed database integrity
[AD-A253272]
02 p0477 N93-11749
From pilot's associate to satellite controller's associate
02 p0390 N93-11922
Measures of user-system interface effectiveness: Assessment of structured judgment evaluation techniques for graphical, direct-manipulation style interfaces
[AD-A254493]
03 p0677 N93-12576
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795]
03 p0734 N93-12703
Military space operations: Satellite control system improved, but serious problems remain
[AD-A256809]
04 p0971 N93-15626

The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
Spacecraft command and control using AI planning techniques. The O-Plan2 project
[AD-A257395] 05 p1258 N93-16008
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381
Domain specific software architectures: Command and control 05 p1247 N93-17503
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Wrench for installing an electrical connector
[AD-D015625] 08 p2318 N93-24220
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
Rome Laboratory Journal, 1992
[AD-A260821] 09 p2911 N93-25910
Flight termination receiver catalog
[AD-A261558] 09 p2682 N93-26460
System Concept of Operations Evaluator (SCOPE)
[AD-A261257] 09 p2813 N93-26563
Management of the disaster communications by satellite 10 p3024 N93-26656
Modeling, simulation, and high-autonomy control of a Martian oxygen production plant 10 p3021 N93-26693
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
TACSAT ground control and data collection 11 p3388 N93-29895
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO 11 p3284 N93-29896
Tactical satellites for air command and control 11 p3284 N93-29898
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
VLF/LF propagation measurements 11 p3395 N93-30732
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311

COMMAND GUIDANCE
Digital bank-to-turn control and guidance 04 p0802 N93-14447
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515

COMMAND LANGUAGES
NT QUERY LANGUAGES

The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218

COMMAND SYSTEMS
U COMMAND GUIDANCE

COMMAND-CONTROL
U COMMAND AND CONTROL

COMMANDS
ROMPS critical design review. Volume 3: Furnace module design documentation
[NASA-CR-191615] 05 p1237 N93-16440

COMMERCE
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned 02 p0472 N93-11163
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
Application of information system technology to K-12 education
[AD-A255223] 03 p0731 N93-13834
EDI planning and implementation guide
[AD-A255737] 04 p1007 N93-15050
The information age as a work in progress: Implications for technical communicators
[DE92-019780] 04 p1008 N93-15275
Federal research: Small business innovation research shows success but can be strengthened
[AD-A256811] 05 p1350 N93-15680
Directions for future Earth-to-orbit vehicles 05 p1076 N93-17309
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
Aircraft performance in practice 06 p1403 N93-19004
Industrial aerospace activities 06 p1404 N93-19007
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Small business profiles, 1992
[PB93-110914] 07 p2086 N93-21548
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
Introduction to Space Station Freedom 08 p2182 N93-22608
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
State of Small Business: A report of the President transmitted to the Congress
[PB93-137073] 08 p2519 N93-23437
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305
Small business profiles, 1992: Region 1
[PB93-110922] 08 p2521 N93-24556
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557
Advanced energy systems and technologies - National R and D programme
[DE93-769943] 09 p2758 N93-25097
Small business access to equity capital
[PB93-144582] 09 p2872 N93-25735
Defense conversion: Redirecting research and development
[OTA-ITE-552] 11 p3610 N93-29649
Advanced network technology: Background paper
[OTA-BP-TCT-101] 11 p3539 N93-29650
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
US space commerce, 1991 11 p3625 N93-30695
The role of the University Licensing Office in transferring intellectual property to industry 11 p3626 N93-30698
National Technology Transfer Center 11 p3626 N93-30700
Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822
End users: New products and services 12 p3837 N93-31220

COMMERCIAL AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 747 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT EUROPEAN AIRBUS
NT SUPERSONIC COMMERCIAL AIR TRANSPORT
Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
UK airmisses involving commercial air transport, May-August 1991
[ETN-92-92260] 02 p0203 N93-11357
UK airmisses involving commercial air transport, January-April 1991
[ETN-92-92261] 02 p0298 N93-11358
Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193
Flight simulator evaluation of D-size liquid crystal flat panel displays
[NAL-TR-1136] 02 p0209 N93-12367
Liquid crystal flat panel display evaluation tests using a flight simulator
[NAL-TR-1122] 02 p0209 N93-12383
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0788 N93-15522
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
The NASA High-Speed Research Program 05 p1064 N93-16761
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974

Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
Tesseract: Supersonic business transport
[NASA-CR-192072] 06 p1435 N93-17977
The airline quality report, 1992
[NIAR-92-11] 06 p1418 N93-18036
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
The Edge supersonic transport
[NASA-CR-192074] 06 p1436 N93-18055
A second-generation high speed civil transport: Stingray
[NASA-CR-192022] 06 p1437 N93-18059
Applying commercial style acquisition practices to the procurement of commercially available aircraft
[AD-A258143] 06 p1683 N93-18087
Scheduling of an aircraft fleet
06 p1635 N93-18665
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
An artificial intelligence-based structural health monitoring system for aging aircraft
08 p2465 N93-22185
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
Activities report of Lufthansa German Airlines
[ETN-93-93465] 08 p2117 N93-23004
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
Evaluation of advanced displays for engine monitoring and control
[NASA-CR-191418] 09 p2591 N93-24764
Lightning data acquisition 09 p2778 N93-24883
Applied aerodynamics: Challenges and expectations
[NASA-TM-103963] 09 p2575 N93-25091
World jet airplane inventory at year-end 1992
[PB93-174324] 10 p2928 N93-27405
World commercial aircraft accidents
[DE93-010892] 11 p3243 N93-28571
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials
11 p3303 N93-30845
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
Radiation exposure in aircraft
12 p3753 N93-31928
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

COMMERCIAL AVIATION
U CIVIL AVIATION
U COMMERCIAL AIRCRAFT

COMMERCIAL ENERGY
Prospects for the commercial development of hot dry rock geothermal energy in New Mexico
[DE92-018999] 02 p0346 N93-11825
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421

COMMERCIAL SPACECRAFT
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
US space commerce, 1991 11 p3625 N93-30695

COMMINUTION
NT CRUSHING
NT GRINDING (COMMINUTION)
The collaborative program of research in engineering sciences
[DE92-016838] 02 p0490 N93-12477
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603

COMMITTEE ON SPACE RESEARCH
Pakistan Space and Upper Atmosphere Research Commission 07 p1819 N93-21285

COMMODITIES
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635

COMMON BUSINESS ORIENTED LANGUAGE
U COBOL

COMMONALITY
Power system commonality study
[NASA-CR-190765] 02 p0347 N93-12019
Space biology initiative program definition review. Trade study 4: Design modularity and commonality
08 p2418 N93-23071

COMMUNICATING
NT AIRCRAFT COMMUNICATION
NT CONVERSATION
NT GROUND-AIR-GROUND COMMUNICATION
NT INFORMATION DISSEMINATION
NT INTERSTELLAR COMMUNICATION
NT MESSAGES
NT SELECTIVE DISSEMINATION OF INFORMATION
NT VERBAL COMMUNICATION
On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977
Questioning mechanisms during complex learning
[AD-A247382] 02 p0386 N93-11415
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Nonmonotonic temporal reasoning
[AD-A258699] 07 p2032 N93-20377
An order-theoretic model for the algebra of communicating processes
[RUU-CS-92-02] 07 p2054 N93-21034
Evaluation of distributed computing tools
[DE93-007408] 08 p2446 N93-22531
Tapes, queues and communicating automata in DIAC
[REPT-92-94] 12 p3789 N93-31631

COMMUNICATION
NT FACSIMILE COMMUNICATION
NT LINE OF SIGHT COMMUNICATION
NT OPTICAL COMMUNICATION
NT UNDERWATER COMMUNICATION
An EVACS simulation with nested transactions
[NASA-CR-190636] 02 p0412 N93-11717
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
The information age as a work in progress: Implications for technical communicators
[DE92-019780] 04 p1008 N93-15275
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399

COMMUNICATION CABLES
NT COAXIAL CABLES
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
Solar-powered light emitting diode power line avoidance marker design
[AD-A259886] 08 p2381 N93-23983

COMMUNICATION EQUIPMENT
NT CLOSED CIRCUIT TELEVISION
NT DIPLEXERS
NT RADIO RECEIVERS
NT SUPERHETERODYNE RECEIVERS
NT TRANSMITTER RECEIVERS
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21)
[AD-A253393] 01 p0133 N93-10217
Link-11 communications --- computer-to-computer communications exchange network
[AD-A252766] 01 p0068 N93-10260
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
Crustal deformation measurements in the vicinity of Vandenberg Air Force Base
[AD-A258536] 07 p1996 N93-20053
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6
07 p1793 N93-20434
Review of the Year 1991 07 p1886 N93-21558
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388
Time delay measurements of current primary FAA air/ground transmitters and receivers
[DOT/FAA/CT-TN93/14] 11 p3379 N93-28555
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Space qualification for an intersatellite laser communications system
[AD-A265145] 12 p3717 N93-31989

COMMUNICATION NETWORKS
NT ALOHA SYSTEM
NT DEEP SPACE NETWORK
NT LOCAL AREA NETWORKS
NT VSAT (NETWORK)
Analysis of reservation-based dual-link networks for real-time applications
[AD-A254176] 01 p0067 N93-10253
Link-11 communications --- computer-to-computer communications exchange network
[AD-A252766] 01 p0068 N93-10260
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Documentation practices: The national scene (Greece)
01 p0173 N93-10595
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey
01 p0174 N93-10601
Security considerations within military information systems 01 p0174 N93-10603
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Network stability under viral attack: A game entitled, God and the Devil
[RSRE-MEMO-4405] 01 p0147 N93-10822
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
Scalable parallel communications
02 p0279 N93-11117
High performance interconnection between high data rate networks 02 p0279 N93-11118
Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1
[DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2
[DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET)
02 p0395 N93-11940
Low Density Radio Communications Link (LDRCL) Operational Test and Evaluation (OT/E) integration and operation test plan
[AD-A258216] 02 p0285 N93-12331
ISDN at NASA Lewis Research Center
[NASA-TM-105911] 02 p0419 N93-12410
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
Program Support Communications Network (PSCN) facsimile system directory
[NASA-TM-108051] 03 p0562 N93-12909

Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
Research priorities in networking and communications
[NSF-92-109] 03 p0562 N93-13024
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
Next generation satellite communications networks 04 p0812 N93-14962
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1006 N93-15044
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
Meteor burst communication system
[AD-D015470] 05 p1139 N93-16466
TMN: Introduction and interpretation
[MEMO-INF-92-40] 05 p1140 N93-16592
NCC Simulation Model: Simulating the operations of the network control center, phase 2
[NASA-CR-191616] 05 p1140 N93-16716
MODIS algorithm development and data visualization using ACTS
[NASA-CR-191940] 05 p1191 N93-16759
Toward domain-specific design environments: Some representation ideas from the telecommunications domain 05 p1249 N93-17511
RT-Syn: A real-time software system generator 05 p1250 N93-17523
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373
On-board B-ISDN fast packet switching architectures. Phase 1: Study
[NASA-CR-189144] 06 p1457 N93-18703
Network problem threshold 06 p1516 N93-19397
Design and evaluation of FDDI fiber optics networkfor Ethernets, VAX's and Ingraph work stations 06 p1664 N93-19408
Microwave vs optical crosslink study
[NASA-CR-192207] 07 p1879 N93-19989
Research on data relay and tracking satellite systems 07 p1790 N93-20418
PARTNERS 07 p1978 N93-21287
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
Office of Space Flight standard spaceborne Global Positioning System user equipment project 08 p2148 N93-22301
Communications and control for electric power systems
[NASA-CR-192794] 08 p2261 N93-22477
The QCD Teraflops Project
[DE93-006386] 08 p2447 N93-23026
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
Military space capabilities and requirements 08 p2154 N93-23161
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept 08 p2344 N93-23512
The Canadian mobile satellite system 08 p2275 N93-23515
Land mobile satellite communications systems and services 08 p2275 N93-23517
Mobile satellite communications in the 1990's 08 p2275 N93-23520
Personal communications satellite service system 08 p2275 N93-23521
SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522
A permanent near-online High Precision Positioning Service (HPPS) with GPS 08 p2124 N93-23524
OSI applied to aeronautical satellite mobile communications in EURATN 08 p2275 N93-23525
COMLINE 08 p2276 N93-23530
Fleet management based on satellite positioning and communication 08 p2276 N93-23531
Communications techniques supporting the data management 08 p2276 N93-23543
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
Universal channel network, or combining the best of token ring and slotted ring
[MEMO-INF-92-41] 08 p2449 N93-24630
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Strategies for synchronisation in an evolving telecommunications network 09 p2687 N93-25063
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
The PACSAT Communications Experiment (PCE)
[DE93-008185] 09 p2674 N93-25308
Object-oriented tools for distributed computing 09 p2817 N93-25576
The database Query Support Processor (QSP) 09 p2807 N93-25577
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
An OSI architecture for the Deep Space Network 09 p2679 N93-26121
Deep Space Network information system architecture study 09 p2679 N93-26126
High performance computing and communications panel report 09 p2807 N93-26131
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
Admission control in integrated voice/data multihop radio networks
[AD-A261055] 09 p2680 N93-26227
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Very high-speed report file system
[AD-A261068] 09 p2817 N93-26277
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388
EnviroNET 09 p2886 N93-26398
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
ETS-5, ETS-6, and COMETS projects in Japan 09 p2683 N93-26470
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
A comparison of ionospheric propagation mode delay predictions from ADVANCED PROPHET 4.3 with measured data
[AD-A261782] 09 p2686 N93-26604
Mobile communication via satellite towards the year 2000 10 p3023 N93-26646
Satellite communication services for Tibet autonomous region by domestic satellite in China 10 p3023 N93-26650
Worldwide seamless cellular satellite communications: The global mobile communication by Globalstar system 10 p3024 N93-26653
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655
Management of the disaster communications by satellite 10 p3024 N93-26656
Communication service by satellite link in Vietnam 10 p3024 N93-26657
A communications system for the United Nations Transitional Authority in Cambodia (UNTAC) 10 p3025 N93-26663
Process membership in asynchronous environments
[NASA-CR-192977] 10 p3091 N93-26904
DCP communication link monitoring program 10 p3076 N93-26994
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190
A survey of network interface designs
[MEMO-INF-92-59] 11 p3379 N93-28502
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3387 N93-29890
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO 11 p3284 N93-29896
Advanced HF digital networks 11 p3375 N93-30343
Changing role of telecommunications management in air traffic control in the FAA 11 p3247 N93-30354
High performance computing and communications program 11 p3627 N93-30715
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
VLF/LF propagation measurements 11 p3395 N93-30732
Viability assessment for reliable long-wave communication links 11 p3399 N93-30754
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines 11 p3399 N93-30755
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
The modern research environment 12 p3837 N93-31221
Process control and recovery in the Link Monitor and Control Operator Assistant 12 p3719 N93-32145
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

COMMUNICATION SATELLITES

NT ACTS
NT COMMUNICATIONS TECHNOLOGY SATELLITE
NT DIRECT BROADCAST SATELLITES
NT EUROPEAN COMMUNICATIONS SATELLITE
NT INTELSAT SATELLITES
NT MOLNIYA SATELLITES
NT MSAT
NT PALAPA SATELLITES
NT RELAY SATELLITES
NT SYNCOM SATELLITES
NT WESTAR SATELLITES
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
An analysis of the low-earth-orbit communications environment 03 p0561 N93-12633
A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960

Next generation satellite communications networks
04 p0812 N93-14962
On-orbit deployment anamolies: What can be done?
04 p0821 N93-15603
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731
Vibration characterisation for low level disturbances induced in telecommunications spacecraft
05 p1078 N93-15733
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769
Spacecraft design project: Low Earth orbit communications satellite
[NASA-CR-192038] 06 p1458 N93-17969
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
Olympus: The communications satellite and its uses. An introduction
[ESA-F-29] 06 p1461 N93-18369
On-board B-ISDN fast packet switching architectures. Phase 1: Study
[NASA-CR-189144] 06 p1457 N93-18703
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
NASA Center update: Goddard Space Flight Center
07 p1983 N93-20491
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Land mobile satellite communications systems and services 08 p2275 N93-23517
Mobile satellite communications in the 1990's
08 p2275 N93-23520
Personal communications satellite service system
08 p2275 N93-23521
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
Fleet management based on satellite positioning and communication 08 p2276 N93-23531
VideoMir: Satellite video conferencing during the AustroMir spaceflight 08 p2158 N93-24356
The PACSAT Communications Experiment (PCE)
[DE93-008185] 09 p2674 N93-25308
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
ETS-5, ETS-6, and COMETS projects in Japan
09 p2683 N93-26470
The 1992 United Nations Workshop on Space Communication for Development: Proceedings
10 p3022 N93-26640
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region
10 p3022 N93-26641
Digital audio and video broadcasting by satellite
10 p3023 N93-26645
SOVCAN STAR: An international satellite system
10 p3023 N93-26647
Zohreh: The Iranian domestic satellite system
10 p3023 N93-26649
Mugunghwa: The first Korean domestic satellite for FSS and DBS services 10 p3023 N93-26651
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
Communication service by satellite link in Vietnam
10 p3024 N93-26657
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659
Fault-tolerant onboard digital information switching and routing for communications satellites
[NASA-TM-4471] 10 p2956 N93-26895
Satellites and the BISDN: An overview of NASA R/D
[NASA-TM-106108] 10 p3025 N93-26903
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites
10 p2924 N93-27200
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Power beaming to communication satellites in GEO
[DE93-007608] 11 p3279 N93-29840
On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
Tactical satellites 11 p3284 N93-29893
Evolution or revolution: The Catch 22 of TACSATs
11 p3269 N93-29894
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO
11 p3284 N93-29896
Tactical satellites for air command and control
11 p3284 N93-29898
Considerations for NATO satellite communications in the post-2000 era 11 p3388 N93-29899
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications
11 p3389 N93-29902
Launch vehicles for lightweight TACSAT deployment
11 p3271 N93-29903
Spacecraft and launch systems for TACSAT applications 11 p3284 N93-29904
Attitude- and Orbit Control Subsystem concepts for TACSATS 11 p3284 N93-29906
Cost effective TacSats for military support
11 p3285 N93-29912
Canadian EHF MILSATCOM research and development project 11 p3362 N93-30264
SAW technology for on-board processing in military satellite communications 11 p3362 N93-30265
FASSET: A development model for a Canadian EHF MILSATCOM system 11 p3363 N93-30268
Adaptive jammer nulling in EHF communications satellites 11 p3365 N93-30284
A dual polarized broadband multifrequency Earth station feed 11 p3371 N93-30319
US space commerce, 1991 11 p3625 N93-30695
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311
Space qualification for an intersatellite laser communications system
[AD-A265145] 12 p3717 N93-31989

COMMUNICATION SYSTEMS
U TELECOMMUNICATION

COMMUNICATION THEORY
NT WORDS (LANGUAGE)
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
Reduced electrical bandwidth receivers for direct detection 4-ary PPM optical communication intersatellite links
[NASA-CR-192310] 07 p1880 N93-19993
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
Asynchronous communication in process algebra (extended abstract)
[CWI-CS-R9206] 10 p3098 N93-27551
Uncorrectable sequences and telecommand
11 p3385 N93-29596

COMMUNICATIONS TECHNOLOGY SATELLITE
Advanced Communications Technology Satellite (ACTS). Phase 1: Industrial/academic experimenters
[NASA-CR-191211] 03 p0561 N93-12679
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6
07 p1793 N93-20434
Overview of KITSAT 07 p1976 N93-21275
PARTNERS 07 p1978 N93-21287

COMMUNITIES
NT INHABITANTS
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991

COMMUTATION
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
Symmetries of coupled harmonic oscillators
10 p3142 N93-27318
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054

COMMUTATORS
NT DECOMMUTATORS

COMMUTER AIRCRAFT
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739

COMPACT DISK READ-ONLY MEMORY DEVICES
U OPTICAL DISKS

COMPACT GALAXIES
Evolution of galaxies in compact groups
03 p0750 N93-13148
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
Environmental influences on galaxy evolution
10 p3175 N93-26727
Galaxy tracers in N-body simulations
10 p3176 N93-26732
Oxygen abundances in low surface-brightness galaxies 10 p3178 N93-26747

COMPACTING
Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089

COMPACTNESS
U VOID RATIO

COMPANION STARS
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752
GX301-2/WRA9777 revisited: Probing the stellar wind through x ray optical data 08 p2537 N93-23911
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

COMPARISON
Selection of rocket propulsion systems
01 p0022 N93-10034
A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination
01 p0047 N93-10480
Numerical simulation of transient crack growth
01 p0048 N93-10488
Comparison of the maximum stress and the stress intensity approach in the analysis of bonded joints
01 p0053 N93-10514
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Different types of small volcanos on Venus
04 p1042 N93-14378
Comparison of tests, and local families
[MEMO-1034] 05 p1266 N93-16594
Comparison properties of stochastic decision free Petri nets
[INRIA-RR-1433] 06 p1649 N93-18646
D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559
SSG 5.98: Atmospheric excitation of the Earth's rotation 07 p1974 N93-20991
Analysis and synthesis of catalogues of extragalactic radio sources
[MITT-SER-A-231] 07 p2102 N93-21053
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024
Prospects of two-way international time scale comparisons 09 p2832 N93-24988
Comparison of GLONASS and GPS time transfers
09 p2836 N93-25017
Filtering interpolators for image comparison algorithms
11 p3463 N93-28797
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010

COMPARTMENTATION
U COMPARTMENTS

COMPARTMENTS
NT AIR LOCKS
NT AIRCRAFT COMPARTMENTS
NT ANECHOIC CHAMBERS
NT HYPERBARIC CHAMBERS
NT PRESSURE CHAMBERS
NT PRESSURIZED CABINS
NT REVERBERATION CHAMBERS
NT TEST CHAMBERS
NT VACUUM CHAMBERS
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779
The generation of carbon monoxide in compartment fires 08 p2117 N93-23093
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211

COMPATIBILITY
NT ELECTROMAGNETIC COMPATIBILITY
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
A boundary element super-element method for coupling with the finite element method of substructures
01 p0064 N93-10566
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Power system commonality study
[NASA-CR-190765] 02 p0347 N93-12019
Flight analysis of air intake/engine compatibility
03 p0502 N93-13212
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-000541] 05 p1128 N93-17807
Demonstration of a joint US-Russian very long baseline interferometry tracking capability
06 p1458 N93-18911
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
Use of block copolymer as polymer blend compatibilizer
[AD-A260435] 08 p2242 N93-24417
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
User's guide to Flexible Membrane Liner Advisory Expert System, Flex version 3.0
[PB93-134872] 08 p2259 N93-24559
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292

COMPENSATORS
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors
06 p1467 N93-18932
Synthesis of robust controllers
08 p2107 N93-22573
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669
The 32nd CDC: Robust stabilizer synthesis for interval plants using Nevanlina-pick theory
[NASA-CR-192894] 09 p2818 N93-25156
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Three-parameter tunable Tilt-Integral-Derivative (TID) controller
[NASA-CASE-NPO-18492-1-CU]
11 p3542 N93-29176
Division by polynomial matrix and its application to multivariable linear systems 11 p3357 N93-30233
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857

COMPETITION
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
Strategic factors in the development of the National Technology Transfer Network
[NASA-TM-108594] 06 p1694 N93-18169
The Eighth National Space Symposium
[ISBN-0-9616962-5-7] 08 p2153 N93-23156
Industry perspectives 08 p2154 N93-23162
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974

COMPILATION (COMPUTERS)
U COMPILERS

COMPILER PROGRAMS
U COMPILERS

COMPILERS
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341
Applying algebraic techniques to microcode compilation
[RSRE-MEMO-4568] 02 p0409 N93-11392
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
Simulation and analysis of support hardware for multiple instruction rollback
[NASA-CR-190972] 02 p0406 N93-12541
Program structure as a basis for the parallelization of global compiler optimizations
[AD-A254554] 03 p0681 N93-12641
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
Optimal synthesis methods for silicon compilers
[ETN-92-92677] 04 p0947 N93-15125
Micrometer FX/DLX: A pedagogic compiler
[AD-A256821] 05 p1232 N93-15684
Compiling Prolog to standard ML: Some optimizations
[AD-A256193] 05 p1232 N93-15841
The design and implementation of a parallel persistent object system
[AD-A257447] 05 p1233 N93-15869
Multiparadigm design environments
[AD-A257149] 05 p1231 N93-16031
Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
Dynamic parsers, evolving grammars and incremental languages
[PREPRINT-863] 05 p1243 N93-16998
Lazy scanner generation for modular regular grammars
[CWI-CS-R9158-REV] 05 p1251 N93-17533
Architecture/environment evaluation
[AD-A257849] 06 p1613 N93-18348
Numerical Wind Tunnel: Requirements and the outline
06 p1411 N93-19288
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Tomita's algorithm in practical applications
07 p2031 N93-20227
Bottom-up parallelization of Tomita's algorithm
07 p2031 N93-20229
MODULA-2* and its compilation
[INRIA-RR-1421] 07 p2037 N93-20859
Efficient compilation of a synchronous declarative language: LUSTRE-V3 code generator
[ETN-93-92679] 07 p2038 N93-20899
A relocatable compiler for mathematical expressions
[REPT-92-035] 07 p2028 N93-21183
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects
[AD-A259711] 08 p2440 N93-23638
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193102] 10 p3090 N93-27239
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193175] 11 p3527 N93-29170
Implementing error-valued semantics for dataflow languages on imperative machines
[DE93-009319] 11 p3615 N93-29310
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001
COBOL Compiler Validation System (CCVS 85), user guide, version 4.2
[PB93-163178] 12 p3785 N93-31112
Software engineering 12 p3794 N93-32154

COMPLEMENTARY METAL OXIDE SEMICONDUCTORS
U CMOS

COMPLETENESS
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
Resolution in modal propositional logic
[REPT-91-59] 07 p2052 N93-20853
Regular processes with relative time and silent steps
[CWI-CS-R9231] 10 p3101 N93-27995

COMPLEX COMPOUNDS
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814

COMPLEX NUMBERS
An orthogonal estimation algorithm for complex number systems
[RR-405] 06 p1621 N93-18568
Extended Lyapunov exponents for second order systems
[AD-A258838] 06 p1647 N93-19066
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
On ranks of twists of elliptic curves and power-free values of binary forms
[W-9213] 10 p3118 N93-27868
Geometrical aspects of quaternions and complex numbers
[REPT-92-56] 12 p3807 N93-31612

COMPLEX SYSTEMS
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
Krylov subspace methods for complex non-Hermitian linear systems
[NASA-CR-190931] 02 p0409 N93-11458

A methodology for systems requirements specification and traceability for large real time complex systems
[AD-A254738] 02 p0419 N93-12358
Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439
Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880
A monitoring and control system for complex man-machine systems: Preliminary design 04 p0810 N93-14951
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
An intelligent decomposition approach for efficient design of non-hierarchic systems 05 p1254 N93-16762
RT-Syn: A real-time software system generator 05 p1250 N93-17523
Generation of integrated circuit tests based on functional models
[ETN-92-92674] 05 p1151 N93-17628
A revised lower confidence limit procedure for the reliability of complex quasi-coherent systems
[AD-A257599] 05 p1277 N93-17764
Mechanism of diamond film growth 06 p1678 N93-18479
Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859
Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program
[NASA-CR-192405] 07 p2029 N93-19981
The 1991 lectures in complex systems
[AD-A259428] 07 p2050 N93-20008
Acquisition and production of skilled behavior in dynamic decision-making tasks
[NASA-CR-192361] 07 p2025 N93-20908
Use of neural networks in the analysis of complex systems
[DE93-003554] 07 p2049 N93-21847
Monitoring of vibrating machinery using artificial neural networks
[DE93-003566] 07 p2050 N93-21848
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
Analysis of complex systems using neural networks
[DE93-003541] 08 p2464 N93-24514
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
Proceedings of the complex systems engineering synthesis and assessment technology workshop
[AD-A261404] 09 p2807 N93-26403
Active impedance matching of complex structural systems 10 p3060 N93-28169
A neuro-fuzzy architecture for real-time applications 11 p3511 N93-29529
Some problems with the design of self-learning management systems 11 p3516 N93-29559
Fuzzy simulation in concurrent engineering 11 p3516 N93-29562
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Reduction method with system analysis for multiobjective optimization-based design
[NASA-CR-191456] 12 p3803 N93-31194
Advanced Artificial Intelligence Technology Testbed 12 p3801 N93-32126
Mixed data/goal driven intelligent real-time assessment and control 12 p3794 N93-32140
A decision-theoretic approach to the display of information for time-critical decisions: The Vista project 12 p3784 N93-32152

COMPLEX VARIABLES
NT ANALYTIC FUNCTIONS
NT BESSEL FUNCTIONS
NT CONFORMAL MAPPING
NT CONJUGATES
NT ELLIPTIC FUNCTIONS
NT ENTIRE FUNCTIONS
NT EXPONENTIAL FUNCTIONS
NT HANKEL FUNCTIONS
NT HYPERBOLIC FUNCTIONS
NT HYPERGEOMETRIC FUNCTIONS
NT LEGENDRE FUNCTIONS
NT LOGARITHMS
NT NONHOLONOMIC EQUATIONS
NT ORTHOGONAL FUNCTIONS
NT RATIONAL FUNCTIONS
NT SCHWARZ-CHRISTOFFEL TRANSFORMATION
NT SINGULARITY (MATHEMATICS)
NT SPHERICAL HARMONICS
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067

COMPLEXITY
NT TASK COMPLEXITY
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Fast theorem proving in intuitionistic propositional logic
[CWI-CS-R9157] 07 p2051 N93-20840
The complexity of the free space for a robot moving amidst fat obstacles
[RUU-CS-92-05] 07 p1915 N93-21171
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
A brief survey of zero-knowledge proofs
[CWI-CS-R9232] 10 p3101 N93-27996
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
Concurrent data objects in quadratic space
[CS-9112] 10 p3101 N93-28066

COMPLIANCE (ELASTICITY)
U MODULUS OF ELASTICITY

COMPLICATION
U COMPLEXITY

COMPONENT RELIABILITY
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Ceramic component reliability with the restructured NASA/CARES computer program
[NASA-TM-105856] 02 p0334 N93-11004
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
Fault detection and fault tolerance in robotics 02 p0330 N93-11961
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
A unified approach to the analysis and design of manipulator systems with environmental contact 03 p0573 N93-13805
Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
Reliability techniques for combined hardware and software systems
[AD-A256347] 04 p0895 N93-15204
A conceptual framework for system fault tolerance
[AD-A258467] 06 p1619 N93-18269
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Laser docking sensor engineering model 08 p2139 N93-22247
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
Probabilistic structural analysis for nuclear thermal propulsion 10 p2979 N93-26931
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112
Neural networks: Reliability and data analysis
[AD-A262354] 10 p3109 N93-27646
High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Fault tolerance and testing for WSI systems 11 p3361 N93-30258
Commercialization of NESSUS: Status 12 p3695 N93-31567
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581
Evaluation of future space transportation systems with regard to their reliability and costs
[ESA-TT-1281] 12 p3687 N93-31593

COMPOSITE MATERIALS
NT ALUMINUM BORON COMPOSITES
NT ALUMINUM GRAPHITE COMPOSITES
NT ARAMID FIBER COMPOSITES
NT BORON REINFORCED MATERIALS
NT BORON-EPOXY COMPOSITES
NT BRAIDED COMPOSITES
NT CARBON FIBER REINFORCED PLASTICS
NT CARBON-CARBON COMPOSITES
NT CARBON-PHENOLIC COMPOSITES
NT CERAMIC MATRIX COMPOSITES
NT CERMETS
NT COMPOSITE PROPELLANTS
NT EPOXY MATRIX COMPOSITES
NT EUTECTIC COMPOSITES
NT FIBER COMPOSITES
NT FUNCTIONALLY GRADIENT MATERIALS
NT GLASS FIBER REINFORCED PLASTICS
NT GLASSY CARBON
NT GRAPHITE-EPOXY COMPOSITES
NT GRAPHITE-POLYIMIDE COMPOSITES
NT HYBRID COMPOSITES
NT LAMINATES
NT METAL MATRIX COMPOSITES
NT PARTICULATE REINFORCED COMPOSITES
NT POLYMER MATRIX COMPOSITES
NT REINFORCED PLASTICS
NT RESIN MATRIX COMPOSITES
NT THREE DIMENSIONAL COMPOSITES
NT WHISKER COMPOSITES
NT WOVEN COMPOSITES
Piezoelectric and electrostrictive materials for transducers applications, volume 1
[AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2
[AD-A250890] 01 p0071 N93-10276
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges 01 p0045 N93-10471
Vibration of laminated composite plates using various plate theories: Analytical and finite element results 01 p0045 N93-10473
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities 01 p0047 N93-10483
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
Failure analysis of laminated composites by using iterative three-dimensional finite element method 01 p0051 N93-10505
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials 02 p0339 N93-12194
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532

Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583

Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780

Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931

Composites: A catalogue of books and conference proceedings available in the NAL library
[NAL-SP-IC-9201] 03 p0737 N93-13368

Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model 03 p0629 N93-13811

Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823

Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13940

Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131

Modeling of the thermal elasto-plastic behavior for composite materials using the homogenization method 04 p0830 N93-14466

Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549

Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700

Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819

Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146

Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388

The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576

Operational strategies for contamination control of composite materials 04 p0822 N93-15614

Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740

Damage mechanics modelisation of composite structures: A physical approach of failure 05 p1079 N93-15741

Composite material damage and fracture models for numerical simulations in support of fracture control 05 p1080 N93-15743

An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107

Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403

Concrete: Potential material for Space Station 05 p1089 N93-16896

Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU] 05 p1182 N93-17048

The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065

Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082

A domain-specific design architecture for composite material design and aircraft part redesign 05 p1250 N93-17522

Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776

Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897

Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964

Optimum design of experiments in composite reliability
[AD-A257574] 06 p1477 N93-18178

Method of processing composites on a latex base (Description of an invention for an author's certificate)
[AD-A258455] 06 p1478 N93-18423

Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-192180] 06 p1503 N93-18580

Numerical control fabrication technique for dynamic composite models
[NASA-CASE-LAR-14004-1] 06 p1640 N93-19024

Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493

Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123

Adherence and reactivity of graphite base multimaterials
[ECL-92-04] 07 p1859 N93-20542

Compression-after-impact behavior of ARALL(trade name)-1 laminates
[AD-A259203] 07 p1832 N93-20550

Heat transfer device
[NASA-CASE-LEW-14162-4] 07 p1832 N93-20568

Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616

Smart materials 07 p1845 N93-20624

A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633

On homogenization method and large deformations 07 p1845 N93-20634

Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation 07 p1929 N93-20640

Reliability of failure envelopes for composite materials 07 p1929 N93-20642

Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes 07 p1930 N93-20645

Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646

Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676

Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680

Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700

An expert system to study bonded joints
[REPT-921-430-113] 07 p1833 N93-20937

Measurement of the expansion coefficient between -150 C and +150 C for material composites for space applications
[REPT-921-430-115] 07 p1833 N93-20939

Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055

Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129

Thermoplastic composites for structural applications: Past and future 07 p1834 N93-21131

Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140

Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe 07 p1838 N93-21160

Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289

Multilayered elastoplastic homogeneization and anisotropic plasticity
[ECL-92-24] 07 p1839 N93-21359

Testing and characterization of composite materials by Compton tomodensitometry
[REPT-921-430-107] 07 p1840 N93-21458

Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459

Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510

Modelisation and computation of composite materials 07 p1842 N93-21518

Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529

La Recherche Aerospatiale Bimonthly Bulletin, no. 248, January - February
[ONERA-1989-1] 07 p1878 N93-21748

Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989

Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066

Mars transfer vehicle studies 08 p2173 N93-22088

Entry Systems Panel deliberations 08 p2176 N93-22105

Thermal protection systems for all-weather reusable launch vehicles 08 p2176 N93-22109

Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481

Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043

Airframe materials
[ISBN-0-919086-32-2] 08 p2211 N93-23935

An overview of materials testing in DND 08 p2213 N93-23946

High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210

Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419

Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445

Crack deflection at bi-material interfaces
[DE93-003712] 08 p2332 N93-24479

Method for providing EMI/EMP hardening and breakdown protection in composite materials
[AD-D015638] 09 p2634 N93-25283

Numerical and experimental analyses of large composite skeletal satellite systems 09 p2616 N93-25463

Design and validation of optimal experiments for estimating thermal properties of composite materials 09 p2635 N93-25541

Determination of the elastic constants of composite materials from ultrasonic group velocity measurements 09 p2635 N93-25544

INEL spray-forming research 09 p2658 N93-25562

Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565

Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145

Composite micromechanical modeling using the boundary element method
[NASA-TM-106127] 10 p3056 N93-27030

Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082

Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398

Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113

Diamond composite films for protective coatings on metals and method of formation
[NASA-CASE-NPO-18501-1-CU] 10 p3006 N93-28426

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020

JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021

Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205

Advanced technology composite aircraft structures
[NASA-CR-190420] 11 p3248 N93-29498

Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614

Scattering through apertures and by three-dimensional structures. Application to the measurement of the surface impedance of conductive materials
[ONERA-P-1990-2] 11 p3392 N93-30018

The First NASA Advanced Composites Technology Conference, part 1
[NASA-CP-3104-PT-1] 11 p3300 N93-30428

Composites: A viable option 11 p3300 N93-30429

Advanced composite structural concepts and material technologies for primary aircraft structures 11 p3300 N93-30430

Composites technology for transport primary structure 11 p3300 N93-30431

Advanced technology commercial fuselage structure 11 p3300 N93-30432

Design and manufacturing concepts for thermoplastic structures 11 p3301 N93-30434

Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438

Lessons learned for composite structures 11 p3302 N93-30444

Measurement of electromagnetic properties of composite materials
[AD-A264725] 11 p3303 N93-30555
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Powder towpreg process development
11 p3303 N93-30844
Development of resins for composites by resin transfer molding 11 p3305 N93-30853
An overview of the crash dynamics failure behavior of metal and composite aircraft structures
11 p3308 N93-30875
New materials: Fountainhead for new technologies and new science 11 p3291 N93-30952
Introduction to high performance composites
11 p3291 N93-30957
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
Overall properties of composite materials: A general model based on periodic microstructure
12 p3699 N93-31143
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-2] 12 p3708 N93-31300
Composites design handbook: Update
[ESA-PSS-03-1101-ISSUE-1-REV-2]
12 p3701 N93-31740
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062
Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

COMPOSITE PROPELLANTS

Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
Energetic composites of cyclodextrin nitrate esters and nitrate ester plasticizers
[AD-D015364] 02 p0274 N93-11665
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique
09 p2631 N93-26043
Damage growth in composite propellants
11 p3348 N93-30088
Commissioning and operating instructions of one pint (US) mixer
[MRL-TN-634] 12 p3713 N93-31639

COMPOSITE STRUCTURES

NT LAMINATES
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Analysis of a buffer strip laminate with a cutout
01 p0052 N93-10506
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity 01 p0053 N93-10515
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Natural vibrations of multilayered doubly curved shells
01 p0057 N93-10532
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites
01 p0038 N93-10585
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
Global-local finite element analysis of composite structures
[DE92-019138] 02 p0240 N93-11658
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Thermostructural tailoring of fiber composite structures
[NASA-TM-105882] 02 p0242 N93-12078
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials
02 p0339 N93-12194
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Advanced ceramic matrix composites for TPS
02 p0228 N93-12450
Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
Large-deflection analysis of cord composite plates
03 p0530 N93-13008
Linear and nonlinear finite element analysis of laminated composite structures at high temperatures
03 p0623 N93-13009
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189151] 03 p0627 N93-13444
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189152] 03 p0627 N93-13445
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823
Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13940
Analysis of advanced thin-walled composite structures
04 p0895 N93-14158
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Experiences with large CFRP-radiotelescope reflectors
05 p1084 N93-15777
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 2: Reliability and failure analyses of 2-D carbon-carbon structural components
[AD-A257460] 05 p1089 N93-15838
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
Armored fiber optic cables statement of government interest
[AD-D015459] 05 p1302 N93-16437
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Mode interaction in stiffened composite shells under combined mechanical and thermal loadings
05 p1189 N93-16793
The use of cross-section warping functions in composite rotor blade analysis
[NASA-CR-191772] 05 p1186 N93-16946
A domain-specific design architecture for composite material design and aircraft part redesign
05 p1250 N93-17522
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569
Performance oriented packaging testing for liquid propellant, XM1846
[AD-A258430] 06 p1496 N93-17865
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
The non-linear dynamics of composite cylindrical shells
[AD-A259026] 06 p1558 N93-18953
Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings
06 p1450 N93-19019
Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
A non-linear phenomenon in the dynamic response of metallic and composite structures
07 p1926 N93-20620
Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
Development of cure cycles: From laboratory analysis and testing to production of large scale composites
[MBB-Z-0442-92-PUB] 07 p1833 N93-20845
The design of bonded structural assemblies
[REPT-921-430-116] 07 p1824 N93-20934
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A]
07 p1783 N93-21401
Coatings on composites: New developments and applications in the aerospace industry
[MBB-Z-0443-92-PUB] 07 p1840 N93-21404
Predicting failure by debonding/delamination
07 p1841 N93-21512
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Modelisation and computation of composite materials
07 p1842 N93-21518
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175

Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
Automated manufacturing of continuous fibre composite structures for aerospace applications
08 p2212 N93-23942
A review of design and manufacturing methodologies for stiffened composite panels used in aircraft
08 p2128 N93-23943
Thick-section structural composites and composite structures
[AD-A260081] 08 p2215 N93-24316
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements
09 p2635 N93-25544
The design of mechanically compatible fasteners for human mandible reconstruction
09 p2796 N93-25569
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Low-velocity impact of composite sandwich plate
09 p2637 N93-25695
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
A three-dimensional model for the residual stresses in a unidirectional composite plate
09 p2728 N93-25825
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Improved fatigue life for moorings
[PB93-161198] 09 p2730 N93-26320
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan
[PB93-165249] 09 p2641 N93-26589
Dynamic characteristics of specialty composite structures with embedded damping layers
[NASA-TM-106165] 10 p2989 N93-26705
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183
Stability of single layer composite cylinders subjected to lateral pressure: Numerical approach
10 p2922 N93-27184
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
A composite structured/unstructured-mesh Euler method for complex airfoil shapes
10 p2933 N93-27439
Surface analyses of composites exposed to the space environment on LDEF 10 p2993 N93-28268
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
A thermal stress solution for multilayered composite cylinders
[AD-A262579] 11 p3295 N93-28657
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Advanced technology composite aircraft structures
[NASA-CR-190420] 11 p3248 N93-29498
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
The First NASA Advanced Composites Technology Conference, part 1
[NASA-CP-3104-PT-1] 11 p3300 N93-30428
Composites: A viable option 11 p3300 N93-30429
Advanced composite structural concepts and material technologies for primary aircraft structures
11 p3300 N93-30430
Composites technology for transport primary structure
11 p3300 N93-30431
Advanced technology commercial fuselage structure
11 p3300 N93-30432
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433
Design and manufacturing concepts for thermoplastic structures 11 p3301 N93-30434
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process
11 p3301 N93-30435
Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
Cost studies for commercial fuselage crown designs
11 p3302 N93-30440
A unified approach for composite cost reporting and prediction in the ACT program 11 p3302 N93-30441
F-15 composite engine access door
11 p3302 N93-30442
Fabrication of the V-22 composite AFT fuselage using automated fiber placement 11 p3302 N93-30443
Lessons learned for composite structures
11 p3302 N93-30444
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852
Advanced fiber/matrix material systems
11 p3305 N93-30854
Mechanical and analytical screening of braided composites for transport fuselage applications
11 p3305 N93-30855
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Multi-parameter optimization tool for low-cost commercial fuselage crown designs
11 p3305 N93-30858
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Effects of scale in predicting global structural response 11 p3306 N93-30860
Optimization of composite sandwich cover panels subjected to compressive loadings
11 p3306 N93-30862
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
Probabilistic composite analysis
11 p3307 N93-30868
A Rayleigh-Ritz analysis methodology for cutouts in composite structures 11 p3307 N93-30869
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874
An overview of the crash dynamics failure behavior of metal and composite aircraft structures
11 p3308 N93-30875
Reusable cryogenic liquid rocket propellant tank
[NASA-CASE-LAR-14172-1] 12 p3692 N93-31295
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels
[ATN-9301] 12 p3742 N93-32331

COMPOSITE WRAPPING
Production of highly integrated FRP parts in the braiding technology 07 p1835 N93-21136

COMPOSITES
U COMPOSITE MATERIALS

COMPOSITION (PROPERTY)
NT ATMOSPHERIC COMPOSITION
NT ATMOSPHERIC MOISTURE
NT ATOM CONCENTRATION
NT CARBON DIOXIDE CONCENTRATION
NT CHEMICAL COMPOSITION
NT CONCENTRATION (COMPOSITION)
NT GAS COMPOSITION
NT IONOSPHERIC COMPOSITION
NT LOW CONCENTRATIONS
NT LUNAR COMPOSITION
NT METEORITIC COMPOSITION
NT METEOROID CONCENTRATION
NT MOISTURE CONTENT
NT PLANETARY COMPOSITION
NT PLASMA COMPOSITION
NT STELLAR COMPOSITION

COMPOUND A
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665

COMPOUNDING
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272

COMPRESSED AIR
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Prefeasibility study on compressed air energy storage systems
[VTT-TIED-1267] 11 p3465 N93-30111

COMPRESSED GAS
NT HIGH PRESSURE OXYGEN
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
Utilization of compressed natural gas in medium- and heavy-duty engine route vehicles
[PB92-217546] 03 p0611 N93-12908
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Feasibility study on introduction of petroleum substituting energy for transportation
[DE93-768472] 12 p3750 N93-32058

COMPRESSED VIDEO
U VIDEO COMPRESSION

COMPRESSIBILITY
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Compressible mixing layers with and without particles
[AD-A254854] 02 p0308 N93-12435
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use 07 p1844 N93-21534
First European tri-service advanced materials workshop: Compressive strength in rigid-rod polymers
[AD-A259997] 08 p2242 N93-24300
European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067

COMPRESSIBILITY EFFECTS
Compressible mixing layers with and without particles
[AD-A254854] 02 p0308 N93-12435
Interaction of isotropic turbulence with a shock wave 03 p0590 N93-13898
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects
[NASA-CR-191087] 08 p2111 N93-23431
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion 11 p3310 N93-29125

COMPRESSIBLE BOUNDARY LAYER
Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
Two equation modelling and the pseudo compressibility technique 05 p1153 N93-15799
Bypass transition in compressible boundary layers 05 p1154 N93-15801
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Navier-Stokes computation of compressible turbulent flows with a second order closure, part 1
[NASA-CR-192287] 08 p2288 N93-22604
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
Shock tube application to the study of compressible turbulent boundary layer with mass injection 09 p2697 N93-25252
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538

COMPRESSIBLE FLOW
NT TRANSONIC FLOW
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
Turbulent mixing in compressible free shear layers 01 p0083 N93-10846
Fundamental solutions and boundary element formulations for convective fluid flow 02 p0298 N93-11217
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
An experimental investigation of the flow in a diffusing S-duct
[NASA-TM-105809] 02 p0213 N93-12077
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
A PDF closure model for compressible turbulent chemically reacting flows
[NASA-CR-191209] 03 p0587 N93-13453
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates 03 p0587 N93-13517
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
Coherent structures in compressible convection 03 p0592 N93-13964
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains 03 p0593 N93-14041
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects 03 p0594 N93-14077
Three-dimensional computational study of asymmetric flows using Navier-Stokes equations
[ISBN-90-5410-029-X] 04 p0875 N93-14690
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713] 05 p1163 N93-16939
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956
Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564
On the numerical approximation of the k-epsilon turbulence model for two dimensional compressible flows
[INRIA-RR-1526] 06 p1530 N93-18622
The stability of a trailing-line vortex in compressible flow
[NASA-CR-189738] 06 p1408 N93-18771
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
A numerical simulations of inner flow of scramjet 06 p1415 N93-19318
The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Large eddy simulations and direct numerical simulations of high speed turbulent reacting flows
[NASA-CR-192654] 07 p1903 N93-21662
Interaction of externally-driven acoustic waves with compressible convection
[DE93-003800] 08 p2476 N93-22775
Development of iterative techniques for the solution of unsteady compressible viscous flows
[NASA-CR-192636] 08 p2296 N93-23724
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
A convergent finite difference scheme for the Navier-Stokes equations of nonisentropic compressible fluid flow 09 p2695 N93-24906
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124
Assessment of closure coefficients for compressible-flow turbulence models
[NASA-TM-103882] 09 p2697 N93-25247
Structured adaptive mesh refinement on the connection machine
[DE93-007368] 09 p2816 N93-25316
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions 11 p3421 N93-29177
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583
WBNFLOW: Multi-grid/multi-block potential solver for compressible flow. User's guide
[FFA-TN-1992-43] 12 p3723 N93-31146
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095
Time accurate simulations of compressible shear flows
[NASA-CR-193410] 12 p3728 N93-32371

COMPRESSIBLE FLUIDS
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Fundamental solutions and boundary element formulations for convective fluid flow 02 p0298 N93-11217
Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Interaction of externally-driven acoustic waves with compressible convection
[DE93-003800] 08 p2476 N93-22775
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020

COMPRESSING
NT PLASMA COMPRESSION
NT SPEECH BASEBAND COMPRESSION
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
The electronic structure of core states under extreme compressions
[DE92-017451] 05 p1112 N93-16334
Method of making Tl-Sr-Ca-Cu-Oxide superconductors comprising heating at elevated pressures in sealed container
[AD-D015482] 05 p1321 N93-16489
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Dual arm generalized compliant motion with shared control
[NASA-CASE-NPO-18738-1-CU] 11 p3443 N93-28954

COMPRESSION LOADS
NT AXIAL COMPRESSION LOADS
NT IMPACT LOADS
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations 01 p0029 N93-10525
Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189678] 02 p0239 N93-11611
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners 03 p0621 N93-12632
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922

Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
Effects of layer waviness on compression-loaded thermoplastic composite laminates
03 p0532 N93-13724
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
04 p0897 N93-14251
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
A semi-analytical formulation for the elastoplastic analysis of imperfect cylindrical shells
[LR-674] 05 p1185 N93-16282
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034
Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes
07 p1930 N93-20645
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029
Delamination development under fatigue loading
07 p1842 N93-21521
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
High reliability residual compressive stress processes. State-of-the-art assessment
[PB93-127751] 08 p2331 N93-24207
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory
09 p2636 N93-25661
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Isothermal and shock compression of high density ammonium nitrate and ammonium perchlorate
[DE93-000682] 11 p3315 N93-30209
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Optimization of composite sandwich cover panels subjected to compressive loadings
11 p3306 N93-30862
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression
11 p3307 N93-30872
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044

COMPRESSION RATIO
Compression of spectral meteorological imagery
09 p2804 N93-25925
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

COMPRESSION TESTERS
U COMPRESSION TESTS

COMPRESSION TESTS
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
Shock-treated lunar soil simulant: Preliminary assessment as a construction material
05 p1386 N93-17238
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
Compression-after-impact behavior of ARALL(trade name)-1 laminates
[AD-A259203] 07 p1832 N93-20550
Ultimate strength of geometrically imperfect angle columns
[PB93-111771] 07 p1947 N93-21235
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
[MBB-FE-221-S-PUB-0483] 07 p1840 N93-21462
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites
09 p2638 N93-25760
GARTEUR compression behaviour of advanced CFRP
[NLR-TP-91290-U] 12 p3701 N93-32202
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels
[ATN-9301] 12 p3742 N93-32331

COMPRESSION WAVES
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100

COMPRESSIVE STRENGTH
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Nondestructive evaluation of the in-place compressive strength of concrete based upon limited destructive testing
[PB92-222751] 03 p0623 N93-12981
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Effects of layer waviness on compression-loaded thermoplastic composite laminates
03 p0532 N93-13724
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
Lunar concrete for construction
03 p0555 N93-13990
Delamination initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
Properties and uses of concrete, appendix B
05 p1128 N93-16904
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Sandwiched structural panel having a bi-directional core structure
[NASA-CASE-MFS-28796-1] 06 p1479 N93-19022
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
[MBB-FE-221-S-PUB-0483] 07 p1840 N93-21462
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
07 p1844 N93-21531
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
First European tri-service advanced materials workshop: Compressive strength in rigid-rod polymers
[AD-A259997] 08 p2242 N93-24300
European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576
A new class of high strength molding resins, phase 1
[AD-A262691] 10 p3005 N93-28117
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846
Comparison of impact results for several polymeric composites over a wide range of low impact velocities
11 p3304 N93-30848
Effects of bolt-hole contact on bearing-bypass damage-onset strength 11 p3307 N93-30870
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067

COMPRESSOR BLADES
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
The effects of reaction on axial compressor performance 09 p2594 N93-25882
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968
Performance of gas turbine compressor cleaners
[NLR-TP-91237-U] 12 p3681 N93-31111

COMPRESSOR EFFICIENCY
Flight analysis of air intake/engine compatibility
03 p0502 N93-13212
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory
[DE92-040026] 04 p0893 N93-15278

COMPRESSOR ROTORS
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs
01 p0010 N93-10539
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Single screw interrupted thread positive displacement mechanism
[AD-D015596] 07 p1915 N93-20790
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946
Flow and heat transfer between gas-turbine discs
11 p3256 N93-29950

COMPRESSORS
NT CENTRIFUGAL COMPRESSORS
NT SUPERCHARGERS
NT SUPERSONIC COMPRESSORS
NT TRANSONIC COMPRESSORS
NT TURBOCOMPRESSORS
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs
01 p0010 N93-10539
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory
[DE92-040026] 04 p0893 N93-15278
On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
Apparatus for reduction of vibration in liquid-injected gas compressor system
[AD-D015607] 07 p1914 N93-20772
Single screw interrupted thread positive displacement mechanism
[AD-D015596] 07 p1915 N93-20790
Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
Three-dimensional laser window formation for industrial application 08 p2310 N93-22197
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877
Electropneumatic actuator, phase 1
[PB93-174951] 12 p3720 N93-31876

COMPTON EFFECT
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Wide range, permanent magnet Compton spectrometer
[DE92-017312] 03 p0596 N93-12762
A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance
04 p1014 N93-15591
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Theoretical aspects of electroweak and other interactions in medium energy physics
[DE93-003714] 06 p1657 N93-19507
Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons?
[NASA-CR-192255] 07 p2102 N93-20601
Testing and characterization of composite materials by Compton tomodensitometry
[REPT-921-430-107] 07 p1840 N93-21458
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations
[PB93-126092] 07 p2064 N93-21828
New x ray technology for the detection of explosives
07 p1767 N93-21880
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Quantum field theory in spaces with closed time-like curves
[DE93-010564] 11 p3605 N93-30481

COMPTON GAMMA RAY OBSERVATORY
U GAMMA RAY OBSERVATORY

COMPUTATION
NT COMPUTATIONAL GEOMETRY
NT ORBIT CALCULATION
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Flow field calculations around the Hermes spaceplane during reentry phase
[MBB-UK-0148-91-PUB] 02 p0195 N93-11008
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961
Goals versus algorithms
[AD-A256106] 04 p0942 N93-14237
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Strong sequentiality of left-linear overlapping rewriting systems
[CWI-CS-R9146] 05 p1267 N93-16721
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Stiffnesses by (TtN) ensemble molecular dynamics
05 p1274 N93-17331
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
Parallel contraction of binary dags
[REPT-92-36] 06 p1616 N93-17848
Towards a meta simplifier
[INRIA-RR-1402] 06 p1621 N93-18574
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
Overview of the NASA Dryden Flight Research Facility aeronautical flight projects testing
06 p1444 N93-19916
Analytica: An experiment in combining theorem proving and symbolic computation
[AD-A258656] 06 p1628 N93-19958
Calculation of the Jordan form of a matrix with rational coefficients (using the formal computation system Axiom)
[RR-882-M] 07 p2051 N93-20782
A Gentzen-system for CTL
[RR-865-I-IMAG-122-LIFIA] 07 p2051 N93-20803
PAC: Parallel Algebraic Computations: Current researches and perspectives
[RR-876-M] 07 p2044 N93-20949
History of geodesy 07 p1975 N93-20997
Development and utilization of a semi-analytic alternative charge process for the rapid calculation of potential distributions and electron orbits
[ETN-93-93416] 07 p2062 N93-21209
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399
Sketches and computation
[RR-871-I-IMAG-123-LIFIA] 07 p2041 N93-21451
Advantages of tapering finite data records for spectral analysis
[PB93-116614] 07 p2092 N93-21475
Many-body effects in Cu(2+)(H2O)(sub m) clusters
[DE93-002988] 07 p2082 N93-21752
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
Visual autonomous automatic landing of airplanes
08 p2121 N93-22791
Monte Carlo variance reduction approaches for non-Boltzmann tallies
[DE93-005665] 08 p2467 N93-22910
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
The actor model
[AD-A260196] 08 p2442 N93-24469
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Parallel matrix computations
[AD-A260783] 09 p2828 N93-25687
Knowledge-based assistance for science visualization and analysis using large distributed databases
09 p2879 N93-25801
High performance compression of science data
09 p2881 N93-25811
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
Ways to improve your correlation functions
10 p3172 N93-26712
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372
Provably recursive programs
[CWI-CS-R9212] 10 p3097 N93-27500
Strategic plan for scientific computing
[DE93-006875] 10 p3090 N93-27614
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623
The LAZYRMS: Avoiding work in the ATMS
[RUU-CS-92-20] 10 p3101 N93-28062
On Zeilberger's algorithm and its q-analogue: A rigorous description
[CWI-AM-R9207] 10 p3101 N93-28086
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Robust and fast computation of edge characteristics in image sequences
[INRIA-RR-1689] 10 p3105 N93-28446
A proposed approach for developing next-generation computational electromagnetics software
[DE93-007326] 11 p3380 N93-28900
Research in efficient scientific computation
[AD-A262084] 11 p3525 N93-28986
Exploiting the memory hierarchy in sequential and parallel sparse Cholesky factorization
[AD-A262849] 11 p3539 N93-29508
Fuzzy multiple linear regression: A computational approach 11 p3518 N93-29574
Computation and generalization in neural networks
[AD-A263752] 11 p3549 N93-29871
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
A new definition of SLDNF-resolution
[CT-92-03] 12 p3806 N93-31530
Sequent calculi for normal modal propositional logics
[LP-92-12] 12 p3806 N93-31533

COMPUTATIONAL ASTROPHYSICS
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
A Theoretical Analysis of Thermal Radiation from Neutron Stars
[NASA-CR-191906] 05 p1376 N93-17410
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043

Information technologies for astrophysics circa 2001
10 p3165 N93-27045
NASA'S information technology activities for the 90's
10 p3165 N93-27046

COMPUTATIONAL CHEMISTRY
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
On the evaluation of derivatives of Gaussian integrals
02 p0439 N93-11853
Connected triple excitations in coupled-cluster calculations of hyperpolarizabilities: Neon
02 p0439 N93-11854
Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855
The vibrational spectrum of H2O3: An ab initio investigation
[NASA-CR-190968] 03 p0537 N93-12935
A neural network approach for the investigation of chemical phenomena
[DE92-019205] 03 p0691 N93-13079
An investigation of transient atmospheric inorganic peroxides: A theoretical and experimental study
04 p0912 N93-14117
Computed potential energy surfaces for chemical reactions
[NASA-CR-190741] 04 p0843 N93-15356
Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357
Predicting polymer properties by computational methods 2: A comparison of semi-empirical methods
[AD-A256856] 04 p0854 N93-15640
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Computed Potential Energy Surfaces for Chemical Reactions
[NASA-CR-191804] 05 p1107 N93-17407
Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels
05 p1107 N93-17408
Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409
Assessment of nonequilibrium radiation computation methods for hypersonic flows
[NASA-TM-103994] 06 p1534 N93-19348
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
Peculiarities of structures and meltinglike transition in gold clusters
[DE93-004810] 08 p2228 N93-22741
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Use of statistics in computational chemistry
[AD-A264307] 11 p3315 N93-30365
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798

COMPUTATIONAL FLUID DYNAMICS
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields
01 p0016 N93-10010
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056
An inverse design method for radial turbomachines
01 p0078 N93-10057
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
Navier-Stokes dynamics and aeroelastic computations for vortical flows, buffet and aeroelastic applications
[NASA-CR-190692] 01 p0002 N93-10098
Finite difference methods for incompressible viscous flow in scientific computing
[AD-A253512] 01 p0079 N93-10220
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Improved numerical simulation of Euler equations
01 p0080 N93-10309
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
New directions in computational mechanics
01 p0044 N93-10467
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
A field panel method for transonic flows
01 p0006 N93-10547
A least-squares finite element method for incompressible Navier-Stokes problem
01 p0060 N93-10548
Analysis and control of grid quality in computational simulation
[AD-A253723] 01 p0138 N93-10746
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
An advanced combustion research facility for validating computational fluid dynamics codes
[PNR-90913] 02 p0296 N93-11017
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
Fundamental solutions and boundary element formulations for convective fluid flow
02 p0298 N93-11217
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3]
02 p0213 N93-11339
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
A study of the wall-pressure fluctuations downstream of a blade-wall junction
[ECL-91-07] 02 p0299 N93-11363
Computation of single solid particle impact on the target of ductile material to study the rebound characteristics of particle 02 p0336 N93-11372
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Comparison of truncation error of finite-difference and finite-volume formulations of convection terms
[NASA-TM-105861] 02 p0426 N93-11531
Resolution of the pressure equation by the boundary element method. Application to multistage turbomachines
[ECL-91-16] 02 p0301 N93-11575
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Using NEKTON to solve systems of discrete Boltzmann equations
[DE92-018272] 02 p0303 N93-11799
Mode interaction models in near-wall turbulence
02 p0303 N93-11856
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2
02 p0304 N93-11881
Numerical study of advanced rotor blades
02 p0199 N93-11899
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
Spurious modes in spectral collocation methods with two non-periodic directions
[NASA-CR-189713] 02 p0427 N93-12298
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
FNAS computational fluid dynamics
[NASA-CR-184394] 02 p0307 N93-12397
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
An engineering method for interactive inviscid-boundary layers in three-dimensional hypersonic flows
02 p0203 N93-12529
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
Computational fluid dynamics combustion analysis evaluation
[NASA-CR-184326] 03 p0575 N93-12688
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies
03 p0536 N93-12836
An attempt at a status report on a fast-moving target: CFD --- computational fluid dynamics
[DE92-017432] 03 p0576 N93-12839
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
Turbomachinery CFD on parallel computers
[NASA-TM-105932] 03 p0689 N93-13154
Numeric simulation of the aerodynamic flows around nacelles 03 p0577 N93-13202
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
The Fourth Annual Thermal and Fluids Analysis Workshop
[NASA-CP-10106] 03 p0584 N93-13385
Applications of CFD and visualization techniques
03 p0584 N93-13386
Numerical study on mixing of sprayed liquid in an LNG storage tank 03 p0584 N93-13388
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389
The Proteus Navier-Stokes code
03 p0585 N93-13396
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485

Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer
03 p0494 N93-13521
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow
03 p0494 N93-13578
The three-dimensional turbulent boundary layer: Theory and application
03 p0588 N93-13749
Linear stability theory of hypersonic, chemically reacting viscous flows
03 p0588 N93-13765
Variational characterizations of steady two-dimensional vortex motions
03 p0589 N93-13781
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence
03 p0590 N93-13900
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other
03 p0591 N93-13920
Bipropellant spray combustion modeling in small rocket engines
03 p0556 N93-13924
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods
03 p0592 N93-13953
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover
03 p0497 N93-14035
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains
03 p0593 N93-14041
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5]
03 p0594 N93-14067
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931]
04 p0777 N93-14102
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226]
04 p0798 N93-14111
A study of viscous interaction effects on hypersonic waveriders
04 p0778 N93-14160
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid
04 p0873 N93-14273
Transonic flow calculations for a cavity with and without a store
[AD-A255954]
04 p0873 N93-14421
Feedback control of flow separation and transition to turbulence in unsteady boundary layers
04 p0873 N93-14464
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033]
04 p0779 N93-14515
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008]
04 p0780 N93-14516
Modeling of Combustion and Turbulence
[VKI-LS-1992-03]
04 p0839 N93-14617
Direct simulation of turbulent combustion
04 p0840 N93-14622
Applications of PDF turbulent combustion models to real non premixed flame calculations
04 p0841 N93-14624
Recent advances in numerical simulation and control of asymmetric flows around slender bodies
[PAPER-W.1.2]
04 p0875 N93-14688
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3]
04 p0875 N93-14689
Three-dimensional computational study of asymmetric flows using Navier-Stokes equations
[ISBN-90-5410-029-X]
04 p0875 N93-14690
Numerical simulation of steady and unsteady asymmetric vortical flow
04 p0876 N93-14691
Passive control of supersonic asymmetric vortical flows around cones
04 p0876 N93-14692
An investigation of genuinely multidimensional schemes for the Euler equations
04 p0876 N93-14694
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893]
04 p0877 N93-14758
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929]
04 p0877 N93-14885
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553]
04 p0878 N93-15122
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038]
04 p0878 N93-15187
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803]
04 p0782 N93-15483
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480]
04 p0880 N93-15643
Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407]
05 p1306 N93-15670
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods
05 p1077 N93-15722
Special publication of National Aerospace Laboratory
[DE93-716195]
05 p1053 N93-15949
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885]
05 p1235 N93-16288
Integrated automation for support of research and development
[NLR-MP-88063-U]
05 p1235 N93-16290
Vibration dissociation coupling in nonequilibrium flows
[NASA-CR-191775]
05 p1157 N93-16439
Hypersonic flows including real gas effects
[AERO-REPT-9112]
05 p1054 N93-16467
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2]
05 p1054 N93-16470
Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411]
05 p1157 N93-16478
Direct numerical simulation of turbulent flow in a square duct
05 p1158 N93-16513
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628]
05 p1055 N93-16538
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648]
05 p1158 N93-16557
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647]
05 p1158 N93-16558
Thermocline waves near to a free surface
[AERO-REPT-9214]
05 p1159 N93-16578
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971]
05 p1240 N93-16620
Streamwise computation of a circular-to-rectangular transition duct potential flow field
[NIAR-92-17]
05 p1159 N93-16628
Critical assessment of Reynolds stress turbulence models using homogeneous flows
[NASA-TM-105954]
05 p1159 N93-16703
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481]
05 p1091 N93-16722
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations
05 p1057 N93-16768
Near-wall reconstruction of higher order moments and length scales using the POD
05 p1165 N93-16771
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transition
[NAL-SP-15]
05 p1160 N93-16809
Turbulence research: Where should we go?
05 p1160 N93-16812
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713]
05 p1163 N93-16939
Acceleration of FDNS flow simulations using initial flowfields generated with a parabolized Navier-Stokes method
05 p1165 N93-17329
Computerized reduction of elementary reaction sets for CFD combustion modeling
05 p1108 N93-17337
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Numerical solutions of the Euler equations for steady flow problems
[MBB-FE-202-S-PUB-473-A]
05 p1164 N93-17546
Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122]
05 p1164 N93-17557
Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB]
05 p1057 N93-17568
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059]
05 p1057 N93-17677
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702]
05 p1164 N93-17683
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138]
05 p1108 N93-17746
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058]
05 p1057 N93-17756
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522]
05 p1165 N93-17789
A testbed for flow visualization research
[REPT-92-32]
06 p1616 N93-17846
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140]
06 p1404 N93-17880
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159]
06 p1524 N93-17881
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027]
06 p1405 N93-17884
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084]
06 p1435 N93-17893
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368]
06 p1472 N93-18085
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739]
06 p1525 N93-18093
Contribution to the solution of moment equations at two points by the spectral integral methods
[ECL-92-19]
06 p1525 N93-18096
Modelling of interfacial and thermocline waves
[AERO-REPT-9209]
06 p1525 N93-18103
Modelling of interfacial and thermocline waves
[AERO-REPT-9212]
06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213]
06 p1526 N93-18119
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102]
06 p1526 N93-18129
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01]
06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4]
06 p1527 N93-18191
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855]
06 p1527 N93-18305
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6]
06 p1527 N93-18326
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2]
06 p1528 N93-18440
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1]
06 p1528 N93-18510
Analysis of film cooling in rocket nozzles
[NASA-CR-192003]
06 p1473 N93-18518
Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1]
06 p1528 N93-18540
Applied grid generation for complex domains in 2 and 3 dimensions
06 p1528 N93-18541
Solution of the time-dependent incompressible Navier-Stokes equations by finite elements
06 p1528 N93-18542
Finite element modeling of fluids
06 p1529 N93-18543
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2]
06 p1529 N93-18563
Parabolized Navier-Stokes methods for hypersonic flows
06 p1529 N93-18565
Algorithm development with applications to aerodynamics and aeroelasticity
06 p1529 N93-18566
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234]
06 p1407 N93-18585
Hypersonic rarefied wake characterization
[NASA-TP-3327]
06 p1529 N93-18604
On the numerical approximation of the k-epsilon turbulence model for two dimensional compressible flows
[INRIA-RR-1526]
06 p1530 N93-18622
Exact-gradient shape optimization of a 2D Euler flow
[INRIA-RR-1540]
06 p1530 N93-18623
Numerical investigation of swirl-airfoil interactions in transonic area
[MPIS-8/1991]
06 p1407 N93-18627

Axial Flow Compressors, volume 1
[VKI-LS-1992-02-VOL-1] 06 p1530 N93-18721
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
Numerical investigation of performance degradation of wings and rotors due to icing
[NASA-CR-192233] 06 p1440 N93-18783
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
LES turbulence modeling using DNS data base 06 p1409 N93-19274
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Numerical computations using multi-domain technique 06 p1409 N93-19277
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Rarefied gas numerical wind tunnel. Part 7: OREX 06 p1410 N93-19280
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method 06 p1410 N93-19281
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method 06 p1410 N93-19282
Development of a boundary element method program for numerical analysis of supersonic unsteady flow 06 p1410 N93-19283
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Numerical Wind Tunnel: Requirements and the outline 06 p1411 N93-19288
Numerical Wind Tunnel hardware 06 p1411 N93-19289
The operating system for Numerical Wind Tunnel 06 p1411 N93-19290
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
Generation of longitudinal vortices in supersonic flow 06 p1411 N93-19292
Code development for hypersonic real-gas flow simulations toward the design of space vehicles 06 p1411 N93-19293
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Numerical simulation of flow for a scramjet nozzle 06 p1412 N93-19299
A numerical simulation of flows around a deformable gas bubble 06 p1413 N93-19300
Transonic flow calculation around NACA-0012 06 p1413 N93-19301
Similarity in laminar pipe flows with secondary flows 06 p1413 N93-19302
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region 06 p1413 N93-19304
Numerical analysis of flow in a heated horizontal square duct 06 p1413 N93-19305
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe 06 p1413 N93-19306
Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme 06 p1414 N93-19308
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
A numerical investigation for supersonic inlet 06 p1415 N93-19315
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step 06 p1415 N93-19316
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
A numerical simulations of inner flow of scramjet 06 p1415 N93-19318
Three-dimensional measurement of turbulent shear flows using digital image processing 06 p1415 N93-19319
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
On the roles of wind tunnel testing and computational fluid dynamics in the aircraft development 06 p1416 N93-19322
Wind tunnel tests and CFD in Fuji Heavy Industries 06 p1416 N93-19323
Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324
Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI 06 p1417 N93-19326
Application of the program profile for the design of low-speed, low-observable configuration airfoils
[AD-A258842] 06 p1417 N93-19364
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
Computational fluid dynamics research 06 p1536 N93-19455
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859
A gridless Euler/Navier-Stokes solution algorithm for complex-aircraft applications
[NASA-TM-107727] 07 p1760 N93-19973
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Study of a turbulent boundary layer modified by the insertion of a Large Eddy Break Up (LEBU) device
[ECL-92-11] 07 p1898 N93-20061
Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232
Multiple-body simulation with emphasis on integrated Space Shuttle vehicle
[NASA-CR-192289] 07 p1821 N93-20234
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Computational analysis of hypersonic flows past generalized cone-derived waveriders 07 p1761 N93-20288
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
The practical application of computational fluid mechanics 07 p1905 N93-20622
On the disturbances development in the supersonic boundary layer 07 p1763 N93-20686
Stability and transition of hypersonic boundary layer 07 p1763 N93-20687
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
HSCT mission analysis of waverider designs
[NASA-CR-192193] 07 p1783 N93-21646
Large eddy simulations and direct numerical simulations of high speed turbulent reacting flows
[NASA-CR-192654] 07 p1903 N93-21662
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Further development of the CANAERO computer code to include a time-stepping capability
[DREA-CR-91-478] 07 p2042 N93-21820
Extension of high-resolution schemes for systems to multiple dimensions
[DE93-003734] 07 p2057 N93-21966
Computational fluid dynamics: Research activities and services at NRC
[NRC-TTP-02-92] 08 p2288 N93-22456
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
Navier-Stokes computation of compressible turbulent flows with a second order closure, part 1
[NASA-CR-192287] 08 p2288 N93-22604
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Aerodynamic sensitivity analysis in the transonic regime 08 p2109 N93-22667
Search for exotic particles at CDF
[DE93-004421] 08 p2480 N93-22687
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734
Fluid mechanics applications for the design and test of the surface tension tank OST-2 08 p2248 N93-22841
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
Finite element methods in heat transfer
[DE93-006451] 08 p2290 N93-22886
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces 08 p2290 N93-23110
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method 08 p2291 N93-23180
Operator splitting methods for the Navier-Stokes equations 08 p2292 N93-23226
Algorithm and code development for unsteady three-dimensional Navier-Stokes equations
[NASA-CR-192760] 08 p2292 N93-23234
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481

Transient simulation of ram accelerator flowfields
[AD-A259767] 08 p2295 N93-23485
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle 08 p2126 N93-23505
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
Determining nodes and long-time approximations to the Navier-Stokes equations 08 p2296 N93-23593
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Development of iterative techniques for the solution of unsteady compressible viscous flows
[NASA-CR-192636] 08 p2296 N93-23724
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Problems on numerical analysis relating to gas turbines
[DE93-753796] 08 p2130 N93-24002
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Restoring monotonicity of slowly-moving shocks computed with Godunov-type schemes
[CRANFIELD-AERO-9207] 08 p2297 N93-24075
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver
[NASA-CR-4490] 08 p2127 N93-24108
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136
An investigation of the fundamental cause of asymmetric separated flow
[AD-A260296] 08 p2114 N93-24263
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
Three-dimensional turbulent boundary layer flow over a spinning cylinder
[NASA-TM-102240] 08 p2300 N93-24533
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534
An experimental investigation of subsonic flow in a two-dimensional U-duct
[NASA-TM-103931] 08 p2128 N93-24535
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Prediction of forces and moments for hypersonic flight vehicle control effectors
[NASA-CR-193033] 09 p2595 N93-24762
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings 09 p2574 N93-24772
A convergent finite difference scheme for the Navier-Stokes equations of nonisentropic compressible fluid flow 09 p2695 N93-24906
Rapid exploration of curvilinear grids using direct volume rendering
[NASA-CR-192765] 09 p2808 N93-24944
Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124
Transient performance of fan engine with water ingestion
[NASA-CR-190778] 09 p2573 N93-25134
Instability of flow in a streamwise corner
[NASA-CR-191410] 09 p2576 N93-25153
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Assessment of closure coefficients for compressible-flow turbulence models
[NASA-TM-103882] 09 p2697 N93-25247
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity 09 p2697 N93-25259
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Data parallel finite element techniques for large-scale computational fluid dynamics 09 p2699 N93-25334
A compact high-order Euler solver for unstructured grids 09 p2699 N93-25341
Some new results for solving linear systems arising from computational fluid dynamics problems 09 p2699 N93-25349
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness 09 p2701 N93-25483
Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Dynamics of turbulent slugging in transitional pipe flow 09 p2702 N93-25548
A computational aerodynamic design optimization method using sensitivity analysis 09 p2589 N93-25552
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663
Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Flow between finite rotating disks and its linear stability 09 p2705 N93-25747
Large-eddy simulation of temporally developing boundary layers with embedded streamwise vortices 09 p2705 N93-25753
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
Simulation of vortex bursting 09 p2580 N93-25881
Numerical simulation of hypersonic aerodynamics and the computational needs for the design of an aerospace plane
[AD-A260681] 09 p2580 N93-25894
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow 09 p2624 N93-26008
Development of a second generation spray combustion code 09 p2626 N93-26016
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Influence of supercritical conditions on pre-combustion chemistry and transport behavior of jet fuels
[AD-A261813] 09 p2661 N93-26268
Massively-parallel computational fluid dynamics
[AD-A261815] 09 p2707 N93-26269
Computational methods for flow problems: Parallel algorithms, flow control, and novel approaches
[AD-A261400] 09 p2707 N93-26400
Another look at the driven cavity problem
[AD-A261903] 09 p2708 N93-26543
Effects of surface thermal forcing on stratified flow past an isolated obstacle
[PB93-156776] 09 p2776 N93-26548
Incompressible spectral-element method: Derivation of equations
[NASA-TM-106109] 09 p2708 N93-26554
A brief description of a new numerical framework for solving conservation laws: The method of space-time conservation element and solution element
[NASA-TM-105757] 09 p2829 N93-26560
NTR plume modeling 10 p2978 N93-26929
Computational fluid dynamics for nuclear thermal propulsion 10 p2979 N93-26930
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients 10 p2981 N93-26960
Sensitivity calculations for a 2D, inviscid, supersonic forebody problem
[NASA-CR-191444] 10 p2928 N93-27004
Remarks on turbulent constitutive relations
[NASA-TM-106116] 10 p3038 N93-27010
Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle
[NASA-TM-4419] 10 p2928 N93-27032
Institute for Computational Mechanics in Propulsion (ICOMP)
[NASA-TM-106155] 10 p3111 N93-27061
Grid adaption using Chimera composite overlapping meshes
[NASA-TM-106163] 10 p3111 N93-27065
Unstructured viscous grid generation by advancing-front method
[NASA-CR-191449] 10 p2929 N93-27067
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091
The Center of Excellence for Hypersonics Training and Research at the University of Texas at Austin
[NASA-CR-193070] 10 p2930 N93-27126
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator 10 p2985 N93-27138
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Calculations of turbulent separated flows
[NASA-TM-106154] 10 p3039 N93-27161
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
Moving-finite-element solution of time-dependent partial differential equations in two space dimensions
[CWI-NM-R9206] 10 p3113 N93-27303
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
The Fifth Symposium on Numerical and Physical Aspects of Aerodynamic Flows
[NASA-CR-193000] 10 p2931 N93-27427
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
On the role of secondary instabilities in laminar-turbulent transition of 2D and 3D boundary layers 10 p2931 N93-27430
Three-dimensional compressible stability-transition calculations using the spatial theory 10 p2931 N93-27431
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
The influence of bulges on boundary-layer instability 10 p2932 N93-27435
Stability investigations of airfoil flow by global analysis 10 p2932 N93-27436
A composite structured/unstructured-mesh Euler method for complex airfoil shapes 10 p2933 N93-27439
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587
Simulation of boundary-layer transition: Receptivity to spike stage
[NASA-CR-191413] 10 p3040 N93-27588
A new direction in hydrodynamic stability: Beyond eigenvalues
[NASA-CR-191411] 10 p3040 N93-27688

The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
Navier-Stokes analysis of radial turbine rotor performance
[NASA-CR-191153] 11 p3251 N93-28609
Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers
11 p3416 N93-28612
Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617
A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Numerical simulation of perfect fluid flows around complex 3D configurations by a multidomain solver using the MUSCL approach 11 p3417 N93-28745
The development of a mixing layer under the action of weak streamwise vortices
[NASA-TM-106089] 11 p3418 N93-28947
Inviscid quasi one-dimensional nonequilibrium flow
[FFA-TN-1992-35] 11 p3418 N93-28993
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
The numerical solution of low Mach number flow in confined regions by Richardson extrapolation
[TRITA-NA-9207] 11 p3238 N93-29005
An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3419 N93-29009
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
State vector splitting: A numerical scheme for the Euler equations 11 p3419 N93-29039
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion
11 p3310 N93-29125
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Accuracy of least-squares methods for the Navier-Stokes equations
[NASA-TM-106209] 11 p3421 N93-29208
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
A parallel implicit incompressible flow solver using unstructured meshes
[AD-A263395] 11 p3424 N93-29851
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
Flow and heat transfer between gas-turbine discs
11 p3256 N93-29950
Aero-thermal design of a cooled transonic NGV and comparison with experimental results
11 p3257 N93-29957
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade
11 p3258 N93-29958
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades
11 p3258 N93-29962
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows
11 p3259 N93-29963
On high resolution extensions of Lagrange-Galerkin finite-element schemes
[INRIA-RR-1703] 11 p3550 N93-30117
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119
Difference methods for hyperbolic problems with emphasis on space-centered approximations
[ONERA-NT-1990-4] 11 p3550 N93-30136
Use of a genetic algorithm to solve two-fluid flow problems on an NCUBE multiprocessor computer
[DE93-009630] 11 p3425 N93-30184
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Computational fluid dynamics research on dynamically adaptive mesh methods for transonic flows
[AD-A264833] 11 p3428 N93-30630
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations
11 p3428 N93-30902
The numerical simulation of circulation controlled airfoil flowfields 11 p3243 N93-30947
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037
WBNFLOW: Multi-grid/multi-block potential solver for compressible flow. User's guide
[FFA-TN-1992-43] 12 p3723 N93-31146
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
Three-dimensional modeling of pollutant transport in surface waters
[PB93-190627] 12 p3751 N93-31203
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
An ILU smoother for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-91] 12 p3725 N93-31634
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
An incompressible axisymmetric through-flow calculation procedure for design and off-design analysis of turbomachinery
[AD-A264933] 12 p3726 N93-32071
Panel methods for aerodynamic analysis and design
[NLR-TP-91404-U] 12 p3674 N93-32357
NLR inviscid transonic unsteady loads prediction methods in aeroelasticity
[NLR-TP-91410-U] 12 p3674 N93-32358
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

COMPUTATIONAL GEOMETRY

Algebra-geometric and differential geometric methods in solid geometric modeling
[AD-A253669] 01 p0145 N93-10870
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Interactive solid geometry via partitioning trees
04 p0952 N93-15535
Parameterization in finite precision
04 p0953 N93-15537
Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
Generalized 3D Voronoi diagram: First results
[RR-879-M] 07 p2039 N93-21051
The Weyl method for simultaneous calculation of polynomial roots (first part)
[RR-881-M] 07 p2055 N93-21169
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Closed G(sup 1)-continuous cubic Bezier surfaces
[CWI-CS-R9226] 10 p3095 N93-27390
Finite element mesh generation from CSG models
[ETN-93-93614] 10 p3119 N93-27932
Parallel manipulators. Part 5: Determination of the workspace for a constant orientation
[INRIA-RR-1645] 10 p3053 N93-28439
Robust and efficient implementation of the Delaunay tree
[INRIA-RR-1619] 11 p3547 N93-28511
The space of spheres, a geometric tool to unify duality results in Voronoi diagrams
[INRIA-RR-1620] 11 p3547 N93-28512
Implementation of parallel algorithms
[AD-A263126] 11 p3529 N93-29496
Performance of scanline-oriented CSG direct display algorithms
[REPT-93-03] 12 p3788 N93-31548

COMPUTATIONAL GRIDS

Numerical simulation of unsteady flow in a nozzle
01 p0016 N93-10008
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
New directions in computational mechanics
01 p0044 N93-10467
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
Evolution of hybrid-Trefftz FE model: State of the art and future trends 01 p0049 N93-10494
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis
01 p0061 N93-10554
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
Analysis and control of grid quality in computational simulation
[AD-A253723] 01 p0138 N93-10746
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
FNAS computational fluid dynamics
[NASA-CR-184394] 02 p0307 N93-12397
An advancing front Delaunay triangulation algorithm designed for robustness
[NASA-CR-189719] 02 p0416 N93-12400
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0906 N93-15007
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
CAD to FEM tool 05 p1079 N93-15737
Radial basis functions: A class of grid-free, scattered data approximations
[DE92-012675] 05 p1263 N93-15921
Special publication of National Aerospace Laboratory
[DE93-716195] 05 p1053 N93-15949
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467

Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971] 05 p1240 N93-16620
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
Multigrid for semiconductor device simulation: Cell-centered or vertex-centered multigrid?
[CWI-NM-R9118] 05 p1271 N93-17553
Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122] 05 p1164 N93-17557
Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-35] 06 p1524 N93-17847
An efficient algorithm for the computation of Galerkin coarse grid approximation for the incompressible Navier-Stokes equations
[REPT-92-40] 06 p1616 N93-17872
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084] 06 p1435 N93-17893
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739] 06 p1525 N93-18093
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648
Numerical analysis of surface cracks 06 p1556 N93-18750
Analysis of structures under fire conditions 06 p1557 N93-18754
Finite element analysis of stiffened plate vibrations 06 p1557 N93-18757
VGRIDSG: An unstructured surface grid generation program
[NASA-CR-191426] 06 p1624 N93-18874
Optimization of three dimensional meshes
[ETN-92-92554] 06 p1647 N93-19008
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
A gridless Euler/Navier-Stokes solution algorithm for complex-aircraft applications
[NASA-TM-107727] 07 p1760 N93-19973
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
The practical application of computational fluid mechanics 07 p1905 N93-20622
Performances of finite element solution for crack problem 07 p1936 N93-20682
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
Some 2D test examples for the ISNaS incompressible code
[REPT-91-44] 07 p1901 N93-20752
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
Improved deterministic calculational methods for irregularly shaped shields
[DE93-004955] 08 p2467 N93-22795
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea
[DE93-000796] 08 p2392 N93-22807
The p and h-p versions of the finite element method: Basic principles and properties
[AD-A260237] 08 p2468 N93-22930
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method
[DE93-005246] 08 p2293 N93-23299
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
Boundary element method
[ETN-93-93699] 08 p2333 N93-24593
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Rapid exploration of curvilinear grids using direct volume rendering
[NASA-CR-192765] 09 p2808 N93-24944
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
A compact high-order Euler solver for unstructured grids 09 p2699 N93-25341
Transformation of two and three-dimensional regions by elliptic systems
[NASA-CR-192955] 09 p2810 N93-25669
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669
Grid adaption using Chimera composite overlapping meshes
[NASA-TM-106163] 10 p3111 N93-27065
Unstructured viscous grid generation by advancing-front method
[NASA-CR-191449] 10 p2929 N93-27067
Analysis of local uniform grid refinement
[CWI-NM-R9211] 10 p3114 N93-27364
Error analysis and local refinement for a one-dimensional, scalar conservation law
[CWI-NM-R9210] 10 p3114 N93-27365
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
Prediction of vortex breakdown on a delta wing 10 p2936 N93-27459
Adaptive EAGLE dynamic solution adaptation and grid quality enhancement 10 p2937 N93-27464
Efficient grid based techniques for solving the Weighted Region Least Cost Path problem on multicomputers
[AD-A262153] 10 p3107 N93-27548
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
Design of an essentially non-oscillatory reconstruction procedure in finite-element type meshes
[INRIA-RR-1584] 11 p3547 N93-28615
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
Design optimization of space structures 11 p3278 N93-29122
The three-dimensional Multi-Block Advanced Grid Generation System (3DMAGGS)
[NASA-TM-108985] 11 p3420 N93-29155
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions 11 p3421 N93-29177
Ablation problems using a finite control volume technique
[DE93-009861] 11 p3549 N93-29187
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483
On high resolution extensions of Lagrange-Galerkin finite-element schemes
[INRIA-RR-1703] 11 p3550 N93-30117
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
A method for intersection line calculation between parametric surfaces
[ETN-93-94178] 11 p3551 N93-30572
Computational fluid dynamics research on dynamically adaptive mesh methods for transonic flows
[AD-A264833] 11 p3428 N93-30630
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations 11 p3428 N93-30902
The ViB-code to simulate 3-D stator/rotor flow in axial turbines
[DLR-FB-92-19] 12 p3681 N93-31170
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193
Benchmark solutions for the incompressible Navier-Stokes equations in general coordinates on staggered grids
[REPT-92-67] 12 p3724 N93-31496
Mapping methods for computationally efficient and accurate structural reliability 12 p3695 N93-31572
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
Feed-forward volume rendering algorithm for moderately parallel MIMD machines
[NASA-CR-191158] 12 p3792 N93-32322

COMPUTER AIDED DESIGN

Proceedings of the CASE Adoption Workshop
[AD-A253362] 01 p0135 N93-10104
An MCM/chip concurrent engineering validation
[AD-A253783] 01 p0136 N93-10237
Methodology for the computer-aided design of silicon micromachined devices in a standard CMOS process
[PB92-191246] 01 p0136 N93-10248
Issues and techniques of CASE integration with configuration management
[AD-A253323] 01 p0136 N93-10298
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
Parallels in computer-aided design framework and software development environment efforts
[AD-A253327] 01 p0137 N93-10448
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223

Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments
[DE92-014268] 02 p0367 N93-11236

Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386

A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436

Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code
02 p0247 N93-11450

Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459

Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599

VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781

Structural integrity of a confinement vessel for testing nuclear fuels for space propulsion
[DE92-016796] 02 p0232 N93-11824

Distributed environmental control
02 p0391 N93-11924

Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022

Thermostructural tailoring of fiber composite structures
[NASA-TM-105882] 02 p0242 N93-12078

Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522

Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614

Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659

Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675

Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676

Application interface engine language and object reference manual
[DE92-017555] 03 p0683 N93-12686

User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851

Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872

Structural optimization of thin shells using finite element method
[NASA-TM-105903] 03 p0625 N93-13157

A SINDA thermal model using CAD/CAE technologies
03 p0585 N93-13394

Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463

Automatic programming of arc welding robots
03 p0616 N93-13720

Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783

Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815

Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880

Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies
03 p0567 N93-14042

Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236

DESAID (the development of an expert system for aircraft initial design) 04 p0790 N93-14448

An integrated optimization environment for structural configuration design 04 p0855 N93-14467

A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505

Computer based satellite design
[AD-A255315] 04 p0816 N93-14536

Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564

Optimal synthesis methods for silicon compilers
[ETN-92-92677] 04 p0947 N93-15125

Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261

VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment
[VH-1] 04 p0947 N93-15262

VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263

The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264

System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265

Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266

VHDL (VHSIC hardware description language) in the test environment
[VH-6] 04 p0948 N93-15267

Integrating VHDL (VHSIC hardware description language) with existing EDA tools
[VH-8] 04 p0948 N93-15268

Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly
[ITN-92-85129] 04 p0949 N93-15298

Development of an analog MIMO Quantitative Feedback Theory (QFT) CAD package
[AD-A256435] 04 p0950 N93-15313

A method of representating dimensions and tolerances in solid based freeform surfaces
[PNR-90998] 04 p0951 N93-15386

CAD to FEM tool 05 p1079 N93-15737

Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738

Integration of CAD tools in space vehicle design
05 p1079 N93-15739

Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813

An MCM/chip concurrent engineering validation
[AD-A257415] 05 p1233 N93-15863

Extracting viewpoints from multifunctional knowledge bases
[AD-A256008] 05 p1351 N93-15886

Information engineering and the information engineering facility versus rapid application development and focus
[AD-A257297] 05 p1350 N93-15895

PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977

Functional requirements of an advanced instructional design advisor. Volume 1: Epitomizing functions
[AD-A256752] 05 p1234 N93-16049

BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295

Geometric constraint satisfaction
[CWI-CS-R9141] 05 p1236 N93-16339

TOPICS: A contribution to analog design automation
[ISBN-90-9004786-7] 05 p1238 N93-16471

TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490

Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500

Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539

Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567

Computer aided analysis of nonlinear systems
[RR-446] 05 p1239 N93-16576

An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615

TokenPasser: A petri net specification tool
[NASA-CR-191816] 05 p1241 N93-16725

CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736

Numerical methods for the analysis of sampled-data systems and for the computation of system zeros
05 p1274 N93-17300

CAD/CAM for assembly planning
[ISBN-90-370-0057-6] 05 p1246 N93-17490

The KASE approach to domain-specific software systems 05 p1247 N93-17502

CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528

Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564

Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565

Computer-generated gratings
[ISBN-951-22-0785-0] 05 p1252 N93-17599

Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743

Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763

The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818

Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956

The product and services design and development software aided tool RELIASEP
[ETN-93-93015] 06 p1617 N93-18076

A high fidelity simulation of optical detection systems, volume 2
[AD-A258498] 06 p1661 N93-18089

Nonlinear circuits and components
06 p1523 N93-18463

ORCCAD: Towards an open robot controller computer aided design system
[INRIA-RR-1396] 06 p1621 N93-18519

Finite difference time domain modeling of spiral antennas
[NASA-CR-192237] 06 p1503 N93-18586

Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630

A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959

Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960

SETI low-frequency feed design study for DSS 24
06 p1514 N93-19433

Computer codes for RF cavity design
[DE93-004002] 06 p1515 N93-19509

An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847

Survey of antenna design computer models
[AD-A258765] 06 p1516 N93-19869

Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program
[NASA-CR-192405] 07 p2029 N93-19981

CASE/simulation systems 07 p2088 N93-20165

Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316

An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559

An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560

Version and transaction management in OSMegic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574

ProperCAD: A portable object-oriented parallel environment for VLSI CAD
[NASA-CR-192308] 07 p2033 N93-20603

Parallel axes gear set optimization in two-parameter space 07 p1917 N93-20637

Analysis of structurally-varying systems using component-mode synthesis technique
07 p1932 N93-20658

The next revolution in computer-aided engineering
07 p1943 N93-20722

TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723

Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767

Proceedings of the International Conference on CAD/CAM and AMT. Volume 2: CIRP Sessions on Tolerancing, for Function in a CAD/CAM Environment
[ITN-92-85128] 07 p2034 N93-20823

Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824

New methodologies toward the integration of tolerancing in CAD/CAM systems
[PAPER-C-1-2] 07 p2035 N93-20825
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
Optimizing positioning of mechanical parts
[PAPER-C-1-5] 07 p2035 N93-20828
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Validity and well-formedness of dimension and tolerance information in solid modeling systems
[PAPER-C-2-2] 07 p2035 N93-20831
Toward a computer aided functional tolerancing model
[PAPER-C-2-4] 07 p2036 N93-20832
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
CIME of microsystems
[MBB-Z-0428-92-PUB] 07 p2037 N93-20844
Object-oriented design. MECANO: A method and an environment for object-oriented applications construction
[ETN-93-92682] 07 p2038 N93-20921
Surface/surface intersection on a processor mesh
[RR-864-M] 07 p2038 N93-20943
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
An application protocol for CAD to CAD transfer of electronic information 08 p2530 N93-22154
Automated real-time software development
08 p2445 N93-22168
Design of a portable powered seat lift
08 p2429 N93-22190
Exploratory research for the development of a computer aided software design environment with the software technology program
[NASA-CR-192821] 08 p2434 N93-22385
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Investigation of air transportation technology at Princeton University, 1991-1992
08 p2106 N93-22570
Computer Aided Control System Design (CACSD)
08 p2107 N93-22572
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
AEROBA: A control blackboard approach for model formulation 08 p2524 N93-23183
Engineering data integration: Problems and solutions
[PNR-90999] 08 p2525 N93-23370
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
Knowledge-based systems for computational control
[AD-A260409] 08 p2527 N93-24110
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
Geometric modeling for computer aided design
[NASA-CR-192891] 09 p2808 N93-24750
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Integration of design, thermal, structural, and optical analysis, including thermal animation
09 p2814 N93-25601
An approach to configuration design synthesis of subsonic transport aircraft using artificial intelligence techniques 09 p2589 N93-25692
High-performance visualization applied to computational electromagnetics: Method-of-moments on a silicon graphics workstation
[AD-A260820] 09 p2675 N93-25700
ASTOVL combat aircraft design synthesis and optimization 09 p2589 N93-25704
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Computer-aided design package for designers of digital optical computers
[AD-A260757] 09 p2806 N93-25848
An autonomous satellite architecture integrating deliberative reasoning and behavioural intelligence
09 p2823 N93-25970
Model reduction for Space Station Freedom
09 p2620 N93-26081
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
System Concept of Operations Evaluator (SCOPE)
[AD-A261257] 09 p2813 N93-26563
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling 10 p2980 N93-26955
Next generation system modeling of NTR systems
10 p2981 N93-26961
Radial basis function network learns ceramic processing and predicts related strength and density
[NASA-TM-106048] 10 p2990 N93-27129
Computer-aided surface regression analysis
10 p2927 N93-27217
Survey of continuities of curves and surfaces
[CWI-CS-R9202] 10 p3097 N93-27495
DEFMEF predesign document
[NLR-TP-91269-U] 10 p3098 N93-27543
Thermoelectric cooler design
[AD-A262149] 10 p3010 N93-27545
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Generation of helical gears with new surfaces, topology by application of CNC machines
[NASA-TM-106175] 10 p3051 N93-27687
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
Advanced Construction Technology Center research
[AD-A263654] 11 p3432 N93-29390
An MCM/chip concurrent engineering validation
[AD-A262959] 11 p3409 N93-29513
Concept design example, Computer Aided Structural Modeling (CASM). Scheme A
[AD-A264759] 11 p3529 N93-29657
Concept design example, Computer Aided Structural Modeling (CASM). Scheme B
[AD-A264760] 11 p3529 N93-29658
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
Robust control of intelligent rotor
[AD-A263707] 11 p3259 N93-29985
Airspace Design Expert System (ADES), a 2D/3D mapping and modelling tool incorporating an expert system for use in instrument approach design
11 p3247 N93-30357
An application protocol for CAD to CAD transfer of electronic information
[AD-A264554] 11 p3533 N93-30383
A unified approach for composite cost reporting and prediction in the ACT program 11 p3302 N93-30441
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495
Electronics mixed-mode simulation
[AD-A264734] 11 p3534 N93-30577
Multi-parameter optimization tool for low-cost commercial fuselage crown designs
11 p3305 N93-30858
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Knowledge-based framework for an automated user interface presentation design tool
12 p3836 N93-31135
Computational methods for aerodynamic design of aircraft components
[NLR-TP-92072-4] 12 p3671 N93-31148
Cut locus and medial axis in global shape interrogation and representation
[PB93-189884] 12 p3786 N93-31199
Design and implementation strategies
[MEMO-INF-92-57] 12 p3788 N93-31511
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562
Rocketdyne PSAM: In-house enhancement/application 12 p3694 N93-31566
System reliability and risk assessment task goals and status 12 p3695 N93-31568
On the selection of an optimal set of secondary indices
[MEMO-INF-92-68] 12 p3789 N93-31617
Applications of structural optimization methods to fixed-wing aircraft and spacecraft in the 1980s
[NASA-TM-103939] 12 p3740 N93-32212
Performance analysis of a large-grain dataflow scheduling paradigm
[NASA-TP-3323] 12 p3796 N93-32213
Generalised curvature continuous rational cubics
[MATHS-REPT-A-180] 12 p3809 N93-32347

COMPUTER AIDED ENGINEERING

U COMPUTER AIDED DESIGN

COMPUTER AIDED MANUFACTURING

Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly
[ITN-92-85129] 04 p0949 N93-15298
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
CAD/CAM for assembly planning
[ISBN-90-370-0057-6] 05 p1246 N93-17490
Modeling process redesign
[AD-A257561] 06 p1617 N93-17983
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Uncertainty management by relaxation of conflicting constraints in production process scheduling
06 p1636 N93-18673
Proceedings of the International Conference on CAD/CAM and AMT. Volume 2: CIRP Sessions on Tolerancing, for Function in a CAD/CAM Environment
[ITN-92-85128] 07 p2034 N93-20823
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
New methodologies toward the integration of tolerancing in CAD/CAM systems
[PAPER-C-1-2] 07 p2035 N93-20825
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
Optimizing positioning of mechanical parts
[PAPER-C-1-5] 07 p2035 N93-20828
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Validity and well-formedness of dimension and tolerance information in solid modeling systems
[PAPER-C-2-2] 07 p2035 N93-20831
Toward a computer aided functional tolerancing model
[PAPER-C-2-4] 07 p2036 N93-20832
Tolerance, chains and setting of machines: Three dimensional statistical model of machined dimensions
[PAPER-C-2-5] 07 p2036 N93-20833
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
Task sequence planning in a robot workcell using AND/OR nets
[NASA-CR-192735] 07 p2049 N93-21391
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A]
07 p1783 N93-21401
Manufacturing innovations and small business: How flexible manufacturing systems affect tooling and machining enterprises
[PB92-216258] 07 p2086 N93-21743
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping
08 p2259 N93-22174

Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
Automated manufacturing of continuous fibre composite structures for aerospace applications
08 p2212 N93-23942
Activities of the Industrial Materials Institute
[NRC-34380] 08 p2207 N93-24288
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
A virtual environment for manufacturing systems
[AD-A260813] 09 p2810 N93-25699
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
Minimizing total inventory cost on a single machine in just-in-time manufacturing
[MEMO-COSOR-92-20] 10 p3093 N93-27247
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220
Soft computing in design and manufacturing of advanced materials
[NASA-TM-106032] 11 p3295 N93-28624
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495

COMPUTER AIDED MAPPING
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Incorporation of orbital imagery into a cartographic data base
[INPE-5300-PRE/1705] 06 p1688 N93-19644
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system
07 p1967 N93-20529
Development of an automated cartographic system
07 p1967 N93-20530
Application possibilities for automated digitizing
07 p1967 N93-20531
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement
07 p1967 N93-20532
ATKIS: The introduction phase at IfAG
07 p1967 N93-20533
The economic use of PC for cartographic distributed tasks
07 p1967 N93-20534
The importance of the PC in the cartographic-photogrammetric service field
07 p1967 N93-20535
Thematic maps as data bank objects
07 p1968 N93-20536
Documentation and bibliographic analysis in the framework of the ATKIS generalization
07 p1968 N93-20537
Digital mapping inference mechanism: A process of knowledge extraction and hypotheses evaluation
10 p3063 N93-27504
On the adequacy of graph rewriting for simulating term rewriting
[CWI-CS-R9204] 10 p3098 N93-27540
Extracting projective information from single views of 3D point sets
[OUEL-1927/92] 12 p3785 N93-31151
Reports on Cartography and Topography, series 1, report no. 103
[ETN-90-97325] 12 p3744 N93-31256
European Road Database: Activities within the ATKIS
12 p3744 N93-31257
Aerial cartography using SICAD NAV-AIR
12 p3744 N93-31258
Digital reading of road network data in developing a cartographic information system
12 p3744 N93-31259
GDF: A digitizing format for geographical data
12 p3744 N93-31260
A query language for spatial data
12 p3745 N93-31261
An electronic sea map 12 p3745 N93-31262
Automatic acquisition of elevation points in map-making using the TUEK 200 12 p3745 N93-31263
A catalog of landscape features. A modeling instrument for the ATKIS information system
12 p3745 N93-31264
Accuracy estimation for digitizing
12 p3745 N93-31265
Geographical and topographical data from satellite images used in developing a digital road topology database 12 p3745 N93-31266
Access and content of the EDBS topographic-cartographic information system (ATKIS)
12 p3745 N93-31267
SCRIBO: An interactive grid-base name placement system for map making 12 p3745 N93-31268
A searching method in a declarative city map
12 p3746 N93-31270

COMPUTER AIDED TOMOGRAPHY
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Trip report: Marshall Space Center computed tomography
[DE92-018139] 02 p0437 N93-11597
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900
Development of an electrical impedance computed tomographic two-phase flows analyzer
[DE92-040527] 05 p1155 N93-15923
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
Explosives detection limitations using dual-energy radiography and computed tomography
07 p1767 N93-21878
The evolution of Computed Tomography (CT) as an explosives detection modality 07 p1768 N93-21883
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Explosive detection for checked luggage by DETEX, a combined x ray and positron-tomograph system
07 p1768 N93-21886
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
High resolution computed tomography
[AD-A259728] 09 p2321 N93-23470
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction
[DE93-006796] 08 p2243 N93-24461
Intraplate deformation, stress in the lithosphere and the driving mechanism for plate motions
[NASA-CR-192782] 09 p2772 N93-25529
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527
Neural networks for calibration tomography
[NASA-TM-106352] 10 p3045 N93-26906
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Computerized tomography and its applications: A guided tour
[CS-9206] 12 p3789 N93-31629

COMPUTER ANIMATION
Software for flight recorder data evaluation developed by Lufthansa 04 p0794 N93-15163
The FAIR (Flight Animated and Interactive Reconstruction) tool 04 p0788 N93-15164
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
Object space temporal coherence for ray tracing
04 p0955 N93-15554
Physically-based methods for polygonization of implicit surfaces 04 p0956 N93-15562
Matrix animation and polar decomposition
04 p0956 N93-15563
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565

COMPUTER ARCHITECTURE
U ARCHITECTURE (COMPUTERS)

COMPUTER ASSISTED INSTRUCTION
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
An intelligent position-specific training system for mission operations
[NASA-TM-108381] 03 p0691 N93-13156
Application of information system technology to K-12 education
[AD-A255223] 03 p0731 N93-13834
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
Functional requirements of an advanced instructional design advisor. Volume 1: Epitomizing functions
[AD-A256752] 05 p1234 N93-16049
Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
Teaching, learning, and planetary exploration
[NASA-CR-192000] 06 p1734 N93-18569
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
Application possibilities for automated digitizing
07 p1967 N93-20531
On the comparison of sequences: Analyzing behavioural aspects of courseware development and use
[MEMO-1030] 07 p2038 N93-21033
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
07 p1844 N93-21531
The impact of computer instruction on the near transfer and far transfer of a general problem-solving strategy
08 p2527 N93-24094
Integrated Development Support Environment (IDSE)
[AD-A261088] 09 p2877 N93-25763
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
Human Factors in Aviation Maintenance, phase 2
[DOT/FAA/AM-93/5] 09 p2802 N93-26089
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Case study of technology use in adult literacy programs
[PB93-163905] 10 p3161 N93-27415
Software for adult literacy: Scope, suitability, available sources for information, and implications for federal policy
[PB93-163913] 10 p3161 N93-27416
Development of a concept formulation process aid for analyzing training requirements and developing training devices
[AD-A263579] 11 p3261 N93-29972
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362

COMPUTER BULLETIN BOARDS
U ELECTRONIC BULLETIN BOARDS
COMPUTER CODES
U COMPUTER PROGRAMS
COMPUTER COMPATIBLE TAPES
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
ICI optical data storage tape: An archival mass storage media 11 p3621 N93-30472
Flexible storage medium for write-once optical tape 11 p3621 N93-30473
Analysis of cache for streaming tape drive 11 p3435 N93-30477
COMPUTER COMPONENTS
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
COMPUTER DESIGN
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Resource constrained design of artificial neural networks using comparator neural network
[NASA-CR-191280] 03 p0694 N93-13376
Formal aspects of human-computer interaction 03 p0679 N93-13909
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
Architectures for intelligent machines
[NASA-CR-191875] 05 p1231 N93-16621
Formal verification of a microcoded VIPER microprocessor using HOL
[NASA-CR-4489] 07 p2044 N93-21043
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Computer-aided design package for designers of digital optical computers
[AD-A260757] 09 p2806 N93-25848
Spacecraft computer technology at Southwest Research Institute 11 p3522 N93-28813
SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
High performance computing and communications program 11 p3627 N93-30715
On the selection of an optimal set of secondary indices
[MEMO-INF-92-68] 12 p3789 N93-31617
COMPUTER GRAPHICS
NT COMPUTER ANIMATION
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
Raster graphics validation
[PB92-196070] 01 p0137 N93-10441
Automated multi-body system dynamics via bond graph modelling and interactive graphics 01 p0066 N93-10576
Advanced Scientific Computing Environment Team
[DE92-016714] 01 p0137 N93-10631
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
A cognitive approach to the design of information graphics
[AD-A252692] 02 p0474 N93-11353
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
System for generating dynamic video imagery for human factors research
[AD-A248675] 02 p0388 N93-11743
Advanced technology for portable personal visualization
[AD-A253808] 02 p0388 N93-11783
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Interactive collision detection 02 p0400 N93-11963
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets
[NASA-CR-191260] 03 p0685 N93-13261
A simple node and conductor data generator for SINDA 03 p0585 N93-13392
Mapping thoughts: Visual interfaces for information retrieval 04 p1000 N93-14208
Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522
A distributed visualization environment for engineering sciences
[DE92-012629] 04 p1051 N93-15060
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Proceedings: Graphics Interface 1992
[ISBN-0-9695338-1-0] 04 p0952 N93-15533
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Interactive solid geometry via partitioning trees 04 p0952 N93-15535
Fast algorithms for rendering cubic curves 04 p0953 N93-15536
Hyper-rendering 04 p0953 N93-15538
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
An extended cuberille model for identification and display of 3D objects from 3D gray value data 04 p0953 N93-15542
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Hierarchical Poisson disk sampling distributions 04 p0954 N93-15545
Performing in-place affine transformations in constant space 04 p0954 N93-15546
Working together, virtually 04 p0954 N93-15547
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse 04 p0955 N93-15551
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Object space temporal coherence for ray tracing 04 p0955 N93-15554
Ray tracing polygons using spatial subdivision 04 p0955 N93-15555
Parametric height field ray tracing 04 p0955 N93-15556
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
Escape-time visualization method for language-restricted iterated function systems 04 p0956 N93-15558
The object instancing paradigm for linear fractal modeling 04 p0956 N93-15559
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
An interval refinement technique for surface intersection 04 p0956 N93-15561
Physically-based methods for polygonization of implicit surfaces 04 p0956 N93-15562
Matrix animation and polar decomposition 04 p0956 N93-15563
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
A minimalist global user interface 04 p0957 N93-15566
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567
A linear constraint technology for interactive graphic systems 04 p0957 N93-15568
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
A two-pass physics-based global lighting model 04 p0957 N93-15570
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
High speed networks, visualization, and massive parallelism in the Advanced Computing Laboratory
[DE92-017412] 05 p1254 N93-15880
CMOR: A configurable monitor
[DE92-040208] 05 p1233 N93-15902
NPSGDL: An object oriented graphics description language for virtual world application support
[AD-A257337] 05 p1234 N93-15992
Computation and graphics in mathematical research
[DE92-040852] 05 p1235 N93-16089
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971] 05 p1240 N93-16620
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Towards automation of user interface design 05 p1248 N93-17510
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
A testbed for flow visualization research
[REPT-92-32] 06 p1616 N93-17846
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU] 06 p1502 N93-18284
Monopole elements with disk ground planes on flat earth: Atlas of directivity, radiation efficiency, radiation resistance, and input impedance
[AD-A257911] 06 p1503 N93-18366
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
A user interface to a true 3-D display device
[AD-A258995] 06 p1614 N93-18891
The effects of iconic presentation on individuals
[AD-A258785] 06 p1603 N93-18949
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Plotting the magnitude and direction of waveguide surface currents in three dimensions
[AD-A258872] 06 p1509 N93-19077
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels 06 p1490 N93-19391
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
HippoDraw
[DE93-004005] 06 p1627 N93-19633
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939

Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations
[AD-A259449] 07 p2030 N93-20058
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
MAPPER: A personal computer map projection tool
[NASA-TM-4445] 07 p2034 N93-20778
Specifying and modifying the Graphics Manager and the Graphic Calculator in D2M2edit
[REPT-91-56] 07 p2037 N93-20851
Three dimensional representation and 3D reconstruction using two dimensional sections
[ETN-93-92686] 07 p2039 N93-21063
Reference model for the description of graphic data processing and for the integration of graphic systems with other data processing fields
[ETN-93-93417] 07 p2039 N93-21066
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
A novel approach to graphics
[AD-A259337] 07 p2040 N93-21262
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Transportable Applications Environment (TAE) Plus: A NASA tool for building and managing graphical user interfaces 08 p2444 N93-22150
Advanced display object selection methods for enhancing user-computer productivity 08 p2444 N93-22151
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Virtual reality applications to automated rendezvous and capture 08 p2141 N93-22261
Video animation system operators manual
[DE93-007425] 08 p2435 N93-22533
A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600
Motif, the basics: An overview of the widget set
[DE93-005273] 08 p2436 N93-22720
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
VASGEN: A finite element model generation program for VAST. User's manual, version 4.0
[DREA-CR-91-447] 08 p2437 N93-23089
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Remote sensing of the Earth: A pilot program in German schools 08 p2369 N93-23822
Innovative interactive Earth systems science courseware for middle and high school students 08 p2334 N93-23823
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
Space efficient 3D model indexing
[AD-A259571] 08 p2462 N93-24085
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24090
Develop an x-windows tool to compute Gaussian beam synthetic seismograms
[AD-A260034] 08 p2400 N93-24253
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
Raster graphics: A tutorial and implementation guide
[PB93-145233] 08 p2443 N93-24562
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data 09 p2742 N93-24801
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Efficient inspection of network pollution data
[DE93-003810] 09 p2761 N93-25126
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
Interactive interface for National Center for Atmospheric Research (NCAR) Graphics 09 p2878 N93-25794
Measures of user-system interface effectiveness: An encoding scheme and indicators for assessing the usability of graphical, direct-manipulation style user interfaces
[AD-A260606] 09 p2801 N93-25840
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Three view language: A graphics-based language for requirements definition, version 01.00.00
[AD-A261732] 09 p2813 N93-26583
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
The ASCIS data flow graph semantics and textual format
[EUT-91-E-251] 10 p3093 N93-27243
Closed G(sup 1)-continuous cubic Bezier surfaces
[CWI-CS-R9226] 10 p3095 N93-27390
Survey of continuities of curves and surfaces
[CWI-CS-R9202] 10 p3097 N93-27495
More examples in MANIFOLD
[CWI-CS-R9214] 10 p3097 N93-27502
An architecture for interactive raster graphics
[CWI-CS-R9229] 10 p3102 N93-28102
The second Garnet compendium: Collected papers 1990-1992
[AD-A262696] 10 p3102 N93-28118
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220
Faster Phong shading
[CWI-CS-R9228] 10 p3103 N93-28221
Rendering the out-the-window view for the AFIT virtual cockpit
[AD-A262599] 11 p3260 N93-28467
JPDRAW user's manual, version 3.3
[INRIA-RT-0139] 11 p3523 N93-28504
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
Ergonomic development of digital map displays 11 p3503 N93-28866
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 11 p3613 N93-29226
The scientific modeling assistant: An advanced software tool for scientific model building 11 p3613 N93-29229
DataHub knowledge based assistance for science visualization and analysis using large distributed databases 11 p3613 N93-29230
A planetary version of PC-McIDAS 11 p3614 N93-29236
Interactive interface to NCAR graphics 11 p3614 N93-29237
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
SPREE Interactive Data Analysis Tool (SIDAT)
[AD-A262782] 11 p3273 N93-29306
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
Development of a visual system interface to support a domain-oriented application composition system
[AD-A262489] 11 p3528 N93-29418
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483
EnviroNET: On-line information for LDEF 11 p3624 N93-29625
Three-dimensional graphical representation of objects according to movement data in realtime
[ESA-TT-1258] 11 p3521 N93-30104
An improved model-creation program for EM interaction analysis 11 p3367 N93-30294
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362
Introduction to the National Information Display Laboratory 11 p3628 N93-30718
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
Defining protein electrostatic recognition processes
[AD-A264838] 11 p3571 N93-30901
A prototype of a faculty and staff executive information system
[AD-A264852] 11 p3623 N93-30907
SCRIBO: An interactive grid-base name placement system for map making 12 p3745 N93-31268
Fluid flow visualization
[REPT-92-69] 12 p3724 N93-31494
Hybrid rendering of scientific data using an h-buffer
[REPT-92-68] 12 p3788 N93-31495
Performance of scanline-oriented CSG direct display algorithms
[REPT-93-03] 12 p3788 N93-31548
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
Feed-forward volume rendering algorithm for moderately parallel MIMD machines
[NASA-CR-191158] 12 p3792 N93-32322

COMPUTER INFORMATION SECURITY

Security considerations within military information systems 01 p0174 N93-10603
Unifying information flow policies
[RSRE-90020] 01 p0175 N93-10801
An example secure system specified using the Terry-Wiseman approach
[RSRE-90011] 01 p0134 N93-10804
Causing and preventing viruses in computer systems
[AD-A208591] 01 p0139 N93-10806
The Terry-Wiseman security policy model and examples of its use
[RSRE-90001] 01 p0134 N93-10807
On the problem of security in data bases
[RSRE-MEMO-4263] 01 p0175 N93-10821
Network stability under viral attack: A game entitled, God and the Devil
[RSRE-MEMO-4405] 01 p0147 N93-10822
Lattices for security policies
[RSRE-90005] 01 p0139 N93-10823
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
Computer security training and awareness course compendium
[PB92-205442] 02 p0404 N93-11258
Lies, damned lies, and databases
[RSRE-MEMO-4503-ISSUE-2] 02 p0474 N93-11333
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Reviews of computing technology: Securing network applications, Kerberos, and RSA
[DE92-019928] 03 p0690 N93-13620
Risk assessment of LAN communications
[AD-A257327] 05 p1137 N93-15987
NADIR: A prototype system for detecting network and file system abuse
[DE93-000861] 05 p1256 N93-17385
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
A model for security and distribution of management information systems
[ETN-93-93029] 06 p1685 N93-18107
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Computer Security Bulletin Board System: User's guide
[PB93-113553] 07 p2029 N93-21255

Assessing federal and commercial information security needs
[PB93-138956] 08 p2525 N93-23228
Automated tools for testing computer system vulnerability
[PB93-146025] 08 p2433 N93-23273
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
The database Query Support Processor (QSP) 09 p2807 N93-25577
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942
Minimum security requirements for multi-user operating systems
[PB93-185999] 11 p3522 N93-30832
Modeling users' behavior and threats for security
[REPT-92-071] 12 p3811 N93-31476
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
System engineering concept demonstration, security study, volume 7
[AD-A265473] 12 p3791 N93-32007

COMPUTER METHODS
U COMPUTER PROGRAMS

COMPUTER NETWORKS
NT LOCAL AREA NETWORKS
Link-11 communications --- computer-to-computer communications exchange network
[AD-A252766] 01 p0068 N93-10260
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Security considerations within military information systems 01 p0174 N93-10603
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
Scalable parallel communications 02 p0279 N93-11117
High performance interconnection between high data rate networks 02 p0279 N93-11118
Computer security training and awareness course compendium
[PB92-205442] 02 p0404 N93-11258
A real-time diagnostic and performance monitor for UNIX
[NASA-CR-190975] 02 p0404 N93-11462
Scattering on a ring of processors 02 p0410 N93-11482
Z-buffer on a transputer-based machine 02 p0410 N93-11483
Reduction operations on a distributed memory machine with a reconfigurable interconnection network 02 p0410 N93-11484
Engineering Information System (EIS)
[AD-A254013] 02 p0476 N93-11508
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Hypertext functionality: A theoretical framework 02 p0478 N93-11858
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
An approach to integrating and creating flexible software environments 02 p0396 N93-11946
Design of an Ada expert system shell for the VHSIC avionic modular flight processor 02 p0397 N93-11947
LINK user manual
[DE92-017987] 02 p0479 N93-12143
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150
A neural net-based approach to software metrics 02 p0415 N93-12392
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
Real-time data archiving for GTA
[DE92-018613] 03 p0733 N93-12567
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191208] 03 p0734 N93-12680
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
Research priorities in networking and communications
[NSF-92-109] 03 p0562 N93-13024
File servers, networking, and supercomputers 03 p0737 N93-13137
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
Engineering data transfer test with EDMICS using MIL-R-28002 (Raster)
[DE92-019808] 03 p0738 N93-13619
Reviews of computing technology: Securing network applications, Kerberos, and RSA
[DE92-019928] 03 p0690 N93-13620
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
Monitoring and controlling distributed applications using Lomita (position paper)
[NASA-CR-190971] 03 p0687 N93-13695
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
Application of partition matrix methods to solve large eigenproblems in structural dynamics 04 p0896 N93-14188
Network issues for large mass storage requirements 04 p1002 N93-14773
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
Storage needs in future supercomputer environments 04 p1003 N93-14780
File servers, networking, and supercomputers 04 p1004 N93-15030
Network accessible multi-terabyte archive 04 p1005 N93-15036
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1006 N93-15044
Requirements for a network storage service 04 p1007 N93-15048
A distributed visualization environment for engineering sciences
[DE92-012629] 04 p1051 N93-15060
A deadlock-free communication system for a transputer network
[AD-A256473] 04 p0959 N93-15319
User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
Physical design for network databases
[MEMO-INF-92-26] 04 p1009 N93-15492
Proposal for massively parallel data storage system 04 p0960 N93-15510
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
Cloud data set for neural network classification studies
[AD-A256666] 05 p1211 N93-15701
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
High speed networks, visualization, and massive parallelism in the Advanced Computing Laboratory
[DE92-017412] 05 p1254 N93-15880
Proceedings of the Eleventh Annual ACM Symposium on Principles of Distributed Computing
[AD-A257294] 05 p1233 N93-15893
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
A tool for automated validation of network protocols
[AD-A256726] 05 p1255 N93-16066
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems 05 p1353 N93-16322
Network accessible multi-terabyte archive 05 p1354 N93-16326
Data storage and retrieval system abstract 05 p1170 N93-16332
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16386
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
Parallel processing for linear programming
[ISBN-90-6275-754-5] 05 p1256 N93-16565
MODIS algorithm development and data visualization using ACTS
[NASA-CR-191940] 05 p1191 N93-16759
Updating and expanding the library of materials on NASA Spacelink electronic information system 05 p1340 N93-17282
NADIR: A prototype system for detecting network and file system abuse
[DE93-000861] 05 p1256 N93-17385
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
A static view of localities
[INRIA-RR-1483] 06 p1622 N93-18650
Numerical Wind Tunnel hardware 06 p1411 N93-19289
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
Design and evaluation of FDDI fiber optics networkfor Ethernets, VAX's and Ingraph work stations 06 p1664 N93-19408
TRADOC Library and Information Network (TRALINET). Union list of periodicals (TULIP)
[AD-A258935] 06 p1688 N93-19451
Network management, status, and directions
[DE93-004003] 06 p1630 N93-19510
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water 07 p2005 N93-20082
Data Multiplexing Network (DMN). Phase 3: Equipment Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/49] 07 p1779 N93-20612
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Redesigning the window protocol: The block acknowledgement revisited
[RUU-CS-92-04] 07 p2039 N93-21170
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Integrated FASTBUS, VME and CAMAC diagnostic software at Fermilab
[DE93-004424] 07 p2042 N93-21845
Research in models for massively parallel computing
[DE93-003748] 07 p2045 N93-21852
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
Video conferencing made easy 08 p2275 N93-22173
Experience with the UniTree mass storage system
[DE93-004717] 08 p2445 N93-22388
Computer facilities optimization studies
[NASA-CR-192702] 08 p2432 N93-22471
Evaluation of distributed computing tools
[DE93-007408] 08 p2446 N93-22531
Network storage service usage characteristics
[DE93-003998] 08 p2446 N93-22755
An electronic stroll through the global village
[DE93-005962] 08 p2446 N93-22763
High speed, wide area distributed computing for scientific imaging
[DE93-004727] 08 p2436 N93-22778
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
The QCD Teraflops Project
[DE93-006386] 08 p2447 N93-23026
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
Northeast Parallel Architectures Center (NPAC)
[AD-A259627] 08 p2448 N93-23653
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
NASDA's Earth observation satellite program 08 p2357 N93-23751
Archival and analysis of Hubble Space Telescope data 08 p2535 N93-23894
Universal channel network, or combining the best of token ring and slotted ring
[MEMO-INF-92-41] 08 p2449 N93-24630
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677

EXCHANGE
[DE93-007227] 09 p2808 N93-24962
On the robustness of Herlihy's hierarchy
[NASA-CR-193002] 09 p2808 N93-25107
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
Zebra: A striped network file system
[NASA-CR-192912] 09 p2809 N93-25250
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
CAD data exchange development
[DE93-008085] 09 p2809 N93-25307
A distributed heterogeneous client-server environment
[DE93-007496] 09 p2875 N93-25319
Object-oriented tools for distributed computing
09 p2817 N93-25576
The database Query Support Processor (QSP)
09 p2807 N93-25577
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
Distributed information storage
09 p2877 N93-25722
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943
An OSI architecture for the Deep Space Network
09 p2679 N93-26121
Deep Space Network information system architecture study 09 p2679 N93-26126
High performance computing and communications panel report 09 p2807 N93-26131
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
Very high-speed report file system
[AD-A261068] 09 p2817 N93-26277
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
Test, Control and Monitor System (TCMS) operations plan
[NASA-CR-193098] 09 p2873 N93-26419
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Digital telecommunications are a key development factor: Integration of satellite into overall telecommunication networks as a way to harmonize social and economic implications 10 p3025 N93-26660
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
Strategic plan for scientific computing
[DE93-006875] 10 p3090 N93-27614
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Nets of reactive processes
[INRIA-RR-1588] 11 p3537 N93-28505
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
A distributed system for visualizing and analyzing multivariate and multidisciplinary data
11 p3613 N93-29226
A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245
Dynamic factorization in large-scale optimization
[AD-A263993] 11 p3528 N93-29345
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Advanced network technology: Background paper
[OTA-BP-TCT-101] 11 p3539 N93-29650
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3387 N93-29890
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Multiprocessing systems: Reliability modelling and analysis using multimode components and dependent failures
[AD-A264230] 11 p3540 N93-30364
Evolution of a high-performance storage system based on magnetic tape instrumentation recorders
11 p3435 N93-30470
LANL High-Performance Data System (HPDS)
11 p3622 N93-30478
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495
High performance computing and communications program 11 p3627 N93-30715
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
The modern research environment
12 p3837 N93-31221
Measurements over distributed high performance computing and storage systems
12 p3841 N93-31977
Performance of a distributed superscalar storage server 12 p3841 N93-31978
New architectures to reduce I/O bottlenecks in high-performance systems
[DE93-009059] 12 p3795 N93-31985
Neural attentional sensory processing
[AD-A265163] 12 p3799 N93-31992
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236
Video conferencing made easy
[DE93-010798] 12 p3718 N93-32283

COMPUTER PROGRAM INTEGRITY
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
Software reliability, measurement, and testing software reliability and test integration, volume 1
[AD-A256242] 04 p0944 N93-14572
Software reliability, measurement, and testing. Volume 2: Guidebook for software reliability measurement and testing
[AD-A256164] 04 p0944 N93-14581
Software quality measurement: A framework for counting problems and defects
[AD-A256556] 07 p2032 N93-20387
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
PASCAL subroutines for standard test problems in unconstrained minimization
[MATHS-REPT-A-155] 08 p2441 N93-24076
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Modeling users' behavior and threats for security
[REPT-92-071] 12 p3811 N93-31476
The performance of integrity control through transaction modification in a parallel main-memory database system
[MEMO-INF-92-54] 12 p3839 N93-31615

COMPUTER PROGRAM RELIABILITY
U SOFTWARE RELIABILITY

COMPUTER PROGRAMMING
NT ASSEMBLER ROUTINES
NT LANGUAGE PROGRAMMING
NT LOGIC PROGRAMMING
NT MICROPROGRAMMING
NT MULTIPROGRAMMING
NT OBJECT-ORIENTED PROGRAMMING
NT ON-LINE PROGRAMMING
NT PARALLEL PROGRAMMING
NT STRUCTURED PROGRAMMING
NT SYMBOLIC PROGRAMMING
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Proceedings of the CASE Adoption Workshop
[AD-A253362] 01 p0135 N93-10104
An MCM/chip concurrent engineering validation
[AD-A253783] 01 p0136 N93-10237
Issues and techniques of CASE integration with configuration management
[AD-A253323] 01 p0136 N93-10298
Introduction to software process improvement
[AD-A253326] 01 p0137 N93-10447
Parallels in computer-aided design framework and software development environment efforts
[AD-A253327] 01 p0137 N93-10448
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Knowledge-based system V and V in the Space Station Freedom program 02 p0396 N93-11945
Higher-order generic functions for CLOS
[DE92-013447] 02 p0413 N93-12137
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
Reengineering using a data abstraction based specification language
[AD-A254726] 02 p0414 N93-12341
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
Program structure as a basis for the parallelization of global compiler optimizations
[AD-A254554] 03 p0681 N93-12641
Expert-system development in Soar: A tutorial
[AD-A254571] 03 p0682 N93-12645
Numerical optimization
[AD-A254575] 03 p0682 N93-12647
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Running SINDA '85/FLUINT interactive on the VAX
03 p0584 N93-13390
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Automatic programming of arc welding robots
03 p0616 N93-13720
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
Iterative software testing
[AD-A255953] 04 p0943 N93-14420
The 1992 Summer SIGAda AIWG Workshop applications experiences and lessons learned panel message from the panel chair
[AD-A256188] 04 p0962 N93-14519
Computer based satellite design
[AD-A255315] 04 p0816 N93-14536
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0
[AD-A255434] 04 p0944 N93-14566
Using an interior point cutting plane method to solve integer programming problems
[AD-A256041] 04 p0945 N93-14659
Software requirements for the A-7E aircraft
[AD-A255746] 04 p0946 N93-15052
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077

Research in programming languages and software engineering
[AD-A256341] 04 p0947 N93-15199
Reliability techniques for combined hardware and software systems
[AD-A256347] 04 p0895 N93-15204
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Experience with a course on architectures for software systems. Part 1: Course description
[AD-A256221] 04 p0941 N93-15239
Query optimization and planning in object-oriented knowledge bases
[AD-A256006] 04 p1008 N93-15254
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
Proceedings of the REXX Symposium for Developers and Users
[DE92-041359] 04 p0951 N93-15451
Flight dynamics system software development environment (FDS/SDE) tutorial
[NASA-TM-108580] 04 p0952 N93-15502
Hyper-rendering 04 p0953 N93-15538
Program auralization: Sound enhancements to the programming environment 04 p0953 N93-15539
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
A minimalist global user interface 04 p0957 N93-15566
Software Management Environment (SME) installation guide
[NASA-TM-108578] 04 p0957 N93-15578
Data collection procedures for the Software Engineering Laboratory (SEL) database
[NASA-TM-108579] 04 p0957 N93-15579
Micrometer FX/DLX: A pedagogic compiler
[AD-A256821] 05 p1232 N93-15684
Report on Workshop on Research in Experimental Computer Science
[AD-A256874] 05 p1230 N93-15707
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
Compiling Prolog to standard ML: Some optimizations
[AD-A256193] 05 p1232 N93-15841
The design and implementation of a parallel persistent object system
[AD-A257447] 05 p1233 N93-15869
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
Software measures and the capability maturity model
[AD-A257238] 05 p1234 N93-15962
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
A Relational/Object-Oriented Database Management System: R/OODBMS
[AD-A257339] 05 p1351 N93-15993
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
Aspect: A formal specification language for detecting bugs
[AD-A256797] 05 p1234 N93-16056
Report on the FX-91 programming language
[AD-A256798] 05 p1234 N93-16057
A module system for a programming language based on the LF logical framework
[AD-A256731] 05 p1235 N93-16069
The many disguises of accumulation
[TR-91-26] 05 p1237 N93-16369
Advanced parallel systems
[AD-A256958] 05 p1255 N93-16434
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
TokenPasser: A petri net specification tool
[NASA-CR-191816] 05 p1241 N93-16725
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
The Software Engineering Laboratory: An operational software experience factory 05 p1243 N93-17162
Automated support for experience-based software management 05 p1244 N93-17164
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
Providing an empirical basis for optimizing the verification and testing phases of software development 05 p1244 N93-17168
A classification procedure for the effective management of changes during the maintenance process 05 p1245 N93-17169
Toward full life cycle control: Adding maintenance measurement to the SEL 05 p1245 N93-17170
Guide to object-oriented analysis and design 05 p1254 N93-17296
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Developing satellite ground control software through graphical models 05 p1246 N93-17500
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
The KASE approach to domain-specific software systems 05 p1247 N93-17502
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Modeling software systems by domains 05 p1248 N93-17506
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Interactive specification acquisition via scenarios: A proposal 05 p1249 N93-17512
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Knowledge-intensive software design systems: Can too much knowledge be a burden? 05 p1250 N93-17518
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
Knowledge modeling for software design 05 p1251 N93-17525
CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528
Parallel-iterated Runge-Kutta methods for stiff ordinary differential equations
[CWI-NM-R9117] 05 p1257 N93-17549
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
Proceedings of the 2nd International Conference on Algebraic Methodology and Software Technology
[AD-A257487] 05 p1272 N93-17664
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
Integrating domain-specific reuse for system/software engineers course description
[AD-A257637] 05 p1252 N93-17723
Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
Software development with application generators: The Naval Aviation Logistics Command Management Information System Case
[AD-A257624] 05 p1357 N93-17768
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Unit analysis and testing
[AD-A258435] 06 p1616 N93-17867
Re-engineering software systems in the Department of Defense using integrated computer aided software engineering tools
[AD-A257500] 06 p1617 N93-17905
Software Engineering Process Groups: Results of the 1992 SEPG Workshop event evaluation and a first report on SEPG status
[AD-A258259] 06 p1617 N93-18011
Range scheduling automation for the Air Force satellite control network: A case study in computer system development
[AD-A258142] 06 p1454 N93-18084
High-level parallel programming
[AD-A257977] 06 p1629 N93-18185
Software process development and enactment: Concepts and definitions
[AD-A258465] 06 p1619 N93-18243
Software measurement for DoD systems: Recommendations for initial core measures
[AD-A258305] 06 p1619 N93-18250
A classification and bibliography of software prototyping
[AD-A258466] 06 p1619 N93-18268
Software size measurement: A framework for counting source statements
[AD-A258304] 06 p1620 N93-18303
Automated documentation generator for advanced protein crystal growth
[NASA-CR-192452] 06 p1673 N93-18425
Towards a meta simplifier
[INRIA-RR-1402] 06 p1621 N93-18574
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
Iterative refinement scheduling 06 p1635 N93-18669
Integrated modeling of advanced optical systems 06 p1463 N93-18832
Formal development of Ada programs using Z and Anna: A case study
[AD-A235698] 06 p1623 N93-18847
System for simultaneously loading program to master computer memory devices and corresponding slave computer memory devices
[NASA-CASE-MSC-21387-1] 06 p1623 N93-18855
Recommended approach to software development, revision 3
[NASA-TM-108630] 06 p1624 N93-18861
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system
[AD-A259018] 06 p1624 N93-19016
X-AARF: An X window based version of the AFIT Algorithm Animation Research Facility
[AD-A258832] 06 p1625 N93-19065
Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083
Process engineering with the evolutionary spiral process model, version 01.00.01
[AD-A258966] 06 p1625 N93-19085
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Examining a layered approach to function and design representation for reusable software components
[AD-A258920] 06 p1626 N93-19343
Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442
Upside-down meta-interpretation of the model elimination theorem-proving procedure for deduction and abduction
[AD-A259436] 07 p2046 N93-20012
Explicit polymorphism and CPS conversion
[AD-A258635] 07 p2029 N93-20033
Neural-network dedicated processor for solving competitive assignment problems
[NASA-CASE-NPO-17781-1-CU] 07 p2028 N93-20116
A unified model of program behavior
[AD-A259142] 07 p2030 N93-20128
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Nonmonotonic temporal reasoning
[AD-A258699] 07 p2032 N93-20377
A framework for corporate implementation of object-oriented software development
[AD-A258717] 07 p2032 N93-20383
Software quality measurement: A framework for counting problems and defects
[AD-A258556] 07 p2032 N93-20387

Software development risk: Opportunity, not problem
[AD-A258743] 07 p2032 N93-20402
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
Multiversion software reliability through fault-avoidance and fault-tolerance
[NASA-CR-192191] 07 p2041 N93-21647
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
Methods and means used in programming intelligent searches of technical documents
08 p2530 N93-22155
Automated real-time software development
08 p2445 N93-22168
COSMIC software catalog, 1993
[NASA-CR-191005] 08 p2434 N93-22205
Results of prototype software development for automation of shuttle proximity operations
08 p2142 N93-22264
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Path planning for manipulators
[DE93-004050] 08 p2457 N93-22756
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Knowledge base methodology: Methodology for first Engineering Script Language (ESL) knowledge base
[NASA-CR-192820] 08 p2523 N93-23031
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Northeast Parallel Architectures Center (NPAC)
[AD-A259627] 08 p2448 N93-23653
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
Soar-mode v5.0 user's manual for Soar release 5.2 and 6.0
[AD-A259914] 08 p2441 N93-23997
PASCAL subroutines for standard test problems in unconstrained minimization
[MATHS-REPT-A-155] 08 p2441 N93-24076
Deterministic methods in stochastic optimal control
[AD-A260478] 08 p2462 N93-24100
Academic legitimacy of the software engineering discipline
[AD-A260241] 08 p2441 N93-24223
Transformational planning of reactive behavior
[AD-A260350] 08 p2463 N93-24270
A version and configuration model for software evolution
[AD-A260557] 08 p2441 N93-24283
The actor model
[AD-A260196] 08 p2442 N93-24469
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
Geometric modeling for computer aided design
[NASA-CR-192891] 09 p2808 N93-24750
Putting time into proof outlines
[NASA-CR-192978] 09 p2809 N93-25152
Using a Cray Y-MP as an array processor for a RISC Workstation
[NASA-TM-103961] 09 p2809 N93-25246
Deterministic parallel FORTRAN
[DE93-008665] 09 p2816 N93-25522
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561
Splash 2
09 p2814 N93-25575
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
Software lifecycle support environment (SLCSE) knowledge-based enhancements
[AD-A261042] 09 p2811 N93-25791
Set based program analysis
[AD-A260979] 09 p2806 N93-25841
Model-based reasoning for system and software engineering: The Knowledge From Pictures (KFP) environment
09 p2825 N93-25978
The design and implementation of a reusable component library and a retrieval/integration system
[AD-A261827] 09 p2812 N93-26271
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
Research directions in software analysis, synthesis and certification
[AD-A261367] 09 p2812 N93-26336
Towards a formalism for program generation
[AD-A261689] 09 p2812 N93-26368
AEGIS measures definition
[AD-A261494] 09 p2812 N93-26375
Managing real-time software projects: Problems and issues
[AD-A261428] 09 p2813 N93-26453
Three view language: A graphics-based language for requirements definition, version 01.00.00
[AD-A261732] 09 p2813 N93-26583
Cumulative reports and publications
[NASA-CR-191440] 10 p3090 N93-27063
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
Formal specification of MANIFOLD: A preliminary study
[CWI-CS-R9215] 10 p3093 N93-27254
Transition systems and dynamic semantics
[CWI-CS-R9217] 10 p3094 N93-27256
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Real time process algebra with prefixed integration
[CWI-CS-R9219] 10 p3114 N93-27362
Left-corner and head-corner chart parsing
[MEMO-INF-92-55] 10 p3096 N93-27489
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
Abstraction in real time process algebra
[CWI-CS-R9144] 10 p3096 N93-27492
An executable semantics for a subset of COLD
[CWI-CS-R9145] 10 p3097 N93-27493
Provably recursive programs
[CWI-CS-R9212] 10 p3097 N93-27500
A primitive recursive set theory and AFA: On the logical complexity of the largest bisimulation
[CWI-CS-R9213] 10 p3097 N93-27501
More examples in MANIFOLD
[CWI-CS-R9214] 10 p3097 N93-27502
Verification of parallel systems via decomposition
[CWI-CS-R9203] 10 p3107 N93-27539
On the adequacy of graph rewriting for simulating term rewriting
[CWI-CS-R9204] 10 p3098 N93-27540
Software quality and testing: What DOD can learn from commercial practices
[AD-A262332] 10 p3099 N93-27652
Space Station Freedom Software Support Environment
10 p2964 N93-27706
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182
An integrated environment for the development of scientific and engineering applications
[AD-A262277] 10 p3103 N93-28239
Improvements to the high-frequency benchmark propagation analysis program
[AD-A262278] 10 p3103 N93-28240
Constraints logic programming in knowledge-based planning domains
[AD-A262958] 10 p3104 N93-28291
The repository-based software engineering program: Redefining AdaNET as a mainstream NASA source
[NASA-CR-193114] 10 p3104 N93-28328
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Concurrent clean language manual, version 0.8
[TR-92-18] 11 p3522 N93-28482
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
Basic OSF/Motif programming and applications
[DE93-010800] 11 p3524 N93-28834
An assessment of space shuttle flight software development processes
[NASA-CR-193179] 11 p3525 N93-28934
Concept document of the repository-based software engineering program: A constructive appraisal
[NASA-CR-193125] 11 p3526 N93-29027
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
Development of a visual system interface to support a domain-oriented application composition system
[AD-A262489] 11 p3528 N93-29418
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Capability maturity model for software, version 1.1
[AD-A263403] 11 p3530 N93-29852
ICASE
[NASA-CR-193257] 11 p3520 N93-29864
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
A guide to total software quality control, volume 1
[AD-A263881] 11 p3531 N93-29920
A guide to total software quality control, volume 2
[AD-A263891] 11 p3531 N93-29921
Key practices of the capability maturity model, version 1.1
[AD-A263432] 11 p3610 N93-29970
Estimating Ada system size during development
[AD-A263880] 11 p3532 N93-30022
Software testing using the IEEE standards
[DE93-009833] 11 p3532 N93-30050
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482
The midway distributed shared memory system
[AD-A264645] 11 p3534 N93-30523
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466
A formal discourse grammar tackling verb phrase anaphora
[CL-91-03] 12 p3787 N93-31478
Termination criteria for GMRES-like methods to solve the discretized incompressible Navier-Stokes equations
[REPT-92-50] 12 p3724 N93-31484
Development of a case tool to support decision based software development
[NASA-CR-193289] 12 p3790 N93-31738
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793

An overview of PCTE: A basis for a Portable Common Tool Environment
[AD-A265202] 12 p3791 N93-32000
System engineering concept demonstration, security study, volume 7
[AD-A265473] 12 p3791 N93-32007
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
System engineering concept demonstration, system engineering needs, volume 2
[AD-A265468] 12 p3791 N93-32023
System engineering concept demonstration, interface standards studies, volume 4
[AD-A265470] 12 p3791 N93-32024
Venari/ML interfaces and examples
[AD-A265416] 12 p3841 N93-32048
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
Software engineering 12 p3794 N93-32154
The Knowledge-Based Software Assistant: Beyond CASE 12 p3794 N93-32156
The enhanced Software Life Cyle Support Environment (ProSLCSE): Automation for enterprise and process modeling 12 p3794 N93-32158
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

COMPUTER PROGRAMS
NT APPLICATIONS PROGRAMS (COMPUTERS)
NT ASSEMBLER ROUTINES
NT COMPILERS
NT COMPUTER SYSTEMS PROGRAMS
NT DISK OPERATING SYSTEM (DOS)
NT EDITING ROUTINES (COMPUTERS)
NT INPUT/OUTPUT ROUTINES
NT MERGING ROUTINES
NT NASTRAN
NT OBJECT PROGRAMS
NT OPERATING SYSTEMS (COMPUTERS)
NT SOURCE PROGRAMS
NT SUBROUTINE LIBRARIES (COMPUTERS)
NT SUBROUTINES
NT UNIX (OPERATING SYSTEM)
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
PRODIGY4.0: The manual and tutorial
[AD-A253970] 01 p0137 N93-10422
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis 01 p0061 N93-10554
Automated multi-body system dynamics via bond graph modelling and interactive graphics 01 p0066 N93-10576
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
DYNA2D: A nonlinear, explicit, two-dimensional finite element code for solid mechanics: User manual
[DE92-017310] 01 p0095 N93-10646
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
Ceramic component reliability with the restructured NASA/CARES computer program
[NASA-TM-105856] 02 p0334 N93-11004
An advanced combustion research facility for validating computational fluid dynamics codes
[PNR-90913] 02 p0296 N93-11017
Automated fringe analysis for moire interferometry
[PNR-90918] 02 p0334 N93-11021
Quality management of finite element analysis
[PNR-90951] 02 p0331 N93-11110
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas
[AD-A249095] 02 p0451 N93-11275
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
Use of the program ANISN to calculate response functions for a Bonner sphere set with a He-3 detector
[NPL-RSA(EXT)-31] 02 p0316 N93-11411
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Diagnostic rhyme test statistical analysis programs
[RSRE-91026] 02 p0281 N93-11487
Engineering Information System (EIS)
[AD-A254013] 02 p0476 N93-11508
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
Optimization of expressions involving array classes
[DE92-019421] 02 p0411 N93-11536
A computer algorithm for automatic beam steering
[DE92-019338] 02 p0411 N93-11555
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599
Temporal scattering and response software users' manual, version 2 and 3
[DE92-040934] 02 p0282 N93-11632
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
Interfacing Matlab and software written in other languages
[NPL-DITC-200/92] 02 p0412 N93-11688
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Some remarks on shell element analysis with DYNA3D and NIKE3D
[DE92-018784] 02 p0337 N93-11775
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Methodologies for building robust schedules 02 p0397 N93-11949
Fuzzy logic control of telerobot manipulators 02 p0399 N93-11959
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
The measurement and calculation of birefringence in quenched polycarbonate specimens 02 p0269 N93-11986
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Program for implementing software quality metrics
[DE92-018617] 02 p0413 N93-12187
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
Solution of nonlinear flow equations for complex aerodynamic shapes
[NASA-CR-190979] 02 p0307 N93-12329
Studies of a flat wake rotor theory
[NASA-CR-190936] 02 p0201 N93-12343
Fluid-structure interaction using retarded potential and ABAQUS
[AD-A254735] 02 p0307 N93-12355
Design of a lattice-based faceted classification system 02 p0415 N93-12385
Supporting multiple domains in a single reuse repository 02 p0415 N93-12390
A neural net-based approach to software metrics 02 p0415 N93-12392
DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Cost estimation of software development and the implications for the program manager
[AD-A255167] 02 p0480 N93-12472
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
You need this done by when? Increasing your efficiency with the SAS system
[DE92-017894] 03 p0683 N93-12792
RHALE: A MMALE shock physics code written in C++
[DE92-018271] 03 p0684 N93-12795
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872
Analysis and modeling of the CRRES satellite data
[AD-A254349] 03 p0650 N93-12944

High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
Software reliability through fault-avoidance and fault-tolerance
[NASA-CR-189880] 03 p0686 N93-13293
A computer program for engineering simulations of space reactor system performance
[DE92-016400] 03 p0526 N93-13299
Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
The Fourth Annual Thermal and Fluids Analysis Workshop
[NASA-CP-10106] 03 p0584 N93-13385
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389
Running SINDA '85/FLUINT interactive on the VAX
03 p0584 N93-13390
TRASYS form factor matrix normalization
03 p0585 N93-13391
A simple node and conductor data generator for SINDA 03 p0585 N93-13392
The Proteus Navier-Stokes code
03 p0585 N93-13396
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications
03 p0586 N93-13399
Robot welding process control
[NASA-CR-184428] 03 p0614 N93-13436
Multiple-function multi-input/multi-output digital control and on-line analysis
[NASA-TM-107697] 03 p0500 N93-13565
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
CORRIDOR: A routine for estimating the initial wave front resulting from high temperature fire exposure to a corridor
[PB92-213347] 03 p0559 N93-13640
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823
Solar water heating system for a lunar base
03 p0641 N93-14005
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
Iterative software testing
[AD-A255953] 04 p0943 N93-14420
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
The human-electronic crew: Is the team maturing? The 2nd Joint GAF/RAF/USAF Workshop on Human-Electronic Crew Teamwork
[AD-A256192] 04 p0939 N93-14520
Geographic Resources Analysis Support System (GRASS) version 4.0 user's reference manual
[AD-A255218] 04 p1001 N93-14524
Computer based satellite design
[AD-A255315] 04 p0816 N93-14536
Software reliability, measurement, and testing software reliability and test integration, volume 1
[AD-A256242] 04 p0944 N93-14572
Software reliability, measurement, and testing. Volume 2: Guidebook for software reliability measurement and testing
[AD-A256164] 04 p0944 N93-14581
Spectral analysis of the shuttle glow: AIS science support
[PL-TR-92-2172] 04 p0815 N93-14698
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
SAFSIM: A computer program for engineering simulations of space reactor system performance
[DE92-016328] 04 p0826 N93-14815
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834
Advances in TMG 04 p0811 N93-14956
Automated Estimating System (AES), version 5.1. User's manual
[DE93-000380] 04 p0946 N93-15003
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0906 N93-15007
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
Storage needs in future supercomputer environments
04 p1007 N93-15047
Software requirements for the A-7E aircraft
[AD-A255746] 04 p0946 N93-15052
SIDR Relative Weighted Product (RWP) assignment process
[AD-A255801] 04 p0946 N93-15068
Sonar processing on CESAR
[FFI-92/7007] 04 p0974 N93-15074
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154
Software for flight recorder data evaluation developed by Lufthansa 04 p0794 N93-15163
Reliability techniques for combined hardware and software systems
[AD-A256347] 04 p0895 N93-15204
A temperature tracking SPICE2G.6 macromodel of the 6N134 optocoupler
[DE92-040093] 04 p0983 N93-15223
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
Development of an analog MIMO Quantitative Feedback Theory (QFT) CAD package
[AD-A256435] 04 p0950 N93-15313
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil
[NASA-TM-105975] 04 p0787 N93-15345
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400
Advancements in the LEWICE ice accretion model
[NASA-CR-191019] 04 p0879 N93-15402
Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges
[DE92-040226] 04 p0989 N93-15422
Deterministic transfer function for transionospheric propagation
[DE92-040327] 04 p0862 N93-15427
Development of NASA/DOE NTP system performance models
[NASA-TM-105982] 04 p0827 N93-15428
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Mathematical software under UNICOS at LCC
[DE93-001828] 04 p0952 N93-15493
A modal analysis of lamellar diffraction gratings in conical mountings 04 p0986 N93-15519
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0788 N93-15522
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480] 04 p0880 N93-15643
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661
Equations of motion of multibody systems in the ESA-MIDAS software 05 p1084 N93-15772
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
Impact modeling with smooth particle hydrodynamics
[DE92-017506] 05 p1155 N93-15882
CMOR: A configurable monitor
[DE92-040208] 05 p1233 N93-15902
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
Software measures and the capability maturity model
[AD-A257238] 05 p1234 N93-15962
Optimal linear array heading in a directional noise field
[AD-A257336] 05 p1137 N93-15991
CAPS ReReader simulation model user's manual version 1.0
[AD-A257180] 05 p1234 N93-16000
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Present state-of-the-art of two-phase flow model calculations
[DE92-041124] 05 p1156 N93-16159
Multiple-site-damage in 2024-T3 alloy sheet
[LR-660] 05 p1112 N93-16279
BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295
Data storage and retrieval system abstract
05 p1170 N93-16332
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412
Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
ADIFOR: A FORTRAN system for portable automatic differentiation
[DE92-040743] 05 p1239 N93-16588
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614
Calibration of the Aronson 6-DOF robotic platform
[NASA-CR-191856] 05 p1087 N93-16661
An expert system shell for inferring vegetation characteristics: Implementation of additional techniques (task E)
[NASA-CR-190999] 05 p1191 N93-16685
An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687
An expert system shell for inferring vegetation characteristics
[NASA-CR-191207] 05 p1191 N93-16691
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
Quantifying parameters for Bayesian prior assumptions when estimating the probability of failure of software
05 p1254 N93-16777
Theoretical studies of a molecular beam generator
[NASA-CR-191716] 05 p1288 N93-16945

Verification of the computer programs SLAAP and DATA
[DE93-002597] 05 p1243 N93-16987
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
Towards automated support for extraction of reusable components 05 p1244 N93-17163
Automated support for experience-based software management 05 p1244 N93-17164
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
Object-oriented programming with mixins in Ada 05 p1245 N93-17171
Requirements for the implementation of schedule repair technology in the Experiment Scheduling Program 05 p1278 N93-17286
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences 05 p1165 N93-17289
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems 05 p1254 N93-17305
Simulation of cryogenic turbopump annular seals 05 p1181 N93-17318
Analysis of film cooling in rocket nozzles 05 p1095 N93-17339
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Developing satellite ground control software through graphical models 05 p1246 N93-17500
Modeling software systems by domains 05 p1248 N93-17506
Model-based software design 05 p1249 N93-17514
CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528
On the borderline between grammars and programs
[TR-91-17] 05 p1252 N93-17594
Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter
[AD-A257694] 05 p1141 N93-17689
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Integrating domain-specific reuse for system/software engineers course description
[AD-A257637] 05 p1252 N93-17723
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
An efficient algorithm for the computation of Galerkin coarse grid approximation for the incompressible Navier-Stokes equations
[REPT-92-40] 06 p1616 N93-17872
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Computer program for wind speeds and turbulence properties: Flat or hilly sites in terrain with roughness changes
[ESDU-92032] 06 p1585 N93-18043
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
Plume: Instructions for use and description of a missile plume visibility program
[AD-A258201] 06 p1473 N93-18201
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
Analysis of a software maintenance system: A case study
[AD-A258469] 06 p1619 N93-18271
An algorithm for the solution of a traveling salesman problem to minimize the average time to demand satisfaction
[AD-A258301] 06 p1645 N93-18302
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis computer program user's manual
[NASA-CR-187127] 06 p1449 N93-18702
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
GUISDAP 06 p1579 N93-18746
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
Improved methods for reusable aeroclassified orbital transfer vehicle optimization
[DLR-FB-91-41] 06 p1454 N93-18785
Integrated modeling of advanced optical systems 06 p1463 N93-18832
VGRIDSG: An unstructured surface grid generation program
[NASA-CR-191426] 06 p1624 N93-18874
Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
Examining a layered approach to function and design representation for reusable software components
[AD-A258920] 06 p1626 N93-19343
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels 06 p1490 N93-19391
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
Computer codes for RF cavity design
[DE93-004002] 06 p1515 N93-19509
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
The G2-system, a second generation experimental philosophy for EISCAT 06 p1517 N93-19577
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855
Development and flight testing of the multi-source integration algorithms in the F/A-18 mission computer software 06 p1445 N93-19923
The flight test and data analysis program for the development of a Boeing/De Havilland Dash 8 simulator model 06 p1446 N93-19930
Interactive access and management for four-dimensional environmental data sets using McIDAS 07 p1965 N93-20070
Analysis of the Space Shuttle main engine simulation
[NASA-CR-191063] 07 p1820 N93-20251
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Fatigue design of earthmoving machines 07 p1924 N93-20350
Computer aided planning of laboratory tests of excavator attachments 07 p1924 N93-20352
Software quality measurement: A framework for counting problems and defects
[AD-A258556] 07 p2032 N93-20387
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
Research on HOPE flight control technology 07 p1787 N93-20427
Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
Parallel axes gear set optimization in two-parameter space 07 p1917 N93-20637
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
Some 2D test examples for the ISNaS incompressible code
[REPT-91-44] 07 p1901 N93-20752
MAPPER: A personal computer map projection tool
[NASA-TM-4445] 07 p2034 N93-20778
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808
Specifying and modifying the Graphics Manager and the Graphic Calculator in D2M2edit
[REPT-91-56] 07 p2037 N93-20851
MSC/NASTRAN structure optimization test module version 67 (preliminary)
[REPT-5-191025] 07 p1945 N93-20907
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Microcomputer system for measurements and analysis of signals for fatigue life calculations under biaxial random stress state 07 p1948 N93-21320
A distributed Petri Net controller for a dual arm testbed
[NASA-CR-192733] 07 p2048 N93-21373
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Methods and means used in programming intelligent searches of technical documents 08 p2530 N93-22155
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
Knowledge From Pictures (KFP) 08 p2465 N93-22187
Predictive sensor method and apparatus 08 p2305 N93-22202
IMP: A performance code 08 p2139 N93-22245
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Position calibration software for the form assessment of complex workpieces
[NPL-DITC-203/92] 08 p2435 N93-22450

CREEPSIM-2: A software package for numerical integration of 1st order differential equations
[NPL-DMM(A)-35] 08 p2435 N93-22452
Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades
[NASA-TM-4448] 08 p2125 N93-22486
Object technology: A white paper
[DE93-006037] 08 p2522 N93-22495
GROPE: A GENESIS/EXODUS database examination program
[DE93-006963] 08 p2523 N93-22514
The h, p and h-p version of the finite element method basic theory and applications
[AD-A260197] 08 p2323 N93-22550
The ASLOTS concept: An interactive, adaptive decision support concept for Final Approach Spacing of Aircraft (FASA). FAA-NASA Joint University Program
08 p2105 N93-22563
A NASA-wide approach toward cost-effective, high-quality software through reuse
[NASA-CP-10115] 08 p2435 N93-22601
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
Software engineering: What do experiments need?
[DE93-004767] 08 p2436 N93-22740
Survey of benchmarks
[NPL-DITC-192/91] 08 p2436 N93-22816
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Knowledge base methodology: Methodology for first Engineering Script Language (ESL) knowledge base
[NASA-CR-192820] 08 p2523 N93-23031
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111
Data ingest and objective analysis for the PSU/NCAR modeling system. Programs DATAGRID and RAWINS
[PB93-138519] 08 p2393 N93-23252
NTIA Microcomputer Spectrum Analysis Models (MSAM). Version 4.0, August 1992
[PB93-108348] 08 p2432 N93-23269
Reducing communication inefficiencies for a flexible programming paradigm
[DE93-005670] 08 p2438 N93-23327
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
Three dimensional transient analysis of microstrip circuits in multilayered anisotropic media
[AD-A259829] 08 p2281 N93-23433
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Comparison of four-cursor buttons versus joystick to access computerized technical information from an integrated maintenance information system
[AD-A259967] 08 p2526 N93-23462
A new process for acquiring software architecture
[AD-A259487] 08 p2439 N93-23463
Transient simulation of ram accelerator flowfields
[AD-A259767] 08 p2295 N93-23485
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
surf3d: A 3-D finite-element program for the analysis of surface and corner cracks in solids subjected to mode-1 loadings
[NASA-TM-107710] 08 p2329 N93-23735
Remote sensing of the Earth: A pilot program in German schools 08 p2369 N93-23822
Computer-based lessons in satellite oceanography: An academic network for teachers and students
08 p2369 N93-23825
Remote sensing satellite and thematic applications in high schools and elementary schools in France
08 p2370 N93-23829
The symmetry equation package for REDUCE
[MEMO-1053] 08 p2469 N93-23866
The ROSAT standard analysis software system
08 p2445 N93-23930
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
Shiva Mark 2 hardware architecture, version 1
[AD-A259534] 08 p2449 N93-24039
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24080
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280
The theory behind the SOCRATES code
[AD-A259987] 08 p2196 N93-24298
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
FESDIF: Finite Element Scalar Diffraction theory code
[DE93-007222] 08 p2475 N93-24447
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
Evaluation of MARC for the analysis of rotating composite blades
[NASA-TM-4423] 09 p2723 N93-24909
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
Federal Communications Commission (FCC) Transponder Loading Data Conversion Software. User's guide and software maintenance manual, version 1.2
[NASA-CR-191067] 09 p2808 N93-24947
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
Using a multifrontal sparse solver in a high performance, finite element code
[NASA-CR-192718] 09 p2828 N93-25223
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
TARGET: Rapid capture of process knowledge
09 p2814 N93-25590
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
Simulation of aircraft gas turbine engine
09 p2594 N93-25751
Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783
Interactive interface for National Center for Atmospheric Research (NCAR) Graphics 09 p2878 N93-25794
Construction of an advanced software tool for planetary atmospheric modeling 09 p2815 N93-25799
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
High performance compression of science data
09 p2881 N93-25811
An application of machine learning to the organization of institutional software repositories
09 p2825 N93-25981
Development of a second generation spray combustion code 09 p2626 N93-26016
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine
09 p2626 N93-26017
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-192920] 09 p2585 N93-26052
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
Analysis of shaped charge jet penetration experiments with Pen
[UCRL-LR-110773] 09 p2730 N93-26177
VETA-I x ray test analysis
[NASA-CR-192321] 09 p2854 N93-26183
Analysis of symbolic parameter models
[AD-A261930] 09 p2811 N93-26253
Arc Digital Raster Imagery (ADRI) development
[AD-A261850] 09 p2812 N93-26275
AMPHIB: A users manual
[AD-A261769] 09 p2669 N93-26285
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Software testing initiative for strategic defense systems
[AD-A261350] 09 p2831 N93-26330
AEGIS measures definition
[AD-A261494] 09 p2812 N93-26375
Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431
METal matrix composite ANalyzer (METCAN): Theoretical manual
[NASA-TM-106025] 09 p2641 N93-26552
Directory of US Government software for mainframes and microcomputers, 1993
[PB93-111565] 09 p2807 N93-26569
Particle bed reactor modeling
10 p2980 N93-26954
SAFSIM overview 10 p2981 N93-26959
NEP power subsystem modeling
10 p2982 N93-26974
Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual
[PB93-161628] 10 p3068 N93-27055
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force
10 p2926 N93-27210
Kane's dynamics 10 p2926 N93-27211
Computer-aided surface regression analysis
10 p2927 N93-27217
Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Software for adult literacy: Scope, suitability, available sources for information, and implications for federal policy
[PB93-163913] 10 p3161 N93-27416
High-lift aerodynamics: Prospects and plans
10 p2933 N93-27442
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Technical description LAM and OI: Limited area model and optimum interpolation analysis, second edition
[KNMI-TR-134A] 10 p3078 N93-27636
Self-Referenced Speckle Holography (SRSH) image reconstruction performance
[AD-A262487] 10 p3045 N93-27661
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
Development of a system for accurate forecasting of solar activity
[AD-A262450] 10 p3218 N93-27827
Automatization of structural analysis calculation procedure: NASTRAN pre and post processors
[ETN-93-93706] 10 p3100 N93-27947
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
WAVEPACK: Basic concepts of linear wave propagation
[MEMO-1068] 10 p3041 N93-28077
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179

Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Improvements to the high-frequency benchmark propagation analysis program
[AD-A262278] 10 p3103 N93-28240
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 2
[AD-A262784] 10 p2974 N93-28402
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
The concurrent clean system user's manual and PABCstat user's manual, version 0.8
[TR-92-19] 11 p3523 N93-28484
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
The generic arithmetic of SISYPHE
[INRIA-RT-0136] 11 p3524 N93-28755
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
A modified Anderson Darling goodness-of-fit test for the gamma distribution with unknown scale and location parameters
[AD-A262486] 11 p3553 N93-28760
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
Parallel software tools at Langley Research Center
[NASA-TM-108995] 11 p3520 N93-29070
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
The three-dimensional Multi-Block Advanced Grid Generation System (3DMAGGS)
[NASA-TM-108985] 11 p3420 N93-29155
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
A planetary version of PC-McIDAS
11 p3614 N93-29236
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Concept design example, Computer Aided Structural Modeling (CASM). Scheme A
[AD-A264759] 11 p3529 N93-29657
Concept design example, Computer Aided Structural Modeling (CASM). Scheme B
[AD-A264760] 11 p3529 N93-29658
Computer systems laboratory
[PB93-181873] 11 p3521 N93-29662
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
Data probe user's guide
[PB93-178655] 11 p3530 N93-29678
Key practices of the capability maturity model, version 1.1
[AD-A263432] 11 p3610 N93-29970
ARSRP signal processing software
[AD-A263543] 11 p3391 N93-29975
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023
Assessment of Columbus payload operations capabilities by scheduling with the MARS system
[ESA-STR-235] 11 p3281 N93-30106
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
SESAME equation of state number 8010: Boron loaded silicone potting material
[DE93-012083] 11 p3300 N93-30395
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Non-perturbative calculation of equilibrium polarization of stored electron beams
[DE93-764500] 11 p3577 N93-30607
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001
Case studies in the numerical solution of oscillatory integrals
[DE92-642554] 12 p3801 N93-31067
Operation of the helicopter antenna radiation prediction code
[NASA-CR-193259] 12 p3715 N93-31110
The kinetics of the hydriding of uranium metal 2
[DE93-004766] 12 p3704 N93-31184
Structural reliability methods: Code development status 12 p3694 N93-31563
Probabilistic load simulation: Code development status
12 p3694 N93-31564
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Rocketdyne PSAM: In-house enhancement/application 12 p3694 N93-31566
System reliability and risk assessment task goals and status 12 p3695 N93-31568
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641
Temporal and spatial analysis in knowledge-based physics problem-solving 12 p3814 N93-31651
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798
EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817
The development of detection technique for fatigue crack due to thermal stratification phenomena in RCS piping
[DE93-605749] 12 p3740 N93-31823
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065
A survey of codes for modeling electromagnetic launch
[AD-A264946] 12 p3687 N93-32074
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Advanced Transport Operating System (ATOPS) utility library software description
[NASA-CR-191469] 12 p3680 N93-32218
An automated processing system for food frequency and nutrition knowledge questionnaire
12 p3778 N93-32241
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

COMPUTER SECURITY
U COMPUTER INFORMATION SECURITY

COMPUTER SIMULATION
U COMPUTERIZED SIMULATION

COMPUTER STORAGE DEVICES
NT ACCUMULATORS (COMPUTERS)
NT BUFFER STORAGE
NT CD-ROM
NT COMPUTER COMPATIBLE TAPES
NT CORE STORAGE
NT MAGNETIC CORES
NT MAGNETIC DISKS
NT MAGNETIC TAPES
NT OPTICAL DISKS
NT RANDOM ACCESS MEMORY
NT READ-ONLY MEMORY DEVICES
NT REGISTERS (COMPUTERS)
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
Ultra-dense magnetoresistive mass memory
[NASA-CR-190955] 02 p0405 N93-12520
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Storage system software solutions for high-end user needs 03 p0737 N93-13136
Mass storage system experiences and future needs at the National Center for Atmospheric Research
03 p0737 N93-13138
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704
Network issues for large mass storage requirements
04 p1002 N93-14773
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
Status of emerging standards for removable computer storage media and related contributions of NIST
04 p1003 N93-14778
Storage needs in future supercomputer environments
04 p1003 N93-14780
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
Stewardship of very large digital data archives
04 p1005 N93-15032
Storage needs in future supercomputer environments
04 p1007 N93-15047
Transactional distributed shared memory
[AD-A256222] 04 p0941 N93-15240
Stewardship of very large digital data archives
05 p1353 N93-16321
Open systems storage platforms
05 p1355 N93-16333
A preliminary examination of Y 1 (a proprietary thin-film ferroelectric produced by Symetrix Corporation)
[AD-A255692] 05 p1146 N93-16395
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
Network storage service usage characteristics
[DE93-003998] 08 p2446 N93-22755
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583

Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294
A single-transistor memory cell and sense amplifier for a gallium arsenide dynamic random access memory
[AD-A261975] 10 p3153 N93-27953
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
Mass storage system reference model, Version 4
11 p3617 N93-30450
The fundamentals and futures of removable mass storage alternatives 11 p3619 N93-30460
The NT digital micro tape recorder
11 p3435 N93-30461
The state of the-state-of-the-art in mass storage technology 11 p3622 N93-30475
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Current state of the mass storage system reference model 12 p3840 N93-31965
National Media Laboratory: Media testing results
12 p3840 N93-31972
Grand challenges in mass storage: A system integrator's perspective 12 p3840 N93-31973
Measurements over distributed high performance computing and storage systems
12 p3841 N93-31977
Performance of a distributed superscalar storage server 12 p3841 N93-31978
The redwood project: An overview
12 p3841 N93-31979
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049

COMPUTER SYSTEMS DESIGN

Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
Advanced Scientific Computing Environment Team
[DE92-016714] 01 p0137 N93-10631
Object-oriented design unifies databases and applications
[AD-A253313] 01 p0175 N93-10723
An example secure system specified using the Terry-Wiseman approach
[RSRE-90011] 01 p0134 N93-10804
The Terry-Wiseman security policy model and examples of its use
[RSRE-90001] 01 p0134 N93-10807
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
An iterative method for distributed database design
02 p0474 N93-11255
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
Requirements and applications for robotic servicing of military space systems 02 p0230 N93-11953
A methodology for systems requirements specification and traceability for large real time complex systems
[AD-A254736] 02 p0419 N93-12358
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
Economical development of complex computer systems
[AD-A254752] 03 p0689 N93-12848
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880
A study of traditional information access models applied in a hypertext information system
03 p0739 N93-14076
The evolution of artificial intelligence and expert computer systems in the Army
[AD-A255221] 04 p0962 N93-14525
Fault tolerant systems practitioner's workshop
[AD-A255376] 04 p0944 N93-14563
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
An active tactile perception system
04 p0805 N93-14926
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Requirements for a network storage service
04 p1007 N93-15048
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
Continuing engineering education for software engineering professionals
[DE92-019888] 04 p0947 N93-15225
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
An eclectic method for object oriented database design
[AD-A256439] 04 p1008 N93-15315
Physical design for network databases
[MEMO-INF-92-26] 04 p1009 N93-15492
A minimalist global user interface
04 p0957 N93-15566
A new approach for data acquisition at the JPL space simulators 04 p0821 N93-15606
An investigation of requirements traceability to support systems development
[AD-A257444] 05 p1351 N93-15868
The Sandia Airborne Computer (SANDAC)
[DE92-014046] 05 p1231 N93-15878
Proceedings of the Eleventh Annual ACM Symposium on Principles of Distributed Computing
[AD-A257294] 05 p1233 N93-15893
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
An initial model of requirements traceability: An empirical study
[AD-A256720] 05 p1275 N93-15978
Multiparadigm design environments
[AD-A257149] 05 p1231 N93-16031
Proceedings of the MIT Student Workshop on VLSI and Parallel Systems
[AD-A256795] 05 p1145 N93-16054
Fault tolerant real-time systems
[AD-A257352] 05 p1235 N93-16174
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885] 05 p1235 N93-16288
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Creating an open environment software infrastructure
05 p1254 N93-16774
NADIR: A prototype system for detecting network and file system abuse
[DE93-000861] 05 p1256 N93-17385
Modeling software systems by domains
05 p1248 N93-17506
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818
Proceedings of the 2nd International Workshop on Cellular Neural Networks and their Applications
[AD-A258245] 06 p1631 N93-17821
NARSIM and EFMS: Tools for research on integrated ATM
[NLR-TP-89336-U] 06 p1432 N93-17954
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
A conceptual framework for system fault tolerance
[AD-A258467] 06 p1619 N93-18269
Advanced cockpit-mission and image management
06 p1607 N93-19760
The performance of cache-based error recovery in multiprocessors
[NASA-CR-192142] 07 p2029 N93-20006
User interface of complex interactive computer systems
[ECL-92-05] 07 p2030 N93-20059
Neural-network dedicated processor for solving competitive assignment problems
[NASA-CASE-NPO-17781-1-CU]
07 p2028 N93-20116
Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
CIME of microsystems
[MBB-Z-0428-92-PUB] 07 p2037 N93-20844
GaAs computer technology
[AD-A259259] 07 p2080 N93-21241
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
Micro-video display with ocular tracking and interactive voice control 08 p2433 N93-22172
Computer facilities optimization studies
[NASA-CR-192702] 08 p2432 N93-22471
High speed, wide area distributed computing for scientific imaging
[DE93-004727] 08 p2436 N93-22778
Evaluating the potential of combining an expert system and simulation for LAN selection
08 p2524 N93-23127
Assessing federal and commercial information security needs
[PB93-138956] 08 p2525 N93-23228
Precision geocoding demonstrator system
08 p2348 N93-23539
Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
Distributed computer systems and logistics systems: What do they have in common besides distribution?
[MEMO-INF-92-44] 08 p2448 N93-23872
DataMir: A PC-based computer system for application at Space Station Mir 08 p2158 N93-24358
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561
Deep Space Network information system architecture study 09 p2679 N93-26126
Very high-speed report file system
[AD-A261068] 09 p2817 N93-26277
Proceedings of the complex systems engineering synthesis and assessment technology workshop
[AD-A261404] 09 p2807 N93-26403
A modeling study of the TPC-C benchmark
[NASA-CR-191443] 10 p3092 N93-27070
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Towards a design theory for database triggers
[CWI-CS-R9201] 10 p3166 N93-27494
DEFMEF predesign document
[NLR-TP-91269-U] 10 p3098 N93-27543
An overview of MCC and its research
10 p2965 N93-27717
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Design of a hardware discrete event simulation coprocessor
[AD-A262614] 11 p3537 N93-28478
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
Spacecraft computer technology at Southwest Research Institute 11 p3522 N93-28813
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
MLog: A language for prototyping concurrent systems
11 p3368 N93-30301
Optimal trajectories for aircraft terrain following and terrain avoidance: A literature review update
[AD-A264075] 11 p3260 N93-30604
Multiprocessing MCNP on an IBM RS/6000 cluster
[DE93-008712] 11 p3540 N93-30633
Centralized maintenance evaluation
[AD-A264400] 11 p3544 N93-30886
Timing analysis of real-time systems
[REPT-92-060] 12 p3803 N93-31251
Current state of the mass storage system reference model 12 p3840 N93-31965
Grand challenges in mass storage: A system integrator's perspective 12 p3840 N93-31973
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
System engineering concept demonstration, system engineering needs, volume 2
[AD-A265468] 12 p3791 N93-32023

Validation of survivability validation protocols
[AD-A264402] 12 p3791 N93-32034
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233

COMPUTER SYSTEMS PERFORMANCE
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
High performance interconnection between high data rate networks 02 p0279 N93-11118
A simple, effective media access protocol system for integrated, high data rate networks 02 p0279 N93-11119
A process monitor for the transputer
[RSRE-MEMO-4554] 02 p0408 N93-11389
A real-time diagnostic and performance monitor for UNIX
[NASA-CR-190975] 02 p0404 N93-11462
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
An approach to integrating and creating flexible software environments 02 p0396 N93-11946
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Balancing generality and specificity in component-based reuse 02 p0416 N93-12393
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
Storage system software solutions for high-end user needs 03 p0737 N93-13136
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Parallelism in a main-memory DBMS: The performance of PRISMA/DB
[MEMO-INF-92-25] 04 p0958 N93-15093
Approximate performability analysis using generalized stochastic Petri nets
[MEMO-INF-92-11] 04 p0971 N93-15119
Report on Workshop on Research in Experimental Computer Science
[AD-A256874] 05 p1230 N93-15707
The Sandia Airborne Computer (SANDAC)
[DE92-014046] 05 p1231 N93-15878
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
ADIFOR: A FORTRAN system for portable automatic differentiation
[DE92-040743] 05 p1239 N93-16588
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU] 05 p1261 N93-17276
Study of an adaptive maintenance strategy for logic systems
[ETN-92-92673] 05 p1252 N93-17640
Parallel simulation of stochastic Petri nets using recursive equations
[INRIA-RR-1520] 05 p1257 N93-17738
A conceptual framework for system fault tolerance
[AD-A258467] 06 p1619 N93-18269
Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program
[NASA-CR-192405] 07 p2029 N93-19981
Expert system verification and validation study
[NASA-CR-192175] 07 p2034 N93-20779
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Formal verification of a microcoded VIPER microprocessor using HOL
[NASA-CR-4489] 07 p2044 N93-21043
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
Expert system verification and validation study: Workshop and presentation material
[NASA-CR-192176] 07 p2041 N93-21661
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Parallel evaluation of deductive database queries 08 p2527 N93-23503
Validation of distributed systems by fault injection
[LAAS-92180] 08 p2472 N93-23864
Implementation and performance evaluation of a parallel transitive closure algorithm on PRISMA/DB
[MEMO-INF-92-45] 08 p2448 N93-23873
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
Universal channel network, or combining the best of token ring and slotted ring
[MEMO-INF-92-41] 08 p2449 N93-24630
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
RAID-2: Design and implementation of a large scale disk array controller
[NASA-CR-192911] 09 p2806 N93-25233
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
An investigation of memory latency reduction using an address prediction buffer
[AD-A261010] 09 p2806 N93-25858
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
NSWC library of mathematics subroutines
[AD-A261511] 09 p2884 N93-26575
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
Periodic application of concurrent error detection in processor array architectures
[NASA-CR-193217] 10 p3106 N93-27238
Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650
Context switch time scalability: Benchmark results
[PB93-181832] 11 p3539 N93-29661
Accuracy enhancement in optical computing
[AD-A264872] 11 p3522 N93-30179
The management of replicated data 12 p3836 N93-31144
Timing analysis of real-time systems
[REPT-92-060] 12 p3803 N93-31251
The performance of integrity control through transaction modification in a parallel main-memory database system
[MEMO-INF-92-54] 12 p3839 N93-31615
Measurements over distributed high performance computing and storage systems 12 p3841 N93-31977
Performance of a distributed superscalar storage server 12 p3841 N93-31978
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313

COMPUTER SYSTEMS PROGRAMS
NT ASSEMBLER ROUTINES
NT DISK OPERATING SYSTEM (DOS)
NT INPUT/OUTPUT ROUTINES
NT OPERATING SYSTEMS (COMPUTERS)
NT SUBROUTINE LIBRARIES (COMPUTERS)
NT UNIX (OPERATING SYSTEM)
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
A hybrid approach to software repository retrieval: Blending faceted classification and type signatures 02 p0415 N93-12386
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
Storage system software solutions for high-end user needs 03 p0737 N93-13136
Hyper-rendering 04 p0953 N93-15538
Transparently interposing user code at the system interface
[AD-A256636] 05 p1233 N93-15907
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
An overview of MANIFOLD and its implementation
[CWI-CS-R9142] 05 p1236 N93-16365
Toward domain-specific design environments: Some representation ideas from the telecommunications domain 05 p1249 N93-17511
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Software measurement for DoD systems: Recommendations for initial core measures
[AD-A258305] 06 p1619 N93-18250
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
(Generalized) LR parsing: From Knuth to Tomita 07 p2030 N93-20221
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Distributed database management evaluation software
[AD-A259215] 07 p2090 N93-20565
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
Operator Performance Support System (OPSS) 08 p2429 N93-22195
A new process for acquiring software architecture
[AD-A259487] 08 p2439 N93-23463
Condition monitoring in an active deductive database 08 p2526 N93-23488
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
Multi-viewpoint clustering analysis 09 p2825 N93-25980
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
Applying high-level language paradigms to communications software for distributed systems
[AD-A263001] 11 p3528 N93-29463
Advanced Transport Operating System (ATOPS) utility library software description
[NASA-CR-191469] 12 p3680 N93-32218

COMPUTER SYSTEMS SIMULATION
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698

A tool for automated validation of network protocols
[AD-A256726] 05 p1255 N93-16066
Evaluating the potential of combining an expert system and simulation for LAN selection
08 p2524 N93-23127
Performance prediction of relational database management systems
[ISBN-0-315-69232-4] 08 p2526 N93-23383
A modeling study of the TPC-C benchmark
[NASA-CR-191443] 10 p3092 N93-27070
International survey of industrial applications of formal methods. Volume 1: Purpose, approach, analysis, and conclusions
[PB93-178556] 10 p3010 N93-27517
International survey of industrial applications of formal methods. Volume 2: Case studies
[PB93-178564] 10 p3010 N93-27518
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233

COMPUTER TECHNIQUES
NT COMPUTER AIDED DESIGN
NT COMPUTER AIDED MANUFACTURING
NT COMPUTER AIDED MAPPING
NT COMPUTER AIDED TOMOGRAPHY
NT COMPUTER ANIMATION
NT COMPUTER ASSISTED INSTRUCTION

Proceedings of the CASE Adoption Workshop
[AD-A253362] 01 p0135 N93-10104
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
The development of computational methods of adhesion and adhesive science and technology
[AD-A253758] 01 p0092 N93-10740
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
Methodologies for building robust schedules
02 p0397 N93-11949
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
A summer program in mathematics and computer science for academically oriented students, June 24 - July 26, 1991, Washington, DC
[AD-A249139] 02 p0427 N93-12061
Obtaining medians and other quantiles with limited memory space
[AD-A254506] 03 p0683 N93-12722
The evolution of artificial intelligence and expert computer systems in the Army
[AD-A255221] 04 p0962 N93-14525
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
Mission critical system development: Design views and their integration
[AD-A255498] 04 p0940 N93-14644
SIDR Relative Weighted Product (RWP) assignment process
[AD-A255801] 04 p0946 N93-15068
MATE: The multi-agent test environment
[NASA-TM-108114] 04 p0965 N93-15292
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Static scheduler for hard real-time tasks on multiprocessor systems
[AD-A257663] 05 p1257 N93-17724
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
A computer-based visual analog scale
[AD-A258152] 06 p1597 N93-18280
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
DARPA initiative in concurrent engineering (DICE). Phase 4: Electronics pilot project
[AD-A258927] 06 p1522 N93-19446
Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703
Discovery of pathways in science
06 p1689 N93-19718
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
PDES application protocol suite for composite (PAS-C). Functional needs/state/of-the-art comparison for the PAS-C program
[AD-A258613] 07 p1831 N93-19986
PDES application protocol suite for composites (PAS-C) 1992 annual report for the PAS-C program
[AD-A258625] 07 p1831 N93-19998
Human-computer interaction in the school of computer science
[AD-A258634] 07 p2028 N93-20001
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
07 p1780 N93-21426
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 2
[NASA-CP-3189-VOL-2] 08 p2560 N93-22149
Advanced display object selection methods for enhancing user-computer productivity
08 p2444 N93-22151
Comparison of four-cursor buttons versus joystick to access computerized technical information from an integrated maintenance information system
[AD-A259967] 08 p2526 N93-23462
Communication interference/jamming and propagation analysis system and its application to radio location
08 p2269 N93-23621
Northeast Parallel Architectures Center (NPAC)
[AD-A259627] 08 p2448 N93-23653
Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896
Digital mammography, cancer screening: Factors important for image compression
08 p2424 N93-24551
Computer systems 09 p2737 N93-24942
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Current research activities: Applied and numerical mathematics, fluid mechanics, experiments in transition and turbulence and aerodynamics, and computer science
[NASA-CR-191408] 09 p2803 N93-25084
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
Automatic detection of seizures with applications
09 p2796 N93-25592
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support
09 p2815 N93-26075
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
Machine aided indexing from natural language text
[NASA-CR-4512] 10 p3164 N93-26901
Knowledge-based machine indexing from natural language text: Knowledge base design, development, and maintenance
[NASA-CR-4523] 10 p3164 N93-26902
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
White paper on science operations
10 p3165 N93-27047
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
Lotosphere, an attempt towards a design culture
[MEMO-INF-92-56] 10 p3163 N93-27490
Data management standards in Computer-Aided acquisition and Logistic Support (CALS)
10 p2964 N93-27714
Computer assisted evaluation for air close combat based on time interval characterization
11 p3504 N93-28868
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
11 p3260 N93-28869
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Capability maturity model for software, version 1.1
[AD-A263403] 11 p3530 N93-29852
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
ICASE
[NASA-CR-193257] 11 p3520 N93-29864
Computer-controlled alignment for a 2000-line color monitor 11 p3247 N93-30324
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Computer algebra tools for higher symmetry analysis of nonlinear evolution equations
[DE93-606089] 11 p3535 N93-30787
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 2
[PB93-174811] 12 p3748 N93-31105
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
Protocols for distributive scheduling
12 p3835 N93-32129
The enhanced Software Life Cyle Support Environment (ProSLCSE): Automation for enterprise and process modeling 12 p3794 N93-32158

COMPUTER VIRUSES
Causing and preventing viruses in computer systems
[AD-A208591] 01 p0139 N93-10806
Network stability under viral attack: A game entitled, God and the Devil
[RSRE-MEMO-4405] 01 p0147 N93-10822

COMPUTER VISION
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345
Object recognition with a robot hand
02 p0420 N93-11457

Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Model-based vision for space applications
02 p0398 N93-11955
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Self mobile space manipulator project
02 p0331 N93-11973
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Sensing and interpretation of 3-D shape and motion
03 p0692 N93-13240
Building and using scene representations in image understanding 03 p0692 N93-13241
Silicon vision: Elementary functions to be implemented on electronic retinas 03 p0692 N93-13242
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
Machine perception exploiting high-level spatio-temporal models 03 p0693 N93-13244
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
Determination of high temperature strains using a PC based vision system 03 p0601 N93-13674
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Geometric invariants and object recognition
[AD-A255317] 04 p0943 N93-14546
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0
[AD-A255434] 04 p0944 N93-14566
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision
[AD-A256059] 04 p0937 N93-14580
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Vision system requirements and concept for the Special Purpose Dexterous Manipulator system (SPDM)
04 p0805 N93-14924
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Neural network architectures for general image recognition
[AD-A256017] 04 p0964 N93-15258
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Adaptive machine vision
[AD-A257363] 05 p1301 N93-16007
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Recognition of fiducial marks applied to robotic systems
[NASA-CR-191857] 05 p1168 N93-16659
Investigation and modification of a commercially available tactile sensor suited for robotic applications
[NASA-CR-191833] 05 p1178 N93-16665
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Development of techniques required for the application of a laser to three dimensional visual sensing
[NASA-CR-191855] 05 p1174 N93-16706
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU]
05 p1304 N93-17273
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
The cognitive, perceptual, and neural bases of skilled performance
[AD-A258236] 06 p1601 N93-17820
Positioning a camera from a photograph and a scene model
[TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter
[NASA-TM-105994] 06 p1540 N93-18091
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision
06 p1618 N93-18225
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Membership generation using multilayer neural network 06 p1618 N93-18227
Possibilistic clustering for shape recognition
06 p1618 N93-18228
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU]
06 p1662 N93-18276
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Formulation and error analysis for a generalized image point correspondence algorithm
[NASA-CR-192005] 06 p1621 N93-18570
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
A parallel implementation of a multisensor feature-based range-estimation method
[NASA-TM-103999] 06 p1432 N93-18883
Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
Robot motion vision by fixation
[AD-A259456] 07 p2046 N93-20241
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Reflections on segmentation
[RR-873-I] 07 p2034 N93-20791
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Multi-aperture vision system coupled to neural network processors
[AD-A259353] 07 p2047 N93-21243
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Possibilistic clustering for shape recognition
08 p2450 N93-22208
A strongly goal-directed close-range vision system for spacecraft docking 08 p2136 N93-22232
Image based tracking approaches to AR/C at the Johnson Space Center 08 p2140 N93-22256
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Apparatus and method for computer vision measurements
[PB93-135077] 08 p2432 N93-22536
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
3D pose from 3 corresponding points under weak-perspective projection
[AD-A259737] 08 p2460 N93-23473
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects
[AD-A259711] 08 p2440 N93-23638
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
Multidimensional signal coding in the visual system
[AD-A259836] 08 p2488 N93-23696
Recognizing 3D objects for 2D images: An error analysis
[AD-A260150] 08 p2469 N93-23707
Planning multiple observations for object recognition
[AD-A259879] 08 p2440 N93-23959
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Neural net architecture for computing structure from motion
[AD-A260526] 08 p2463 N93-24421
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
Topography from shading and stereo
09 p2879 N93-25803
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
Modeling of a full vision system using combined Visual/Haptic search for remote object identification
[AD-A260977] 09 p2801 N93-25867
Uncertainty in object pose determination with three light-stripe range measurements
[AD-A261435] 09 p2857 N93-26488
Receptoral and neural aliasing
[AD-A261438] 09 p2799 N93-26489
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera
10 p2923 N93-27194
Digital mapping inference mechanism: A process of knowledge extraction and hypotheses evaluation
10 p3063 N93-27504
Estimating scene properties by analyzing color histograms with physics-based models
[AD-A262727] 10 p3111 N93-28399
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485
Recognizing parameterized objects from range data
[OUEL-1918/92] 11 p3523 N93-28486
Polygonal approximation overviews and perspectives
[INRIA-RR-1621] 11 p3547 N93-28513
A modular head/eye platform for real-time reactive vision
[OUEL-1941/92] 11 p3505 N93-28897
An autonomous vision-based mobile robot
11 p3443 N93-29082
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
Automatic rule generation for high-level vision
11 p3511 N93-29526
Encoding spatial images: A fuzzy set theory approach
11 p3511 N93-29527
The fusion of information via fuzzy integration
11 p3517 N93-29568
Binocular spherical disparity: A study in representation for a forward translating camera
[PB93-184422] 11 p3579 N93-29667
What is the center of the image?
[AD-A263550] 11 p3579 N93-29824
An architecture for an analog VLSI neural network for early computer vision processing
11 p3359 N93-30244
Modelling and simulation of human retinal vision processing 11 p3363 N93-30269
Quantization effects in segmentation of range images
11 p3363 N93-30270
On the implementation of the BIRIS range sensor for applications in robotic control and autonomous navigation 11 p3366 N93-30286
Applications of digital 3-D imaging
11 p3366 N93-30287
Recognizing partially overlapping objects
11 p3366 N93-30289
Generalized octrees for constrained object modeling
11 p3369 N93-30304
Design and implementation of an interactive isochromatic fringe-analysis system using machine-vision techniques 11 p3369 N93-30305
Qualitative methods in computer vision
[AD-A264335] 11 p3533 N93-30418
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054
A framework for spatio-temporal control in the tracking of visual contours
[OUEL-1961/92] 12 p3785 N93-31055
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
A theory of planar grasp
[OUEL-1958/92] 12 p3785 N93-31126

Automatic acquisition of elevation points in map-making using the TUEK 200 12 p3745 N93-31263
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever [NASA-CR-193301] 12 p3777 N93-31844
Sensor fusion for assured vision in space applications 12 p3824 N93-32105
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS) [AD-A265613] 12 p3800 N93-32169

COMPUTERIZED CONTROL
U NUMERICAL CONTROL

COMPUTERIZED DESIGN
U COMPUTER AIDED DESIGN

COMPUTERIZED SIMULATION
NT ANALOG SIMULATION
NT DIGITAL SIMULATION
Numerical simulation of unsteady flow in a nozzle 01 p0016 N93-10008
Simulation of electron beam transport in ion-focused regime conditioning cells [AD-A253352] 01 p0070 N93-10215
Probing cosmic infrared sources: A computer modeling approach [AD-A253788] 01 p0178 N93-10238
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons [AD-A250290] 01 p0140 N93-10242
Operator workload predictions for the revised AH-64A workload prediction model, volume 1 [AD-A254198] 01 p0133 N93-10261
Computer simulations of object discrimination by visual cortex [AD-A253345] 01 p0131 N93-10271
Computational fluid dynamics capability for internally carried store separation [AD-A253671] 01 p0079 N93-10297
Development of parallel architectures for sensor array processing algorithms [AD-A253680] 01 p0141 N93-10299
Numerical simulation of transient crack growth 01 p0048 N93-10488
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids 01 p0064 N93-10568
Self-programming of matter and the evolution of proto-biological organizations [DE92-015244] 01 p0129 N93-10628
Advanced Scientific Computing Environment Team [DE92-016714] 01 p0137 N93-10631
A computational study of projectile melt in impact with typical Whipple shields [DE92-017137] 01 p0092 N93-10635
Dispersion of seed vapor and gas ionization in an MHD second stage combustor and channel [DE92-016699] 01 p0163 N93-10645
Documentation of the detailed radiation property data for the radiation-ablation code RASLE [NASA-TM-103848] 01 p0028 N93-10742
Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code [DE92-016572] 01 p0163 N93-10761
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
Investigations of the motion of discrete-velocity gases [AD-A253728] 01 p0084 N93-10895
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI [BONN-IR-91-62] 02 p0357 N93-11083
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations [NASA-CR-190811] 02 p0204 N93-11139
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
Evaluation of a Cray performance tool using a large hydrodynamics code [DE92-013239] 02 p0407 N93-11231
Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas [AD-A249095] 02 p0451 N93-11275
The foxhole accelerating structure [DE92-019052] 02 p0443 N93-11429
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code [DE92-019095] 02 p0451 N93-11516
Analysis of the prebuncher for the KEK 40-MeV proton linac [DE92-514988] 02 p0444 N93-11525
Simulation of liquid drop breakup behavior in a flow field using discrete element techniques [DE92-019435] 02 p0300 N93-11537
Thermal stress and strain analysis in traveling autogenous welds [DE92-019363] 02 p0326 N93-11556
Computer simulations for the adsorption of polymers onto surfaces [DE92-018942] 02 p0267 N93-11628
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars [DE92-018367] 02 p0485 N93-11695
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry [AD-A253030] 02 p0437 N93-11709
Implementing system simulation of C3 systems using autonomous objects [NASA-CR-190845] 02 p0283 N93-11716
An EVACS simulation with nested transactions [NASA-CR-190636] 02 p0412 N93-11717
Airport stand assignment model [TT-9104] 02 p0218 N93-11728
System for generating dynamic video imagery for human factors research [AD-A248675] 02 p0388 N93-11743
VLSI design for reliability [AD-A253207] 02 p0292 N93-11781
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves [AD-A253274] 02 p0363 N93-11788
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods [DE92-019032] 02 p0445 N93-11831
Diagnostics and modeling of H(-) ion sources [AD-A250664] 02 p0440 N93-11867
New techniques for positron emission tomography in the study of human neurological disorders [DE92-015353] 02 p0384 N93-11873
Studies of transition states and radicals by negative ion photodetachment [DE92-017011] 02 p0440 N93-11875
Distributed environmental control 02 p0391 N93-11924
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
A model for analytical performance prediction of hypervapotron [DE92-018885] 02 p0305 N93-12010
Development of a hydrodynamic code: MINNIE 02 p0318 N93-12031
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Laser material interaction in confined medium 02 p0319 N93-12035
Shock waves induced by pulsed laser in confined interaction: Numerical simulation 02 p0319 N93-12038
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations [AD-A253792] 02 p0200 N93-12063
Comprehensive computational model for thermal plasma processing [DE92-018015] 02 p0454 N93-12066
Final Technical Report [AD-A253529] 02 p0284 N93-12083
Numerical simulation of alumina spraying in argon-helium plasma jet [DE92-017859] 02 p0455 N93-12092
Super auditory localization for improved human-machine interfaces [AD-A254699] 02 p0389 N93-12229
The effect of temperature dependent thermal properties on parametric weld size predictions [DE92-018816] 02 p0260 N93-12232
Fluid-structure interaction using retarded potential and ABAQUS [AD-A254735] 02 p0307 N93-12355
Computer modeling of tactical high frequency antennas [AD-A255176] 02 p0286 N93-12377
FNAS computational fluid dynamics [NASA-CR-184394] 02 p0307 N93-12397
Space Station communications and tracking systems modeling and RF link simulation [NASA-CR-185684] 02 p0288 N93-12519
Simulation and analysis of support hardware for multiple instruction rollback [NASA-CR-190972] 02 p0406 N93-12541
Seamless simulation literature survey [AD-A254950] 03 p0688 N93-12549
Action composition for the animation of natural language instructions [AD-A254963] 03 p0682 N93-12554
Experimental studies of cascade phenomena in metals [DE92-019586] 03 p0540 N93-12573
Bistatic clutter RCS simulation using scale model rough surfaces [AD-A254932] 03 p0560 N93-12581
Compression test simulation of thick-section composite materials [AD-A255021] 03 p0528 N93-12583
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001) [DE92-016944] 03 p0719 N93-12586
An analysis of the low-earth-orbit communications environment 03 p0561 N93-12633
Navier-Stokes simulations of unsteady transonic flow phenomena [NASA-TM-103962] 03 p0491 N93-12721
Probabilistic evaluation of fuselage-type composite structures [NASA-TM-105881] 03 p0622 N93-12735
X-29 linear aerodynamic perturbation model [AD-A254810] 03 p0500 N93-12752
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics [AD-A254385] 03 p0623 N93-12863
Design for reliability: Current density [AD-A254770] 03 p0570 N93-12866
Radiation dose to critical body organs for October 1989 proton event [NASA-TP-3237] 03 p0520 N93-12876
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1 [AD-A254619] 03 p0611 N93-12906
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency [PB92-217835] 03 p0644 N93-12974
Diffusion-absorption heat pump [PB92-217538] 03 p0576 N93-12975
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings [DE92-040405] 03 p0735 N93-13000
Fundamentals and Special Problems of Synthetic Aperture Radar (SAR) [AGARD-LS-182] 03 p0563 N93-13049
SAR simulation 03 p0564 N93-13056
NASA aeronautics: Research and technology program highlights [NASA-NP-159] 03 p0491 N93-13110
Turbomachinery CFD on parallel computers [NASA-TM-105932] 03 p0689 N93-13154
The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible? [DE92-016184] 03 p0612 N93-13236
Simulation of excitatory/inhibitory interactions in single auditory neurons [AD-A253614] 03 p0675 N93-13252
Applications of the Los Alamos High Energy Transport code [DE92-017408] 03 p0704 N93-13281
Simulation of forward-backward extrusion with numerical and model material techniques [DE92-016299] 03 p0558 N93-13298
A computer program for engineering simulations of space reactor system performance [DE92-016400] 03 p0526 N93-13299
Numerical simulations of steel plate perforation [DE92-017058] 03 p0626 N93-13301
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
Two-phase/two-phase heat exchanger simulation analysis 03 p0586 N93-13402
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 03 p0614 N93-13452
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells [DE92-016444] 03 p0639 N93-13529
Control of a very flexible robot in gravity 03 p0615 N93-13541
An investigation of the processes controlling ozone in the upper stratosphere [DE92-019621] 03 p0645 N93-13615
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow 03 p0495 N93-13746
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816

Computer modeling of flow and transport interactions for compressible Navier-Stokes equations
03 p0589 N93-13825
Molecular theories and computer simulations of liquid crystals 03 p0725 N93-13843
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
Non-perturbative studies in quantum electrodynamics
03 p0729 N93-13896
Interaction of isotropic turbulence with a shock wave
03 p0590 N93-13898
Particle simulation of grid erosion in an ion thruster
03 p0527 N93-13927
Recent developments in the NL-Soar garden path theory
[AD-A255889] 03 p0688 N93-13944
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
Convective parameterization in mesoscale models
03 p0659 N93-14062
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Technology reconciliation in the remote sensing era of US civilian weather forcasting: 1957 - 1987
04 p0918 N93-14114
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment
04 p0888 N93-14202
Audio detection algorithms
[AD-A256076] 04 p0973 N93-14234
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects
04 p1040 N93-14365
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0
[AD-A255434] 04 p0944 N93-14566
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
Modeling and control of a trailing wire antenna towed by an orbiting aircraft
[AD-A256450] 04 p0859 N93-14610
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 3: Programmer's manual [NASA-CR-189653-VOL-3-REV]
04 p0815 N93-14730
Adaptive active noise control using multiple-model approaches
[ISVR-TR-210] 04 p0974 N93-14734
Purposive discovery of operations
[NASA-TM-108116] 04 p0963 N93-14765
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide
[NASA-CR-189653-VOL-1-REV]
04 p0815 N93-14794
SAFSIM: A computer program for engineering simulations of space reactor system performance
[DE92-016328] 04 p0826 N93-14815
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
A temperature tracking SPICE2G.6 macromodel of the 6N134 optocoupler
[DE92-040093] 04 p0983 N93-15223
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges
[DE92-040226] 04 p0989 N93-15422
Parallel simulation today
[NASA-CR-189733] 04 p0951 N93-15432
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504
User's guide for a large signal computer model of the helical traveling wave tube
[NASA-TP-3251] 04 p0871 N93-15531
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Physically-based methods for polygonization of implicit surfaces 04 p0956 N93-15562
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480] 04 p0880 N93-15643
The spatial correlation function approach to response surface emission
[DE92-040875] 04 p0969 N93-15656
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661
Strategic defense initiative: Estimates of brilliant pebbles' effectiveness are based on many unproven assumptions
[AD-A256810] 05 p1277 N93-15679
Sensitivity studies of a standing-wave free-electron laser
[DE93-000575] 05 p1170 N93-15696
Propagation of dissolution/precipitation waves in porous media
[DE92-017348] 05 p1154 N93-15851
Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883
Radial basis functions: A class of grid-free, scattered data approximations
[DE92-012675] 05 p1263 N93-15921
Special publication of National Aerospace Laboratory
[DE93-716195] 05 p1053 N93-15949
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
Correction of inertial measurements using GPS updates for underwater navigation
[AD-A257329] 05 p1058 N93-15988
CAPS ReReader simulation model user's manual version 1.0
[AD-A257180] 05 p1234 N93-16000
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Trade-offs in mass and effectiveness in satellite shielding: A design approach
[AD-A256693] 05 p1087 N93-16112
Directory of design support methods
[AD-A256987] 05 p1227 N93-16258
The binary collision approximation: Background and introduction
[DE92-040887] 05 p1285 N93-16276
Numerical solution of dynamical systems with state-space constraints
[NLR-TP-89419-U] 05 p1264 N93-16293
BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
A study of improvement in lattice QCD
[SSCL-PREPRINT-766] 05 p1286 N93-16348
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500
An investigation of coherent quadrupole beam--beam effects
[DE92-041191] 05 p1297 N93-16527
System model development for nuclear thermal propulsion
[NASA-TM-108157] 05 p1298 N93-16531
Digital simulation and discrete modelling of a chaotic system
[RR-447] 05 p1279 N93-16561
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
Unsolved problems of crystallization and melting of flexible macromolecules
[DE92-040876] 05 p1125 N93-16597
User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Multidisciplinary design optimization using response surface analysis 05 p1065 N93-16796
SAFSIM input manual: A computer program for the engineering simulation of flow systems
[DE93-002738] 05 p1163 N93-16922
Monte Carlo shower counter studies
[NASA-CR-191364] 05 p1243 N93-16933
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934
Theoretical studies of a molecular beam generator
[NASA-CR-191716] 05 p1288 N93-16945
Exploratory designs for computational experiments
[DE93-002354] 05 p1243 N93-17040
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
Object-oriented simulation for the Superconducting Super Collider
[DE92-015962] 05 p1299 N93-17205
Simulation of cryogenic turbopump annular seals
05 p1181 N93-17318
SEDS1 mission software verification using a signal simulator 05 p1254 N93-17321
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Modeling the uncertain impacts of climate change
[DE92-041339] 05 p1204 N93-17370
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526

Mission oriented investigation of handling qualities through simulation
[MBB-UD-0600-91-PUB] 05 p1063 N93-17567
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
Predesign of a simulator for inverse robot kinematics
[NLR-TP-91098-U] 05 p1180 N93-17583
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
Methods development for electron transport
[AD-A257986] 05 p1295 N93-17698
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
Computer models used by AFGWC and NMC for weather analysis and forecasting
[AD-A257985] 05 p1218 N93-17744
A revised lower confidence limit procedure for the reliability of complex quasi-coherent systems
[AD-A257599] 05 p1277 N93-17764
Microcomputer simulation of a fourier approach to optical wave propagation
[AD-A257598] 05 p1305 N93-17796
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
A review of models of the human temperature regulation system
[AD-A258023] 06 p1595 N93-17918
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
A high fidelity simulation of optical detection systems, volume 2
[AD-A258498] 06 p1661 N93-18089
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Reconfiguration schemes for fault-tolerant processor arrays
[AD-A257833] 06 p1520 N93-18365
Artificial neural networks application simulator
06 p1642 N93-18502
Wrapping mathematical tools
06 p1648 N93-18504
Robust control with structured perturbations
[NASA-CR-192195] 06 p1633 N93-18579
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Robust control of systems with real parameter uncertainty and unmodelled dynamics
[NASA-CR-192008] 06 p1633 N93-18582
Motion simulation of underwater vehicles
[VTT-PUBS-97] 06 p1623 N93-18698
Mathematical modelling of materials
06 p1557 N93-18753
Modelling of dynamic soil-structure-ice interaction
06 p1558 N93-18759
Shock and impact dynamics 06 p1558 N93-18760
Robust stability of second-order systems
[NASA-CR-192246] 06 p1647 N93-18871
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion
[AD-A258803] 06 p1590 N93-18982
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
A model of Global Positioning System (GPS) Master Control Station (MCS) operations
[AD-A258846] 06 p1433 N93-19067
A synthetic environment for satellite modeling and satellite orbital motion
[AD-A258847] 06 p1470 N93-19068
Bias correction factors for near-Earth asteroids
06 p1701 N93-19127
Particle emission from artificial cometary materials
06 p1710 N93-19188
Numerical simulations of cometary dust
06 p1711 N93-19198
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers
[NASA-CR-192094] 06 p1515 N93-19483
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
A numerical field experiment approach for determining probabilities of microburst intensity
06 p1419 N93-19599
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
Computer aided methods for simulating occupant response to impact using OASYS DYNA3D
06 p1424 N93-19666
Improving manikin biofidelity 06 p1424 N93-19668
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training
06 p1430 N93-19706
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
The evaluation and reporting of discovery systems
06 p1691 N93-19734
Flight above a virtual world 06 p1609 N93-19766
Survey of antenna design computer models
[AD-A258765] 06 p1516 N93-19869
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
Method for developing the RAFALE flight control system 06 p1444 N93-19912
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves
07 p2007 N93-20090
Simulations of satellite Doppler wind observations
07 p2010 N93-20104
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
A finite-difference multigrid algorithm for the direct numerical simulation of transition and turbulence in incompressible flow 07 p1898 N93-20168
Introduction to study and simulation of low rate video coding schemes 07 p1880 N93-20171
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
Computational/experimental studies of isolated, single component droplet combustion
07 p1854 N93-20213
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions
[AD-A259476] 07 p1909 N93-20246
Analysis of the Space Shuttle main engine simulation
[NASA-CR-191063] 07 p1820 N93-20251
Mission and Safety Critical (MASC): An EVACS simulation with nested transactions
[NASA-CR-192295] 07 p2026 N93-20314
Probabilistic chain fatigue model
07 p1922 N93-20338
A simulation method of determination of construction parts fatigue life distribution 07 p1923 N93-20342
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
Computer simulation of a general purpose satellite modem
[AD-A259083] 07 p1882 N93-20392
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
On the evaluation of coherent structures using computer programs 07 p1937 N93-20688
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application
07 p1940 N93-20706
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials
[NIFS-195] 07 p2073 N93-20764
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808
Three dimensional representation and 3D reconstruction using two dimensional sections
[ETN-93-92686] 07 p2039 N93-21063
Knowledge-based consulting system for dynamic network security control
[ETN-93-93420] 07 p2028 N93-21069
A novel approach to graphics
[AD-A259337] 07 p2040 N93-21262
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337
Research in LMSS propagation
[NASA-CR-191915] 07 p1885 N93-21400
Current-drive and plasma-formation experiments on the Versator-2 tokamak using lower-hybrid and electron-cyclotron waves
[DE93-002333] 07 p2075 N93-21482
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses
07 p1956 N93-21586
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
Analytic formulation of unsteady profile aerodynamics and its application to simulation of rotors
[ESA-TT-1244] 07 p1762 N93-21659
Simulation method for stationary Gaussian random functions based on the sampling theorem
[PB93-127496] 07 p2059 N93-21818
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Applications of neural networks in polymer simulations
[DE93-004110] 07 p1862 N93-21843
An approach to improving TNA EDS
07 p1765 N93-21864
New x ray technology for the detection of explosives
07 p1767 N93-21880
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
A systems approach to the explosive detection problem 07 p1778 N93-21942
Theory of coronal streamer formation
[DE93-003736] 07 p2102 N93-21967
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
System evaluation of a fiber optic guided missile with a simple guidance addition to improve system effectiveness 08 p2255 N93-22025
Reconstruction of twist grain boundaries in gold
[DE93-004861] 08 p2226 N93-22049
Reaction and diffusion in turbulent combustion
[DE93-006185] 08 p2216 N93-22055
ROBOSIM: An intelligent simulator for robotic systems
08 p2465 N93-22161
Microcomputer based software for biodynamic simulation 08 p2429 N93-22191
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Autonomous rendezvous and capture system design
08 p2138 N93-22244
IMP: A performance code 08 p2139 N93-22245
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302

Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Electro-optical rendezvous and docking sensors 08 p2150 N93-22314
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Video animation system operators manual
[DE93-007425] 08 p2435 N93-22533
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583
A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
A computational study of the time dependent crack growth process
[DE93-004397] 08 p2324 N93-22751
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces 08 p2290 N93-23110
A study of properties of dark galaxy halos in a CDM universe using N-body computer simulations 08 p2546 N93-23132
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Plasma edge diagnostics 08 p2495 N93-23261
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
A stochastic learning algorithm for layered neural networks
[DE93-003555] 08 p2458 N93-23288
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310
Development of test procedures for hybrid/electric vehicles
[DE93-005179] 08 p2316 N93-23336
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
Simulation of TunneLadder traveling-wave tube cold-test characteristics: Implementation of the three-dimensional, electromagnetic circuit analysis code micro-SOS
[NASA-TP-3294] 08 p2281 N93-23394
Transient simulation of ram accelerator flowfields
[AD-A259767] 08 p2295 N93-23485
Bearing determination and bearing quality indication from a goniometric HF DF system 08 p2268 N93-23617
Multiple emitter direction finding from a circular array by single snapshot processing 08 p2270 N93-23627
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
Time-reversible Maxwell's demon
[AD-A260170] 08 p2460 N93-23709
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
Nuclear Engine System Simulation (NESS). Version 2.0: Program user's guide
[NASA-CR-191081] 08 p2204 N93-23875
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
Chaotic evolution of the solar system
[AD-A260055] 08 p2550 N93-23961
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
A simulation of the Boeing B-747 aircraft
[CRANFIELD-AERO-9202] 08 p2127 N93-24074
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24090
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2
[NASA-CR-192698] 08 p2511 N93-24147
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
The theory behind the SOCRATES code
[AD-A259987] 08 p2196 N93-24298
Computation in mechanics of materials
[AD-A260060] 08 p2332 N93-24409
Telescience Testbed Program: A study of software for SIRTF instrument control
[NASA-CR-192764] 08 p2442 N93-24476
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Experimental and analytical study of a hybrid isolation system using friction controllable sliding bearings
[PB93-150282] 08 p2320 N93-24595
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Crashworthiness of composite seats for civil aircraft 09 p2582 N93-24773
High-order cyclo-difference techniques: An alternative to finite differences
[NASA-TM-107745] 09 p2575 N93-25074
Rotor design optimization using a free wake analysis
[NASA-CR-177612] 09 p2575 N93-25075
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
The effects of sampling frequency on the climate statistics of the ECMWF general circulation model
[DE93-003338] 09 p2761 N93-25145
Two-stream instability for a light ion beam-plasma system with external magnetic field
[NIFS-204] 09 p2859 N93-25248
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases 09 p2712 N93-25280
Radial velocity studies of the secondary in cataclysmic variables 09 p2888 N93-25286
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
Propagation at microwave frequencies in the presence of tropospheric stratified layers 09 p2674 N93-25340
A compact neutron counter telescope with thick radiator (Cotetra) for fusion experiment
[NIFS-205] 09 p2860 N93-25347
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
Transverse instabilities in a relativistic klystron two-beam accelerator
[DE93-007110] 09 p2952 N93-25375
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems 09 p2700 N93-25478
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Data systems dynamic simulator 09 p2814 N93-25602
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Gas turbine system simulation: An object-oriented approach
[NASA-TM-106044] 09 p2593 N93-25673
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Simulation of aircraft gas turbine engine 09 p2594 N93-25751
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
A numerical simulation of adsorption onto a crystalline surface
[AD-A261079] 09 p2866 N93-25781
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2844 N93-25819
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
Analysis of transient photoluminescence measurements on GaAs and AlGaAs double heterostructures
[AD-A261154] 09 p2867 N93-25947
Dark zone modeling of solid propellant flames 09 p2628 N93-26028
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-192920] 09 p2585 N93-26052
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Goldstone solar system radar signal processing 09 p2680 N93-26130
AXAF VETA-I mirror encircled energy measurements and data reduction 09 p2855 N93-26188
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212
Effect of image update rate on moving-target identification range
[AD-A261562] 09 p2591 N93-26462
A database for propagation models 09 p2684 N93-26472
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601

An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701
Galaxy tracers in N-body simulations
10 p3176 N93-26732
The large-scale morphology of IRAS galaxies
10 p3176 N93-26733
Gas dynamic simulations of galaxy formation
10 p3176 N93-26736
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758
Gas distribution and starbursts in shell galaxies
10 p3183 N93-26780
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
Numerical simulations of galactic wakes
10 p3189 N93-26818
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Particle bed reactor modeling
10 p2980 N93-26954
Computational modeling of nuclear thermal rockets
10 p2980 N93-26956
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Nuclear Engine System Simulation (NESS) version 2.0
10 p2981 N93-26958
SAFSIM overview 10 p2981 N93-26959
Next generation system modeling of NTR systems
10 p2981 N93-26961
Rocket engine numerical simulator
10 p2981 N93-26962
GPS system simulation methodology
10 p2984 N93-26990
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual
[PB93-161628] 10 p3068 N93-27055
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
Physics of solar activity
[NASA-CR-193139] 10 p3217 N93-27114
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Transient simulation of ram accelerator flowfields
10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
On the adequacy of graph rewriting for simulating term rewriting
[CWI-CS-R9204] 10 p3098 N93-27540
Results on Monte-Carlo simulations of a microstrip gas counter
[NIKHEF-H/92-10] 10 p3040 N93-27541
Computable processes and bisimulation equivalence
[CWI-CS-R9207] 10 p3098 N93-27552
XInPosse: Structural simulation for graphics hardware
[CWI-CS-R9208] 10 p3098 N93-27553
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 2
[AD-A262098] 10 p3027 N93-27670
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 1
[AD-A262099] 10 p3027 N93-27671
Generation of helical gears with new surfaces, topology by application of CNC machines
[NASA-TM-106175] 10 p3051 N93-27687
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Sea breeze simulation with a static profile of the eddy viscosity
[FOA-B-40415-4.5] 10 p3078 N93-27831
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Implementation of input command shaping to reduce vibration in flexible space structures
10 p3059 N93-27901
Options for a lunar base surface architecture
10 p3214 N93-27974
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 2
[AD-A262784] 10 p2974 N93-28402
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430
Rendering the out-the-window view for the AFIT virtual cockpit
[AD-A262599] 11 p3260 N93-28467
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Probabilistic simulation of multi-scale composite behavior
[NASA-TM-106196] 11 p3451 N93-28633
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Predicting radiation characteristics from antenna physical dimensions
[AD-A262462] 11 p3379 N93-28654
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
A proposed approach for developing next-generation computational electromagnetics software
[DE93-007326] 11 p3380 N93-28900
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
Large eddy simulations of shockwave passage through turbulence
[DE92-019503] 11 p3419 N93-29050
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Surface diffusion: Atomistics and surface morphology (summary of MRS Symposium B panel discussion)
[DE93-009862] 11 p3594 N93-29188
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
On the value of function evaluation location information in Monte Carlo simulation
[AD-A263662] 11 p3554 N93-29292
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
MoCog1: A computer simulation of recognition-primed human decision making
[NASA-TM-103868] 11 p3542 N93-29386
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer
[AD-A263661] 11 p3324 N93-29391
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU]
11 p3521 N93-29608
LDEF microenvironments, observed and predicted
11 p3283 N93-29623
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Three-dimensional graphical representation of objects according to movement data in realtime
[ESA-TT-1258] 11 p3521 N93-30104
Simulation of landscape disturbances and the effect of climatic change
[DE93-011615] 11 p3472 N93-30131
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Modelling and simulation of human retinal vision processing 11 p3363 N93-30269
Coupling gain computation between antennas on circular cylinders at SHF/EHF frequencies
11 p3369 N93-30309
National Airspace System Performance Analysis Capability (NASPAC) simulation model
11 p3247 N93-30351
Procedural development prototype in Automated En Route Air Traffic Control 11 p3247 N93-30352
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A264224] 11 p3539 N93-30361
Computational analysis of slip in PETN
[DE92-040222] 11 p3598 N93-30445
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514

The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668
Validation and upgrading of physically based mathematical models 11 p3237 N93-30688
On the impossibility of creating the quantum correlations with computers
[DE93-606039] 11 p3606 N93-30806
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Probabilistic composite analysis 11 p3307 N93-30868
Adaptive motion control of mobile robots 11 p3545 N93-30903
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Computer simulation of 3D material microstructure and its application in the determination of mechanical behavior of polycrystalline materials and engineering structures 12 p3708 N93-31134
The ViB-code to simulate 3-D stator/rotor flow in axial turbines
[DLR-FB-92-19] 12 p3681 N93-31170
Probabilistic load simulation: Code development status 12 p3694 N93-31564
Expert system development for probabilistic load simulation 12 p3695 N93-31570
One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625
Computer simulation of energy profiles in a plasma focus device
[DE93-608560] 12 p3826 N93-31673
Three-dimensional numerical simulation of interplanetary magnetic field changes at 1 AU as a consequence of simulated solar flares 12 p3860 N93-31723
Desktop chaotic systems: Intuition and visualization
[NASA-TM-106258] 12 p3808 N93-31847
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
Wavefront reconstruction from three dimensional intensity measurements
[DE93-609881] 12 p3832 N93-31909
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192
Steady states in the twin-well potential oscillator: Computer simulations and approximate analytical studies
[REPT-40/1992] 12 p3722 N93-32214
A PC-based simulation of the National Transonic Facility's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239
The application of remotely sensed data to studies of volcanism within the Galapagos Islands 12 p3747 N93-32326
Neural network identification of keystream generators
[AD-A265778] 12 p3800 N93-32334
Investigation of advanced technology for airway facilities maintenance training
[DOT/FAA/CT-TN92/24] 12 p3678 N93-32336
Ant system for job-shop scheduling
[REPT-92-066] 12 p3792 N93-32346
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

COMPUTERS
NT AIRBORNE/SPACEBORNE COMPUTERS
NT ANALOG COMPUTERS
NT CONNECTION MACHINE
NT CRAY COMPUTERS
NT DIGITAL COMPUTERS
NT EMBEDDED COMPUTER SYSTEMS
NT HYBRID COMPUTERS
NT HYPERCUBE MULTIPROCESSORS
NT IBM PERSONAL COMPUTERS
NT MACINTOSH PERSONAL COMPUTERS
NT MASSIVELY PARALLEL PROCESSORS
NT MICROCOMPUTERS
NT MIMD (COMPUTERS)
NT MINICOMPUTERS
NT OPTICAL COMPUTERS
NT PARALLEL COMPUTERS
NT PERSONAL COMPUTERS
NT SEQUENTIAL COMPUTERS
NT SIMD (COMPUTERS)
NT SUPERCOMPUTERS
NT TRANSPUTERS
NT VAX COMPUTERS
Causing and preventing viruses in computer systems
[AD-A208591] 01 p0139 N93-10806
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Economical development of complex computer systems
[AD-A254752] 03 p0689 N93-12848
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
Report on Workshop on Research in Experimental Computer Science
[AD-A256874] 05 p1230 N93-15707
System for simultaneously loading program to master computer memory devices and corresponding slave computer memory devices
[NASA-CASE-MSC-21387-1] 06 p1623 N93-18855
International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049
Anytime declarativism
[AD-A258698] 07 p2032 N93-20376
GaAs computer technology
[AD-A259259] 07 p2080 N93-21241
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU] 08 p2432 N93-22032
The Data Egg: A new solution to text entry barriers 08 p2530 N93-22192
Video animation system operators manual
[DE93-007425] 08 p2435 N93-22533
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
Shiva Mark 2 hardware architecture, version 1
[AD-A259534] 08 p2449 N93-24039
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
Computer systems EXCHANGE 09 p2737 N93-24942
[DE93-007227] 09 p2808 N93-24962
High performance compression of science data 09 p2881 N93-25811
Strategic plan for scientific computing
[DE93-006875] 10 p3090 N93-27614
Computer systems laboratory
[PB93-181873] 11 p3521 N93-29662
High performance computing: Advanced Research Projects Agency should do more to foster program goals. Report to the Chairman, Committee on Armed Services, House of Representatives
[GAO/IMTEC-93-24] 11 p3533 N93-30202

CONCATENATED CODES
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
Binary weight distributions of some Reed-Solomon codes 06 p1514 N93-19430
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198

CONCAVITY
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823

CONCENTRATION (COMPOSITION)
NT ATMOSPHERIC MOISTURE
NT ATOM CONCENTRATION
NT CARBON DIOXIDE CONCENTRATION
NT LOW CONCENTRATIONS
NT METEOROID CONCENTRATION
NT MOISTURE CONTENT
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
Measurements of carbon dioxide in the Southern Ocean along the WOCE S-4 section
[DE92-040334] 05 p1220 N93-16294
Indoor ozone concentrations: Ventilation rate impacts and mechanisms of outdoor concentration attenuation
[DE93-000633] 05 p1205 N93-17576
Injection of drag-reducing additives into turbulent water flows. Investigation of laser-induced fluorescence for concentration measurements
[AD-A259459] 07 p1898 N93-20243
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Phase separation under a weak concentration gradient 08 p2226 N93-22853
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor
[ONERA-P-1990-3] 11 p3313 N93-30109

CONCENTRATORS
NT SPIRALS (CONCENTRATORS)
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors
[DE92-015946] 02 p0346 N93-11823
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1682 N93-18335
The status of photovoltaic concentrator development
[DE93-002298] 06 p1571 N93-19474
Flux concentrations on solar dynamic components due to mispointing
[NASA-TM-105756] 07 p1982 N93-20261
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Miniaturized Cassegrainian solar array development 10 p2968 N93-27808
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules 10 p3066 N93-27962
Modification of flux profiles using a faceted concentrator
[DE93-000087] 11 p3464 N93-29925

CONCENTRIC CYLINDERS
On the stability of confined shells under external pressure 02 p0335 N93-11202
Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409

Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086

CONCORDE AIRCRAFT
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459

CONCRETE STRUCTURES
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
Concrete structure construction on the Moon 03 p0559 N93-13989
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Concrete lunar base investigation 05 p1230 N93-17445
Fatigue experiments of microconcrete beams under a running load 07 p1923 N93-20346
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205

CONCRETES
Nondestructive evaluation of the in-place compressive strength of concrete based upon limited destructive testing
[PB92-222751] 03 p0623 N93-12981
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
The possibility of concrete production on the Moon 03 p0554 N93-13988
Lunar concrete for construction 03 p0555 N93-13990
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
Concrete: Potential material for Space Station 05 p1089 N93-16896
Cement and concrete 05 p1383 N93-16901
Properties and uses of concrete, appendix B 05 p1128 N93-16904
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
A literature review of time-deterioration prediction techniques
[PB92-229202] 07 p1919 N93-21822
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879

CONCURRENT PROCESSING
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
A portable multiprocessor interface for standard ML of New Jersey
[AD-A255639] 04 p0958 N93-14151
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
Multiple robot programming using concurrent logic language
[F-3-3] 04 p0950 N93-15304
An MCM/chip concurrent engineering validation
[AD-A257415] 05 p1233 N93-15863
Flow models of distributed computations: Event structures and nets
[INRIA-RR-1482] 06 p1646 N93-18612
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Periodic application of concurrent error detection in processor array architectures
[NASA-CR-193217] 10 p3106 N93-27238
Bisimulation semantics for concurrency with atomicity and action refinement
[CWI-CS-R9210] 10 p3116 N93-27498
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
Concurrent data objects in quadratic space
[CS-9112] 10 p3101 N93-28066
A theory of processes with localities
[INRIA-RR-1632] 10 p3108 N93-28438
Concurrent clean language manual, version 0.8
[TR-92-18] 11 p3522 N93-28482
The concurrent clean system user's manual and PABCstat user's manual, version 0.8
[TR-92-19] 11 p3523 N93-28484
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Context switch time scalability: Benchmark results
[PB93-181832] 11 p3539 N93-29661
MLog: A language for prototyping concurrent systems 11 p3368 N93-30301

CONDENSATES
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
The low-energy structure of compactified superstring models 04 p0997 N93-14116
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221 06 p1738 N93-18807
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Effects of spacecraft materials outgassing products on cryogenic surfaces
[AD-A262671] 10 p2963 N93-27686

CONDENSATION
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
[ETN-93-93362] 06 p1498 N93-17811
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259

CONDENSATION NUCLEI
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
CCN spectra measurements as an active tracer of stratocumulus mechanisms
[AD-A255678] 04 p0920 N93-14258
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
[NASA-CR-192356] 08 p2287 N93-22401
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043

CONDENSATION TRAILS
U CONTRAILS

CONDENSED MATTER PHYSICS
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Condensed matter research using the UCSB FEL
[DE92-040560] 04 p0887 N93-15347
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
Investigation of cold nuclear fusion in condensed matter
[DE93-006083] 08 p2515 N93-23683
The interaction of swift electrons with surface excitations
[DE93-007245] 09 p2848 N93-25376
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
From fractals to wormholes via string theory 09 p2871 N93-25742
Proceedings of the 16th International Workshop on Condensed Matter Theories
[AD-A261078] 09 p2868 N93-26252
Sensitivity of magnetic flux compression in cylindrical implosions to model parameters
[DE93-003819] 09 p2861 N93-26512
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
The investigation of nonlinear effects on quasiparticle transport in condensed matter systems
[DE93-009582] 11 p3565 N93-28914
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534
Spontaneous regulating mechanisms that may have led to the origin of life
[DE93-603677] 12 p3771 N93-31161

CONDENSER RADIATORS
U CONDENSERS (LIQUEFIERS)
U HEAT RADIATORS

CONDENSERS
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511

CONDENSERS (LIQUEFIERS)
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339

CONDENSING
NT FILM CONDENSATION
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature 08 p2249 N93-22849
Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815

CONDITIONED RESPONSES
U CONDITIONING (LEARNING)

CONDITIONING (LEARNING)
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354

CONDITIONS
NT ADIABATIC CONDITIONS
NT BOUNDARY CONDITIONS
NT FLIGHT CONDITIONS
NT NONADIABATIC CONDITIONS
NT NONEQUILIBRIUM CONDITIONS
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
A generalized cut condition for multiflows in matroids
[RR-869-M] 07 p2054 N93-20947

CONDUCTING FLUIDS
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067

Charge transfer processes on liquid/liquid interfaces: The first hundred years
[AD-A260421] 08 p2225 N93-24429
Maneuvering a reentry body via magneto-gasdynamic forces 09 p2615 N93-25207

CONDUCTING MEDIA
U CONDUCTORS

CONDUCTING POLYMERS
Infrared investigations of pristine polypyrrole. Is the polymer called polypyrrole really Poly (Pyrrole-Co-Hydroxypyrrole)?
[AD-A249746] 01 p0036 N93-10243
Development of electrosupercapacitors
[AD-A252208] 01 p0071 N93-10250
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697
Electronic phenomena in polyanilines
[AD-A254803] 03 p0545 N93-12749
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
The effects of molecular structure on the electrical conductivity of polymers
[NASA-CR-191265] 03 p0552 N93-13459
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Solid polymer electrolytes for rechargeable batteries
[DE93-001603] 04 p0871 N93-15485
Application of scanning tunneling microscopy to electrochemistry
[AD-A255680] 05 p1101 N93-15955
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
Impedance and voltammetric studies of electrogenerated polyaniline conducting films
[AD-A258328] 06 p1493 N93-18256
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398
The polyanilines: A novel class of conducting polymers
[AD-A259386] 07 p1860 N93-21266
Conducting polymers as potential active materials in electrochemical supercapacitors
[DE93-003827] 07 p1861 N93-21675
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
Electrical characterization of conducting polymers and polymeric semiconductor devices
[ACTA-POL-SCAND-PH-178] 08 p2238 N93-23006
A gel-permeation chromatography study of electrochemically synthesized Poly(3-alkylthiophenes)
[AD-A259864] 08 p2239 N93-23957
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Polymers by non-redox processes: Synthesis, physical studies, and application
[AD-A261064] 09 p2657 N93-26240
Electrical conductivity of ion implanted ladder and semi-ladder polymers
[AD-A261401] 09 p2657 N93-26401
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
Synthesis of conducting polymer composite fibers in electrochemical flow cells
[AD-A262233] 11 p3294 N93-28492
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Method of continuously determining crack length
[NASA-CASE-LAR-14480-1-CU] 11 p3452 N93-29612
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Triplet states and optical absorptions in finite polyenes and conjugated polymers
[AD-A264552] 11 p3337 N93-30381
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802

CONDUCTION BANDS
Optimization of resonant interband tunnel devices
[AD-A252401] 01 p0168 N93-10637
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665

CONDUCTION ELECTRONS
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
The electronic structure of core states under extreme compressions
[DE92-017451] 05 p1112 N93-16334
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799

CONDUCTIVE HEAT TRANSFER
Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Development status of SINDA/FLUINT and SINAPS 03 p0585 N93-13393
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Transient behavior of heat pipe with thermal energy storage under pulse heat loads 03 p0588 N93-13743
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites 04 p0864 N93-14190
Optimization of an internally finned rotating heat pipe
[AD-A256725] 05 p1329 N93-15980
Forced precession of the cometary nucleus with randomly placed active regions 06 p1719 N93-19251
Analysis and measurement of thermal resistance in a 3-dimensional silicon multichip module populated with assembly test chips
[DE93-000743] 07 p1888 N93-20029
Optical properties of slags: Data for refractive indices and absorption coefficients
[NPL-DMM(A)-73] 08 p2486 N93-22453
Finite element methods in heat transfer
[DE93-006451] 08 p2290 N93-22886
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas) 08 p2264 N93-23504
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads 09 p2726 N93-25533
Derivation of conductive heat transfer in mountains from AVHRR data 11 p3458 N93-28927
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539
Terminal project heat convection in thin cylinders
[DE93-609489] 12 p3723 N93-31245

CONDUCTIVITY
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Macroscopic properties of random and quasiperiodic media
[AD-A255984] 04 p0990 N93-14413
The JPL/NASA/TAMU nickel-cadmium battery model development status 07 p1985 N93-20509
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Template synthesis of electronically conductive polymers: A new route for achieving higher electronic conductivities
[AD-A261616] 09 p2658 N93-26437
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

CONDUCTIVITY METERS
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292

CONDUCTORS
NT BEAM LEADS
NT BSCCO SUPERCONDUCTORS
NT BUS CONDUCTORS
NT CONDUCTING POLYMERS
NT ELECTRIC CONDUCTORS
NT ELECTRIC WIRE
NT ELECTROLYTES
NT FLAT CONDUCTORS
NT HIGH TEMPERATURE SUPERCONDUCTORS
NT ION EXCHANGE MEMBRANE ELECTROLYTES
NT MOLTEN SALT ELECTROLYTES
NT NONAQUEOUS ELECTROLYTES
NT ORGANIC SUPERCONDUCTORS
NT PHOTOCONDUCTORS
NT SOLID ELECTROLYTES
NT SUPERCONDUCTORS
NT THERMAL CONDUCTORS
NT YBCO SUPERCONDUCTORS
Gradiometer antennas for tunnel detection
[PB92-205400] 01 p0069 N93-10440
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
Flex-Gears
[NASA-CR-192364] 07 p1914 N93-20759
A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923

CONES
NT CIRCULAR CONES
NT CONICAL BODIES
NT NOSE CONES
NT SHATTER CONES
NT SLENDER CONES
Projection with a minimal system of inequalities
[AD-A257237] 05 p1263 N93-15961
Development of a cone penetrometer for measuring spectral characteristics of soils in situ 09 p2776 N93-25570

CONES (VOLCANOES)
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Geology of the Apollo 17 site
06 p1738 N93-18803

CONFERENCES
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
International Conference on Large Meteorite Impacts and Planetary Evolution
[NASA-CR-190677] 01 p0105 N93-10112
Transducer workshop no. 16
[AD-A248047] 01 p0012 N93-10236
The third Workshop on Non-Crystalline Solids, programme and abstracts
[AD-A250739] 01 p0036 N93-10244
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Proceedings of the Twelfth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-03] 01 p0044 N93-10466
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
The 28th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-573-VOL-1] 02 p0244 N93-11132
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
The Third Potsdam-5 Kiev International Workshop on Nonlinear Processes in Physics
[AD-A249140] 02 p0430 N93-11420
The 28th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-573-VOL-2] 02 p0247 N93-11448
ICCG-10: Tenth International Conference on Crystal Growth. Poster presentation abstracts
[NASA-CR-190920] 02 p0461 N93-11683
ICCG-10: Tenth International Conference on Crystal Growth. Oral presentation abstracts
[NASA-CR-190919] 02 p0461 N93-11684
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
Tenth International Symposium on Environmental Biogeochemistry
[DE92-016200] 02 p0355 N93-11864
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795] 03 p0734 N93-12703
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
Soft X Ray Projection Lithography Topical Meeting. Volume 8: Technical digest
[AD-A254756] 03 p0709 N93-12850
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1
[AD-A254619] 03 p0611 N93-12906
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
Proceedings of the Tenth Symposium on Energy Engineering Sciences: Synergism of Analysis, Modeling, and Experiment
[DE92-018777] 03 p0638 N93-13069
Review of progress in quantitative NDE
[DE92-018814] 03 p0620 N93-13071
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Highlights 92/2 03 p0775 N93-13474
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
Symposium proceedings on Quantitative Feedback Theory
[AD-A255527] 03 p0505 N93-13872
OSA proceedings of the topical meeting on optical amplifiers and their applications, volume 13
[AD-A252974] 03 p0711 N93-13879
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Coordinating Council. Ninth Meeting: Total Quality Management
[NASA-TM-108106] 03 p0738 N93-13885
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Informal Conference on Photochemistry
[AD-A255824] 03 p0540 N93-14033
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
Proceedings of the NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications
[NASA-TM-107989] 04 p1004 N93-15027
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly
[ITN-92-85129] 04 p0949 N93-15298
Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446
Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
Proceedings of the REXX Symposium for Developers and Users
[DE92-041359] 04 p0951 N93-15451
Proceedings: Graphics Interface 1992
[ISBN-0-9695338-1-0] 04 p0952 N93-15533
The Seventeenth Space Simulation Conference. Terrestrial Test for Space Success
[NASA-CP-3181] 04 p0819 N93-15593
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Special publication of National Aerospace Laboratory
[DE93-716195] 05 p1053 N93-15949
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1
[NASA-CP-3166-VOL-1] 05 p1391 N93-17414
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Aerodynamic engine/airframe integration for high performance aircraft and missiles
05 p1065 N93-17618
International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700
The 4th International Symposium on Analysis and Detection of Explosives: Programs and abstracts
[AD-A258029] 05 p1129 N93-17751
The 16th International Conference on Defects in Semiconductors
[AD-A258035] 05 p1328 N93-17754
Proceedings of the 2nd International Workshop on Cellular Neural Networks and their Applications
[AD-A258245] 06 p1631 N93-17821

Software Engineering Process Groups: Results of the 1992 SEPG Workshop event evaluation and a first report on SEPG status
[AD-A258259] 06 p1617 N93-18011

International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220

Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239

The Fourth Conference on Organized Thin Films
[AD-A258315] 06 p1672 N93-18310

Overview: Exobiology in solar system exploration
06 p1591 N93-18546

Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659

Ultrastructure processing of advanced materials
[AD-A258805] 06 p1479 N93-18984

Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113

Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518

Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590

Calendar of selected aeronautical and space meetings, July 1991 onwards
[AGARD-CAL-91/2] 06 p1683 N93-19639

Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711

Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface
[AGARD-CP-521] 06 p1607 N93-19757

Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871

Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947

International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049

The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132

Proceedings of the International Workshop on Quantum Effect Physics, Electronics, and Applications
[AD-A259457] 07 p2084 N93-20242

SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 1: Plenary Session
[NASA-TM-108651] 07 p2085 N93-20329

The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490

Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616

Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070

Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129

Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292

Fatigue Design 1992, volume 1
[VTT-SYMPOSIUM-130-VOL-1]
07 p1947 N93-21318

Open forum on recommendations of the White House Conference on Library and Information Services
[PB93-107639] 07 p2091 N93-21379

The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504

Technical digest-symposium on optical fiber measurements, 1992
[PB93-102259] 07 p2068 N93-21505

Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536

Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683

The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684

Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706

Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765

Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796

Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797

Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799

Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800

Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801

Journal of research of the National Institute of Standards and Technology, July-August 1992. Volume 97, number 4
[PB93-124246] 07 p2104 N93-21814

Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856

Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018

Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041

Video conferencing made easy
08 p2275 N93-22173

Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 1
[NASA-CP-10111-VOL-1] 08 p2452 N93-22351

Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403

Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405

Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436

Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895

Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934

SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting
[NASA-TM-104566-VOL-8] 08 p2413 N93-23010

Proceedings: DOD Software Technology Strategy public forum
08 p2437 N93-23092

First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140

The Eighth National Space Symposium
[ISBN-0-9616962-5-7] 08 p2153 N93-23156

The 77th National Conference on Weights and Measures
[PB93-130466] 08 p2258 N93-23270

Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303

Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507

Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598

Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647

Proceedings of the 15th Annual EPA Conference on Analysis of Pollutants in the Environment
[PB93-152601] 08 p2388 N93-23681

Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics
[ESA-ISY-3] 08 p2533 N93-23878

Report of the Gordon Research Conference on Point Defects, Line Defects, and Interfaces in Semiconductors
[AD-A259546] 08 p2510 N93-24083

The 12th Symposium on Turbulence
[AD-A260353] 08 p2298 N93-24274

Interagency Advanced Power Group Steering Group meeting minutes
[DE93-005641] 08 p2382 N93-24324

Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435

Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605

Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694

The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875

Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978

Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183

JPRS report: Science and technology. Japan. 30th National Aerospace Laboratory Conference
[JPRS-JST-93-009] 09 p2901 N93-25418

Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561

National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775

Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838

International Workshop on Advances in Inorganic Fibre Technology
[AD-A260719] 09 p2639 N93-25908

The 1993 Goddard Conference on Space Applications of Artificial Intelligence
[NASA-CP-3200] 09 p2822 N93-25961

Proceedings of the 33rd Annual Military LibrariansWorkshop
[AD-A261071] 09 p2882 N93-26242

Proceedings of the 16th International Workshop on Condensed Matter Theories
[AD-A261078] 09 p2868 N93-26252

Optical computing. Volume 6: Organization of the Optical Society of America photonic science topical meeting series
[AD-A261267] 09 p2856 N93-26266

Gordon Conference on Point Defects, Line Defects and Interfaces in Semiconductors
[AD-A261485] 09 p2868 N93-26357

Summary report of the Defense Sciences Research Council Summer Conference
[AD-A261375] 09 p2917 N93-26359

Proceedings of the complex systems engineering synthesis and assessment technology workshop
[AD-A261404] 09 p2807 N93-26403

Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405

The Earth's climate as a dynamical system
[DE93-004666] 09 p2767 N93-26496

Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506

European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576

Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan
[PB93-165249] 09 p2641 N93-26589

The 1992 United Nations Workshop on Space Communication for Development: Proceedings
10 p3022 N93-26640

The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706

Nuclear Propulsion Technical Interchange Meeting, volume 1
[NASA-CP-10116-VOL-1] 10 p2976 N93-26908

Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951

Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042

The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134

Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166

NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290

Workshop on Harmonic Oscillators
[NASA-CP-3197] 10 p3141 N93-27311

Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401

Contributions to the Twente Workshop on Hamiltonian Graph Theory
[MEMO-1043] 10 p3115 N93-27469
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Technology for Space Station Evolution. Executive summary and overview
[NASA-TM-108724] 10 p2972 N93-27854
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
LDEF: 69 Months in Space. Part 3: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-3] 10 p3219 N93-28254
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
International Conference on Martensitic Transformations (ICOMAT 92)
[AD-A262739] 11 p3321 N93-28591
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings
[NASA-TM-108721] 11 p3262 N93-28699
Workshop on Advanced Technologies for Planetary Instruments, part 1
[NASA-CR-193015] 11 p3639 N93-28764
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Introductions to the Proceedings of the Fourteenth Symposium on Biotechnology for Fuels and Chemicals
[DE93-006235] 11 p3490 N93-28890
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
FAA international conference on airplane ground deicing
[AD-A263617] 11 p3244 N93-29286
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354
Symposium on high temperature superconductors: Materials research for emerging technologies
[AD-A263120] 11 p3409 N93-29495
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 1
[NASA-CP-10112-VOL-1] 11 p3509 N93-29516
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2
[NASA-CP-10112-VOL-2] 11 p3515 N93-29556
LDEF: 69 Months in Space. Part 1: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-1] 11 p3660 N93-29621
The 17th Annual Climate Diagnostics Workshop
[PB93-183895] 11 p3483 N93-29664
The 9th FLICC Forum on Federal information Policies
[PB93-184687] 11 p3624 N93-29668
LDEF: 69 Months in Space. Part 4: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-4] 11 p3665 N93-29682
Proceedings of the Seventh Annual Summer Conference. NASA/USRA: University Advanced Design Program
[NASA-CR-192962] 11 p3227 N93-29712
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Proceedings of Symposium F on New Aspects on the Growth, Characterization and Applications of CdTe and related Cd rich alloys 5, 1992
[AD-A263541] 11 p3597 N93-29974
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
The First NASA Advanced Composites Technology Conference, part 1
[NASA-CP-3104-PT-1] 11 p3300 N93-30428
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534
Cloud Impacts on DOD Operations and Systems Conference (CIDOS-91)
[AD-A264463] 11 p3484 N93-30535
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
Introduction 11 p3395 N93-30728
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 2
[PB93-174795] 11 p3466 N93-30935
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087
The 1st International Conference on Millimeter Wave and Far-Infrared Technology
[AD-A264268] 12 p3715 N93-31096
GRI proceedings on the Workshop on Plastic Pipe Research Results
[PB93-190460] 12 p3708 N93-31211
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
The 3rd national heavy precipitation workshop
[PB93-186625] 12 p3767 N93-31329
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Targets for Space-Based Interferometry
[ESA-SP-354] 12 p3844 N93-31750
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Conference: Three Decades of Numerical Linear Algebra at Berkeley
[AD-A264964] 12 p3809 N93-32076
Advances in Analysis and Detection of Explosives. Proceedings of the 4th International Symposium on Analysis and Detection of Explosives
[AD-A265002] 12 p3713 N93-32077
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176
Video conferencing made easy
[DE93-010798] 12 p3718 N93-32283

CONFIDENCE LIMITS
Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510
A revised lower confidence limit procedure for the reliability of complex quasi-coherent systems
[AD-A257599] 05 p1277 N93-17764
The meaning and utility of confidence
[AD-A259646] 08 p2472 N93-23655
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568
Measurement uncertainty considerations for coordinate measuring machines
[PB93-189819] 12 p3714 N93-31196

CONFIGURATION INTERACTION
Modelling of flexible multibody dynamics and a computer method via the bond graph method 01 p0065 N93-10573
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
Theoretical hyperfine structure constants for transition metal atoms and ions
[DE93-012325] 11 p3566 N93-29183
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations 11 p3319 N93-30099

CONFIGURATION MANAGEMENT
Issues and techniques of CASE integration with configuration management
[AD-A253323] 01 p0136 N93-10298
Parallels in computer-aided design framework and software development environment efforts
[AD-A253327] 01 p0137 N93-10448
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
The past, present, and future of configuration management
[AD-A254175] 01 p0138 N93-10665
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154

New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU] 05 p1261 N93-17275
Analysis of a software maintenance system: A case study
[AD-A258469] 06 p1619 N93-18271
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
Management of space networks 09 p2672 N93-24671
Automation and hypermedia technology applications 12 p3843 N93-32155

CONFINEMENT
Supersonic confined jet nozzles 01 p0016 N93-10009
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
Laser material interaction in confined medium 02 p0319 N93-12035
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Shock waves induced by pulsed laser in confined interaction: Numerical simulation 02 p0319 N93-12038
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Physics of the L-mode to H-mode transition in tokamaks
[DE92-040697] 05 p1306 N93-15827
Long-duration isolation and confinement: Human factors issues and research requirements 05 p1223 N93-16808
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743
Roles of electric field on toroidal magnetic confinement
[NIFS-200] 06 p1669 N93-19884
Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942
Dimensionless scaling of confinement in ATF
[DE93-001705] 07 p2069 N93-20030
Effect of alpha particles on radial electric field structure in Torsatron/Heliotron reactor
[NIFS-182] 07 p2071 N93-20265
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Plasmas physics research in the MST toroidal confinement device
[DE93-006502] 08 p2493 N93-22711
Assessment of torsatrons as reactors
[DE93-006721] 09 p2858 N93-24969
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
Classical confined particles 10 p3146 N93-27356
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310

CONFIRMATION
U PROVING

CONFLUENCE
U CONVERGENCE

CONFORMAL MAPPING
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry 02 p0373 N93-12002
Fixed points of expansive analytic maps (2)
[AD-A254737] 02 p0344 N93-12357
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
The effective transverse resistivity in multifilamentary conductors
[MEMO-1027] 07 p1892 N93-21008
Conformal length of graphs
[ETN-93-93419] 07 p2054 N93-21068
Mapping methods for computationally efficient and accurate structural reliability
[NASA-TM-105892] 08 p2330 N93-23745
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
Superconformal structures and holomorphic 1/2-superdifferentials on N = 1 super Riemann surfaces
[DE93-604133] 11 p3558 N93-30989
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060

CONFORMAL TRANSFORMATIONS
U CONFORMAL MAPPING

CONGESTION
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903

CONGRESSES
U CONFERENCES

CONGRESSIONAL REPORTS
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
Small planetary mission plan: Report to Congress
[NASA-TM-107809] 03 p0513 N93-13266
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
National Aeronautics and Space Administration Authorization Act, fiscal year 1993
[S-REPT-102-364] 03 p0741 N93-13798
NASA authorization, 1993, volume 2
[GPO-56-943-VOL-2] 03 p0741 N93-13799
NASA's fiscal year 1993 budget
[S-HRG-102-707] 03 p0742 N93-13800
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
National Aeronautics and Space Administration 05 p1358 N93-17090
National Aeronautics and Space Administration 05 p1358 N93-17091
Report to Congress on the strategic defense initiative, 1992
[AD-A258449] 06 p1650 N93-17992
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Expendable launch vehicles technology: A report to the US Senate and the US House of Representatives
[NASA-TM-108141] 06 p1456 N93-19375
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
Earth observing system: Information on NASA's selection of data centers. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-91-67] 06 p1569 N93-19842
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
University research: Controlling inappropriate access to federally funded research results. Report to the Chairman, Human Resources and Intergovernmental Relations Subcommittee, Committee on Government Operations, House of Representatives
[GAO/RCED-92-104] 06 p1684 N93-19844
National Aero-Space Plane: Restructuring future research and development efforts. Report to Congressional requesters
[GAO-NSIAD-93-71] 06 p1442 N93-19845
Report to the Chairman, Legislation, and National Security Subcommittee, Committee on Goverment Operations, House of Representatives. Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A259473] 07 p1780 N93-20245
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Goddard Space Flight Center: Decision to contract for plant operations and maintenance. Report to the Chair, Subcommittee on VA, HUD, and Independent Agencies, Committee on Appropriations, US Senate
[GAO/NSIAD-93-92] 07 p2086 N93-21357
NASA program costs: Space missions require substantially more funding than initially estimated. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-97] 07 p2093 N93-21358
Report of the SSME assessment team
[NASA-TM-108217] 07 p1830 N93-21645
Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc. 07 p2093 N93-21677
National Aeronautics and Space Administration: Statement of Joanne Padron, American Institute of Aeronautics and Astronautics 07 p2093 N93-21678
National Aeronautics and Space Administration: Statement of Ralph J. Strnad, Sr., Secretary, Washington Area Metal Trades Council/Chief Steward, Goddard Space Flight Center 07 p2093 N93-21679
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
National Aeronautics and Space Administration: Statement of Len Ricks, Council of Engineers and Scientists Organizations 07 p2094 N93-21681
National Aeronautics and Space Administration: Statement of the Space Science Working Group 07 p2094 N93-21682
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy
[NASA-TM-103992] 07 p2027 N93-21807

The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
NASA contract management
[GAO/HR-93-11] 08 p2519 N93-23376
State of Small Business: A report of the President transmitted to the Congress
[PB93-137073] 08 p2519 N93-23437
Publications of the Executive Office of the President, 20 Jan. 1989 - 20 Jan. 1993: Report to the Congress
[PB93-139764] 08 p2529 N93-24307
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
High performance computing: Advanced Research Projects Agency should do more to foster program goals. Report to the Chairman, Committee on Armed Services, House of Representatives
[GAO/IMTEC-93-24] 11 p3533 N93-30202
Promoting high-performance computing and communications
[ISBN-0-16-041628-3] 11 p3522 N93-30570

CONGRUENCES
Local and global properties of curve congruencies in Euclidean three dimensional space
[ETN-93-93411] 07 p2055 N93-21174
Congruences and quotients in categories of algebras
[RUU-CS-92-23] 10 p3120 N93-28064
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k)
[CWI-NM-R9215] 10 p3120 N93-28083
Algorithms for point set congruence
[AD-A264016] 11 p3532 N93-29980

CONICAL BODIES
NT SLENDER CONES
On the instability of hypersonic flow past a pointed cone: Comparison of theoretical and experimental results of Mach 18
[DLR-FB-92-02] 02 p0196 N93-11141
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Separated flow past smooth slender bodies
08 p2298 N93-24213
An investigation of the fundamental cause of asymmetric separated flow
[AD-A260296] 08 p2114 N93-24263
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028

CONICAL FLARE
U CONES

CONICAL FLOW
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Development of a boundary element method program for numerical analysis of supersonic unsteady flow
06 p1410 N93-19283

CONICAL NOZZLES
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
An experimental study of under-expanded jets
09 p2577 N93-25467

CONICAL SCANNING
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726

CONICAL SHELLS
Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281
Buckling problems of sandwich shells
[LR-690] 05 p1185 N93-16286

CONICS
NT ELLIPSES
NT PARABOLAS

CONIFERS
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Radiative transfer theory for polarimetric remote sensing of pine forest 03 p0633 N93-13085
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
A microwave scattering model for layered vegetation
06 p1565 N93-18074
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data
07 p1955 N93-21583
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595

CONJUGATE GRADIENT METHOD
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
Krylov subspace methods for complex non-Hermitian linear systems
[NASA-CR-190931] 02 p0409 N93-11458
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
Preconditioned conjugate gradient techniques for the solution of time-dependent differential equations
[REPT-92-19] 06 p1643 N93-17844
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
A new conjugate gradient method for optimal control
[MATHS-REPT-A-174] 08 p2462 N93-24077
A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642
Configuration optimization of space structures
09 p2670 N93-26415
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping
11 p3519 N93-29581
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141

CONJUGATES
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061

CONJUGATION
NT FOUR-WAVE MIXING
NT PHASE CONJUGATION
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Immunoconjugates: Magic bullets for cancer therapy?
09 p2796 N93-25567
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497
Normal forms of invariant vector fields under a finite group action
[DE93-604134] 12 p3813 N93-31102

CONNECTION MACHINE
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Efficiently modeling neural networks on massively parallel computers 08 p2453 N93-22353
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Structured adaptive mesh refinement on the connection machine
[DE93-007368] 09 p2816 N93-25316
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Multiresolution analysis of SAR data
[AD-A264727] 11 p3393 N93-30576

CONNECTIONS
U JOINTS (JUNCTIONS)

CONNECTIVE TISSUE
NT BONE MARROW
NT CARTILAGE
NT COLLAGENS
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759

CONNECTORS
NT ELECTRIC CONNECTORS
NT UMBILICAL CONNECTORS
Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Fastening apparatus having shape memory alloy actuator
[NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Work attachment mechanism/work attachment fixture
[NASA-CASE-GSC-13430-1] 04 p0890 N93-14712
Preliminary lightning tests: Optical fiber penetration of an exclusion region barrier
[DE92-019804] 04 p0983 N93-15230
High-strength in-line fiber optic connector
[AD-D015446] 05 p1303 N93-16456
Slip joint connector
[NASA-CASE-MFS-28659-1] 05 p1178 N93-17080
Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources
06 p1664 N93-19409
Robot-friendly connector --- space truss structures
[NASA-CASE-MSC-21864-1] 07 p1914 N93-20117
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Quick connect fastener
[NASA-CASE-MFS-28833-1] 11 p3445 N93-29846
Optimal geometric design of robots for environments with obstacles 11 p3445 N93-30149
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033

CONNECTORS (ELECTRIC)
U ELECTRIC CONNECTORS

CONOIDS
U CONICAL BODIES

CONSERVATION
NT ENERGY CONSERVATION
Variable-Volume Flushing (V-VF) device for water conservation in toilets 08 p2429 N93-22167
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113

CONSERVATION EQUATIONS
Improved numerical simulation of Euler equations
01 p0080 N93-10309
Difference approximations for hyperbolic conservation laws and consistency with characteristics
[NAL-TR-1098T] 02 p0428 N93-12350
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
On the structure of gaseous confined laminar diffusion flames: Numerical investigation
[NASA-TM-106039] 07 p1902 N93-21198
Theoretical and pragmatic modelling of governing equations for a two-phase flow in bubbly and annular flow regimes
[DE93-004200] 08 p2289 N93-22757

CONSERVATION LAWS
Improved numerical simulation of Euler equations
01 p0080 N93-10309

The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
Difference approximations for hyperbolic conservation laws and consistency with characteristics
[NAL-TR-1098T] 02 p0428 N93-12350
Hyperbolic conservation laws with umbilic points, 1
[AD-A254431] 03 p0696 N93-12594
Conservation laws for elastic systems with dissipation
[AD-A257168] 05 p1280 N93-15999
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Improved shock-capturing of Jameson's scheme for the Navier-Stokes equations
[MEMO-1041] 05 p1163 N93-16842
A brief description of a new numerical framework for solving conservation laws: The method of space-time conservation element and solution element
[NASA-TM-105757] 09 p2829 N93-26560
Error analysis and local refinement for a one-dimensional, scalar conservation law
[CWI-NM-R9210] 10 p3114 N93-27365
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626
Nonlinear stability of viscous shock waves
[TRITA-NA-9205] 11 p3419 N93-29025
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
Roe's scheme and the MUSCL technique for the Navier-Stokes equations
[MEMO-1090] 12 p3725 N93-31527
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016

CONSISTENCY
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Some consistency requirements on hardening-recovery evolution equations for welding, part 1
[DE92-015992] 02 p0329 N93-12220
Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Concurrency control in real-time database systems 09 p2874 N93-25271
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture 09 p2876 N93-25554
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring 12 p3835 N93-32132

CONSOLES
NT REMOTE CONSOLES

CONSOLIDATION
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
HIP consolidation of aluminum-rich intermetallic alloys and their composites
[NAWCADWAR-92003-60] 04 p0845 N93-14726
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
Analysis of consolidation of intermediate level maintenance for Atlantic Fleet T700-GE-401 engines
[AD-A257754] 05 p1067 N93-17695
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439

CONSTANTS
NT GRAVITATIONAL CONSTANT
NT PLANCKS CONSTANT
NT SOLAR CONSTANT
NT TIME CONSTANT
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations 11 p3319 N93-30099

CONSTELLATIONS
NT CENTAURUS CONSTELLATION
NT CYGNUS CONSTELLATION
NT LYRA CONSTELLATION
NT ORION CONSTELLATION
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769

CONSTITUTIONAL DIAGRAMS
U PHASE DIAGRAMS

CONSTITUTIVE EQUATIONS
Chronorheological characterization of elastomers 01 p0046 N93-10476
Consistent shear constitutive relations for laminated plates 01 p0028 N93-10509
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
The practical application of computational fluid mechanics 07 p1905 N93-20622
On homogenization method and large deformations 07 p1845 N93-20634
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332
Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Some aspects of invariant theory in plasticity. Part 2: Constitutive relations for perfectly locking materials. Comments on perfectly plastic solids 12 p3742 N93-32321

CONSTRAINTS
NT METEOROLOGICAL PARAMETERS
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions 01 p0066 N93-10575
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Design and synthesis of molecular systems capable of supporting intracavity chemical reactions
[AD-A251024] 02 p0440 N93-11872
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
A linear constraint technology for interactive graphic systems 04 p0957 N93-15568
Modelling dynamical systems with equality state-space constraints
[NLR-TP-89418-U] 05 p1259 N93-16275
Numerical solution of dynamical systems with state-space constraints
[NLR-TP-89419-U] 05 p1264 N93-16293
Geometric constraint satisfaction
[CWI-CS-R9141] 05 p1236 N93-16339
On Gupta-Bleuler quantization of systems with second-class constants
[NIKHEF-H/92-05] 05 p1264 N93-16342
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
Scheduling of an aircraft fleet 06 p1635 N93-18665
Global planning of several plants 06 p1635 N93-18667
Experiments with a decision-theoretic scheduler 06 p1636 N93-18674
Rescheduling with iterative repair 06 p1637 N93-18679
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems 06 p1638 N93-18687
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas 06 p1638 N93-18688
A hybrid job-shop scheduling system 06 p1639 N93-18690
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
Constraint monitoring in TOSCA 06 p1639 N93-18693
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain 06 p1639 N93-18694
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Effect of design selection on response surface performance
[NASA-CR-192275] 07 p2038 N93-20895
Stochastic scheduling with variable profile and precedence constraints
[INRIA-RR-1525] 07 p2059 N93-21396
The Shapley value for cooperative games under precedence constraints
[MEMO-1025] 07 p2056 N93-21398
Constraint checking during error recovery 08 p2445 N93-22169
Methods for modeling contact dynamics of capture mechanisms 08 p2151 N93-22320
On positive invariance and constrained control of linear multivariable systems
[LAAS-92223] 08 p2462 N93-23862
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
Reduction method with system analysis for multiobjective optimization-based design
[NASA-CR-191456] 12 p3803 N93-31194
Scheduling with partial orders and a causal model 12 p3835 N93-32130

CONSTRICTIONS
Gas arc constriction for plasma arc welding
[NASA-CASE-MFS-28844-1] 12 p3734 N93-31292

CONSTRICTORS
Effects of anode material on arcjet performance 01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197

CONSTRUCTION
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
The possibility of concrete production on the Moon 03 p0554 N93-13988

Concrete structure construction on the Moon
03 p0559 N93-13989
Lunar concrete for construction
03 p0555 N93-13990
Subsonic aerodynamic research laboratory
[AD-A256060] 04 p0780 N93-14661
Tribology of magnetic storage systems
04 p1002 N93-14772
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Properties and uses of concrete, appendix B
05 p1128 N93-16904
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space
05 p1181 N93-17284
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Estimating the regional economic significance of airports
[AD-A257658] 05 p1073 N93-17793
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308
Space Station Freedom as an engineering experiment station: An overview 08 p2187 N93-22631
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Construction of an advanced software tool for planetary atmospheric modeling 09 p2815 N93-25799
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Dynamics of on-orbit construction process
09 p2669 N93-26406
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Indigenous lunar construction materials
09 p2670 N93-26413
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
An engineer/constructor's view of lunar resource development 10 p3211 N93-27960
Metals production 10 p3214 N93-27970
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
Space construction activities
[NASA-CR-192690] 11 p3274 N93-29108
Interaction dynamics of on-orbit construction
11 p3274 N93-29109
Hybrid CMS methods with model reduction for assembly of structures 11 p3274 N93-29110
Structural load control during construction
11 p3275 N93-29113
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Lunar regolith densification 11 p3276 N93-29115
Lunar rovers and local positioning system
11 p3277 N93-29119
Systems engineering studies of lunar base construction 11 p3277 N93-29121
Advanced Construction Technology Center research
[AD-A263654] 11 p3432 N93-29390
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Air Force construction automation/robotics
12 p3715 N93-32110

CONSTRUCTION IN SPACE
U ORBITAL ASSEMBLY

CONSTRUCTION INDUSTRY
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2884 N93-26568

CONSTRUCTION MATERIALS
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
The possibility of concrete production on the Moon
03 p0554 N93-13988
Concrete structure construction on the Moon
03 p0559 N93-13989
Lunar concrete for construction
03 p0555 N93-13990
Properties and uses of concrete, appendix B
05 p1128 N93-16904
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
Indigenous lunar construction materials
09 p2670 N93-26413
Development and mechanical properties of construction materials from lunar simulant 10 p3021 N93-26687
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
Indigenous lunar construction materials
11 p3277 N93-29120
Systems engineering studies of lunar base construction 11 p3277 N93-29121

CONSUMABLES (SPACECRAFT)
NT STORABLE PROPELLANTS
Automated resupply of consumables: Enhancement of spece commercialization opportunities
02 p0403 N93-11980
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems
03 p0556 N93-13983

CONSUMABLES (SPACECREW SUPPLIES)
Automated resupply of consumables: Enhancement of space commercialization opportunities
02 p0403 N93-11980

CONSUMERS
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A fuzzy set preference model for market share analysis 11 p3514 N93-29548
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660

CONSUMPTION
NT ENERGY CONSUMPTION
NT FUEL CONSUMPTION
NT WATER CONSUMPTION

CONTACT LENSES
Operational use of contact lenses by military aircrew
[AGARD-AG-334] 05 p1224 N93-15824
The use of extended wear contact lenses in the aviation environment: An Army-wide study
[AD-A260938] 09 p2795 N93-26218

CONTACT LOADS
NT ROLLING CONTACT LOADS
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
Contact detection and contact motion for error recovery in the presence of uncertainties
02 p0398 N93-11956
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
Optimization techniques for contact stress analysis
[AD-A260846] 09 p2729 N93-25911
Contact stress analysis of spiral bevel gears using nonlinear finite element static analysis
[NASA-TM-106176] 10 p3049 N93-27037
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411
Contact mechanics and the dynamics of manipulation
12 p3733 N93-31103

CONTACT RESISTANCE
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
P+ contacts on GaAs for semiconductor lasers
[AD-A260207] 08 p2309 N93-24003
Influence of stochastic contact resistance on coupling losses
[MEMO-1067] 10 p3028 N93-28076
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201

CONTACTORS
High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318

CONTACTS (ELECTRIC)
U ELECTRIC CONTACTS

CONTAINERLESS MELTS
Materials science research in microgravity
08 p2191 N93-22645

CONTAINERS
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943
Alternating current (AC) impedance testing of coated traycans
[AD-A261256] 10 p3030 N93-27099
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964

CONTAINMENT
An analytical and experimental study on the design and verification of containment subjected to impact loading
05 p1078 N93-15726
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Advanced collapsible tank for liquid containment
[NASA-CR-188247] 11 p3353 N93-28698
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211

CONTAMINANTS
NT RADIOACTIVE CONTAMINANTS
NT TRACE CONTAMINANTS
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Electrical resistance tomography used in environmental restoration
[DE92-018003] 01 p0103 N93-10763
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Contaminant interferences with SIMS analyses of microperticle impactor residues on LDEF surfaces
01 p0032 N93-10854
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
The broad band overlap problem in atmospheric trace gases 03 p0641 N93-12624
Characterization of site geochemistry in support of environmental restoration
[DE92-017512] 03 p0641 N93-12685
Materials SIG quantification and characterization of surface contaminants 03 p0546 N93-12773
Z306 molecular contamination ad hoc committee results 03 p0546 N93-12774
Surface contamination on LDEF exposed materials
03 p0547 N93-12776
Sources and transport of silicone NVR
03 p0547 N93-12777

Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale [PB92-213248] 03 p0643 N93-12940
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report [PB92-218791] 03 p0714 N93-12982
MCFC diagnostics: HCl detection [DE92-001292] 03 p0639 N93-13313
Effects of coal-derived trace species on performance of molten carbonate fuel cells [DE93-000203] 03 p0639 N93-13427
Documentation for developing the initial source category list [PB92-218429] 03 p0646 N93-13647
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Infrared spectroscopy of size resolved fine aerosol 03 p0647 N93-13758
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas 04 p0909 N93-14118
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance [AD-A255972] 04 p0981 N93-14403
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1 [AD-A256158] 04 p0842 N93-14678
Performing wind-tunnel modeling for better management of near-field risks [DE92-040205] 04 p0910 N93-15063
Liquid flow reactor and method of using [AD-D015392] 04 p0893 N93-15232
Contaminant effects in solid oxide fuel cells [DE92-040255] 04 p0908 N93-15323
Bevalac ion beam characterizations for single event phenomena [AD-A257033] 04 p0979 N93-15362
Fluid separator [NASA-CASE-MFS-28658-1] 05 p1163 N93-17039
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows [DE93-002794] 06 p1535 N93-19615
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups [DE93-002942] 06 p1484 N93-19752
Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants 07 p1839 N93-21164
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description [PB92-218114] 07 p2056 N93-21341
Preserving our future today: Your guide to the United States Environmental Protection Agency [PB92-226190] 07 p1990 N93-21345
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California [PB93-120053] 07 p2019 N93-21536
Field screening for environmental pollutants: Defining user instrumentation needs [PB93-117885] 07 p1993 N93-21791
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California [PB93-118495] 07 p1994 N93-21805
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap [AD-A259344] 07 p1904 N93-21977
Studies of the formation chemical reactivity and properties of small clusters application to an understanding of aerosol formation and heterogeneous chemistry [DE93-005920] 08 p2221 N93-23309
Arctic Contaminants Research Program: Research Plan [PB93-135630] 08 p2387 N93-23439
Proceedings of the 15th Annual EPA Conference on Analysis of Pollutants in the Environment [PB93-152601] 08 p2388 N93-23681
Use of high-energy radiation for degradation of environmental pollutants [PB93-149995] 08 p2390 N93-24636
Non-local description of pollution transport in random medium 09 p2763 N93-25329
National air pollutant emission estimates [PB93-157808] 09 p2765 N93-25850
Pollution prevention 1991: Progress on reducing industrial pollutants [PB93-157725] 09 p2766 N93-25875
Effects of moisture and other contaminants in friction composites [AD-A261226] 09 p2640 N93-26301
Using terrestrial plants in biomonitoring [PB93-158780] 09 p2766 N93-26316
Particulate emissions from gas turbine engines [AD-A261374] 09 p2595 N93-26339
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River [PB93-172955] 09 p2767 N93-26511
Model for transport of floating debris in the ocean [PB93-172997] 09 p2768 N93-26559
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category [PB93-167310] 10 p3067 N93-26608
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6 [PB93-174886] 10 p3077 N93-27407
Effects of spacecraft materials outgassing products on cryogenic surfaces [AD-A262671] 10 p2963 N93-27686
Contamination measurements on experiment M0003 10 p2998 N93-28273
Optical characterization of LDEF contaminant film 10 p3149 N93-28274
State of the art: Ecological biomarkers [DE93-006621] 11 p3469 N93-28992
Study to determine the nature and extent of ozone and ozone precursor transport in selected areas of California [PB93-184828] 11 p3470 N93-29669
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee [DE93-012947] 11 p3473 N93-30187
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge [AD-A264128] 11 p3473 N93-30197
Development of novel models for describing multiple toxicity effects [AD-A264439] 11 p3496 N93-30422
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality [PB93-186245] 11 p3475 N93-30834
Three-dimensional modeling of pollutant transport in surface waters [PB93-190627] 12 p3751 N93-31203
Preferential flow effects on chemical transport and retardation in soils [PB93-190668] 12 p3723 N93-31204
Air quality studies in Albuquerque, New Mexico [PB93-190817] 12 p3751 N93-31212
Chemical dehalogenation treatment: Base-Catalyzed Decomposition Process (BCDP) [PB93-182939] 12 p3751 N93-31432
Geochemical, genetic, and physiological control of pollutant biodegradation [AD-A264106] 12 p3753 N93-32027
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators [PB93-191393] 12 p3754 N93-32088
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils [PB93-172948] 12 p3715 N93-32408

CONTAMINATION
NT FUEL CONTAMINATION
NT SPACECRAFT CONTAMINATION
Investigations of the effects of contamination on UV optics 01 p0159 N93-10949
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Characterization of site geochemistry in support of environmental restoration [DE92-017512] 03 p0641 N93-12685
A novel diesel-fueled engine for microclimate cooling for the individual soldier [AD-A254510] 03 p0609 N93-12724
Surface evaluation of UV-degraded contamination [NASA-CR-184500] 04 p0910 N93-14764
Operational strategies for contamination control of composite materials 04 p0822 N93-15614
A new approach for performing contamination control bakeouts in JPL thermal vacuum test chambers 04 p0823 N93-15618
Mass spectrometer use in a large chamber 04 p0823 N93-15619
B4C solid target boronization of the MST reversed-field pinch [DE93-002736] 05 p1310 N93-16921
Materials surface contamination analysis [NASA-CR-192422] 05 p1105 N93-17000
Generation of aerosolized particulate contamination by the wear of stainless steels [DE93-000742] 05 p1115 N93-17047
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors [AD-A258020] 06 p1496 N93-17917
Fouling and slagging in combustion plant [ESDU-92012] 06 p1498 N93-18000
Application of molten salts in pyrochemical processing of reactive metals [DE92-018618] 06 p1489 N93-19437
Contamination signatures observed during the CIRRIS-1A mission [AD-A258596] 07 p1820 N93-19982
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap [AD-A259344] 07 p1904 N93-21977
Swept wing attachment line contamination fence [NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Environmental projects. Volume 14: Removal of contaminated soil and debris [NASA-CR-192803] 08 p2384 N93-22803
The determination of particulate contamination in miniature ball bearings [DE93-006261] 08 p2316 N93-23675
The theory behind the SOCRATES code [AD-A259987] 08 p2196 N93-24298
Development of a cone penetrometer for measuring spectral characteristics of soils in situ 09 p2776 N93-25570
Military standardization handbook: Aircraft refueling handbook [AD-A261755] 09 p2662 N93-26600
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils [PB93-166965] 10 p3067 N93-26605
Chemical analyses of provided samples [NASA-CR-193207] 10 p2993 N93-27000
Chemical analyses of provided samples [NASA-CR-193211] 10 p2993 N93-27077
The experimental study of transition and leading edge contamination of swept wings [LIB-TRANS-2197] 10 p2930 N93-27274
Operation of a solar photocatalytic water treatment system at a Superfund Site [DE93-005354] 10 p3065 N93-28060
Environmental monitors in the Midcourse Space Experiments (MSX) 11 p3286 N93-28826
Post-flight analyses of the crystals from the M0003-14 quartz crystal microbalance experiment 11 p3602 N93-29684
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee [DE93-012947] 11 p3473 N93-30187
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky [PB93-182244] 11 p3474 N93-30825
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances [PB93-185551] 11 p3475 N93-30829
In-situ bioventing: Two US EPA and Air Force sponsored field studies [PB93-194231] 12 p3754 N93-32089
Micromachined chemical sensor with integrated microelectronics [DE93-013761] 12 p3730 N93-32306
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems [NASA-CR-192571] 12 p3772 N93-32365

CONTEXT
From data structure to process structure [MEMO-INF-91-38] 04 p0946 N93-15077
Generalized LR parsing for general context-free grammars [CWI-CS-R9153] 05 p1242 N93-16853
Reflections on segmentation [RR-873-I] 07 p2034 N93-20791

CONTEXT FREE LANGUAGES
Grammatical trigrams: A probabilistic model of link grammar [AD-A256365] 04 p0947 N93-15206
Neural-network acceptors [MEMO-INF-92-36] 05 p1260 N93-16666
An algorithm for the construction of dependency trees [MEMO-INF-92-39] 05 p1240 N93-16668
A short proof of the decidability of bisimulation for normal BPA processed [CWI-CS-R9151] 05 p1267 N93-16731
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509

Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929

CONTINENTAL MARGINS
U CONTINENTAL SHELVES

CONTINENTAL SHELVES
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Interaction of an eddy with a continental slope
[AD-A261550] 09 p2791 N93-26578
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873
Reconstruction of late Wisconsinan Ice Sheet and sea-level implications 12 p3758 N93-31879
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

CONTINENTS
NT AFRICA
NT ASIA
NT AUSTRALIA
NT EUROPE
NT NORTH AMERICA

CONTINGENCY
Real-time contingency handling in MAESTRO
06 p1638 N93-18683

CONTINUITY (MATHEMATICS)
Global continuous symmetry and the 17keV neutrino
[PREPRINT-868] 05 p1288 N93-16966
Min and max are the only continuous ampersand-, V-operations for finite logics
[NASA-CR-192952] 09 p2820 N93-25452
Introduction to a behavioral approach of continuous-time systems
[MEMO-COSOR-92-05] 10 p3112 N93-27244
Introduction to a behavioral approach of continuous-time systems, part 2
[MEMO-COSOR-92-17] 10 p3112 N93-27245
Continuous symmetries of discrete equations
[SSCL-PREPRINT-738] 10 p3121 N93-28163
Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833
Existence of viable solutions for nonconvex-valued differential inclusions in Banach spaces
[DE92-644669] 12 p3803 N93-31285
Generalised curvature continuous rational cubics
[MATHS-REPT-A-180] 12 p3809 N93-32347

CONTINUITY EQUATION
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Multi-ion ambipolar diffusion
[AD-A256568] 05 p1283 N93-15659
Impact modeling with smooth particle hydrodynamics
[DE92-017506] 05 p1155 N93-15882
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
A finite volume discretisation scheme with a-posteriori error estimates for the symmetrised continuity equation
[CWI-NM-R9203] 10 p3113 N93-27300
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
Error analysis for the one-dimensional convection-diffusion equation
[CWI-NM-R9209] 10 p3114 N93-27376
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
Characteristics and properties of the continuity equations in a semiconductor
[REPT-92-080] 12 p3720 N93-31609

CONTINUOUS FLOW ELECTROPHORESIS
U ELECTROPHORESIS

CONTINUOUS RADIATION
SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164

CONTINUOUS SPECTRA
A submillimetre polarimeter for the continuum receiver UKT14 on the James Clerk Maxwell Telescope
03 p0748 N93-13852
Effect of continuous eigenvalue spectrum on plasma transport in toroidal systems
[NIFS-214] 09 p2859 N93-25215
Starburst ages in HII galaxies
10 p3183 N93-26777

CONTINUOUS WAVE LASERS
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843
Efficient CW operation of a 2.75 micrometer Er(3+)-doped fluorozirconate fibre laser pumped at 650 and 795 nm
[MBB-Z-0384-91-PUB] 07 p1911 N93-20916
Laser range camera data fusion
[DE93-005159] 08 p2263 N93-23313
Experimental and theoretical study of cw HF chemical laser overtone performance 09 p2713 N93-25420
Experimental and theoretical study of CW HF chemical laser residual fundamental gain
09 p2714 N93-25721
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU]
11 p3440 N93-30415
Efficient laser action from two CW laser pumped pyrromethene-BF2 complexes
[AD-A264887] 11 p3441 N93-30910
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

CONTINUOUS WAVE RADAR
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588

CONTINUOUS WAVES
U CONTINUOUS RADIATION

CONTINUUM FLOW
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278

CONTINUUM MECHANICS
A multilayered shell finite element
01 p0049 N93-10495
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection
01 p0051 N93-10502
Systems of evolution equations in thermochemical equations
[AD-A254891] 02 p0253 N93-12282
Thermodynamically consistent theories for elastoplasticity coupled with damage
[DE92-018283] 03 p0627 N93-13515
Spatio-temporal complexity and large-scale structures in problems of continuum mechanics
[AD-A256410] 04 p0998 N93-15333
Circular dislocation loops and their application to the micromechanics of fibrous composites
06 p1480 N93-19043
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Application of the BEM to the crack growth problem by the coupling of damage-deformation
07 p1940 N93-20702
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Incremental, quasistatic, uniaxial finite element analysis in the linear viscoelasticity theory, exemplarily demonstrated by the Burger material
[ETN-93-93422] 08 p2324 N93-22680
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013

CONTINUUM MODELING
Mathematical analysis of reactive multiphase flows
[AD-A253854] 01 p0083 N93-10810
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
The prediction of the overall behavior of viscous composites
[ITN-93-85184] 05 p1098 N93-16855
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures
06 p1561 N93-19459
Improvement to the higher order finite strip method
07 p1939 N93-20697
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
A one-dimensional continuum model for shape-memory alloys
[AD-A262505] 11 p3321 N93-28656
Progressive failure methodologies for predicting residual strength and life of laminated composites
11 p3307 N93-30866

CONTINUUMS
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
BBXRT and Ginga observations of the Seyfert 1 galaxy MRK 335 06 p1561 N93-18710

First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
A radio continuum survey of edge-on spiral galaxies at 90 cm 10 p3185 N93-26790
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071

CONTOUR SENSORS
An active tactile perception system
04 p0805 N93-14926
A proposal on the quality of the binary thresholds of a contour detection
[REPT-91-075] 12 p3806 N93-31544

CONTOURS
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation
[AD-A257634] 05 p1141 N93-17721
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems
08 p2354 N93-23577
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
Entropy reduction via simplified image contourization
09 p2804 N93-25924
Restoration of incomplete contour images using Markov random fields
[INRIA-RR-1688] 10 p3126 N93-28445
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370

CONTRACT MANAGEMENT
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
An examination of the Total Quality Management (TQM) concept given current Federal/DoD competition initiatives
[AD-A255556] 03 p0620 N93-13876
DOE Headquarters MHD/fuel cell support contract
[DE92-040257] 05 p1194 N93-15935
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
NASA contract management
[GAO/HR-93-11] 08 p2519 N93-23376
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
The identification of early warning signals prior to contractor default
[AD-A262828] 11 p3609 N93-29433

CONTRACTION
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Nth roots of normal contractions
[DE92-644725] 11 p3557 N93-30985

CONTRACTORS
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
The FY 1992 scientific and technical reports, articles, papers, and presentations
[NASA-TM-108392] 07 p2091 N93-20920
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
Goddard Space Flight Center: Decision to contract for plant operations and maintenance. Report to the Chair, Subcommittee on VA, HUD, and Independent Agencies, Committee on Appropriations, US Senate
[GAO/NSIAD-93-92] 07 p2086 N93-21357
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
The identification of early warning signals prior to contractor default
[AD-A262828] 11 p3609 N93-29433
Technology transfer and Rockwell International
11 p3627 N93-30712

CONTRACTS
NT INSURANCE (CONTRACTS)
NT SUBCONTRACTS
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
USAF 1990 research initiation program, volume 3
[AD-A254755] 03 p0775 N93-12849
Defining contract terms
[AD-A259088] 07 p2085 N93-20394
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285
How to compete for NASA contracts
[NASA-TM-109238] 11 p3610 N93-30644

CONTRAILS
SAC contrail formation study
[AD-A254410] 03 p0499 N93-12605
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332

CONTRAROTATING PROPELLERS
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Mean flow interactions of a counter-rotating propeller
07 p1899 N93-20289

CONTRAST
NT IMAGE CONTRAST
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400

CONTROL
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy
04 p0820 N93-15598
Application of programmable logic controllers to space simulation 04 p0821 N93-15608
Control of on-orbit contamination for the Argos (P91-1) satellite 04 p0823 N93-15617
Method and apparatus for detection and control of prelasing in a Q-switched laser
[NASA-CASE-LAR-14790-1] 06 p1542 N93-19373

CONTROL BOARDS
Gloved operator performance study
[AD-A256894] 05 p1227 N93-16048
Integrated and Multi-Function Navigation
[AGARD-CP-525] 08 p2119 N93-22780

CONTROL DEVICES
U CONTROL EQUIPMENT

CONTROL EQUIPMENT
NT CONTROL STICKS
NT CRYOSTATS
NT PRESSURE REGULATORS
NT PRESSURE SWITCHES
NT TELEOPERATORS
LAM actuated propellant flow control device
01 p0018 N93-10017
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Steering system of a vehicle, such as a snow removing machine for airfields
[CA-PATENT-APPL-SN-1293201]
01 p0091 N93-10367
Pitch control trimming system for canard design aircraft
[CA-PATENT-APPL-SN-2013236]
01 p0010 N93-10374
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Design and implementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Actively controlled shaft seals for aerospace applications
[NASA-CR-191901] 06 p1547 N93-18371
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397
In-line hydraulic dashpot
[AD-D015528] 07 p1914 N93-20776
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology
[DE93-003602] 08 p2279 N93-22819
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
Strategic avionics technology definition studies. Subtask 3-1A: Electrical Actuation (ELA) systems
[NASA-CR-193237] 11 p3271 N93-29215
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
Siphon breaker design requirements
[DE93-011799] 11 p3425 N93-30132
Towards distributed control systems for experiments under micro gravity
[NLR-TP-92027-U] 12 p3714 N93-32387

CONTROL MOMENT GYROSCOPES
SSF loads and controllability during assembly
06 p1465 N93-18838
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration
06 p1468 N93-18934

Nonlinear attitude control of spacecraft and momentum management of control moment gyros
08 p2195 N93-23506
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Space Station Freedom attitude determination and control system overview 12 p3689 N93-31447

CONTROL PANELS
U CONTROL BOARDS

CONTROL SIMULATION
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Identification of propulsion systems
[NASA-TM-106007] 07 p1784 N93-20109
Guided Weapons Division Spin Table Facility: Spin table control system
[AD-A259214] 07 p1788 N93-20555
Elimination of resonance with a switching support 07 p1933 N93-20664
NASA MSFC hardware in the loop simulations of automatic rendezvous and capture systems 07 p1818 N93-21448
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
A numerical simulator for testing sliding mode controls in stochastic systems 11 p3361 N93-30260

CONTROL STABILITY
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Experimental demonstration of offset control with an application to the tethered payload 01 p0014 N93-10521
Advanced control for the design of STT missile autopilot
[REPT-921-320-102] 02 p0215 N93-11585
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 04 p0888 N93-14202
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Performance and stability robustness for uncertain linear systems: A quadratic approach
[LAAS-92199] 05 p1271 N93-17494
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Discrete-time Markovian jump linear systems
[REPT-92-37] 06 p1631 N93-17870
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Global stabilization of linear analytic systems
[RR-403] 07 p2051 N93-20738
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades
[NASA-TM-4448] 08 p2125 N93-22486
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
On positive invariance and constrained control of linear multivariable systems
[LAAS-92223] 08 p2462 N93-23862
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669
Robust controls with structured perturbations
[NASA-CR-192956] 09 p2817 N93-24757
The 32nd CDC: Robust stabilizer synthesis for interval plants using Nevanlina-pick theory
[NASA-CR-192894] 09 p2818 N93-25156
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
Stability margins for multilinear interval systems by way of phase conditions: A unified approach
[NASA-CR-192893] 09 p2819 N93-25226
Parametric stability margin for multilinear interval control systems
[NASA-CR-192892] 09 p2819 N93-25296
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
Robust controller design for flexible structures using normalized coprime factor plant descriptions
[NASA-TP-3325] 10 p2958 N93-27083
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Correction and simplification to the order of a stabilizing regulator is sufficient a priori information for adaptive stabilization
[MEMO-1070] 10 p3110 N93-28155
Balancing for nonlinear systems
[MEMO-1071] 10 p3121 N93-28156
Cost averaging techniques for robust control of flexible structural systems 10 p3061 N93-28175
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Hybrid CMS methods with model reduction for assembly of structures 11 p3274 N93-29110
Controls for space structures 11 p3275 N93-29112
Some results on feedback stabilization of a one-link flexible arm
[INRIA-RR-1682] 11 p3543 N93-30116
Robust control via H-infinity optimization 11 p3354 N93-30216
Global stability of systems of two differential equations with unstationary nonlinearities, 2
[DE92-642558] 12 p3802 N93-31072
Dissipation and convergence in the systems of differential equations with unstationary nonlinearities
[DE92-642559] 12 p3802 N93-31079
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373

CONTROL STICKS
F/A-18 controls released departure recovery flight test evaluation
[AD-A256522] 04 p0803 N93-15396

CONTROL SURFACES
NT AILERONS
NT FLAPS (CONTROL SURFACES)
NT GUIDE VANES
NT HORIZONTAL TAIL SURFACES
NT JET FLAPS
NT JET VANES
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT SPOILERS
NT TABS (CONTROL SURFACES)
NT TRAILING EDGE FLAPS
NT WING FLAPS
Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Articulated control surface
[AD-D015464] 05 p1068 N93-16463
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
Aerodynamic surface tip vortex attenuation system
[AD-D015606] 07 p1760 N93-20017
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Application of genetic algorithms to tuning fuzzy control systems 08 p2450 N93-22209
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538

CONTROL SYSTEMS
U CONTROL

CONTROL SYSTEMS DESIGN
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles 01 p0017 N93-10015
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Optimal sample policies for multirate digital control 01 p0141 N93-10346
Model reference adaptive control in large space structures 01 p0013 N93-10365
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
Optimal robot trajectory planning 01 p0065 N93-10570
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459
A rule-based system for real-time analysis of control systems
[NASA-TM-104258] 02 p0277 N93-11619
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Rapid maneuvering of large flexible orbiting systems 02 p0225 N93-11885
Distributed environmental control 02 p0391 N93-11924
A state-based approach to trend recognition and failure prediction for the Space Station Freedom 02 p0230 N93-11925
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216

Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Ultra-dense magnetoresistive mass memory
[NASA-CR-190955] 02 p0405 N93-12520
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
Application of concurrent engineering methods to the design of an autonomous aerial robot
[AD-A254968] 03 p0609 N93-12555
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Unsymmetric Lanczos model reduction and linear state function observer for flexible structures
[NASA-CR-191231] 03 p0686 N93-13295
Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 03 p0614 N93-13452
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
Experiments in two-cooperating-arm manipulation from a platform with unknown motion 03 p0617 N93-13931
Near-minimum-time control of a flexible arm 03 p0695 N93-14039
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 04 p0888 N93-14202
L2 and L-infinity multiobjective control for linear systems 04 p0961 N93-14399
Multiobjective control/structure design optimization in the presence of practical constraints 04 p0898 N93-14446
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Cooperative control of multiple space manipulators 04 p0805 N93-14923
MOVE: A neutral network paradigm for robotic control 04 p0805 N93-14925
A robotic planning system 04 p0810 N93-14949
A concept for a supervised autonomous robot 04 p0810 N93-14950
A monitoring and control system for complex man-machine systems: Preliminary design 04 p0810 N93-14951
Position and vibration control of flexible space robots 04 p0892 N93-15102
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
Design and implementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276
Generating natural-looking motion for computer animation 04 p0956 N93-15564
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Helicopter installations: From motor to rotor
[LR-675] 05 p1061 N93-16345
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191943] 05 p1237 N93-16383
Telerobotic control of a mobile coordinated robotic server
[NASA-CR-191650] 05 p1259 N93-16387
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators
[NASA-CR-191852] 05 p1261 N93-16708
TokenPasser: A petri net specification tool
[NASA-CR-191816] 05 p1241 N93-16725
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757
Developing a control system for ARES 2 05 p1069 N93-16769
Beam, plate, and shell finite elements for CSI design code 05 p1189 N93-16782
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
Modeling for health monitoring and control with applications to the Space Transportation Main Engine 05 p1095 N93-17298
Numerical methods for the analysis of sampled-data systems and for the computation of system zeros 05 p1274 N93-17300
Control law synthesis for large flexible spacecraft
[NLR-TP-91155-U] 05 p1088 N93-17539
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Dust control for Enabler
[NASA-CR-192065] 05 p1180 N93-17774
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
Robust multivariable feedback design for uncertain linear systems
[AD-A258257] 06 p1648 N93-17902
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Preliminary design of a radiator shading device for a lunar outpost
[NASA-CR-192016] 06 p1605 N93-18019
Design requirements for force reflecting master controllers 06 p1605 N93-18035
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter
[NASA-TM-105994] 06 p1540 N93-18091
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Model reference adaptive control of robots
[NASA-CR-191871] 06 p1632 N93-18377
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
A proposal of an architecture for the coordination level of intelligent machines
[NASA-CR-191990] 06 p1613 N93-18516
ORCCAD: Towards an open robot controller computer aided design system
[INRIA-RR-1396] 06 p1621 N93-18519
Robust control of systems with real parameter uncertainty and unmodelled dynamics
[NASA-CR-192008] 06 p1633 N93-18582
Development of simplified external control techniques for broad area semiconductor lasers
[NASA-CR-192223] 06 p1541 N93-18584
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 1
[NASA-CP-3177-PT-1] 06 p1461 N93-18818
Physical insight into the simultaneous optimization of structure and control 06 p1461 N93-18821
Smart patch piezoceramic actuator issues 06 p1462 N93-18822
A numerical approach to controller design for the ACES facility 06 p1462 N93-18823
Micro-precision control/structure interaction technology for large optical space systems 06 p1462 N93-18826
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
Integrated design of the CSI evolutionary structure: A verification of the design methodology 06 p1463 N93-18830
A Darwinian approach to control-structure design 06 p1465 N93-18840
Optical pathlength control on the JPL Phase B interferometer testbed 06 p1465 N93-18842
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Design optimization of the JPL Phase B testbed 06 p1466 N93-18845
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
Spacecraft dynamics characterization and control system failure detection
[NASA-CR-192190] 06 p1466 N93-18852
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
Robust stability of second-order systems
[NASA-CR-192246] 06 p1647 N93-18871
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
Optimization for efficient structure-control systems 06 p1467 N93-18930
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931

An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors
06 p1467 N93-18932
A synopsis of test results and knowledge gained from the Phase-0 CSI evolutionary model
06 p1467 N93-18933
Model reduction in integrated controls-structures design 06 p1468 N93-18935
The Middeck Active Control Experiment (MACE)
06 p1457 N93-18936
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Average-cost based robust structural control
06 p1469 N93-18939
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results
06 p1469 N93-18940
Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Robust control of smart structures
06 p1550 N93-19057
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Automated control of aircraft in formation flight
[AD-A259020] 06 p1450 N93-19102
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Improvements to LQGI/LTR methodology for plants with lightly damped or low frequency poles
[AD-A258841] 06 p1648 N93-19112
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Optimal control of the Starfire Beam Director
[AD-A258839] 06 p1455 N93-19363
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Feed-forward control upgrade of the deep space network antennas 06 p1514 N93-19434
Controls and guidance research
06 p1451 N93-19454
Full design of fuzzy controllers using genetic algorithms 06 p1629 N93-19461
Nonlinear robust controller design for multi-robot systems with unknown payloads
06 p1552 N93-19462
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle
06 p1552 N93-19463
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
Mission and Safety Critical (MASC): An EVACS simulation with nested transactions
[NASA-CR-192295] 07 p2026 N93-20314
URV flight test of an Ada implemented self-repairing flight control system
[AD-A259205] 07 p1787 N93-20551
Guided Weapons Division Spin Table Facility: Spin table control system
[AD-A259214] 07 p1788 N93-20555
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Grasp admittance center. A concept
07 p1918 N93-20720
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Robust controller design: A bounded-input-bounded-output worst-case approach
[AD-A259367] 07 p2047 N93-21246
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Adaptive control with an expert system based supervisory level
[NASA-CR-192742] 07 p2048 N93-21372
A distributed Petri Net controller for a dual arm testbed
[NASA-CR-192733] 07 p2048 N93-21373
A decomposition approach to suboptimal control of discrete-time systems
[REPT-92-027] 07 p2049 N93-21552
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Application of genetic algorithms to tuning fuzzy control systems 08 p2450 N93-22209
Towards autonomous fuzzy control
08 p2450 N93-22213
Synthesis of nonlinear control strategies from fuzzy logic control algorithms 08 p2452 N93-22222
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space
08 p2136 N93-22229
A navigation and control system for an autonomous rescue vehicle in the space station environment
08 p2146 N93-22289
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 1
[NASA-CP-10111-VOL-1] 08 p2452 N93-22351
Fuzzy logic controllers: A knowledge-based system perspective 08 p2453 N93-22352
Fuzzy control of small servo motors
08 p2453 N93-22357
On structuring the rules of a fuzzy controller
08 p2454 N93-22360
Design issues for a reinforcement-based self-learning fuzzy controller 08 p2454 N93-22362
Fuzzy efficiency optimization of AC induction motors
08 p2454 N93-22363
Advanced telerobotic control using neural networks
08 p2455 N93-22364
Fuzzy control of an unmanned helicopter
08 p2455 N93-22366
A neural based intelligent flight control system for the NASA F-15 flight research aircraft
08 p2132 N93-22368
Structure identification in fuzzy inference using reinforcement learning 08 p2456 N93-22371
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
Design of fuzzy system by NNs and realization of adaptability 08 p2457 N93-22377
Improvement on fuzzy controller design techniques
08 p2457 N93-22378
Robustness
[NASA-TP-3336] 08 p2181 N93-22458
Investigation of air transportation technology at Princeton University, 1991-1992
08 p2106 N93-22570
Computer Aided Control System Design (CACSD)
08 p2107 N93-22572
Zero-G life support for Space Station Freedom
08 p2189 N93-22640
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
Multidisciplinary optimization of a controlled space structure using 150 design variables
[NASA-CR-4502] 08 p2125 N93-22799
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Identification for robust control: What is the best approach?
[MEMT-16] 08 p2458 N93-23060
Adaptive control of a flexible manipulator
08 p2458 N93-23201
A passivity approach to controller-observer design for robots
[MEMO-1050] 08 p2459 N93-23355
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge
[AD-A259491] 08 p2459 N93-23448
Process toward a comprehensive control system for molecular beam epitaxy
[AD-A259724] 08 p2507 N93-23468
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Knowledge-based systems for computational control
[AD-A260409] 08 p2527 N93-24110
High reliability residual compressive stress processes. State-of-the-art assessment
[PB93-127751] 08 p2331 N93-24207
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Adaptive control of uncertain systems
[ISBN-0-315-54485-6] 08 p2464 N93-24622
Robust controls with structured perturbations
[NASA-CR-192956] 09 p2817 N93-24757
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
The 32nd CDC: System identification using interval dynamic models
[NASA-CR-192895] 09 p2818 N93-25155
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Aerospace vehicle model simplification for feedback control 09 p2596 N93-25292
Parametric stability margin for multilinear interval control systems
[NASA-CR-192892] 09 p2819 N93-25296
Identification and control of lightly damped, large space structures: An experimental evaluation
09 p2616 N93-25351
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
A control structure for fault-tolerant operation of robotic manipulators
[DE93-005783] 09 p2717 N93-25413
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
What procedure to choose while designing a fuzzy control? Towards mathematical foundations of fuzzy control
[NASA-TM-108719] 09 p2820 N93-25459
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Control and stabilization of nonholonomic dynamic systems 09 p2596 N93-25729
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
Sequential design of a linear quadratic controller for the Deep Space Network antennas
09 p2679 N93-26123

Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333
Development of a material processing plant for lunar soil 10 p3021 N93-26694
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle
[NASA-TP-3335] 10 p2955 N93-27016
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Adaptive control strategies for flexible robotic arm
[NASA-CR-193111] 10 p3050 N93-27159
Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
Identification for the control of MIMO industrial processes
[EUT-91-E-256] 10 p3010 N93-27229
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
Lotosphere, an attempt towards a design culture
[MEMO-INF-92-56] 10 p3163 N93-27490
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis
[AD-A262151] 10 p2946 N93-27546
Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558
Design considerations for ultra-precision magnetic bearing supported slides 10 p2960 N93-27562
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Magnetic Actuators and Suspension for Space Vibration Control
[NASA-CR-193038] 10 p3057 N93-27594
Automation of Space Station module power management and distribution system 10 p2969 N93-27816
Flight telerobotic servicer 10 p2970 N93-27820
Power assist EVA glove development 10 p3086 N93-27850
Controlled Structures Technology Steering Committee Workshop
[NASA-CR-192992] 10 p3058 N93-27888
Control design for the SERC experimental testbeds 10 p3058 N93-27891
A stochastic approach to robust broadband structural control 10 p3058 N93-27892
The Middeck Active Control Experiment (MACE) 10 p3059 N93-27896
Sensor and actuator technology development 10 p3047 N93-27900
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928
Approximate identification and control design with application to a mechanical system
[ISBN-90-370-0065-7] 10 p3109 N93-27934
Flexible control techniques for a lunar base 10 p3111 N93-27981
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
A modified approach to controller partitioning
[NASA-TM-106167] 10 p3110 N93-28051
The 3rd Annual Controlled Structures Technology Symposium
[NASA-CR-192993] 10 p3060 N93-28167
The application of controlled structures technology to adaptive optics 10 p3060 N93-28170
Inhibiting multiple mode vibration in controlled flexible systems 10 p3061 N93-28172
Robust control for uncertain structures 10 p3061 N93-28174
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Control-structures interaction test of the LACE satellite 11 p3263 N93-28706
CSI-Star: A low-cost CSI orbital testbed 11 p3263 N93-28707
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080
Three-parameter tunable Tilt-Integral-Derivative (TID) controller
[NASA-CASE-NPO-18492-1-CU] 11 p3542 N93-29176
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Evaluation of fuzzy inference systems using fuzzy least squares 11 p3513 N93-29539
The cognitive bases for the design of a new class of fuzzy logic controllers: The clearness transformation fuzzy logic controller 11 p3515 N93-29554
A fuzzy control design case: The fuzzy PLL 11 p3515 N93-29555
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
Attitude- and Orbit Control Subsystem concepts for TACSATS 11 p3284 N93-29906
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization 11 p3279 N93-29989
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Control system design and multiparameter variations 11 p3355 N93-30217
Optimal filtering and LQR theory with constraints on system and control matrices 11 p3357 N93-30234
An adaptive controller for a class of MIMO non-minimum phase systems with disturbance rejection design 11 p3359 N93-30248
Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization 11 p3544 N93-30893
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
Testing concept of a taxiing control system, summary 12 p3676 N93-31278
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311
Terminology and concepts of control and Fuzzy Logic 12 p3688 N93-31443
Overview of Fuzzy Logic 12 p3688 N93-31445
Rendezvous guidance 12 p3689 N93-31450
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
Integration of domain and resource-based reasoning for real-time control in dynamic environments 12 p3794 N93-32141
Set-membership identification for robust control design
[AD-A265669] 12 p3800 N93-32197
Towards distributed control systems for experiments under micro gravity
[NLR-TP-92027-U] 12 p3714 N93-32387

CONTROL THEORY

Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Automatic control laws for aircraft in parabolic flight
[DILC-EST-TR-211] 02 p0214 N93-11160
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU] 02 p0324 N93-11177
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
Symposium proceedings on Quantitative Feedback Theory
[AD-A255527] 03 p0505 N93-13872
On a robust controller design using a minimax optimization approach 03 p0695 N93-14021
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
Modelling dynamical systems with equality state-space constraints
[NLR-TP-89418-U] 05 p1259 N93-16275
Redheffer's lemma and H(infinity)-control or infinite-dimensional systems
[W-9206] 05 p1259 N93-16355
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
Improvement in the control aspect of laser frequency stabilization for SUNLITE project 05 p1175 N93-16798
Nonlinear control problems and systems approximations: A geometric approach
[MEMO-1039] 05 p1261 N93-16951
Controllability distributions and systems approximations: A geometric approach
[MEMO-1040] 05 p1269 N93-16952
Control law synthesis for large flexible spacecraft
[NLR-TP-91155-U] 05 p1088 N93-17539
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
The Mini-Mast CSI testbed: Lessons learned 06 p1461 N93-18819
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Improvements to LQGI/LTR methodology for plants with lightly damped or low frequency poles
[AD-A258841] 06 p1648 N93-19112
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
Method for developing the RAFALE flight control system 06 p1444 N93-19912
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
Mission and Safety Critical (MASC): An EVACS simulation with nested transactions
[NASA-CR-192295] 07 p2026 N93-20314
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Distributed database management evaluation software
[AD-A259215] 07 p2090 N93-20565
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
Adaptive control with an expert system based supervisory level
[NASA-CR-192742] 07 p2048 N93-21372
Neighboring suboptimal control for vehicle guidance 08 p2171 N93-22011
Synthesis of nonlinear control strategies from fuzzy logic control algorithms 08 p2452 N93-22222
Nonlinear rescaling of control values simplifies fuzzy control 08 p2456 N93-22373
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034
Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377
An algebra of discrete event processes
[NASA-TM-102848] 08 p2469 N93-23413

An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Robust controls with structured perturbations
[NASA-CR-192956] 09 p2817 N93-24757
Maximum entropy approach to fuzzy control
[NASA-CR-192949] 09 p2818 N93-25141
How to control if even experts are not sure: Robust fuzzy control
[NASA-TM-108745] 09 p2818 N93-25142
The 32nd CDC: Robust stabilizer synthesis for interval plants using Nevanlina-pick theory
[NASA-CR-192894] 09 p2818 N93-25156
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
Control and stabilization of nonholonomic dynamic systems 09 p2596 N93-25729
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209
Six degrees of freedom vibration isolation using electromagnetic suspension 10 p2960 N93-27559
Strain actuated aeroelastic control 10 p3059 N93-27899
A modified approach to controller partitioning
[NASA-TM-106167] 10 p3110 N93-28051
The reflection operator in discrete event systems
[CS-9201] 10 p3110 N93-28067
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Robust control of robots using only position measurements
[MEMO-1073] 10 p3110 N93-28092
Resource limited reasoning: A study of literature in the context of model-based diagnosis
[MEMO-INF-92-38] 11 p3540 N93-28480
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498
The dynamics and control of space tethers 11 p3274 N93-28629
Stabilization using low-gain PI control: SISO case
[OUEL-1947/92] 11 p3541 N93-28898
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control 11 p3512 N93-29533
Fuzzy coordinator in control problems 11 p3515 N93-29552
Tuning a fuzzy controller using quadratic response surfaces 11 p3515 N93-29553
The cognitive bases for the design of a new class of fuzzy logic controllers: The clearness transformation fuzzy logic controller 11 p3515 N93-29554
A fuzzy control design case: The fuzzy PLL 11 p3515 N93-29555
Some problems with the design of self-learning management systems 11 p3516 N93-29559
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Center for the Study of Intelligent Control Systems (Fellowships)
[AD-A263604] 11 p3543 N93-29917
Efficient Reorientation Maneuvers for Spacecraft with Multiple Articulated Payloads
[NASA-CR-193142] 11 p3279 N93-29988
Optimal filtering and LQR theory with constraints on system and control matrices 11 p3357 N93-30234
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
An efficient constrained predictive control algorithm for 2-input systems
[OUEL-1946/92] 12 p3785 N93-31152
Characterisation and control of a flexible robot subject to torque ripple
[OUEL-1952/92] 12 p3734 N93-31156
Active damping in a flexible manipulator 12 p3689 N93-31452
Daily exercise routines 12 p3689 N93-31455
Atmospheric control systems 12 p3689 N93-31456
Rotational speed control 12 p3689 N93-31457
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465
The linear quadratic digital control of infinite-dimensional systems with unbounded input and output operators
[REPT-92-49] 12 p3798 N93-31483
The optimal projection equations for digital control of infinite-dimensional systems
[REPT-93-01] 12 p3799 N93-31851
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857

CONTROL VALVES
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
High-temperature, high-pressure oxygen metering valve
[NASA-CASE-MSC-21823-1] 04 p0891 N93-14843
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Valve lock
[NASA-CASE-MFS-29764-1] 06 p1550 N93-19049
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122
Magnetically operated check valve
[NASA-CASE-MSC-22046-1] 11 p3442 N93-28501
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462

CONTROLLABILITY
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
On automated analysis of flight test data 06 p1444 N93-19913
Solution of quadratic distributed control problems by optimization methods
[ETN-93-93409] 07 p2040 N93-21303
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode 09 p2605 N93-24724
Structural load control during construction 11 p3275 N93-29113

CONTROLLED ATMOSPHERES
NT CABIN ATMOSPHERES
NT SPACECRAFT CABIN ATMOSPHERES
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Microwave processing of ceramics: Guidelines used at the Oak Ridge National Laboratory
[DE92-040862] 05 p1123 N93-16297
An artificially generated atmosphere near a lunar base 05 p1398 N93-17456
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
Chlorotrifluoroethylene decay in the atmosphere: Controlled-environment chamber studies
[AD-A259902] 08 p2388 N93-23989
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436

CONTROLLED FUSION
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Design study on divertor plates of Large Helical Device (LHD)
[NIFS-190] 07 p2074 N93-21361
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795

CONTROLLED STABILITY
U CONTROL

CONTROLLERS
NT SERVOMECHANISMS
NT SERVOMOTORS
Optimal sample policies for multirate digital control 01 p0141 N93-10346
Model reference adaptive control in large space structures 01 p0013 N93-10365
Phase-stepping fiber-optic projected fringe system for surface topography measurements
[NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
EXOS research on master controllers for robotic devices 02 p0399 N93-11957
Fuzzy logic control of telerobot manipulators 02 p0399 N93-11959
A new scheme of force reflecting control 02 p0399 N93-11960
Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970

Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184465] 02 p0328 N93-12196
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
Manipulation strategies for massive space payloads
[NASA-CR-190844] 03 p0611 N93-12952
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Unsymmetric Lanczos model reduction and linear state function observer for flexible structures
[NASA-CR-191231] 03 p0686 N93-13295
Application of Lanczos vectors to control design of flexible structures
[NASA-CR-191230] 03 p0686 N93-13296
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Ocular attention-sensing interface system
[NASA-CR-190884] 03 p0678 N93-13450
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Control of a very flexible robot in gravity 03 p0615 N93-13541
Multiple-function multi-input/multi-output digital control and on-line analysis
[NASA-TM-107697] 03 p0500 N93-13565
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
Experiments in two-cooperating-arm manipulation from a platform with unknown motion 03 p0617 N93-13931
On a robust controller design using a minimax optimization approach 03 p0695 N93-14021
Near-minimum-time control of a flexible arm 03 p0695 N93-14039
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 04 p0888 N93-14202
L2 and L-infinity multiobjective control for linear systems 04 p0961 N93-14399
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Multiobjective control/structure design optimization in the presence of practical constraints 04 p0898 N93-14446
Digital bank-to-turn control and guidance 04 p0802 N93-14447
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Force and position control of robot manipulators: Learning and repetitive control approach 04 p0888 N93-14473
Smart battery controller for lithium sulfur dioxide batteries
[AD-A255490] 04 p0867 N93-14642
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
Remote vehicle controller
[AD-D015389] 04 p0893 N93-15251
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
Propulsion system performance resulting from an integrated flight/propulsion control design
[NASA-TM-105874] 04 p0801 N93-15525
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse 04 p0955 N93-15551
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
Application of programmable logic controllers to space simulation 04 p0821 N93-15608
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study
[NASA-CR-188578] 04 p0825 N93-15633
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191943] 05 p1237 N93-16383
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674
A Petri net controller for distributed hierarchical systems
[NASA-CR-191862] 05 p1276 N93-16675
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators
[NASA-CR-191852] 05 p1261 N93-16708
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Analogue to digital transformation
[ESDU-92044] 06 p1517 N93-17959
Design requirements for force reflecting master controllers 06 p1605 N93-18035
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter
[NASA-TM-105994] 06 p1540 N93-18091
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Model reference adaptive control of robots
[NASA-CR-191871] 06 p1632 N93-18377
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Real-time contingency handling in MAESTRO 06 p1638 N93-18683
A numerical approach to controller design for the ACES facility 06 p1462 N93-18823
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
SSF loads and controllability during assembly 06 p1465 N93-18838
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Design optimization of the JPL Phase B testbed 06 p1466 N93-18845
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Robust stability of second-order systems
[NASA-CR-192246] 06 p1647 N93-18871
CSI related dynamics and control issues in space robotics 06 p1467 N93-18929
Optimization for efficient structure-control systems 06 p1467 N93-18930
An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors 06 p1467 N93-18932
A synopsis of test results and knowledge gained from the Phase-0 CSI evolutionary model 06 p1467 N93-18933
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration 06 p1468 N93-18934
The Middeck Active Control Experiment (MACE) 06 p1457 N93-18936
Average-cost based robust structural control 06 p1469 N93-18939
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Adaptive control of robotic manipulators 06 p1640 N93-19031
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Efficient visual grasping alignment for cylinders
[NASA-CR-191863] 06 p1663 N93-19346
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Optimal control of the Starfire Beam Director
[AD-A258839] 06 p1455 N93-19363
Full design of fuzzy controllers using genetic algorithms 06 p1629 N93-19461
Nonlinear robust controller design for multi-robot systems with unknown payloads 06 p1552 N93-19462
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
An electromagnetically-controlled Precision Orbital Tracking Vehicle (POTV)
[AD-A259143] 07 p1823 N93-20129
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Robust controller design: A bounded-input-bounded-output worst-case approach
[AD-A259367] 07 p2047 N93-21246
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
Adaptive control with an expert system based supervisory level
[NASA-CR-192742] 07 p2048 N93-21372
A distributed Petri Net controller for a dual arm testbed
[NASA-CR-192733] 07 p2048 N93-21373
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Fuzzy logic controllers: A knowledge-based system perspective 08 p2453 N93-22352
A fuzzy controller with nonlinear control rules is the sum of a global nonlinear controller and a local nonlinear PI-like controller 08 p2453 N93-22356
Fuzzy control of small servo motors 08 p2453 N93-22357
On structuring the rules of a fuzzy controller 08 p2454 N93-22360

Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Design issues for a reinforcement-based self-learning fuzzy controller 08 p2454 N93-22362
Fuzzy efficiency optimization of AC induction motors 08 p2454 N93-22363
Fuzzy control of an unmanned helicopter 08 p2455 N93-22366
Evolving fuzzy rules in a learning classifier system 08 p2457 N93-22375
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
Improvement on fuzzy controller design techniques 08 p2457 N93-22378
Parallel processor for real-time structural control [DE93-006284] 08 p2446 N93-22545
Synthesis of robust controllers 08 p2107 N93-22573
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom [DE93-002162] 08 p2312 N93-22891
Controller evaluation of initial terminal data link ATC services: Mini study 3 [DOT/FAA/CT-92/18] 08 p2262 N93-23046
A passivity approach to controller-observer design for robots [MEMO-1050] 08 p2459 N93-23355
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge [AD-A259491] 08 p2459 N93-23448
A fuzzy logic controller system [AD-A259723] 08 p2439 N93-23467
A review of optically controlled microwave devices and circuits [AD-A259647] 08 p2282 N93-23656
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
Modeling and control of flexible manipulators 08 p2318 N93-24182
Adaptive control of uncertain systems [ISBN-0-315-54485-6] 08 p2464 N93-24622
Petri net controllers for distributed robotic systems [NASA-CR-193196] 08 p2320 N93-24658
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669
Experimental results of the performance of the new phase and frequency controller 09 p2839 N93-25035
Two neural network algorithms for designing optimal terminal controllers with open final time [NASA-CR-177599] 09 p2817 N93-25137
RAID-2: Design and implementation of a large scale disk array controller [NASA-CR-192911] 09 p2806 N93-25233
Identification and control of lightly damped, large space structures: An experimental evaluation 09 p2616 N93-25351
A control structure for fault-tolerant operation of robotic manipulators [DE93-005783] 09 p2717 N93-25413
The design of a propulsion system using vent gas from a liquid helium cryogenic system 09 p2623 N93-25539
Firmware development improves system efficiency 09 p2807 N93-25606
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system [AD-A260793] 09 p2599 N93-25693
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Passivity motivated controller design for flexible structures [AD-A261122] 09 p2719 N93-25771
Techniques for designing rotorcraft control systems [NASA-CR-192960] 09 p2597 N93-26046
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Sequential design of a linear quadratic controller for the Deep Space Network antennas 09 p2679 N93-26123
VETA x ray data acquisition and control system 09 p2854 N93-26186
Development and testing of the digital control system for the Archytas unmanned air vehicle [AD-A261656] 09 p2597 N93-26196
Adaptive control of nonlinear flexible systems [AD-A261676] 09 p2826 N93-26365
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Robust controller design for flexible structures using normalized coprime factor plant descriptions [NASA-TP-3325] 10 p2958 N93-27083
Analysis of virtual passive controllers for flexible space structures [NASA-CR-193084] 10 p3050 N93-27145
Low bandwidth robust controllers for flight [NASA-CR-193085] 10 p2946 N93-27156
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Flexible control techniques for a lunar base 10 p3111 N93-27981
A modified approach to controller partitioning [NASA-TM-106167] 10 p3110 N93-28051
The reflection operator in discrete event systems [CS-9201] 10 p3110 N93-28067
Gas storage and recovery system [NASA-CASE-MSC-22091-1] 10 p3021 N93-28136
Correction and simplification to the order of a stabilizing regulator is sufficient a priori information for adaptive stabilization [MEMO-1070] 10 p3110 N93-28155
An ultrasonic sensor controller for mapping and servo control in robotic systems [DE93-009605] 10 p3046 N93-28160
Cost averaging techniques for robust control of flexible structural systems 10 p3061 N93-28175
Clementine sensor processing system 11 p3285 N93-28778
A modular head/eye platform for real-time reactive vision [OUEL-1941/92] 11 p3505 N93-28897
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller [AD-A263178] 11 p3407 N93-29010
Three-parameter tunable Tilt-Integral-Derivative (TID) controller [NASA-CASE-NPO-18492-1-CU] 11 p3542 N93-29176
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control 11 p3512 N93-29533
WARP: Weight Associative Rule Processor. A dedicated VLSI fuzzy logic megacell 11 p3513 N93-29538
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
Fuzzy coordinator in control problems 11 p3515 N93-29552
Tuning a fuzzy controller using quadratic response surfaces 11 p3515 N93-29553
The cognitive bases for the design of a new class of fuzzy logic controllers: The clearness transformation fuzzy logic controller 11 p3515 N93-29554
A fuzzy control design case: The fuzzy PLL 11 p3515 N93-29555
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Comparison between the performance of two classes of fuzzy controllers 11 p3517 N93-29566
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers 11 p3518 N93-29573
Hierarchical model of matching 11 p3519 N93-29580
Acoustic charge transport technology investigation for advanced development transponder 11 p3386 N93-29602
Robust control of intelligent rotor [AD-A263707] 11 p3259 N93-29985
Dynamics and robust control of sampled data systems for large space structures [AD-A264192] 11 p3281 N93-30142
An adaptive controller for a class of MIMO non-minimum phase systems with disturbance rejection design 11 p3359 N93-30248
Robust boundary control of flexible structures governed by hybrid dynamics 11 p3285 N93-30249
A numerical simulator for testing sliding mode controls in stochastic systems 11 p3361 N93-30260
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS) 11 p3364 N93-30278
Analysis of cache for streaming tape drive 11 p3435 N93-30477
Terminology and concepts of control and Fuzzy Logic 12 p3688 N93-31443
Tethered systems control 12 p3689 N93-31453
Robust stabilization of infinite-dimensional systems with respect to coprime factor perturbations [W-9220] 12 p3805 N93-31514
Design and implementation of fuzzy logic controllers [NASA-CR-193268] 12 p3784 N93-31649
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Integration of domain and resource-based reasoning for real-time control in dynamic environments 12 p3794 N93-32141
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters [NASA-CR-188250] 12 p3690 N93-32228
Robust stability of second-order systems [NASA-CR-193624] 12 p3809 N93-32373
Towards distributed control systems for experiments under micro gravity [NLR-TP-92027-U] 12 p3714 N93-32387

CONVAIR MILITARY AIRCRAFT
U MILITARY AIRCRAFT

CONVECTION
NT FORCED CONVECTION
NT FREE CONVECTION
NT MARANGONI CONVECTION
NT RAYLEIGH-BENARD CONVECTION
NT SOLAR CONVECTION (ASTRONOMY)
NT STELLAR CONVECTION

Small-scale physics of convection and magnetic fields 01 p0179 N93-10905
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem 01 p0183 N93-10927
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
The convection speed of the dynamic stall vortex [AD-A247258] 02 p0197 N93-11464
A composite study of the Madden-Julian oscillation [AD-A254269] 02 p0369 N93-11819
Enhanced convective and film boiling heat transfer by surface gas injection [DE92-016755] 02 p0306 N93-12221
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data [AD-A249839] 02 p0371 N93-12251
The First United States Microgravity Laboratory [NASA-TM-107980] 03 p0557 N93-12951
Turbulent natural convection between a perforated vertical cylinder and a surrounding array [DE92-019766] 03 p0576 N93-12996
On the bootstrap current calculations based on values of the radial electron transport [IPPCZ-317] 03 p0715 N93-13091
Deep convection and its relation to the large-scale circulation in the tropical Pacific 03 p0654 N93-13725
Coherent structures in compressible convection 03 p0592 N93-13964
Convective parameterization in mesoscale models 03 p0659 N93-14062
The theory and numerical simulation of non-local mixing-length convection 04 p1015 N93-14147
Extended surface heat sinks for electronic components: A computer optimization [AD-A256134] 04 p0865 N93-14254
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Crystal growth in a microgravity environment [NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
Low-frequency oscillations in radiative-convective models [DE92-018779] 04 p0922 N93-14901
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Physical vapor transport of mercurous chloride under a nonlinear thermal profile [NASA-TM-105920] 05 p1159 N93-16612
Development of equipment and technique to study solidification in microgravity, phase 1 [CTN-93-60608] 05 p1132 N93-16729
Effects of convection electric field on upwelling and escape of ionospheric O(+) [NASA-CR-191669] 05 p1208 N93-16839
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data [DE93-000678] 05 p1216 N93-17054
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida 05 p1219 N93-17285
Complex temporal and spatial patterns in nonequilibrium processes [DE93-001845] 05 p1281 N93-17531
Modelling studies in support of open-ocean convection field programs [AD-A258324] 06 p1589 N93-18255
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720

Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water 07 p2005 N93-20082
Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves 07 p2007 N93-20090
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns 07 p2007 N93-20092
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data 07 p1956 N93-21590
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
Interaction of externally-driven acoustic waves with compressible convection
[DE93-003800] 08 p2476 N93-22775
Influence of gravity on polyedric flames 08 p2226 N93-22840
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process
[NASA-CR-192695] 08 p2252 N93-23122
The structure and energetics of Amazon squall lines 08 p2404 N93-23166
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
Tropical cyclogenesis in the western North Pacific 09 p2783 N93-25714
Two-dimensional fin analysis 09 p2705 N93-25737
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
. An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Error analysis for the one-dimensional convection-diffusion equation
[CWI-NM-R9209] 10 p3114 N93-27376
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804
Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564
A first approximation to the effects of mean flow on sound propagation through cylindrical capillary tubes
[MATHS-REPT-A-181] 12 p3815 N93-31599
Distinct ion population in the polar cusp: Possible signature of transient reconnection 12 p3766 N93-31680
Magnetospheric convection and current system in the dayside polar cap 12 p3856 N93-31700
Viking observations of electric fields 12 p3858 N93-31712
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014

CONVECTION CELLS
Coherent structures in compressible convection 03 p0592 N93-13964
Southward burst mesoscale convective systems: An observational and modeling study 06 p2406 N93-23494

CONVECTION CLOUDS
NT CUMULUS CLOUDS
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall 03 p0663 N93-13489
Redistribution of trace chemical species by a small convective cloud
[PB93-156164] 09 p2765 N93-25873
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115

CONVECTION CURRENTS
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Are there missing convective currents?
[DE93-604672] 12 p3825 N93-31084
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

CONVECTION-DIFFUSION EQUATION
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
Diffusing wave spectroscopy 04 p0980 N93-14169
Non-local description of pollution transport in random medium 09 p2763 N93-25329
Three-dimensional modeling of pollutant transport in surface waters
[PB93-190627] 12 p3751 N93-31203

CONVECTIVE FLOW
NT RAYLEIGH-BENARD CONVECTION
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Structure of thermocapillary flow in narrow cavities 01 p0061 N93-10552
Numerical study of the small scale structures in Boussinesq convection
[NASA-CR-189695] 01 p0145 N93-10758
Fundamental solutions and boundary element formulations for convective fluid flow 02 p0298 N93-11217
Radar studies of high latitude convection flows 03 p0648 N93-12626
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Numerical investigation of non-spherical droplet dynamics in viscous convective flows 03 p0591 N93-13918
Coherent structures in compressible convection 03 p0592 N93-13964
Convective parameterization in mesoscale models 03 p0659 N93-14062
Cloud-radiative feedbacks in tropical convection 04 p0919 N93-14180
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Control of thermocapillary convection in a two-layer liquid system 04 p0809 N93-14945
Acceleration of FDNS flow simulations using initial flowfields generated with a parabolized Navier-Stokes method 05 p1165 N93-17329
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
Magnetospheric and auroral processes
[NASA-CR-192138] 07 p1996 N93-20250
Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
Combined forced and free convection in a curved duct 10 p2937 N93-27461
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

CONVECTIVE HEAT TRANSFER
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
The prediction of convective heat transfer in rotating square ducts
[PNR-90985] 02 p0296 N93-11067
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
Inert gas electric heater for elevated temperature testing of small propulsion components
[DE92-017434] 02 p0221 N93-12317
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
Active cooling from the sixties to NASP 02 p0208 N93-12458
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications 03 p0586 N93-13399

The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations
03 p0589 N93-13825
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique
04 p0995 N93-15312
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Temperature distribution and thermally induced stresses in electronic packages
[AD-A257334] 05 p1144 N93-15990
Natural convection from a horizontal heater in response to steady and pulsatile input powers
[AD-A257101] 05 p1156 N93-16126
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Quenching of a tube and filling of a vessel under microgravity 07 p1806 N93-21096
Correlation of results of radiant heat test and convective heat test for three layered protective clothing
07 p1838 N93-21161
Heat transfer on accreting ice surfaces
[AIAA PAPER 90-0200] 08 p2106 N93-22565
Finite element methods in heat transfer
[DE93-006451] 08 p2290 N93-22886
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces
08 p2290 N93-23110
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Two-dimensional fin analysis
09 p2705 N93-25737
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane
11 p3253 N93-29930
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
High thermal conductivity of diamond
11 p3294 N93-30977
Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210
Terminal project heat convection in thin cylinders
[DE93-609489] 12 p3723 N93-31245
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043
A p-version finite element method for steady incompressible fluid flow and convective heat transfer
[NASA-TM-106260] 12 p3727 N93-32370

CONVENTIONS
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
The 1992 Science Olympiad National Tournament
[NASA-CR-191379] 06 p1679 N93-18385
A prompt start: Implementing the framework convention on climate change
[DE93-005062] 08 p2383 N93-22716
Verification of a climate convention: Role and limitations of a space based remote sensing system
09 p2738 N93-24781

CONVERGENCE
Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560
Partial solution of the generalized eigenvalue problem using the Woodbury transformation
01 p0064 N93-10567
Hyperbolic conservation laws with umbilic points, 1
[AD-A254431] 03 p0696 N93-12594
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
A proof of convergence of the Markov chain simulation method
[AD-A255456] 04 p0970 N93-14487
On the convergence of the coupled-wave approach for lamellar diffraction gratings 04 p0986 N93-15520
Radial basis functions: A class of grid-free, scattered data approximations
[DE92-012675] 05 p1263 N93-15921
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Random quadratic forms and the bootstrap for U-statistics
[W-9207] 05 p1275 N93-16356
Uniform convergence estimates for multigrid V-cycle algorithms with less than full elliptic regularity
[DE92-041275] 05 p1238 N93-16532
Open problems in rewriting
[CWI-CS-R9114] 05 p1267 N93-16727
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
Methods and convergence analysis in large scale nonlinear optimization
[AD-A258182] 06 p1616 N93-17898
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
A comparative study of preconditioned Lanczos methods for nonsymmetric linear system
[DE93-006453] 08 p2436 N93-22979
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531
Activity report
[AD-A261933] 09 p2829 N93-26199
Integrated approaches to parallelism in optimization and the solution of inverse problems
[AD-A261490] 09 p2829 N93-26344
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
On transfinite abstract reduction systems
[CWI-CS-R9205] 10 p3117 N93-27550
Convergence of compact lattice scalar field theory to its continuum limit
[SSCL-PREPRINT-771] 10 p3156 N93-27584
Heavy quark masses
[SSCL-PREPRINT-772] 10 p3133 N93-27699
A simple proof of confluence for weakly orthogonal combinatory reduction systems
[CWI-CS-R9234] 10 p3119 N93-27998
Axisymmetric vortex sheet roll-up
10 p2938 N93-28078
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions
11 p3421 N93-29177
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping
11 p3519 N93-29581
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879
Dissipation and convergence in the systems of differential equations with unstationary nonlinearities
[DE92-642559] 12 p3802 N93-31079
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286

CONVERGENT NOZZLES
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160

CONVERGENT-DIVERGENT NOZZLES
Numerical modeling of a vortex stabilized arcjet
02 p0232 N93-11889
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
Nuclear thermal rocket nozzle testing and evaluation program
[NASA-TM-105962] 04 p0827 N93-15571
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity
09 p2697 N93-25259
Cooling predictions in turbofan engine components
11 p3259 N93-29964

CONVERSATION
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108

CONVERSION
A metric America: A decision whose time has come - for real
[PB92-205459] 02 p0277 N93-11902
Metric transition
[NASA-TM-108599] 06 p1499 N93-18354
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497

CONVERTAPLANES
U V/STOL AIRCRAFT

CONVEXITY
Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
Proximal techniques for convex programming
[RR-877-M] 07 p2039 N93-21167
Regularity of stochastic processes: A theory based on directional convexity
[REPT-92-70] 12 p3811 N93-31503

CONVOLUTION INTEGRALS
Error control techniques for satellite and space communications
[NASA-CR-191229] 03 p0565 N93-13411
Comparison of synchronization techniques for the AFIT direct sequence spread spectrum system
[AD-A256440] 04 p0861 N93-15316
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
CMOS circuit technique for integrated Viterbi decoders
[ETN-93-92568] 07 p1892 N93-20882
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring
09 p2750 N93-24853
Introduction to a behavioral approach of continuous-time systems
[MEMO-COSOR-92-05] 10 p3112 N93-27244
The general theory of convolutional codes
11 p3385 N93-29595
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231

CONVOLUTIONS (MATHEMATICS)
U CONVOLUTION INTEGRALS

COOL STARS
NT CARBON STARS
NT FLARE STARS
NT M STARS
NT MIRA VARIABLES
COOLANT LOSS
U LOSS OF COOLANT
COOLANTS
NT ENGINE COOLANTS
NT ORGANIC COOLANTS
Tables of thermodynamic properties of helium magnet coolant, revision A
[DE92-019098] 02 p0471 N93-11656
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane
11 p3253 N93-29930
COOLERS
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Thermoelectric cooler design
[AD-A262149] 10 p3010 N93-27545
Spaceborne passive radiative cooler
11 p3378 N93-28802
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317
COOLING
NT ABSORPTION COOLING
NT AIR COOLING
NT CRYOGENIC COOLING
NT EVAPORATIVE COOLING
NT FILM COOLING
NT GAS COOLING
NT LIQUID COOLING
NT MAGNETIC COOLING
NT PLASMA COOLING
NT PRECOOLING
NT QUENCHING (COOLING)
NT RADIANT COOLING
NT REGENERATIVE COOLING
NT SOLAR COOLING
NT SPACE COOLING (BUILDINGS)
NT SUPERCOOLING
NT SURFACE COOLING
NT SWEAT COOLING
NT THERMOELECTRIC COOLING
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Radial turbine cooling 01 p0078 N93-10061
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
Active cooling from the sixties to NASP
02 p0208 N93-12458
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
Radial turbine cooling
[NASA-TM-105658] 03 p0492 N93-13292
Thermal issues at the SSC 03 p0584 N93-13387
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
A Theoretical Analysis of Thermal Radiation from Neutron Stars
[NASA-CR-191906] 05 p1376 N93-17410
The Geminga neutron star: Evidence for nucleon superfluidity at very high density
05 p1376 N93-17411
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period
08 p2405 N93-23219
A simple and compact source of cold atoms for cesium fountains and microgravity clocks
09 p2831 N93-24981
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
Two-dimensional fin analysis
09 p2705 N93-25737
AMPHIB: A users manual
[AD-A261769] 09 p2669 N93-26285
Galaxy tracers in N-body simulations
10 p3176 N93-26732
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves
10 p3012 N93-27737
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333
High power density, thin magnetic DC septa for AmPS
10 p3140 N93-28342
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application)
11 p3255 N93-29941
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels
11 p3255 N93-29942
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases
11 p3255 N93-29943
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
Thermal control of ice-stream margins
12 p3762 N93-31897
COOLING FINS
The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473
COOLING FLOWS (ASTROPHYSICS)
Magnetic fields in the clusters of galaxies with extreme cooling flows 02 p0486 N93-12164
The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496
[NASA-CR-191240] 03 p0743 N93-13352
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
Optical signatures of cooling flows in isolated early-type galaxies 04 p1017 N93-14243
Physical properties of extended emission-line regions in active and cooling-flow galaxies
04 p1018 N93-14461
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
X ray opacity in cluster cooling flows
10 p3193 N93-26837
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838
Star formation in cooling flow galaxies
10 p3193 N93-26839
Jet induced star formation in centrally dominant galaxies? 10 p3193 N93-26840
Mergers, cooling flows, and evaporation
10 p3194 N93-26842
COOLING SYSTEMS
Heat transfer additives for absorption cooling system fluids
[PB92-190354] 01 p0169 N93-10249
Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
Laser Journal
[AD-A254106] 01 p0090 N93-10855
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Microtube strip heat exchanger
[DE92-018709] 02 p0300 N93-11440
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
Advanced two-phase heat transfer systems
02 p0229 N93-12459
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles
02 p0229 N93-12460
MHD integrated topping cycle project
[DE92-018087] 02 p0456 N93-12504
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
MHD Integrated Topping Cycle Project
[DE92-041285] 05 p1306 N93-15666
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Research on two phase fluid loop type heat rejection technology 07 p1791 N93-20421
Research on HOPE heat sink device
07 p1792 N93-20431
Research on space coolers 07 p1794 N93-20442
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K
[NASA-CR-192365] 07 p1878 N93-21815
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
High performance microchannel heat exchanger for cooling high heat load x ray optical elements
[DE93-004245] 08 p2296 N93-23688

Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
High speed solid state circuit breaker
09 p2694 N93-25598
Lightweight passive microclimate cooling device
[AD-A262262] 10 p3087 N93-28112
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
The effect of main stream flow angle on flame tube film cooling 11 p3257 N93-29953
Impingement/effusion cooling
11 p3257 N93-29954
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647

COORDINATE SYSTEMS
U COORDINATES

COORDINATE TRANSFORMATIONS
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices
01 p0066 N93-10577
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
Comparison of the efficiency of the various methods for rigid-body displacement analyses
07 p1941 N93-20709
Position calibration software for the form assessment of complex workpieces
[NPL-DITC-203/92] 08 p2435 N93-22450
Improved deterministic calculational methods for irregularly shaped shields
[DE93-004955] 08 p2467 N93-22795
Orbital parameter estimation using an extended Kalman filter
[AD-A260618] 09 p2608 N93-25636
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Differential small displacements and rotation extensions in three dimensional coordinate systems
[SER-B-295] 12 p3804 N93-31338

COORDINATES
NT ASTRONOMICAL COORDINATES
NT CARTESIAN COORDINATES
NT COMPUTATIONAL GRIDS
NT GEODETIC COORDINATES
NT LAGRANGE COORDINATES
NT OBLIQUE COORDINATES
NT POLAR COORDINATES
NT SPHERICAL COORDINATES
Identifiability of linear systems in physical coordinates
[NASA-TM-107695] 03 p0625 N93-13125
Automatic programming of arc welding robots
03 p0616 N93-13720
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
On relation between Hamada and Boozer magnetic coordinate system
[NIFS-173] 07 p2075 N93-21568
Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290
Scene correlation for INS aiding in flight-test systems: Runway-referenced flight-tests with on-board sensors only 08 p2121 N93-22792
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Atomic time scales for dynamical astronomy
09 p2832 N93-24984
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Occultation of a compact radio source by Venus
09 p2676 N93-26107
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates 10 p2936 N93-27456

COORDINATION
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Optimal coordination of robotic systems with redundancy 03 p0693 N93-13336
Development of measures of crew coordination
[AD-A255384] 04 p0939 N93-14651
Working together, virtually 04 p0954 N93-15547
The study of multi-institutional collaborations in high-energy physics
[DE93-002337] 05 p1300 N93-17580
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS)
08 p2372 N93-23844
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO
08 p2540 N93-23929
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Management of the disaster communications by satellite 10 p3024 N93-26656
Fuzzy coordinator in control problems
11 p3515 N93-29552
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science
12 p3852 N93-31675
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713

COORDINATION POLYMERS
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610

COPILOTS
U AIRCRAFT PILOTS

COPLANARITY
Orbital coplanarity in solar-type binary systems: Implications for planetary system formation and detection 04 p1020 N93-14867
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056

COPOLYMERIZATION
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623

COPOLYMERS
NT BLOCK COPOLYMERS
NT VITON RUBBER (TRADEMARK)
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications
01 p0015 N93-10006
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862
Synthesis and conductivity of copolymer of 4,4'-diaminodiphenylamine and terephthaloyl chloride
[AD-A254880] 02 p0273 N93-12440
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
Development of organic nonlinear optical materials
[AD-A261332] 09 p2856 N93-26309
A study of the UV and VUV degradation of FEP
10 p3007 N93-28261
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064
Multichip module high speed testing
[AD-A262989] 11 p3408 N93-29427
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

COPPER
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Some results of the oxidation investigation of copper and silver samples flown on LDEF
01 p0034 N93-10580
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Energetics and structural properties of twist grain boundaries in Cu 05 p1118 N93-17304
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Vacuum deposition of copper on Type 304L stainless steel
[DE93-002704] 06 p1489 N93-19614
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-192306] 07 p1847 N93-20756
Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233

A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
The interaction of atomic oxygen with copper: An XPS, AES, XRD, optical transmission, and stylus profilometry study 10 p3149 N93-28284
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976
High thermal conductivity of diamond 11 p3294 N93-30977
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579

COPPER ALLOYS
NT BRASSES
NT BRONZES
NT MANGANIN (TRADEMARK)
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys 02 p0259 N93-11895
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Spin density waves in dilute CuMn alloys
[DE93-001628] 05 p1117 N93-17578
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Grain refinement of Al-Cu-Ti alloys in microgravity 07 p1810 N93-21120
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Design of an ultra-high-strength weldable Al-Cu-Li alloy for space applications 08 p2211 N93-23936
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
[DE93-006737] 09 p2653 N93-26500
International Conference on Martensitic Transformations (ICOMAT 92)
[AD-A262739] 11 p3321 N93-28591
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Photo-desorption from copper alloys
[DE93-011872] 11 p3326 N93-30490
Method of fabricating a rocket engine combustion chamber
[NASA-CASE-MFS-28569-1] 11 p3338 N93-30565

COPPER CHLORIDES
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880

COPPER COMPOUNDS
NT COPPER CHLORIDES
NT COPPER OXIDES
NT COPPER SELENIDES
Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644
The deposition characteristics of copper(I) compounds for CVD by FT-IR spectroscopy
[DE92-010778] 02 p0467 N93-12134
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883
Many-body effects in Cu(2+)(H2O)(sub m) clusters
[DE93-002988] 07 p2082 N93-21752
Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161

COPPER OXIDES
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
A study of parameters that influence growth and stability of the (Bi(1-x)Pb(x))2 Sr2Ca2Cu3O(y) phase
[DE92-015187] 02 p0462 N93-11703
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Method of making Tl-Sr-Ca-Cu-Oxide superconductors comprising heating at elevated pressures in sealed container
[AD-D015482] 05 p1321 N93-16489
Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape
[DE92-041314] 05 p1321 N93-16533
Electronic structure and phase separation in superconducting cuprates
[PREPRINT-889] 05 p1323 N93-17025
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Apical oxygen ions and the electronic structure of the high T(sub c) cuprates
[PREPRINT-828] 05 p1324 N93-17223
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Mean field phase diagram of two band tJ model for CuO2 layers
[SSCL-PREPRINT-764] 10 p3151 N93-27581
Superconductivity, phase separation and charge transfer instability in the U = infinity limit of the three band model of the CuO2 planes
[SSCL-PREPRINT-749] 10 p3153 N93-28140
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331

COPPER SELENIDES
Admittance spectroscopy of copper indium diselenide/cadmium sulfide solar cells 02 p0344 N93-11214
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Research on high efficiency, large-area CuInSe2-based thin-film modules
[DE93-000077] 08 p2513 N93-24433
Non-H2Se, ultra-thin CIS devices
[DE93-000078] 09 p2759 N93-25253
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626

COPYRIGHTS
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851

CORDAGE
Large-deflection analysis of cord composite plates 03 p0530 N93-13008

CORDIERITE
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899

CORDITE
U DOUBLE BASE PROPELLANTS

CORE FLOW
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem
[NASA-TP-3272-PT-1B] 09 p2776 N93-26421

CORE SAMPLING
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia 01 p0110 N93-10136
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Orbital tuning of marine sedimentary cores: An automatic procedure based on a general linear model
[MPIM-79] 08 p2415 N93-23856
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284

CORE STORAGE
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284

CORES
NT EARTH CORE
NT HONEYCOMB CORES
NT MAGNETIC CORES
NT PLANETARY CORES
NT REACTOR CORES
NT STELLAR CORES
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars 03 p0755 N93-13828
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
Vortex breakdown incipience: Theoretical considerations
[NASA-CR-189734] 05 p1055 N93-16627

Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880

CORIOLIS EFFECT
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
PDF turbulence modeling and DNS 05 p1153 N93-15794
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Heat transfer in rotating serpentine passages with selected model orientation for smooth or skewed trip walls [NASA-TM-106126] 09 p2667 N93-25177
Three-dimensional numerical simulation of gradual opening in a wave rotor passage [NASA-CR-191157] 11 p3252 N93-29072
Process for selectively recovering algae and protozoa [NASA-CASE-MFS-26124-1-NPO] 11 p3491 N93-29174
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Some implications of a differential turbomachinery equation with viscous correction [AD-A264693] 11 p3427 N93-30571

CORN
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data [INPE-5327-PRE/1725] 06 p1567 N93-19646
Emerging technologies in ethanol production [PB93-157014] 09 p2661 N93-25818

CORNER FLOW
High-speed viscous flows past blunt bodies and compression corners with flux-split methods [AD-A253413] 01 p0081 N93-10410
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
Instability of flow in a streamwise corner [NASA-CR-191410] 09 p2576 N93-25153

CORNERS
On corner and vertex detection [INRIA-RR-1439] 06 p1646 N93-18594
A corner matching and tracking strategy applied to videophony [OUEL-1933/92] 11 p3380 N93-28896
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743

CORONA DISCHARGES
U ELECTRIC CORONA

CORONAGRAPHS
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189
A revised and expanded catalogue of mass ejections observed by the Solar Maximum Mission coronagraph [NASA-CR-193146] 09 p2899 N93-26556
UVCS: The ultraviolet coronograph spectrometer for SOHO 12 p3868 N93-31349
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy 12 p3868 N93-31350
Ground-based coronagraphic observations of solar streamers 12 p3870 N93-31358
A model for coronal streamer observations using the SOHO coronagraph instrumentation 12 p3870 N93-31361
Modelling the large scale structure of the solar corona 12 p3870 N93-31362
Speeds and accelerations of coronal mass ejections 12 p3871 N93-31368
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France) 12 p3880 N93-31420
Measuring electron temperature in the extended corona 12 p3880 N93-31422
Coronal mass ejecta and flares: A statistical study 12 p3859 N93-31716

CORONAL HOLES
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991 [PB93-138469] 08 p2556 N93-23334
Two-dimensional and three-dimensional time-dependent MHD model of extended corona 11 p3653 N93-30496
Observational constraints on coronal hole density model 12 p3871 N93-31364
Solar coronal magnetic structure 12 p3852 N93-31676

CORONAL LOOPS
Physics of coronal loops: Heating and reconnection 01 p0180 N93-10912
Plasma properties of solar coronal active regions 02 p0489 N93-12342
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
CDS and SUMER observations of fine structure and dynamics of loops: Experience from HRTS 12 p3873 N93-31376
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377
Morphology of coronal loop interactions 12 p3873 N93-31379
Active region studies with coordinated SOHO, microwave, and magnetograph observations 12 p3873 N93-31380
Thermal profiles of coronal loops: Gravitational considerations 12 p3873 N93-31381
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
A numerical model of interaction of coronal transients with the solar wind 12 p3874 N93-31385
What can we learn from the shape of loops? 12 p3874 N93-31386
3D reconstruction methods of coronal structures by radio observations 12 p3874 N93-31387
Dynamic formation and magnetic support of loop or arcade prominences 12 p3875 N93-31391
Pulse-beam heating in flare loops 12 p3875 N93-31392
Temperature dependent morphology of untwisted coronal loops 12 p3875 N93-31393
Evolution and oscillations of coronal loops 12 p3876 N93-31395
Coronal heating: The role of resonant absorption 12 p3876 N93-31396
Underneath coronal loops: MSDP observations coordinated with SERTS 4 and NIXT flights 12 p3876 N93-31397
The magnetothermal stability of radially stratified line-tied coronal loops 12 p3876 N93-31400
Observational tests of coronal heating models 12 p3877 N93-31403
Very Large Array (VLA) observations of coronal loops 12 p3879 N93-31419
Solar coronal magnetic structure 12 p3852 N93-31676
On the Bernstein modes generation in solar post-flare loops 12 p3859 N93-31718

CORONARY ARTERY DISEASE
Carbon monoxide exposure of subjects with documented cardiac arrhythmias [PB93-179943] 11 p3497 N93-30890
Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces 12 p3775 N93-32254

CORONAS
NT CORONAL HOLES
NT CORONAL LOOPS
NT ELECTRIC CORONA
NT SOLAR CORONA
NT STELLAR CORONAS
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism 04 p1027 N93-14313
Flexural analysis of uplifted rift flanks on Venus 04 p1027 N93-14314
The spatial distribution of coronae on Venus 04 p1043 N93-14383
VLF/LF corona investigation [AD-A258052] 05 p1141 N93-17709
Organic Optoelectronic Materials: A Topical Workshop [AD-A259695] 08 p2488 N93-23662
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
Inward electrostatic precipitation of interplanetary particles [NASA-CR-192786] 08 p2552 N93-24477
Coronal shock waves 12 p3853 N93-31681

COROTATION
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946

CORPUSCLES (BLOOD)
U BLOOD CELLS

CORPUSCULAR RADIATION
NT BETA PARTICLES
NT ELECTRON BEAMS
NT ELECTRON PRECIPITATION
NT ELECTRON RADIATION
NT ENERGETIC PARTICLES
NT RADIATION BELTS
NT RELATIVISTIC ELECTRON BEAMS
NT SOLAR CORPUSCULAR RADIATION
NT SOLAR COSMIC RAYS
NT SOLAR ELECTRONS
NT SOLAR NEUTRONS
NT SOLAR PROTONS

CORRECTION
NT ATMOSPHERIC CORRECTION
NT OPTICAL CORRECTION PROCEDURE
Burn phase corrections of maneuver ballistic missiles with star light [AD-A254105] 01 p0012 N93-10814
Correction techniques for depth errors with stereo three-dimensional graphic displays [NASA-TP-3244] 02 p0206 N93-11170
Development of a realtime DGPS system [DLR-MITT-92-06] 07 p1779 N93-20749
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Analytical techniques for improved time transfer using common view of direct broadcasting satellites 09 p2835 N93-25008
AXAF VETA-I mirror encircled energy measurements and data reduction 09 p2855 N93-26188

CORRELATION
NT ANGULAR CORRELATION
NT AUTOCORRELATION
NT CORRELATION COEFFICIENTS
NT CORRELATION DETECTION
NT CROSS CORRELATION
NT DATA CORRELATION
NT SPECTRAL CORRELATION
NT STATISTICAL CORRELATION
Orientation and pair correlation at high density by superresolution holography [AD-A254034] 01 p0085 N93-10239
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
Dynamic test/analysis correlation using reduced analytical models [NASA-TM-107671] 02 p0341 N93-12300
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb [PB92-222694] 03 p0661 N93-12817
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Cognition and the brain [AD-A255483] 04 p0937 N93-14788
The spatial correlation function approach to response surface emission [DE92-040875] 04 p0969 N93-15656
Quantum mechanics and polarization correlations for photons [MEMO-1035] 05 p1329 N93-16639
Conversion of temporal correlations between stimuli to spatial correlations between attractors [PREPRINT-856] 05 p1225 N93-16962
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems [PREPRINT-881] 05 p1289 N93-17017
Problems with the Euclidean formulation of heavy quark effective theories [PREPRINT-884] 05 p1290 N93-17020
Gribov copies and smeared correlation functions in lattice QCD [PREPRINT-892] 05 p1330 N93-17027
A new look at radio/x ray correlations 05 p1362 N93-17136
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
A parallel stereo algorithm that produces dense depth maps and preserves image features [INRIA-RR-1369] 06 p1620 N93-18433
Application of photorefractive crystals to solve matrix algebra problems optically [AD-A259067] 06 p1662 N93-18957
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions [DE93-002626] 06 p1675 N93-19488
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data 06 p1517 N93-19578
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents 06 p1428 N93-19693
Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations [INPE-5324-PRE/1722] 06 p1568 N93-19792

Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
[DE93-003470] 07 p2098 N93-21775
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain) 09 p2738 N93-24780
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
Properties of readings of periodically correlated random processes
[AD-A261225] 09 p2686 N93-26573
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Pruning the Lyman alpha forest of Q1331+170 10 p3182 N93-26774
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085
Viking observations of electric fields 12 p3858 N93-31712
Ionospheric control of the long-term occurrence of Pc1 pulsations observed on ground 12 p3860 N93-31722

CORRELATION COEFFICIENTS
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440
Lattice calculations of f(D) and f(B)
[SSCL-PREPRINT-798] 05 p1286 N93-16394
Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635
Extracting knowledge from data: SYS8688 approach 06 p1688 N93-19715
The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics
[SSCL-PREPRINT-725] 10 p3126 N93-28098
Final state interactions from Euclidean Correlation Functions
[SSCL-PREPRINT-742] 10 p3122 N93-28196

CORRELATION DETECTION
Multiple symbol partially coherent detection of MPSK 06 p1514 N93-19431

CORRELATION FUNCTIONS
U CORRELATION

CORRELATORS
NT IMAGE CORRELATORS
NT OPTICAL CORRELATORS
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers 01 p0178 N93-10948
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
An extended length digital correlator threshold circuit
[AD-D015610] 07 p1889 N93-20328
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Acousto-optic time-integrating correlators for processing wideband digital data 11 p3360 N93-30253

CORRIDORS
NT GREAT PLAINS CORRIDOR (NORTH AMERICA)
CORRIDOR: A routine for estimating the initial wave front resulting from high temperature fire exposure to a corridor
[PB92-213347] 03 p0559 N93-13640
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592

CORROSION
NT ELECTROCHEMICAL CORROSION
NT FUEL CORROSION
NT HOT CORROSION
NT INTERGRANULAR CORROSION
NT RUSTING
NT SCALE (CORROSION)
NT STRESS CORROSION
NT STRESS CORROSION CRACKING
NT TRANSGRANULAR CORROSION
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Magneto-optic imaging inspection of selected corrosion specimens
[DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys 02 p0259 N93-11895
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
Corrosion of metal particle and metal evaporated tapes 04 p0883 N93-15039
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Stability of metal particle and metal particulate media 05 p1170 N93-16329
Corrosion and arc erosion in MHD channels
[DE93-001721] 05 p1313 N93-17782
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Fatigue life assessment of service damaged and corroded members of structural steel 07 p1949 N93-21331
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Rust transformation/rust compatible primers 08 p2244 N93-22182
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
The role of passive surface films on corrosion fatigue crack initiation
[DE93-006512] 08 p2325 N93-22888
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
Microstructure and texture control of fatigue in hydrogen and marine environments
[AD-A259808] 08 p2231 N93-23642
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Laser initiated corrosion pits on aluminum 09 p2650 N93-25464
The corrosion of metal matrix composites 09 p2638 N93-25723
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815

CORROSION PREVENTION
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Corrosion protection of materials for aircraft using ion beam processes. Corrosion and bonding strength examinations. Physical analysis of laser composition
[MBB-Z-0405-91-PUB] 02 p0255 N93-11026
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Heat resistant diffusion coating for niobium alloy
[AD-A255542] 03 p0554 N93-13873
Evaluation of corrosion protection methods for aluminum metal matrix composites
[AD-A255375] 04 p0832 N93-14675
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
Field demonstration of aviation turbine fuel MIL-T-83133C, grade JP-8 (NATO code F-34), at Fort Bliss, TX
[AD-A256945] 05 p1129 N93-16431
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Evaluation of EMP/EMI requirements versus corrosion prevention methods
[AD-A257820] 06 p1503 N93-18352
Development of an electrochemical method for field testing of protective coatings
[AD-A258754] 06 p1496 N93-19866
Coatings on composites: New developments and applications in the aerospace industry
[MBB-Z-0443-92-PUB] 07 p1840 N93-21404
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597

Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815
Performance of gas turbine compressor cleaners
[NLR-TP-91237-U] 12 p3681 N93-31111

CORROSION RESISTANCE
NT OXIDATION RESISTANCE
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Inhibiting corrosion in Gr/Al and Gr/Mg metal matrix composites using nonequilibrium alloying techniques
[AD-A253923] 01 p0034 N93-10752
Corrosion resistant chromate conversion coatings for heat-treated aluminum alloys
[AD-D015366] 02 p0266 N93-11425
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire
[DE92-017233] 02 p0262 N93-12487
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
Polyurethane self-priming topcoats
[AD-D015477] 05 p1124 N93-16484
UPT scenarios: Implications for system reliability
05 p1182 N93-17332
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
Corrosion resistance of metal matrix composites
[AD-A258370] 06 p1478 N93-18266
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels
06 p1490 N93-19391
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718
Solid-particle erosion of in-situ reinforced Si3Ni4
[DE92-014868] 08 p2209 N93-22911
A new index for the crevice corrosion resistance of materials
[AD-A260437] 08 p2233 N93-24112
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Alternating current (AC) impedance testing of coated traycans
[AD-A261256] 10 p3030 N93-27099
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600
Chromate-free corrosion resistant conversion coatings for aluminum
[DE93-009835] 11 p3336 N93-30051
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815
Corrosion-erosion of alloys exposed in fluidised bed combustors
[NPL-DMM(A)-80] 12 p3705 N93-31602
Investigation of the electrochemical polarisation behaviour of SiC/6061 Al metal matrix composites
[NPL-DMM(A)-31] 12 p3700 N93-31736
Study on the improvement of the properties of Zr alloys
[DE93-605265] 12 p3706 N93-31827
Epoxy self-priming topcoats
[AD-D015737] 12 p3711 N93-32209

CORROSION TESTS
NT SALT SPRAY TESTS
Magneto-optic imaging inspection of selected corrosion specimens
[DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Environmental effects on iron aluminides
[DE92-016341] 03 p0542 N93-13237
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Corrosion of metal particle and metal evaporated tapes 04 p0863 N93-15039
A system approach to archival storage
04 p1006 N93-15040
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Evaluation of EMP/EMI requirements versus corrosion prevention methods
[AD-A257820] 06 p1503 N93-18352
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
A new index for the crevice corrosion resistance of materials
[AD-A260437] 08 p2233 N93-24112
Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260692] 09 p2651 N93-25895
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501
Chromate-free corrosion resistant conversion coatings for aluminum
[DE93-009835] 11 p3336 N93-30051
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Accelerated and real-time corrosion testing of aluminum-lithium alloys
[NLR-TP-91203-U] 12 p3707 N93-32385

CORRUGATING
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310

CORSAIR AIRCRAFT
U A-7 AIRCRAFT

CORTICOSTEROIDS
NT ALDOSTERONE

CORUNDUM
U ALUMINUM OXIDES

COSMIC BACKGROUND EXPLORER SATELLITE
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Systems aspects of COBE science data compression
08 p2431 N93-24553
Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700
Real-time attitude determination and gyro calibration
09 p2602 N93-24708
Primeval galaxies in the sub-mm and mm
10 p3172 N93-26713
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963

COSMIC DUST
NT INTERPLANETARY DUST
NT ZODIACAL DUST
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
X ray scattering by cosmic dust grains
03 p0750 N93-13294
The structure and dynamics of an environment forming high-mass stars 04 p1014 N93-14113
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752
Cosmic dust 06 p1592 N93-18554
Comets: Role and importance to exobiology
06 p1592 N93-18556
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers
06 p1710 N93-19189
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
The structure of circumstellar shells
[NASA-CR-192337] 07 p2096 N93-20757
A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469
Studies of cosmic dusts using synchrotron radiation
08 p2549 N93-23390
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud
08 p2549 N93-23722

Analysis of the results of the first year of operation of the Munich Dust Counter 08 p2537 N93-23910
X raying the interstellar dust 08 p2540 N93-23925
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
Nearby dwarf galaxies: Dust masses and their implications 08 p2540 N93-23928
Mid-infrared spectroscopy of solids in relation to the composition of interstellar and intergalactic dust 08 p2550 N93-24179
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue 08 p2164 N93-24394
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
A comparison of extinction curves for dust in galaxies of different Hubble types 10 p3187 N93-26805
A halo and a blow-out in NGC 253 10 p3199 N93-26869
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane 10 p3204 N93-26894
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287
Micrometeoroids and debris on LDEF 11 p3638 N93-29356
An LDEF 2 dust instrument for discrimination between orbital debris and natural particles in near-Earth space 11 p3286 N93-29707

COSMIC GAMMA RAY BURSTS
U GAMMA RAY BURSTS

COSMIC GASES
NT INTERPLANETARY GAS
NT INTERSTELLAR GAS
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A 04 p1012 N93-14762
X raying the interstellar dust 08 p2540 N93-23925
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
High velocity clouds in nearby disk galaxies 10 p3187 N93-26804
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871
Emission line gas in early-type galaxies: Kinematics and physical conditions 10 p3200 N93-26874
The ISM in the M82 starburst 10 p3202 N93-26887

COSMIC NOISE
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255
Measurements of the cosmic microwave background temperature at 1.47 GHz
[DE93-000587] 05 p1400 N93-17379

COSMIC PLASMA
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Multicomponent double layers
[TRITA-ALP-92-03] 12 p3825 N93-31542

COSMIC RADIATION
U COSMIC RAYS

COSMIC RAY SHOWERS
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources 04 p1050 N93-14639
Monte Carlo shower counter studies
[NASA-CR-191364] 05 p1243 N93-16933
Deeply penetrating events in the extremely high-energy cosmic ray flux 06 p1746 N93-19384
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961

COSMIC RAYS
NT COSMIC RAY SHOWERS
NT GALACTIC COSMIC RAYS
NT GAMMA RAY BURSTS
NT SECONDARY COSMIC RAYS
NT SOLAR COSMIC RAYS
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Some results of the oxidation investigation of copper and silver samples flown on LDEF 01 p0034 N93-10580
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40 03 p0509 N93-13163
A program to study antiprotons in the cosmic rays: Arizona collaboration
[NASA-CR-191272] 03 p0772 N93-13306
Large area nuclear particle detectors using ET materials, phase 2
[NASA-CR-190866] 03 p0705 N93-13606
A search for point sources of cosmic ray muons using the MACRO detector 03 p0773 N93-13738
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
Cosmic ray test of SDC prototype muon drift tubes
[DE93-001680] 05 p1400 N93-17182
Proceedings of the fifth workshop on elementary-particle picture of the universe
[DE92-538746] 05 p1375 N93-17190
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Cosmic-ray NM-64 neutron monitor data-19 from Rome, Italy
[NOTA-INTERNA-989] 06 p1745 N93-17878
Cosmic ray decreases and magnetic clouds 06 p1564 N93-18071
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982 06 p1565 N93-18072
Experimental particle physics
[DE93-003884] 06 p1655 N93-18538
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation 06 p1709 N93-19183
A cosmic ray propagation model 06 p1746 N93-19383
Deeply penetrating events in the extremely high-energy cosmic ray flux 06 p1746 N93-19384
Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons?
[NASA-CR-192255] 07 p2102 N93-20601
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
New approach to the interaction of cosmic rays with nuclei in spacecraft shielding and the human body
[DE93-006263] 08 p2559 N93-22544
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
An experimental study of the possible association of deep underground muons with astronomical point sources 08 p2549 N93-23596
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752
Alfven wave transport effects in the time evolution of parallel cosmic-ray modified shocks
[NASA-CR-192932] 09 p2899 N93-25161
Cosmic ray composition investigations using ICE/ISEE-3
[NASA-CR-192808] 09 p2900 N93-25241
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
Static galactic halo and galactic wind 10 p3198 N93-26862
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
Mathematical simulation of the induced (gamma)-radiation in structural materials of spaceships. Time dependence
[DE93-605312] 11 p3281 N93-31024

COSMIC X RAYS
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094
Chaotic behaviour of x ray lightcurves of AGN? 05 p1366 N93-17101
Observing AGN and DXRB with Xspect/Sodart 05 p1360 N93-17103
Correlated hard x ray and UV variability in NGC 5548 05 p1361 N93-17104
Ginga results of type 2 AGN's and their contributions to the cosmic x ray background 05 p1367 N93-17105
Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background 05 p1368 N93-17112
The x ray properties of warm IRAS galaxies 05 p1371 N93-17134
Soft x ray segregation of Seyfert galaxies 05 p1362 N93-17135
The x ray background: Past, present, and future 05 p1372 N93-17140
The evolution of AGN's at x ray wavelengths 05 p1372 N93-17141
The hard x ray luminosity function and evolution of AGN 05 p1373 N93-17142
Energy spectrum of the cosmic x ray background: Some considerations based on the Ginga results 05 p1373 N93-17143
Where have all the sources gone? 05 p1373 N93-17144
ROSAT deep surveys 05 p1362 N93-17145
Origin of the cosmic x ray background radiation 05 p1373 N93-17146
On the suitability of starburst galaxies as a contributor to the CXRB 05 p1373 N93-17147
Contribution of clusters of galaxies to the XRB 05 p1374 N93-17148
On the origin of the x ray background 05 p1374 N93-17149
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
The ROSAT autocorrelation function of the x ray background 05 p1374 N93-17152
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Selection of faint quasars based on variability 05 p1363 N93-17156
AGN and the x ray background: Concluding remarks 05 p1375 N93-17160
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462

COSMOCHEMISTRY
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555

Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
Activities report of the Astronomical Society
[MITT-75] 11 p3629 N93-29008

COSMOGONY
U COSMOLOGY

COSMOLOGY
NT BIG BANG COSMOLOGY
NT HUBBLE DIAGRAM
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Research in theoretical particle physics
[DE92-016181] 01 p0154 N93-10605
Research program in elementary particle theory
[DE92-017399] 01 p0155 N93-10840
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Relativistic condensate and cosmology 02 p0486 N93-12330
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
The dynamical evolution of clusters of galaxies 03 p0750 N93-13122
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
Perturbations of the Robertson-Walker space 04 p1015 N93-14134
Cosmological models in higher-order gravity 04 p1018 N93-14592
Dark matter axions
[DE92-040501] 04 p1022 N93-15346
Measuring q(sub 0) using supernovae at z approximately 0.2
[DE92-041164] 05 p1363 N93-15918
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
On the black-hole conformal field theory coupled to the Polyakov's string theory. A non perturbative analysis
[PREPRINT-852] 05 p1365 N93-17072
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
Research in elementary particle physics
[DE93-003153] 05 p1294 N93-17488
Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
High energy physics
[DE93-002411] 06 p1659 N93-17911
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
About distribution and origin of the peculiar group of sporadic meteors 06 p1700 N93-19115
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
Non-topological solitons in astrophysics and cosmology 07 p2096 N93-20292
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
A bolometric radiometer for investigations in cosmology 08 p2303 N93-22684
Stochastic inflation and inflationary density fluctuations 08 p2473 N93-24457
Cosmic string cosmology 09 p2891 N93-24907
The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Ways to improve your correlation functions 10 p3172 N93-26712
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
The galaxy velocity field and CDM models 10 p3176 N93-26737
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions 10 p3204 N93-28081
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963
Activities report of the Astronomical Society
[MITT-75] 11 p3629 N93-29008
Predictions of a non-Gaussian model for large scale structure
[DE93-010196] 11 p3636 N93-30528
Topics in inflationary universe medels and cosmic string theories 11 p3637 N93-30579
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
General scalar-tensor theories for induced gravity inflation
[DE93-602505] 11 p3479 N93-30940
Fourth-rank cosmology
[DE92-641346] 11 p3637 N93-30997
Gravitation of global topological defects 12 p3757 N93-31130
Constraints on cosmic strings due to black holes formed from collapsed cosmic string loops
[NASA-CR-193248] 12 p3861 N93-31837

COSMONAUTS
Utilization of the graded universal testing system to increase the efficiency for assessing aerobic and anaerobic capacity 09 p2794 N93-26077

COSPAR (COMMITTEE)
U COMMITTEE ON SPACE RESEARCH

COSPAS
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658

COST ANALYSIS
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Backward assembly planning with DFA analysis
[NASA-CASE-NPO-18817-1-CU] 02 p0278 N93-12202
Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394
Cost estimation of software development and the implications for the program manager
[AD-A255167] 02 p0480 N93-12472
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Cost analysis methodology: Photovoltaic Manufacturing Technology Project
[DE92-016441] 03 p0639 N93-13528
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
Automated Estimated System (AES) standard value and guidelines programs user's manual
[DE92-041243] 04 p0951 N93-15450
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance 05 p1393 N93-17420
Analysis of consolidation of intermediate level maintenance for Atlantic Fleet T700-GE-401 engines
[AD-A257754] 05 p1067 N93-17695
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
Resource availability at Taurus-Littrow 06 p1736 N93-18792
PDES Application Protocol Suite for Composite (PAS-C) scoping and benefits criteria. Volume 1: Executive summary and overview
[AD-A258833] 06 p1687 N93-19074
Corporate information management and business process improvement under the unit cost program: An analysis of a system for the Air Force Institute of Technology
[AD-A258984] 06 p1687 N93-19098
A model for the cost of doing a cost estimate 06 p1515 N93-19436
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Goddard Space Flight Center: Decision to contract for plant operations and maintenance. Report to the Chair, Subcommittee on VA, HUD, and Independent Agencies, Committee on Appropriations, US Senate
[GAO/NSIAD-93-92] 07 p2086 N93-21357
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323
Assessment of costs and benefits of flexible and alternative fuel use in the US transportation sector
[DE93-004659] 08 p2244 N93-22325
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
Space Biology Initiative. Trade Studies, volume 1
[NASA-CR-190989] 08 p2417 N93-23068
Space biology initiative program definition review. Trade study 5: Modification of existing hardware (COTS) versus new hardware build cost analysis 08 p2417 N93-23069
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization 08 p2417 N93-23070
Space biology initiative program definition review. Trade study 4: Design modularity and commonality 08 p2418 N93-23071
Space Biology Initiative. Trade Studies, volume 2
[NASA-CR-190990] 08 p2418 N93-23079
Space biology initiative program definition review. Trade study 3: Hardware miniaturization versus cost 08 p2418 N93-23080
Space biology initiative program definition review. Trade study 2: Prototype utilization in the development of space biology hardware 08 p2418 N93-23082
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems
[NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444

A comparative analysis of alternative fuels for the iNEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Megaprojects in the sciences
[PB93-140002] 08 p2475 N93-24308
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Space transfer concepts and analyses for exploration missions. Technical directive 12: Beamed power systems study
[NASA-CR-192532] 09 p2599 N93-26146
Functional Economic Analysis Guidebook, version 1.1
[AD-A261390] 09 p2886 N93-26305
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Electrical power integration for lunar operations 10 p2988 N93-27966
Cost averaging techniques for robust control of flexible structural systems 10 p3061 N93-28175
Performance measurement systems: A best practices study
[AD-A262180] 11 p3506 N93-29444
Evaluating the bias of alternative cost progress models: Tests using aerospace industry acquisition programs
[AD-A262870] 11 p3624 N93-29477
A multilevel approach to minimum cost network flows
[AD-A264008] 11 p3550 N93-29978
Cost studies for commercial fuselage crown designs 11 p3302 N93-30440
A unified approach for composite cost reporting and prediction in the ACT program 11 p3302 N93-30441
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
Minimize system cost by choosing optimal subsystem reliability and redundancy
[NASA-TM-106251] 12 p3812 N93-31145
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592
Evaluation of future space transportation systems with regard to their reliability and costs
[ESA-TT-1281] 12 p3687 N93-31593
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727

COST EFFECTIVENESS

An iterative method for distributed database design 02 p0474 N93-11255
Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
Cost-effective Sintered Reaction-Bonded Silicon Nitride (SRBSN) for structural ceramics
[DE92-019285] 03 p0549 N93-12821
Economical development of complex computer systems
[AD-A254752] 03 p0689 N93-12848
Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems 03 p0556 N93-13983
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Reusable Reentry Satellite (RRS) system design study
[NASA-CR-187897] 04 p0817 N93-14733
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
Space transfer vehicle concepts and requirements study, phase 2
[NASA-CR-192430] 05 p1075 N93-16660
Concrete: Potential material for Space Station 05 p1089 N93-16896
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Towards automated support for extraction of reusable components 05 p1244 N93-17163
Future directions: Integrated resource planning
[DE92-040867] 05 p1197 N93-17208
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Exodus: Prime Mover
[NASA-CR-192051] 05 p1064 N93-17803
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
Tech transfer outreach
[DE93-001553] 06 p1694 N93-18533
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
A Research Agenda for Scientific and Technical Information
[AGARD-AR-316] 06 p1692 N93-19796
An overview of autonomous rendezvous and docking system technology development 07 p1816 N93-21431
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Battery compatibility with photovoltaic charge controllers
[DE93-005373] 08 p2377 N93-22537
A NASA-wide approach toward cost-effective, high-quality software through reuse
[NASA-CP-10115] 08 p2435 N93-22601
Space technology research plans 08 p2184 N93-22613
Consortium for materials development in space interaction with Space Station Freedom 08 p2192 N93-22650
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Variable-speed generators with flux weakening 09 p2694 N93-25599
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
Documentation for propane fleet conversion cost-effectiveness model
[PB93-165611] 09 p2720 N93-26590
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Spacecraft and launch systems for TACSAT applications 11 p3284 N93-29904
Cost effective TacSats for military support 11 p3285 N93-29912
A multilevel approach to minimum cost network flows
[AD-A264008] 11 p3550 N93-29978
The First NASA Advanced Composites Technology Conference, part 1
[NASA-CP-3104-PT-1] 11 p3300 N93-30428
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 1
[PB93-186492] 12 p3712 N93-31326
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 2
[PB93-186500] 12 p3713 N93-31327
Software engineering 12 p3794 N93-32154

COST ESTIMATES

Space Transportation Booster Engine Configuration Study. Volume 3: Program Cost estimates and work breakdown structure and WBS dictionary
[NASA-CR-184458] 02 p0233 N93-12088
Cost estimation of software development and the implications for the program manager
[AD-A255167] 02 p0480 N93-12472
The use of life cycle costing for the acquisition of non-major systems at the Naval Regional Contracting Center Detachment
[AD-A255170] 02 p0480 N93-12473
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872
Automated Estimating System (AES), version 5.1. User's manual
[DE93-000380] 04 p0946 N93-15003
Automated Estimated System (AES) standard value and guidelines programs user's manual
[DE92-041243] 04 p0951 N93-15450
Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
A model for the cost of doing a cost estimate 06 p1515 N93-19436
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
NASA program costs: Space missions require substantially more funding than initially estimated. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-97] 07 p2093 N93-21358
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
Space biology initiative program definition review. Trade study 5: Modification of existing hardware (COTS) versus new hardware build cost analysis 08 p2417 N93-23069
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization 08 p2417 N93-23070
Space transportation: The content and uses of Shuttle cost estimates. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-115] 08 p2531 N93-23097
Space Station Furnace Facility. Volume 3: Program cost estimate
[NASA-CR-192478] 08 p2200 N93-23237
Supply of geothermal power from hydrothermal sources: A study of the cost of power in 20 and 40 years
[DE93-004479] 08 p2382 N93-24036
Columbus programme overview 08 p2155 N93-24337
What is a system? NASA's phased project description 09 p2665 N93-24681

Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25298
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Space nuclear thermal propulsion: Evaluation of PIPET at the INEL's CTF 10 p2955 N93-26967
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Evaluating the bias of alternative cost progress models: Tests using aerospace industry acquisition programs
[AD-A262870] 11 p3624 N93-29477
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727

COST REDUCTION

A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
The use of life cycle costing for the acquisition of non-major systems at the Naval Regional Contracting Center Detachment
[AD-A255170] 02 p0480 N93-12473
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
Software requirements for the A-7E aircraft
[AD-A255746] 04 p0946 N93-15052
A new multiplier-free structure for DFT based on delta modulation
[AD-A255927] 04 p0861 N93-15106
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
RT-Syn: A real-time software system generator 05 p1250 N93-17523
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
Hot film wall shear instrumentation for compressible boundary layer transition research
[NASA-CR-191360] 06 p1404 N93-17855
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
The comet rendezvous asteroid flyby mission 06 p1720 N93-19260
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
National Launch System: Structures and materials 08 p2172 N93-22083
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Vehicle systems 08 p2174 N93-22095
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives. Intelligence programs: New RC-135 aircraft engines can reduce cost and improve performance
[AD-A259283] 08 p2105 N93-22397
Statistical process control program at a ceramics vendor facility
[DE93-006043] 08 p2238 N93-23025
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Design and analysis of algorithms for processing queries in database systems 09 p2876 N93-25482
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Minimizing total inventory cost on a single machine in just-in-time manufacturing
[MEMO-COSOR-92-20] 10 p3093 N93-27247
Advisory Committee on the Redesign of the Space Station
[NASA-TM-108760] 10 p2963 N93-27579
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-27969
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686
Low cost TACSAT for NATO surveillance 11 p3285 N93-29911
The drive to cost-effective structural ceramics
[DE93-009722] 11 p3335 N93-30047
Advanced composite structural concepts and material technologies for primary aircraft structures 11 p3300 N93-30430
Composites technology for transport primary structure 11 p3300 N93-30431
Advanced technology commercial fuselage structure 11 p3300 N93-30432
Design and manufacturing concepts for thermoplastic structures 11 p3301 N93-30434
Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
Preliminary study on costs needed for solution of the global environmental problem
[DE93-768474] 12 p3754 N93-32039
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

COSTA RICA

Geologic structure and processes of the eastern Pacific margin: California and Costa Rica 09 p2771 N93-25424

COSTS

NT LIFE CYCLE COSTS
NT LOW COST
NT OPERATING COSTS
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
Development of advanced turbine systems: Meeting tomorrow's needs
[DE92-017339] 03 p0612 N93-13103
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems 03 p0556 N93-13983
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
Knowledge-intensive software design systems: Can too much knowledge be a burden? 05 p1250 N93-17518
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Selection and costing of heat exchangers
[ESDU-92013] 06 p1524 N93-18040
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
JEFF: Air transport system design simulation
[NASA-CR-192069] 06 p1439 N93-18350
Average-cost based robust structural control 06 p1469 N93-18939
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach 06 p1588 N93-19411
A model for the cost of doing a cost estimate 06 p1515 N93-19436
Prediction of success from training 06 p1430 N93-19702
NASA issues
[GAO/OCG-93-27TR] 07 p2085 N93-20904
Solid rocket motors 08 p2174 N93-22094
Entry Systems Panel 08 p2175 N93-22097
Reliability of solid rocket motor cases and nozzles 08 p2176 N93-22103
Reentry systems: Material technology needs 08 p2176 N93-22108
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes
[DE93-005611] 08 p2312 N93-22737
Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
Investigation and study scenarios to introduce CO2 fixation technologies in the energy sector
[DE93-761912] 08 p2378 N93-22958
Summary document of tasks performed on the Shuttle-C/NLS contract
[NASA-CR-192483] 08 p2179 N93-22995
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
Management issues in systems engineering 09 p2665 N93-24682
The importance of cost considerations in the systems engineering process 09 p2666 N93-24686
Data parallel finite element techniques for large-scale computational fluid dynamics 09 p2699 N93-25334
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Efficient grid based techniques for solving the Weighted Region Least Cost Path problem on multicomputers
[AD-A262153] 10 p3107 N93-27548
Value of space defenses
[DE93-003813] 10 p3127 N93-28295
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
Instigation and processing of flight tests in DLR 12 p3675 N93-31275
Automated Assembly Center (AAC) 12 p3686 N93-32123

COUETTE FLOW

Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126] 01 p0083 N93-10859
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11643
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Instabilities and patterns in Taylor-Couette flow 03 p0593 N93-13965
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects 03 p0594 N93-14077
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
Spatio-temporal complexity and large-scale structures in problems of continuum mechanics
[AD-A256410] 04 p0998 N93-15333
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738

Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040

COULOMB COLLISIONS

Multi-fluid modeling of interpenetrating plasmas [DE93-002893] 06 p1668 N93-19829

From simple to complex reactions: Nuclear collisions near the Coulomb barrier [DE93-004197] 08 p2478 N93-22063

Plasma heating in toroidal systems [NIFS-208] 09 p2858 N93-25092

Coulomb-blockade oscillations in quantum dots and wires [ETN-93-94055] 12 p3831 N93-31621

Kinetic nonlinear electron-ion two stream instability in field-free isothermal plasma [DE93-608571] 12 p3826 N93-31668

COULOMB POTENTIAL

Theory of small metal clusters, films, and wires [AD-A253120] 02 p0256 N93-11240

Flux flow, pinning, and resistive behavior in superconducting networks [DE93-002707] 05 p1324 N93-17081

A preliminary study of the Gribov ambiguity in lattice SU(3) Coulomb gauge [PREPRINT-816] 07 p2055 N93-21179

Structure and thermodynamics of the soft ion model electrolyte solutions [AD-A262293] 10 p3136 N93-28246

Topics in gauge theories and the unification of elementary particle interactions [DE93-009370] 11 p3563 N93-28542

Fast multipole method in simulations of aqueous systems [AD-A263422] 11 p3567 N93-29336

Calculations of wavefunctions and energies of electron system in Coulomb potential by variational method without a basis set [DE93-608161] 12 p3819 N93-31286

Perturbation of the Laplacian by the Coulomb potential and a point interaction in L(sup p)(R cubed) [REPT-92-55] 12 p3807 N93-31613

COULOMETRY

Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes [AD-A260071] 08 p2224 N93-24314

COUNTDOWN

Time management situation assessment (TMSA) 06 p1639 N93-18692

COUNTER ROTATION

A concept for a counterrotating fan with reduced tone noise [NASA-TM-105736] 02 p0433 N93-11370

Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis [NASA-CR-187128] 03 p0502 N93-12695

A multiple-view visual study of the inner/outer region interactions of coherent motions in a turbulent boundary layer 03 p0591 N93-13937

Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor [NASA-TM-105979] 05 p1066 N93-16715

Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual [NASA-CR-187125] 07 p1784 N93-20583

Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis [NASA-CR-187126] 07 p1785 N93-20773

Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics [DLR-FB-91-40] 07 p1763 N93-21760

The interaction of modulated vortex pairs with a free surface 09 p2701 N93-25485

User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program [NASA-CR-191034] 10 p3129 N93-27148

Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946

Flow and heat transfer between gas-turbine discs 11 p3256 N93-29950

Numerical modeling and parameterization of gravity wave processes and effects in the atmosphere [AD-A264331] 11 p3478 N93-30367

COUNTERFLOW

Solution of nonlinear boundary value problem on successively refined grids [AD-A261395] 09 p2829 N93-26519

COUNTERMEASURES

NT ELECTRONIC COUNTERMEASURES

NT JAMMING

Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990 [NASA-CR-4468] 03 p0743 N93-12898

Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624

The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068

An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference [AD-A263020] 10 p3031 N93-27911

Issues on human acceleration tolerance after long-duration space flights [NASA-TM-104753] 11 p3495 N93-29651

Electro-optic characterisation of extremely wide bandwidth electrical signals [AD-A264202] 11 p3392 N93-30145

Fix-tracking system [AD-D015738] 12 p3718 N93-32210

COUNTERS

NT CERENKOV COUNTERS

NT ELECTRON COUNTERS

NT GEIGER COUNTERS

NT NEUTRON COUNTERS

NT NEUTRON SPECTROMETERS

NT PARTICLE TELESCOPES

NT PROPORTIONAL COUNTERS

NT RADIATION COUNTERS

NT SCINTILLATION COUNTERS

A four channel 250 MHz visual counter [DE92-016920] 01 p0086 N93-10444

Compressing subbanded image data with Lempel-Ziv-based coders [NASA-TM-105998] 07 p1882 N93-20257

Uninterrupted, enhanced-rate, event-time recorder with mixed-speed counter modules [AD-D015578] 07 p1906 N93-20769

Measurement of a Michelson interferometer mirror velocity with a time interval analyzer [AD-A263009] 11 p3430 N93-28659

COUNTING

Box counting multifractal analysis [AD-A253960] 01 p0144 N93-10419

Software size measurement: A framework for counting source statements [AD-A258304] 06 p1620 N93-18303

Stochastic orderings on partial sums of random variables and on counting measures of random intervals [INRIA-RR-1422] 07 p2052 N93-20860

The GALLEX solar neutrino experiment [DE93-003357] 07 p2102 N93-21962

Electromagnetism from counting [DE93-006930] 08 p2261 N93-22582

An experimental search for gamma radiation associated with thunderstorm activity [DE93-006939] 08 p2403 N93-22584

COUNTING CIRCUITS

A semi-custom dual channel peak hold circuit for spaceborne instrumentation [DE93-003801] 07 p1828 N93-21777

COUPLED MODES

Structural simulation coupling for transient analysis [AD-A258192] 06 p1643 N93-17861

A non-linear phenomenon in the dynamic response of metallic and composite structures 07 p1926 N93-20620

A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry [AD-A262101] 10 p3130 N93-28179

Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus [DE93-010131] 11 p3584 N93-28602

Nonlinear mode coupling in free electron lasers [AD-A263999] 11 p3439 N93-29883

Modal synthesis technique used in shallow doublewall [FFA-TN-1992-29] 12 p3722 N93-31053

COUPLERS

NT ANTENNA COUPLERS

NT COUPLING CIRCUITS

NT DIPLEXERS

NT DIRECTIONAL COUPLERS

Test program, helium II orbital resupply coupling [NASA-CR-185681] 02 p0326 N93-11650

The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518

Polarization independent narrow channel wavelength division multiplexing fiber coupler and method for producing same [AD-D015473] 05 p1303 N93-16480

Power coupler and cold window for seven-cell superconducting cavity vertical tests [DE93-000791] 05 p1150 N93-17380

COUPLING

NT ACOUSTIC COUPLING

NT CROSS COUPLING

NT ELECTROMAGNETIC COUPLING

NT MAGNETOSPHERE-IONOSPHERE COUPLING

NT MICROWAVE COUPLING

NT OPTICAL COUPLING

NT SPIN-SPIN COUPLING

Mode localization in a simple continuum model 01 p0056 N93-10529

Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling [DE93-000607] 05 p1319 N93-16278

Lattice calculations of f(D) and f(B) [SSCL-PREPRINT-798] 05 p1286 N93-16394

Anomalous WWZ couplings at future e(+)e(-) colliders [PREPRINT-814] 07 p2066 N93-21177

Coupled multi-disciplinary composites behavior simulation [NASA-TM-106011] 08 p2322 N93-22481

Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers [DE93-004203] 08 p2502 N93-22523

Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing [DE93-006411] 08 p2419 N93-24028

Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr [DE93-007894] 09 p2863 N93-25369

Dynamic System Coupler Program (DYSCO 4.1). Volume 3: User's manual supplement [AD-B131158L] 10 p3099 N93-27590

The commutant lifting theorem in the Krein space setting: A proof based on the coupling method [W-9208] 10 p3128 N93-28125

Instabilities and nonstatistical behavior in globally coupled systems [DE93-608185] 12 p3831 N93-31302

COUPLING CIRCUITS

Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies [DE92-019296] 02 p0411 N93-11599

Optical beamformer [AD-A254354] 02 p0448 N93-12272

COUPLING COEFFICIENTS

Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887

Ultrametricity in an inhomogeneous simplest spin glass model [PREPRINT-819] 07 p2055 N93-21181

COUPLINGS

Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3 [AD-A248001] 02 p0467 N93-12175

Work attachment mechanism/work attachment fixture [NASA-CASE-GSC-13430-1] 04 p0890 N93-14712

Frequency shifts in a rubidium frequency standard due to coupling to another standard [AD-A256232] 04 p0972 N93-15243

High torque capable, self locking, vibration isolating flexible shaft coupling statement of government interest [AD-D015501] 05 p1178 N93-16583

Boom and chassis articulation joints [NASA-CR-192059] 06 p1546 N93-18052

Development and verification of methods for predicting flow rates through leaks in valves and couplings [NASA-CR-192270] 06 p1533 N93-19013

Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530

Quick connect fastener [NASA-CASE-MFS-28833-1] 11 p3445 N93-29846

COURSES

U PATHS

COVALENCE

Covalent electron transfer theory of superconductivity [AD-A253975] 01 p0074 N93-10718

Accurate determination of Auger line shape binding energies [AD-A261803] 09 p2868 N93-26258

COVALENT BONDS

Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions [AD-A250931] 02 p0236 N93-12177

Halogen surface chemistry on Si(100)-(2x1) [AD-A254643] 03 p0536 N93-12618

Comparison of different synthetic routes for sulfonation of polyaniline [AD-A259662] 08 p2222 N93-23658

Optically switchable conductive polymers [AD-A264751] 11 p3337 N93-30557

COVARIANCE
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy 03 p0518 N93-13768
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
L2 and L-infinity multiobjective control for linear systems 04 p0961 N93-14399
The covariance matrix of derived quantities and their combination
[DE92-019066] 04 p0969 N93-15212
Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario 06 p1454 N93-18899
Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations
[AD-A259449] 07 p2030 N93-20058
Variance-covariance estimation and statistical testing of satellite networks
[PB92-225358] 07 p1824 N93-21048
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
Generation of covariance data among values from a single set of experiments
[DE93-004192] 08 p2522 N93-22435
Meteorological data assimilation by adaptive Bayesian optimization 08 p2409 N93-24272
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Galilean covariant harmonic oscillator 10 p3145 N93-27341
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431
Determination of low frequency reference slipping for high frequency unstationary motion processes
[ILR-MITT-273(1992)] 11 p3455 N93-31017

COVES
U BAYS (TOPOGRAPHIC FEATURES)

COWELL METHOD
U NUMERICAL INTEGRATION

COWLINGS
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089

CRAB NEBULA
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990
Very high energy gamma ray astrophysics
[DE93-007625] 08 p2551 N93-24453
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053

CRACK ARREST
For a better fatigue strength of welded steel structures 07 p1949 N93-21333

CRACK CLOSURE
Indentation of a precompressed penny-shaped crack 01 p0048 N93-10486
Fatigue crack closure: A review
[RAE-TR-90046] 02 p0335 N93-11369
Studies on numerical and experimental determination of energy release rate for composite laminates 03 p0533 N93-13752
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272

CRACK FORMATION
U CRACK INITIATION

CRACK GEOMETRY
Indentation of a precompressed penny-shaped crack 01 p0048 N93-10486
Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures 05 p1080 N93-15744
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329
Method of continuously determining crack length
[NASA-CASE-LAR-14480-1-CU] 11 p3452 N93-29612

CRACK INITIATION
Failure processes in elastomeric composites 01 p0046 N93-10475
Stress patterns in the dynamic tear test 01 p0049 N93-10491
Dynamic measurement of the J integral in ductile metals using the optical method of caustics 01 p0049 N93-10492
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031
Fracture mechanics of model fiber composites 02 p0237 N93-11247
Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189678] 02 p0239 N93-11611
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics
[AD-A254385] 03 p0623 N93-12863
Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690
Delamination Initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures 05 p1080 N93-15744
Prediction of thermal cycling induced matrix cracking 05 p1100 N93-16780
Study of the different oxidation states of nickel base superalloys
[ETN-92-92555] 05 p1116 N93-17495
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Prediction of fracture initiation in surface flaws 07 p1935 N93-20678
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
A modified Miner rule to predict crack initiation 07 p1948 N93-21325
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
A comment on the role of machining induced residual stresses on fatigue crack initiation 07 p1949 N93-21334
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
The role of passive surface films on corrosion fatigue crack initiation
[DE93-006512] 08 p2325 N93-22888
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009 08 p2231 N93-23588
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates 11 p3304 N93-30847
Delaminations in composite plates under impact loads 11 p3304 N93-30849
Conclusions and recommendations 12 p3682 N93-31749

CRACK OPENING DISPLACEMENT
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
surf3d: A 3-D finite-element program for the analysis of surface and corner cracks in solids subjected to mode-1 loadings
[NASA-TM-107710] 08 p2329 N93-23735

J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390

CRACK PROPAGATION

An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198

Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325

Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439

Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453

Failure processes in elastomeric composites 01 p0046 N93-10475

Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479

Indentation of a precompressed penny-shaped crack 01 p0048 N93-10486

Numerical simulation of transient crack growth 01 p0048 N93-10488

Dynamic crack division in brittle solids 01 p0048 N93-10489

Integral transform approach to an inertial viscoelastic problem involving moving singularities 01 p0049 N93-10490

Status of dynamic fracture in brittle solids 01 p0049 N93-10493

Analysis of a buffer strip laminate with a cutout 01 p0052 N93-10506

Fatigue crack propagation in the presence of shot-peening residual siresses 01 p0059 N93-10542

High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632

Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717

Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031

Modelling short crack growth behaviour in nickel-base superalloys
[PNR-90912] 02 p0255 N93-11033

Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115

Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203

Fracture mechanics of model fiber composites 02 p0237 N93-11247

Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524

Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601

Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189678] 02 p0239 N93-11611

The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782

Elastic stresses, twin boundaries, and fatigue cracking 02 p0338 N93-11890

Slow crack growth in vacuum 02 p0338 N93-11909

Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008

Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181

Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241

Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248

Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249

Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467

Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468

Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth 03 p0621 N93-12628

Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643

Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738

Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics
[AD-A254385] 03 p0623 N93-12863

Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320

The use of degradation measures in assessing reliability 03 p0573 N93-13607

Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690

An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187

Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474

Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493

Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838

Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890

Introduction to test cases for engine life assessment technology 04 p0799 N93-14891

LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892

CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894

Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896

F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897

In-service considerations affecting component life 04 p0800 N93-14898

The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675

Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699

Fatigue characterization of Ni-base alloys 05 p1081 N93-15756

Residual stresses in welds and effect on crack growth prediction 05 p1082 N93-15758

Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958

Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086

Hermite interpolation algorithm for 2D fracture mechanics
[DE92-041266] 05 p1184 N93-16097

The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels
[DE92-041208] 05 p1111 N93-16149

The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188

Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260

Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress
[DE92-041375] 05 p1185 N93-16270

Multiple-site-damage in 2024-T3 alloy sheet
[LR-660] 05 p1112 N93-16279

Multiaxial fatigue analysis of metals 05 p1113 N93-16509

Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637

Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641

Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002

Microstructure/mechanical-property relationships and R-curve behavior in Si3N4/Si3N4(w) composites
[DE92-041096] 05 p1098 N93-17004

Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012

The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065

Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531

Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535

Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17582

Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603

An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606

A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961

Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090

Fatigue of turboengine discs
[DS-2136] 06 p1448 N93-18149

Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379

Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655

Some remarks upon fracture mechanics
[VTT-PUBS-100] 06 p1556 N93-18700

Fatigue crack growth and coalescense in a notch region
[ISBN-0-315-68910-2] 06 p1559 N93-19042

Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079

High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329

Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357

Elevated temperature crack growth
[NASA-CR-189191] 07 p1920 N93-19992

Fatigue Design 1992, volume 2
[VTT-SYMPOSIUM-131-VOL-2] 07 p1921 N93-20330

The predicting crack growth for mixed mode fracture under biaxial loads 07 p1922 N93-20336

Probabilistic chain fatigue model 07 p1922 N93-20338

Discrete statistical model of fatigue crack growth in a Ni-base superalloy, capable of life prediction 07 p1923 N93-20344

Mixed mode fatigue crack propagation in a crankshaft 07 p1923 N93-20347

Probabilistic aspects of growth of the fatigue cracks in the railroad axles 07 p1924 N93-20348

Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349

Prediction of fracture initiation in surface flaws 07 p1935 N93-20678

Application of the BEM to the crack growth problem by the coupling of damage-deformation 07 p1940 N93-20702

Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733

Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915

Toughness of Si3N4-SiC whisker composites
[REPT-921-430-118] 07 p1839 N93-21295

Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322

Modelling of fatigue crack growth in flat plate weldments and tubular welded joints 07 p1948 N93-21326

Fatigue of old metallic railroad bridges 07 p1949 N93-21330

Fatigue crack propagation of titanium alloys in salt water
[GKSS-91/E/46] 07 p1856 N93-21551

Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566

Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779

Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808

A computational study of the time dependent crack growth process
[DE93-004397] 08 p2324 N93-22751

Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771

J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
An investigation into the multiaxial fatigue behavior of IMI 829 titanium alloy 08 p2327 N93-23182
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HIPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
Consideration of history dependent damage in creep crack growth
[DE93-004398] 08 p2328 N93-23317
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009
08 p2231 N93-23588
A fracture mechanics approach to failure load predictions of structural adhesive joints 08 p2212 N93-23940
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys
[DE93-005039] 08 p2232 N93-23980
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181
Crack deflection at bi-material interfaces
[DE93-003712] 08 p2332 N93-24479
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
Boundary element method
[ETN-93-93699] 08 p2333 N93-24593
Numerical investigations on fracture behavior of ductile materials 09 p2725 N93-25411
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Development and application of an advanced ductile fracture mechanics methodology
09 p2727 N93-25718
Models of crack growth along polymer interfaces
09 p2728 N93-25750
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Low cycle fatigue behavior of polycrystalline NiAl at 300 and 1000 K
[NASA-TM-105987] 10 p2998 N93-26898
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Fracture micromechanics of ceramic composites
10 p2920 N93-27172
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force
10 p2926 N93-27210
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
Near threshold fatigue testing
[DE93-009069] 10 p3061 N93-28432
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Damage growth in composite propellants
11 p3348 N93-30088
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428
AGARD Engine Disc Cooperative Test Programme
[AGARD-R-766-ADD] 12 p3681 N93-31741
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings
12 p3681 N93-31742
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743
Fatigue crack growth results for Ti-6Al-4V, IMI 685, and Ti-17 12 p3682 N93-31746
Crack growth prediction models
12 p3682 N93-31747
Crack growth prediction results
12 p3682 N93-31748
Conclusions and recommendations
12 p3682 N93-31749
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
Damage severity of monitored fatigue load spectra
[NLR-TP-92009-U] 12 p3679 N93-32205

CRACK TIPS
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities
01 p0047 N93-10483
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Numerical simulation of transient crack growth
01 p0048 N93-10488
Dynamic crack division in brittle solids
01 p0048 N93-10489
Integral transform approach to an inertial viscoelastic problem involving moving singularities
01 p0049 N93-10490
Dynamic measurement of the J integral in ductile metals using the optical method of caustics
01 p0049 N93-10492
Status of dynamic fracture in brittle solids
01 p0049 N93-10493
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Slow crack growth in vacuum
02 p0338 N93-11909
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Studies on numerical and experimental determination of energy release rate for composite laminates
03 p0533 N93-13752
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
The mechanics of dislocation nucleation at a crack tip
04 p0896 N93-14214
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Fracture toughness using circular discs
07 p1935 N93-20677
Performances of finite element solution for crack problem 07 p1936 N93-20682
Boundary element shape function for bimaterial interface cracks 07 p1939 N93-20701
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites
07 p1843 N93-21525
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
An investigation into the multiaxial fatigue behavior of IMI 829 titanium alloy 08 p2327 N93-23182
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
Crack tip fields in ductile crystals and bicrystals
09 p2866 N93-25749
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390
Approximate techniques for predicting size effects on cleavage fracture toughness (J(sub c))
[AD-A261591] 09 p2731 N93-26516
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Transformation toughening
[DE93-011805] 11 p3321 N93-28631
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147

CRACKING (CHEMICAL ENGINEERING)
NT PYROLYSIS
Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021

CRACKING (FRACTURING)
NT STRESS CORROSION CRACKING
Status of dynamic fracture in brittle solids
01 p0049 N93-10493
Analysis of failure modes in ceramic matrix composite
01 p0028 N93-10508
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076

Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials 03 p0625 N93-13127
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels
[DE92-041208] 05 p1111 N93-16149
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
Unified airport pavement design procedure 05 p1071 N93-16318
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17562
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289
Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
Crack tip fields in ductile crystals and bicrystals 09 p2866 N93-25749
An overview of elevated temperature damage mechanisms and fatigue behavior of a unidirectional SCS-6/Ti-15-3 composite
[NASA-TM-106131] 10 p2989 N93-26702
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Whisker toughening of ceramic materials: A review
[DE93-011565] 11 p3336 N93-30129
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937
Thermal shock and fatigue behavior of ceramic tubes 12 p3739 N93-31139

CRACKS
NT CRACK TIPS
NT MICROCRACKS
NT SHORT CRACKS
NT SURFACE CRACKS

Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Elastic stresses, twin boundaries, and fatigue cracking 02 p0338 N93-11890
A consistent cracked bar vibration theory 02 p0339 N93-12000
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Bifurcations in elastic-damaging materials
[DE92-018818] 03 p0624 N93-13072
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Finite elements for free edge delaminations and delaminated anisotropic beams 03 p0535 N93-13967
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
Analysis of mixed mode cracks in a cylindrical shell 07 p1936 N93-20683
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684
Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Consideration of history dependent damage in creep crack growth
[DE93-004398] 08 p2328 N93-23317
Designing for damage tolerant composite repairs
[AD-A260094] 08 p2214 N93-24053
A new index for the crevice corrosion resistance of materials
[AD-A260437] 08 p2233 N93-24112
Fracture of an elliptical inclusion and its implications for the properties of short fiber composites 09 p2634 N93-25333
Three-dimensional boundary element analysis of contact and fracture problems 09 p2725 N93-25335
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Transformation toughening
[DE93-011805] 11 p3321 N93-28631
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
Factors influencing the interlaminar fracture toughness and its evaluation in composites
[FFA-TN-1991-34] 11 p3451 N93-29076
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Method of continuously determining crack length
[NASA-CASE-LAR-14480-1-CU] 11 p3452 N93-29612
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Interfacial melting in cracked explosives 11 p3349 N93-30089
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982

CRAF MISSION
U COMET RENDEZVOUS ASTEROID FLYBY MISSION

CRAFT
U VEHICLES

CRANES
NT GANTRY CRANES

Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Fatigue assessment of a cast component for a timber crane 07 p1924 N93-20353
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Lunar crane system 11 p3277 N93-29118
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348

CRANKED WINGS
U SWEPT WINGS

CRASH INJURIES

The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters 06 p1428 N93-19691

CRASH LANDING
NT DITCHING (LANDING)

The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident? 06 p1423 N93-19664
Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665
Aircraft accident report: Takeoff stall in icing conditions. USAIR Flight 405 FOKKER F-28, N485US, LaGuardia Airport, Flushing, New York, 22 March 1992
[PB93-910402] 10 p2940 N93-27034

CRASHES
NT CRASH LANDING
NT DITCHING (LANDING)
Aircraft accident/incident summary report: Controlled flight into terrain, Bruno's Inc., Beechjet, N25BR, Rome, Georgia, December 11, 1991
[PB92-910404] 03 p0498 N93-13470
Can injury scoring techniques provide additional information for crash investigators?
06 p1423 N93-19663
The design and use of automotive crash test dummies
06 p1424 N93-19669
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990
06 p1427 N93-19687
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters
06 p1428 N93-19691
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086
The annual probability of an aircraft crash on the US Department of Energy reservation in Oak Ridge, Tennessee
[DE93-005171] 08 p2118 N93-23325
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135
CRASHWORTHINESS
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
Computer aided methods for simulating occupant response to impact using OASYS DYNA3D
06 p1424 N93-19666
Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667
An improved anthropometric test device
06 p1424 N93-19670
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
Crashworthiness of composite seats for civil aircraft
09 p2582 N93-24773
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
CRATERING
NT PROJECTILE CRATERING
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling
01 p0108 N93-10125
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
New perspectives on the Popigai impact structure
01 p0110 N93-10138
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Geomechanical models of impact cratering: Puchezh-Katunki structure 01 p0114 N93-10151
A history of the Lonar crater, India: An overview
01 p0118 N93-10168
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Monte Carlo modeling of the resurfacing of Venus
04 p1025 N93-14299
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
A model for the formation of the extended paraboloidal halos around some impact craters on Venus
04 p1037 N93-14352
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
CRATERS
NT LUNAR CRATERS
NT MARS CRATERS
NT METEORITE CRATERS
NT PLANETARY CRATERS
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
Episodic plate tectonics on Venus
04 p1044 N93-14390
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
CRATONS
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure
01 p0106 N93-10115
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe?
01 p0109 N93-10134
CRAY COMPUTERS
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
Using a multifrontal sparse solver in a high performance, finite element code
[NASA-CR-192718] 09 p2828 N93-25223
Using a Cray Y-MP as an array processor for a RISC Workstation
[NASA-TM-103961] 09 p2809 N93-25246
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
CRAZING
U SURFACE CRACKS
CREATION
U CREATIVITY
CREATIVITY
Correlates of creative problem solving
[AD-A258720] 07 p2085 N93-20369
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
CREEP ANALYSIS
An evaluation of the cumulative damage effect under creep loading 01 p0058 N93-10540
A variational approach for coupled creeping-flow problems 01 p0062 N93-10557
Testing and characterisation of metallic materials for structural analysis of high temperature components
05 p1082 N93-15757
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
CREEP PROPERTIES
NT SHEAR CREEP
NT TENSILE CREEP
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Unified viscoplastic behavior of metal matrix composites
[NASA-TM-105819] 01 p0096 N93-10777
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics
[AD-A254385] 03 p0623 N93-12863
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties
03 p0530 N93-13007
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue
[NASA-CR-190794] 03 p0626 N93-13290
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites
04 p0829 N93-14193
In-service considerations affecting component life
04 p0800 N93-14898
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
Testing and characterisation of metallic materials for structural analysis of high temperature components
05 p1082 N93-15757
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition
[DE92-556729] 05 p1114 N93-16649
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
High temperature alloys 07 p1858 N93-20626
Creep damage of carbon fiber reinforced PEEK
07 p1862 N93-20639
Creep of PEEK-graphite fibre composite material
07 p1930 N93-20644
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
CREEPSIM-2: A software package for numerical integration of 1st order differential equations
[NPL-DMM(A)-35] 08 p2435 N93-22452
A computational study of the time dependent crack growth process
[DE93-004397] 08 p2324 N93-22751
Fractography applied to polymeric materials. Part 9: Creep and rupture analysis
[DREA-CR-91-470] 08 p2238 N93-23119
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HIPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
High temperature deformation characteristics of discontinuous fiber reinforced composites
[DE93-004466] 08 p2214 N93-24047
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103
Inelastic behavior of thermoplastic composites
09 p2636 N93-25674
Models of crack growth along polymer interfaces
09 p2728 N93-25750
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660

Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Ultrahigh temperature assessment study: Ceramic matrix composites
[AD-A262740] 11 p3295 N93-28592
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Bounds on internal state variables in viscoplasticity
[NASA-TM-106215] 11 p3451 N93-29196
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
Plastic deformation behaviour of oxide dispersion strengthened titanium alloys
[ONERA-NT-1990-6] 11 p3326 N93-30138

CREEP RESISTANCE
U CREEP STRENGTH

CREEP RUPTURE STRENGTH
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites 04 p0829 N93-14193
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition
[DE92-556729] 05 p1114 N93-16649
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel
[DE93-001373] 05 p1116 N93-17479
Creep damage of carbon fiber reinforced PEEK 07 p1862 N93-20639
Creep of PEEK-graphite fibre composite material 07 p1930 N93-20644
Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

CREEP STRENGTH
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
Creep damage of carbon fiber reinforced PEEK 07 p1862 N93-20639
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938

CREEP TESTS
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938

CRESTATRONS
U TRAVELING WAVE TUBES

CRESTS
U WAVES

CRETACEOUS PERIOD
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships 08 p2411 N93-24578

CRETACEOUS-TERTIARY BOUNDARY
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Large meteorite impacts: The K/T model 01 p0107 N93-10120
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud 01 p0109 N93-10135
The Cretaceous-Tertiary (K/T) impact: One or more source craters? 01 p0114 N93-10153
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188

CREVASSES
NT GLACIERS

CREVICES
U CRACKS

CREW PROCEDURES (INFLIGHT)
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Cockpit resource management proficiency as a factor of primary flight training
[AD-A256995] 05 p1060 N93-16262
Task Analysis of Shuttle Entry and Landing Activities
[NASA-TM-104761] 08 p2178 N93-22702
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization 08 p2417 N93-23070

CREW PROCEDURES (PREFLIGHT)
Cockpit resource management proficiency as a factor of primary flight training
[AD-A256995] 05 p1060 N93-16262
Mir 1992 operations and crew training 08 p2157 N93-24352

CREW STATIONS
U CREW WORKSTATIONS

CREW WORKSTATIONS
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts? 06 p1607 N93-19759
EVA/manned systems 10 p2966 N93-27789
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006

CREWS
NT FLIGHT CREWS
NT SPACECREWS
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
A progressive resistance weight training program designed to improve the armor crewman's strength
[AD-A255553] 04 p0934 N93-14556
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406

CRIME
Criminal acts against civil aviation
[AD-A258760] 06 p1432 N93-19867

CRIMPING
U FOLDING

CRITERIA
NT STRUCTURAL DESIGN CRITERIA
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
A novel recursive partitioning criterion
[AD-A259921] 08 p2464 N93-24564
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844

CRITICAL EXPERIMENTS
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
Loading and testing a light scattering cell with a binary fluid mixture near its critical composition
[NASA-CR-193147] 11 p3415 N93-28557

CRITICAL FLOW
FNAS computational fluid dynamics
[NASA-CR-184394] 02 p0307 N93-12397
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154

CRITICAL LOADING
Failure processes in elastomeric composites 01 p0040 N93-10475
Failure analysis of laminated composites by using iterative three-dimensional finite element method 01 p0051 N93-10505
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
Analysis of advanced thin-walled composite structures 04 p0895 N93-14158
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
Mode interaction in stiffened composite shells under combined mechanical and thermal loadings 05 p1189 N93-16793
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731
Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819

CRITICAL MACH NUMBER
U MACH NUMBER

CRITICAL PATH METHOD
Path planning on a ring of processors 02 p0410 N93-11480
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
On formulations of path-following techniques for structural stability analysis
[LR-676] 05 p1186 N93-16346

CRITICAL POINT
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447

CRITICAL PRESSURE
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312

CRITICAL REYNOLDS NUMBER
U REYNOLDS NUMBER

CRITICAL STRESS
U CRITICAL LOADING

CRITICAL TEMPERATURE
Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939

Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors 03 p0725 N93-13844
Viscosity of liquids. Halogenated methanes
[ESDU-92028] 04 p0839 N93-14539
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Development of superconducting thin films with a critical temperature greater than 110 K
[AD-A257988] 07 p2080 N93-21224
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
A theoretical analysis of the effect of uniaxial elastic strain on the critical temperature of cuprate superconductors
[DE93-005710] 08 p2507 N93-23329
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219
Electrical and infrared properties of thin niobium microbolometers near T(sub c) 10 p3020 N93-27779
Superconductive fluctuations in the density of states and tunneling resistance in high T(sub c) superconductors
[SSCL-PREPRINT-756] 10 p3153 N93-28141
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Effect of lead addition on the formation of superconducting phases in Bi-Sr-Ca-Cu-O ceramics
[DE93-606893] 11 p3339 N93-30773
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190

CROP GROWTH
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
The dynamics of hydroponic crops for simulation studies of the CELSS initial reference configurations
[NASA-CR-192101] 05 p1570 N93-19943
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 06 p2360 N93-23770
Effects of UV-B and global climate change on rice
[PB93-135622] 08 p2388 N93-23874
GRAMI: A crop growth model that can use remotely sensed information
[PB93-162014] 10 p3062 N93-27053
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465

CROP IDENTIFICATION
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850

CROP INVENTORIES
Remote sensing applied to agriculture state of the art and new trends 09 p2745 N93-24818
Toward a satellite based crop information system in Hungary 09 p2750 N93-24849
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy) 09 p2755 N93-25434
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465

CROPLANDS
U FARMLANDS

CROSS CORRELATION
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Periodicities in pulsar microstructure 02 p0484 N93-11230
ROSAT all sky survey observations of IRAS galaxies 05 p1362 N93-17133
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
Extragalactic radio sources in the ROSAT survey 08 p2536 N93-23899
Radial velocity studies of the secondary in cataclysmic variables 09 p2888 N93-25286
An investigation on planar velocimetry by spatial cross-correlation 09 p2578 N93-25664
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Do galactic potential wells depend on their environment? 10 p3177 N93-26739
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
Automated satellite image navigation
[AD-A262868] 11 p3269 N93-29475
Progress in speckle-shift strain measurement 12 p3693 N93-31558
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890

CROSS COUPLING
Adaptive motion control of mobile robots 11 p3545 N93-30903

CROSS FAULTS
U GEOLOGICAL FAULTS

CROSS FLOW
Dynamics of vortex rings in cross-flow 03 p0496 N93-13917
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
A new parameter for predicting crossflow instability 05 p1162 N93-16828
Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
An experimental investigation of a round turbulent jet in a cross-flow 07 p1905 N93-20689
The effect of surface suction near the leading edge of a swept-back wing
[AERO-REPT-9205] 07 p1761 N93-20807
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1860 N93-21491
Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819
Chaotic vibrations of tubes with nonlinear supports in crossflow
[DE93-004247] 08 p2329 N93-23689
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB] 09 p2706 N93-26000
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049
On the cross-stream spectral method for the Orr-Sommerfeld equation
[NASA-TM-107737] 09 p2845 N93-26086
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
Experimental study of cross flow mixing in cylindrical and rectangular ducts
[NASA-CR-187141] 10 p2945 N93-27680
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
On the dynamics of aeroelastic oscillators with one degree of freedom
[REPT-92-96] 12 p3815 N93-31653

CROSS POLARIZATION
Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182
Lightning precursor signatures from dual-polarization radar measurements of storms 09 p2777 N93-24877

CROSS SECTIONS
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
The use of cross-section warping functions in composite rotor blade analysis
[NASA-CR-191772] 05 p1186 N93-16946
Measurement of the cross-section ratio sigma(sub n)/sigma(sub p) in inelastic muon-nucleon scattering at very low x and Q(sup 2)
[DE93-002916] 06 p1658 N93-19749

CROSSINGS
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer 04 p0876 N93-14695
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625
Higher order crossings
[AD-A258727] 07 p2050 N93-20327
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186

CROSSLINKING
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
Spirobislactone acrylate polymers
[AD-D015443] 04 p0850 N93-14802
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
Crosslinked polyimides prepared from N-(3-ethynylphenyl)maleimide
[NASA-CASE-LAR-14774-1] 06 p1495 N93-19388
Applications of fibrous substrates containing insolubilized phase change polymers 08 p2320 N93-22181
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073
Development of organic nonlinear optical materials
[AD-A261332] 09 p2856 N93-26309
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
Water-soluble polyphosphazenes and their hydrogels
[AD-A264883] 11 p3340 N93-30909
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

CROSSTALK
Integrated filter and detector array for spectral imaging
[NASA-CASE-NPO-18317-1-CU] 03 p0709 N93-13419
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Pulse discriminator for crosstalk rejection in a multi-channel isochromat photoemission spectroscopy
[REPT-92-062] 12 p3719 N93-31253

An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046

CRUCIBLES
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825

CRUDE OIL
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Description of the global petroleum supply and demand outlook updated for the 1993 edition of the GRI baseline projection of US energy supply and demand, December 1992
[PB93-165744] 10 p3008 N93-26633
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190

CRUISE MISSILES
NT TOMAHAWK MISSILES
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Monitoring limits on sea-launched cruise missiles
[OTA-ISC-513] 05 p1061 N93-16632
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202

CRUISING FLIGHT
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480

CRUSHING
Crushing behavior of tubular structures in multi-materials
[ECL-91-37] 02 p0336 N93-11579
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721

CRUSTAL DYNAMICS
U EARTH CRUST
U GEODYNAMICS

CRUSTAL FRACTURES
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
Crustal deformation measurements in the vicinity of Vandenberg Air Force Base
[AD-A258536] 07 p1996 N93-20053
Measurement and interpretation of crustal deformation rates associated with postglacial rebound
[NASA-CR-192245] 07 p1996 N93-20238
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar 09 p2789 N93-25558
Proceedings of the Government Users Workshop on Ground Penetrating Radar Applications and Equipment
[AD-A261873] 09 p2686 N93-26541

CRUSTS
NT EARTH CRUST
NT LUNAR CRUST
NT PLANETARY CRUSTS
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270
Ion produced cometary organic crust 06 p1701 N93-19122
Laboratory studies on cometary crust formation: The importance of sintering 06 p1715 N93-19228
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar 09 p2789 N93-25558

CRYOCHEMISTRY
Tables of thermodynamic properties of helium magnet coolant, revision A
[DE92-019098] 02 p0471 N93-11656

CRYODEPOSITS
Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869

CRYOGENIC COOLING
Microtube strip heat exchanger
[DE92-018709] 02 p0300 N93-11440
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
Three-stage sorption type cryogenic refrigeration systems and methods employing heat regeneration
[NASA-CASE-NPO-18366-1-CU] 03 p0558 N93-13422
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
A comparison of the Space Station version of ASTROMAG with two free-flyer versions
[DE93-004695] 08 p2193 N93-22777
Miniature long-life space cryocoolers 11 p3378 N93-28825
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

CRYOGENIC EQUIPMENT
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689
Cryotribology: Development of cryotribological theories and application to cryogenic devices
[DE93-000404] 05 p1176 N93-16238
Performance measurements of superconducting current leads having low helium boiloff rates
[DE92-040730] 05 p1146 N93-16392
Vulcain: A cryogenic engine for Ariane 5
[ETN-93-93022] 06 p1472 N93-18082
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
A cryogenic shutter for the VLT NIR camera
[MPE-237] 07 p1906 N93-20855
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K
[NASA-CR-192365] 07 p1878 N93-21815
Vehicle systems 08 p2174 N93-22095
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-224 3
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
Effects of spacecraft materials outgassing products on cryogenic surfaces
[AD-A262671] 10 p2963 N93-27686
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627
Cryogenic Heat Pipe Experiment (CRYOHP) 11 p3265 N93-28721
Spaceborne passive radiative cooler 11 p3378 N93-28802
Miniature long-life space cryocoolers 11 p3378 N93-28825
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

CRYOGENIC FLUID STORAGE
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
Vehicle Systems Panel deliberations 08 p2175 N93-22098
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions 08 p2249 N93-22850
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
Orbital storage and supply of subcritical liquid nitrogen 10 p2968 N93-27801
Superfluid helium needs and resupply on Space Station 10 p2968 N93-27802
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713

CRYOGENIC FLUIDS
NT FERMI LIQUIDS
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT LIQUID HYDROGEN
NT LIQUID NITROGEN
NT LIQUID OXYGEN
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
Selected OAST/OSSA space experiment activities in support of Space Station Freedom 08 p2189 N93-22636
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713
Cryogenic Heat Pipe Experiment (CRYOHP) 11 p3265 N93-28721
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731

CRYOGENIC ROCKET PROPELLANTS
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040

Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Zero-gravity quantity gaging system
[NASA-CR-185602] 03 p0556 N93-12699
Developing a safe on-orbit cryogenic depot
05 p1393 N93-17426
Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
Cryogenic transfer module for geosynchronous orbit
10 p2920 N93-27176
Specific impulse calculations of high energy density solid cryogenic rocket propellants. 1. Atoms in solid H2
[AD-A263208] 11 p3341 N93-28517

CRYOGENIC STORAGE
Zero-gravity quantity gaging system
[NASA-CR-185602] 03 p0556 N93-12699

CRYOGENIC TEMPERATURE
Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
ISOCAM experiment cryogenic test results
[REPT-921-440-104] 04 p0825 N93-15140
Cryotribology: Development of cryotribological theories and application to cryogenic devices
[DE93-000404] 05 p1176 N93-16238
Development of magnetostrictive active members for control of space structures
[NASA-CR-190846] 06 p1460 N93-18322
Techniques for improving the accuracy of cyrogenic temperature measurement in ground test programs
[NASA-TM-105996] 08 p2302 N93-22484
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530

CRYOGENIC WIND TUNNELS
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
Strain-gauge balance performance and internal temperature gradients measured in a cryogenic environment
[RAE-TM-AERO-2232] 02 p0218 N93-11906
Modeling and control study of the NASA 0.3-meter transonic cryogenic tunnel for use with sulfur hexafluoride medium
[NASA-CR-189737] 05 p1157 N93-16379
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
A PC-based simulation of the National Transonic Facility's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224

CRYOGENICS
A cryogenic enrichment technique for gas chromatographic detection of S2F10 in SF6 discharges
[DE92-011045] 02 p0252 N93-12219
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Simulation of cryogenic turbopump annular seals
05 p1181 N93-17318
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise
09 p2693 N93-24982
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
SQUIDs in thermal detectors of weakly interacting particles
[DE93-609531] 12 p3729 N93-31247

CRYOLITE
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439

CRYOPUMPING
From diffusion pumps to cryopumps: The conversion of GSFC's space environment simulator
04 p0814 N93-15611
Design and analysis of the cryopump for the D3-D advanced divertor
[DE93-001357] 05 p1179 N93-17389

CRYOSORPTION
U SORPTION

CRYOSTATS
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
TESLA test cell cryostat support post thermal and structural analysis
[DE93-008365] 11 p3407 N93-29048
Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243

CRYPTOGRAPHY
Reviews of computing technology: Securing network applications, Kerberos, and RSA
[DE92-019928] 03 p0690 N93-13620
Software stamping
[NPL-DITC-198/92] 04 p0946 N93-15072
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
A brief survey of zero-knowledge proofs
[CWI-CS-R9232] 10 p3101 N93-27996
Neural network identification of keystream generators
[AD-A265778] 12 p3800 N93-32334

CRYSTAL DEFECTS
NT CRYSTAL DISLOCATIONS
NT EDGE DISLOCATIONS
NT FRENKEL DEFECTS
NT POINT DEFECTS
NT SCREW DISLOCATIONS
NT VACANCIES (CRYSTAL DEFECTS)
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Growth defects in diamond films
[AD-A253618] 01 p0040 N93-10778
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813
Silicon on insulator structures in selective epitaxial growth
[DE92-017118] 02 p0465 N93-11915
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity
03 p0511 N93-13178
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
Simulation of vortex-line pinning by defects in the Y-Ba-Cu-O system
[DE92-041185] 05 p1318 N93-16205
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
The 16th International Conference on Defects in Semiconductors
[AD-A258035] 05 p1328 N93-17754
Advanced electronic structures
[AD-A258401] 06 p1519 N93-18261
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Defects and impurities in amorphous semiconductors and in liquid electrolytes
[MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Defect characterization by means of positron annihilation 07 p1804 N93-21081
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
Influence of defects in HgCdTe grown by Molecular Beam Epitaxy (MBE) on electrical devices
[AD-A260457] 08 p2511 N93-24194
Heteroepitaxial growth of gallium nitride and native defect formation in III-V nitrides
08 p2512 N93-24216
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
Low cycle fatigue behavior of polycrystalline NiAl at 300 and 1000 K
[NASA-TM-105987] 10 p2998 N93-26898
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-008651] 10 p3032 N93-28329
Deformation mechanisms in Be(sub 12)X compounds
[DE93-009080] 11 p3320 N93-28548
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863

Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Microstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate
11 p3319 N93-30092
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Computational analysis of slip in PETN
[DE92-040222] 11 p3598 N93-30445
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668
Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182

CRYSTAL DISLOCATIONS
NT EDGE DISLOCATIONS
NT SCREW DISLOCATIONS
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254262] 01 p0040 N93-10766
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
The mechanics of dislocation nucleation at a crack tip
04 p0896 N93-14214
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Investigation of misfit dislocation configurations in MBE-grown InGaAs layers on misaligned GaAs (001) substrates
[DE93-007578] 10 p3151 N93-27522
Deformation mechanisms in Be(sub 12)X compounds
[DE93-009080] 11 p3320 N93-28548
Plastic deformation behaviour of oxide dispersion strengthened titanium alloys
[ONERA-NT-1990-6] 11 p3326 N93-30138

CRYSTAL FIELD SPLITTING
U CRYSTAL FIELD THEORY

CRYSTAL FIELD THEORY
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719

CRYSTAL FIELDS
U CRYSTAL FIELD THEORY

CRYSTAL FILTERS
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Very wide bandwidth HF crystal filters
09 p2693 N93-25039

CRYSTAL GROWTH
NT CZOCHRALSKI METHOD
NT DIRECTIONAL SOLIDIFICATION (CRYSTALS)
NT ELECTROEPITAXY
NT EPITAXY
NT HYDROTHERMAL CRYSTAL GROWTH
NT LIQUID PHASE EPITAXY
NT MOLECULAR BEAM EPITAXY
NT PROTEIN CRYSTAL GROWTH
NT VAPOR PHASE EPITAXY
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Structure of thermocapillary flow in narrow cavities
01 p0061 N93-10552
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Growth defects in diamond films
[AD-A253618] 01 p0040 N93-10778
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
ICCG-10: Tenth International Conference on Crystal Growth. Poster presentation abstracts
[NASA-CR-190920] 02 p0461 N93-11683
ICCG-10: Tenth International Conference on Crystal Growth. Oral presentation abstracts
[NASA-CR-190919] 02 p0461 N93-11684
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Surface analysis of Ln(2-x)Ce(x)CuO4 (Ln = Pr and Nd) single crystals grown by the top seeded solution method
[AD-A254905] 02 p0469 N93-12286
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
Spaceflight payload design flight experience G-408
03 p0508 N93-13160
CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity
03 p0511 N93-13178
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Dynamics and pattern selection at the crystal-melt interface
[DE92-040210] 03 p0724 N93-13577
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
Laser spectroscopy of rare earth ions
03 p0608 N93-13846
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique
04 p0995 N93-15312
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0998 N93-15449
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Atomic resolution imaging and analysis with the STEM
[DE92-041304] 05 p1166 N93-16150
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218
ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
Growth on the reconstructed diamond (100) surface
[AD-A256954] 05 p1319 N93-16301
Process for single crystal growth of high T(c) superconductors
[AD-D015480] 05 p1320 N93-16485
Nucleation, crystal growth, and liquid/liquid phase separation in materials in microgravity, phase 3
[CTN-93-60612] 05 p1131 N93-16493
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
Unsolved problems of crystallization and melting of flexible macromolecules
[DE92-040876] 05 p1125 N93-16597
Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612
The influence of microgravity on the microstructure and properties of eutectics, phase 4
[CTN-93-60629] 05 p1132 N93-16690
Study of FES/CAST/HGS
[NASA-CR-190945] 05 p1114 N93-16711
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
[CTN-93-60630] 05 p1133 N93-16918
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
[CTN-93-60631] 05 p1133 N93-16937
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
Process for the controlled growth of single-crystal films of silicon carbide polytypes on silicon carbide wafers
[NASA-CASE-LEW-15222-3] 05 p1327 N93-17413
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
Growth and characterization of single crystals
[NOTA-INTERNA-984] 06 p1670 N93-17935
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
Growth and properties of co-evaporated superconducting YBaCuO thin films
[ETN-92-92798] 06 p1673 N93-18441
Mechanism of diamond film growth
06 p1678 N93-18479
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
Crystallization of a protein aboard the US Space Shuttle flight STS-31 07 p1804 N93-21086
Elucidation of the role of gravity and gravity driven convection in the formation of silicon carbide/silicon nitride whiskers 07 p1808 N93-21107
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights
07 p1810 N93-21119
Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace
07 p1811 N93-21123
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports
[NASA-CR-192477] 08 p2302 N93-22349
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510

Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
Materials science research in microgravity 08 p2191 N93-22645
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace 08 p2251 N93-22863
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process [NASA-CR-192695] 08 p2252 N93-23122
Space Station Furnace Facility. Experiment/Facility Requirements Document (E/FRD), volume 2, appendix 5 [NASA-CR-192476] 08 p2200 N93-23241
Growth and characterization of isotopically enriched Ge-70 and Ge-74 single crystals [DE93-004697] 08 p2510 N93-24050
Research in photorefractive crystals [AD-A260391] 08 p2513 N93-24425
Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
Whisker growth studies under conditions which resemble those available on an orbiting space station [NASA-CR-192701] 09 p2664 N93-25218
Fast diagnostics of laser ablation used for pulsed laser deposition [DE93-005155] 09 p2713 N93-25508
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Computation of complex solidification morphologies using a phase-field model [PB93-156743] 09 p2869 N93-26547
Laser damage to production- and research-grade KDP crystals [DE93-007517] 09 p2870 N93-26594
Experiment/facility requirements document for the Space Station Furnace Facility. Section 1: Integrated configuration [NASA-CR-192533] 10 p2958 N93-27147
Studies on zeolites: Molecular mechanics, framework stability, and crystal growth [ETN-93-93613] 10 p3152 N93-27935
Zeolite crystal growth and the structure on an atomic scale [ETN-93-93615] 10 p3153 N93-27936
Bismuth based ceramic superconductors: An experimental study on crystal growth and vortex dynamics [ETN-93-93665] 10 p3004 N93-27945
Finite element methods for non-Newtonian flows [DE93-006458] 10 p3042 N93-28149
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface [AD-A262106] 10 p3154 N93-28180
Development of germanium-silicon growth technology [AD-A262891] 10 p3154 N93-28304
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field 11 p3266 N93-28725
Growth, characterization and device development in monocrystalline diamond films [AD-A263204] 11 p3593 N93-28874
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381
Flame or plasma synthesis of diamond under turbulent and transition flow conditions [AD-D015689] 11 p3333 N93-29456
Growth and development of GaInAsP for use in high-efficiency solar cells [DE93-000098] 11 p3465 N93-30208
Study on diamond semiconductor [DE92-531076] 11 p3413 N93-30622
Visible light emitting materials and injection devices [AD-A263499] 11 p3601 N93-30811
Growth model of Au films on Ru(001) [DE92-642126] 11 p3602 N93-30998
HREM study of crystallography of titanium and titanium hydride thin films [DE93-609038] 12 p3828 N93-31176
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition [DE93-609039] 12 p3708 N93-31177
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads 12 p3696 N93-31578
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance [ONERA-NT-1992-9] 12 p3709 N93-31597
Prometheus in space: Survey report of Research Committee on Functional New Material 12 p3710 N93-31728

CRYSTAL LATTICES
NT BODY CENTERED CUBIC LATTICES
NT CLOSE PACKED LATTICES
NT CUBIC LATTICES
NT FACE CENTERED CUBIC LATTICES
NT SUPERLATTICES

Molecular dynamics of shocks in crystals with defects [AD-A253353] 01 p0164 N93-10099
Moire-fringe images of twin boundaries in chemical vapor deposited diamond [AD-A253729] 01 p0035 N93-10231
Oxygen barrier oxides [AD-A253683] 01 p0036 N93-10343
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z) [DE92-017001] 01 p0167 N93-10403
Reliability of sublattice occupancies determined by ALCHEMI [DE92-014592] 01 p0168 N93-10623
Single crystal growth of beta-Al2O3 for iso-index filters [AD-A252259] 01 p0169 N93-10879
Nature of the beta-phase of nickel-aluminum system [AD-A254101] 02 p0261 N93-12269
Surface analysis of Ln(2-x)Ce(x)CuO4 (Ln = Pr and Nd) single crystals grown by the top seeded solution method [AD-A254905] 02 p0469 N93-12286
Oxygen diffusion in high-T(c) superconductors [DE92-019597] 03 p0720 N93-12807
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x) [DE92-018186] 03 p0722 N93-13104
Simulation of vortex-line pinning by defects in the Y-Ba-Cu-O system [DE92-041185] 05 p1318 N93-16205
ICCG-10: The 10th International Conference on Crystal Growth [AD-A256986] 05 p1318 N93-16257
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis [DE92-040718] 05 p1319 N93-16390
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia [DE92-040720] 05 p1319 N93-16391
Effects of non-crystallographic symmetry on structure factor statistics [ITN-93-85182] 05 p1321 N93-16734
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model [PREPRINT-855] 05 p1330 N93-16961
Flux flow, pinning, and resistive behavior in superconducting networks [DE93-002707] 05 p1324 N93-17081
The local structure of high-temperature superconductors [DE93-000653] 05 p1324 N93-17177
The energetics of ordered intermetallic alloys (of the transition metals) [DE93-001968] 05 p1117 N93-17753
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces [AD-A258793] 06 p1674 N93-18980
Quantum dynamics of shock waves in molecular crystals [AD-A258749] 07 p2079 N93-20404
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon [DE93-003104] 07 p2080 N93-21240
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy [DE93-006279] 08 p2501 N93-22510
A structural study of charge-density-wave perturbations in mixed-halide MX solids [DE93-005449] 08 p2503 N93-22747
Substrate surface structure effects on microstructure of epitaxial films [DE93-005562] 08 p2504 N93-22944
Neutron measurements of the vortex lattice in YBa2Cu3O7 [DE93-005417] 08 p2509 N93-24008
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface [AD-A260306] 08 p2223 N93-24236
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate [AD-A260309] 08 p2234 N93-24237
Quantum mechanics of electrons in crystals with graded composition [AD-A260294] 08 p2512 N93-24262
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy [DE93-007594] 09 p2863 N93-25387
A numerical simulation of adsorption onto a crystalline surface [AD-A261079] 09 p2866 N93-25781
Molecular devices based on new monolayer-forming systems [AD-A260996] 09 p2866 N93-25854
Fundamental aspects of metal joining: The study of strong interfaces [AD-A261293] 09 p2653 N93-26304
Visible light emitting materials and injection devices [AD-A263025] 10 p3152 N93-27913
Neutron scattering studies of the structures and lattice dynamics of the alkali metals [DE93-008272] 11 p3593 N93-28956
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy [AD-A262823] 11 p3596 N93-29430
Integrals of motion on the group of invariance of an interval in three-dimensional spaces [DE93-606090] 11 p3606 N93-30797
Growth model of Au films on Ru(001) [DE92-642126] 11 p3602 N93-30998
On the magnetoresistance of heavy fermion compounds [DE93-608691] 12 p3827 N93-31098
Biharmonic pattern selection [DE93-608186] 12 p3803 N93-31303
Scattering of electrons at heterostructure interfaces [ETN-93-94044] 12 p3828 N93-31523

CRYSTAL OPTICS

Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Off-axis conoscopic holography: Optical and digital reconstruction [TELECOM-PARIS-90-E-023] 04 p0882 N93-15096
Tunable infrared and visible solid-state laser 06 p1543 N93-18473
Application of photorefractive crystals to solve matrix algebra problems optically [AD-A259067] 06 p1662 N93-18957
Research in photorefractive crystals [AD-A260391] 08 p2513 N93-24425
Photorefractive integrators and correlators [AD-A264200] 11 p3597 N93-30144
Adaptive optics for high power beam lines using diamond crystal monochromators [DE93-009328] 12 p3824 N93-31987

CRYSTAL OSCILLATORS
NT PIEZOELECTRIC CRYSTALS

Quartz crystal resonators and oscillators for frequency control and timing applications: A tutorial, revision 5.2 [AD-A254892] 02 p0469 N93-12283
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting [AD-A254745] 03 p0596 N93-12844
The effects of acceleration on precision frequency sources [AD-A255465] 04 p0972 N93-14496
Introduction to quartz frequency standards, revision 1 [AD-A256373] 04 p0870 N93-15330
The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN [DE92-040734] 05 p1285 N93-16268
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193) [PB92-227073] 07 p1893 N93-21350
Weak magnetic field sensitivity of quartz crystal oscillators 09 p2833 N93-24993
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
OSCCAR: Oscillator-compensated with a capacitance array 09 p2693 N93-25002
Control of environmental and clock parameters in Time and Frequency Standards Laboratory 09 p2835 N93-25007
Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Ultra stable oscillators for satellite applications 09 p2621 N93-25027
Preliminary results of a newly designed mini-OCXO oscillator especially dedicated to space applications 09 p2621 N93-25028
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications 09 p2693 N93-25052
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053

Oscillators for mobile GPS receivers
09 p2694 N93-25055
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2
11 p3414 N93-29685

CRYSTAL STRUCTURE

Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
[DE92-014782] 02 p0256 N93-11519
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Determination of parameters of a new method for predicting alloy properties
[NASA-TM-105895] 02 p0257 N93-11609
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Slow crack growth in vacuum
02 p0338 N93-11909
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices
02 p0465 N93-11996
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
C60 transformations at high pressures
[DE92-019546] 03 p0701 N93-12806
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Ordering energies and mechanisms in beta-phase NiAl
[DE92-040031] 03 p0542 N93-13043
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Influence of surface defects and local structure on oxygenate reaction pathways over metal oxide surfaces
[DE92-040013] 03 p0539 N93-13573
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet
[NASA-TM-105921] 04 p0847 N93-15524
X ray crystal structure of an organoindium alkoxide dimer, (Ph2InOSiMe3)2
[AD-A257404] 05 p1315 N93-15862
Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
Effects of non-crystallographic symmetry on structure factor statistics
[ITN-93-85182] 05 p1321 N93-16734
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206
Apical oxygen ions and the electronic structure of the high T(sub c) cuprates
[PREPRINT-828] 05 p1324 N93-17223
Energetics and structural properties of twist grain boundaries in Cu
05 p1118 N93-17304
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys
[NASA-CR-191932] 06 p1674 N93-18593
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479
X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595
Diffraction peaks in x ray spectroscopy: Friend or foe?
[DE93-002482] 07 p2081 N93-21486
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22064
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace
08 p2251 N93-22863
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Physical and direct methods in crystallography
08 p2393 N93-23249
Diamond homoepitaxy by chemical vapor deposition
[AD-A260551] 08 p2512 N93-24281
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Thermodynamic, kinetic, and structural properties of linear polyethylene crystallized from polymer-diluent mixture
09 p2864 N93-25528
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy
[NASA-TM-106125] 09 p2731 N93-26550
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Zeolite crystal growth and the structure on an atomic scale
[ETN-93-93615] 10 p3153 N93-27936
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568
Be3(AsO4)2 2H2O: A new beryllioarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units
[AD-A262504] 11 p3594 N93-29138
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Properties of superconducting YBa2Cu3O(6+4) ceramic materials: Effect of processing parameters
[AD-A263441] 11 p3334 N93-29790
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive
[LA-UR-92-1427] 11 p3345 N93-30074
Atomic force microscopy of ammmonium perchlorate
11 p3349 N93-30091
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146
Two new titanium pyroarsenates: Alpha-TiAs2O7 and Beta-TiAs2O7
[AD-A264632] 11 p3599 N93-30518
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
The characterization of materials using x ray diffraction
11 p3293 N93-30968
A dynamical model of structural phase transition in La2CuO4
[DE93-605325] 11 p3602 N93-31025
NMR studies of organic thin films
[AD-A264903] 12 p3707 N93-31066
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175
NTO polymorphs
[DE93-005451] 12 p3712 N93-31186
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains
[ETN-93-94041] 12 p3709 N93-31520
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads
12 p3696 N93-31578
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312

CRYSTAL SURFACES

Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
Basic principles of organometallic vapor phase epitaxy
[AD-A250665] 02 p0464 N93-11868
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669

Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
A numerical simulation of adsorption onto a crystalline surface
[AD-A261079] 09 p2866 N93-25781
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097

CRYSTALLINITY
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
Growth of 2-6 thin-films from single-source precursors based on sterically encumbered sitel ligands
[DE92-017077] 02 p0466 N93-12099
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Application of grazing incidence x ray diffraction to polymer blends
[DE93-000709] 05 p1122 N93-16228
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
Energetics and structural properties of twist grain boundaries in Cu 05 p1118 N93-17304
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
Picosecond studies of space optical materials
06 p1664 N93-18475
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936
Thin silicon solar cells
[DE93-007420] 08 p2376 N93-22532
Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471
Recrystallization of amorphous and nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE93-004469] 08 p2508 N93-23950
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312

CRYSTALLITES
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090

CRYSTALLIZATION
NT DIRECTIONAL SOLIDIFICATION (CRYSTALS)
NT MELT SPINNING
NT RECRYSTALLIZATION
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
EURECA
[ESA-F-26] 03 p0522 N93-12964
Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Comments on 'Kinetic Study on the Hexacelsian-Celsian Phase Transformation'
[NASA-TM-105917] 04 p0850 N93-14886
Study of the glass formation of high temperature superconductors
[NASA-TM-108389] 04 p0997 N93-15500
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
Unsolved problems of crystallization and melting of flexible macromolecules
[DE92-040876] 05 p1125 N93-16597
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
[CTN-93-60630] 05 p1133 N93-16918
Method and apparatus for controlling protein crystallization
[NASA-CASE-MFS-28688-1] 05 p1323 N93-17043
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers
[DE93-002324] 06 p1674 N93-18521
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization
[ETN-93-92992] 07 p1859 N93-20909
Crystallization of a protein aboard the US Space Shuttle flight STS-31 07 p1804 N93-21086
Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights
07 p1810 N93-21119
Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Thermodynamic, kinetic, and structural properties of linear polyethylene crystallized from polymer-diluent mixture 09 p2864 N93-25528
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577
Melt-processing of lunar ceramics
10 p3007 N93-26685
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Crystallization of nanocomposite glasses made by the SSG process
[AD-A262892] 11 p3333 N93-29511
An extension of a kinetic theory of polymer crystallization through the exclusion of negative barriers
[AD-A264810] 11 p3334 N93-29660

CRYSTALLOGRAPHY
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269
Determination of operable deformation mechanisms during ballistic impact in tungsten single crystals, utilizing transmission electron microscopy
[AD-A255351] 04 p0991 N93-14518
Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
Effects of non-crystallographic symmetry on structure factor statistics
[ITN-93-85182] 05 p1321 N93-16734
Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Commercial researcher perspective
08 p2184 N93-22615
Physical and direct methods in crystallography
08 p2393 N93-23249
Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Measurement results of the crystallographic orientation of the SC cut round plates 09 p2840 N93-25040
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Two new titanium pyroarsenates: Alpha-TiAs2O7 and Beta-TiAs2O7
[AD-A264632] 11 p3599 N93-30518
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176

CRYSTALS
NT BICRYSTALS
NT BOULES
NT CRYSTAL OSCILLATORS
NT CRYSTALLITES
NT DENDRITIC CRYSTALS
NT DOPED CRYSTALS
NT IONIC CRYSTALS
NT LIQUID CRYSTALS
NT METAL CRYSTALS
NT MICROCRYSTALS
NT PIEZOELECTRIC CRYSTALS
NT POLYCRYSTALS
NT QUARTZ CRYSTALS
NT SINGLE CRYSTALS
NT WHISKERS (CRYSTALS)
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Emittance, brilliance, and bandpass issues related to an inclined crystal monochromator
[DE92-019671] 03 p0721 N93-12881
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887

Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
The mechanics of dislocation nucleation at a crack tip 04 p0896 N93-14214
Experimental considerations of higher order parametric x rays from silicon crystals of varying thicknesses
[AD-A256082] 04 p0990 N93-14260
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
Innovative techniques for studying new materials and new developments in solid state physics
[AD-A256394] 04 p0996 N93-15465
Simulated high heat load performance of an inclined crystal monochromator
[DE93-000506] 05 p1326 N93-17378
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Molecular devices based on new monolayer-forming systems
[AD-A260996] 09 p2866 N93-25854
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381
Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Dislocation roles in energetic crystal responses 11 p3348 N93-30086
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU] 11 p3440 N93-30415
Computational analysis of slip in PETN
[DE92-040222] 11 p3598 N93-30445
Intracavity-pumped 2.1 micrometer Ho(3+): YAG laser
[AD-D015728] 11 p3441 N93-30587
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970
On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099
Exciton solitary waves in molecular crystals
[DE93-608693] 12 p3827 N93-31100
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937

CTD
U CHARGE TRANSFER DEVICES

CUBANE
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562

CUBES (MATHEMATICS)
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000

CUBIC EQUATIONS
Fast algorithms for rendering cubic curves 04 p0953 N93-15536
Construction of monotone extensions to boundary functions
[MEMO-1045] 05 p1268 N93-16845
On solving the Diophantine equation (x cubed) + (y cubed) + (z cubed) = k on a vector computer
[CWI-NM-R9121] 05 p1271 N93-17556
Polynomial systems with centers and limit cycles
[REPT-92-38] 10 p3118 N93-27869

CUBIC LATTICES
NT BODY CENTERED CUBIC LATTICES
NT FACE CENTERED CUBIC LATTICES
Phase transitions in the dual lattice in Potts model
[ROM1F-90-752] 10 p3152 N93-27700
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486

CUES
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

CUESTAS
U RIDGES

CUFFS
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870

CULTIVATION
NT PLOWING

CULTURAL RESOURCES
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146

CULTURE (SOCIAL SCIENCES)
Space resources. Volume 4: Social concerns
[NASA-SP-509-VOL-4] 05 p1377 N93-16857
Space law and space resources 05 p1358 N93-16860
Strategies for broadening public involvement in space developments 05 p1349 N93-16861
Space migrations: Anthropology and the humanization of space 05 p1229 N93-16862
The influence of culture on space developments 05 p1378 N93-16863
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215

CULTURE TECHNIQUES
Method for culturing mammalian cells in a perfused bioreactor
[NASA-CASE-MSC-21293-2] 01 p0129 N93-10109
Method for culturing mammalian cells in a horizontally rotated bioreactor
[NASA-CASE-MSC-21294-2] 01 p0129 N93-10110
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Phytoplankton photosynthesis in natural mixed layers
[AD-A255010] 03 p0671 N93-12871
Establishing laboratory standards for biological flight experiments
[NASA-CR-184402] 03 p0671 N93-12901
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
High density cell culture system
[NASA-CASE-MSC-22060-1] 06 p1593 N93-19037
The development of an automated cell culture system for use in space life science research 07 p1804 N93-21085
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759

CUMULATIVE DAMAGE
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
An evaluation of the cumulative damage effect under creep loading 01 p0058 N93-10540
Retinal information processing for minimum laser lesion detection and cumulative damage
[AD-A259195] 07 p2023 N93-20563
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575

CUMULUS CLOUDS
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Redistribution of trace chemical species by a small convective cloud
[PB93-156164] 09 p2765 N93-25873
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192

CURIE TEMPERATURE
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190

CURIE-WEISS LAW
An NMR study of the occupation of C(sub 60, interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640

CURING
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143

Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021
Development of cure cycles: From laboratory analysis and testing to production of large scale composites
[MBB-Z-0442-92-PUB] 07 p1833 N93-20845
Applications of fibrous substrates containing insolubilized phase change polymers 08 p2320 N93-22181
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
In-process cure monitoring of composites via fiber-optic fluorescence
[AD-A261712] 09 p2641 N93-26580
ASRM test report: Autoclave cure process development
[NASA-CR-192535] 10 p2986 N93-27157
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210

CURL (VECTORS)
NT VORTICITY

CURRENT ALGEBRA
On the origin of SL(nC) current algebra in generalized two dimensional gravity
[PREPRINT-818] 07 p2055 N93-21180
BRST quantization of 2D-Yang Mills theory with anomalies
[NIKHEF-H/92-13] 12 p3831 N93-31122
On two-current realization of KP hierarchy
[DE93-609917] 12 p3808 N93-31912

CURRENT AMPLIFIERS
NT PHOTOMULTIPLIER TUBES
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777

CURRENT CONVERTERS (AC TO DC)
Power conversion system modification to permit use of DC power source
[AD-D015409] 04 p0868 N93-14887
AC/DC converter
[CA-PATENT-1-306-005] 08 p2205 N93-24205

CURRENT DENSITY
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761
Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
Design for reliability: Current density
[AD-A254770] 03 p0570 N93-12866
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Design aspects of mid-size SMES using high temperature superconductors
[DE92-040723] 05 p1142 N93-15828
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
High-temperature superconducting current leads
[DE92-040729] 05 p1145 N93-16028
Scaling laws for the critical current density of NbN films in high magnetic fields
[DE93-000604] 05 p1318 N93-16277
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618
Cathodes for molten-salt batteries 07 p1987 N93-20525
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
Processing and microstructural development of Ag-clad Bi-Sr-Ca-Cu-O tapes
[DE93-004201] 08 p2500 N93-22078
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films
[DE93-005367] 08 p2507 N93-23326
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Studies of microstructure/critical current density relationships for grain boundaries in YBa2Cu3O(7-delta) bicrystals
[DE93-003000] 08 p2513 N93-24512
Assessment of torsatrons as reactors
[DE93-006721] 09 p2858 N93-24969
Laser initiated corrosion pits on aluminum 09 p2650 N93-25464
Anode power deposition in coaxial MPD thrusters 09 p2623 N93-25665
Superlattice barrier varactors 10 p3012 N93-27738
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A261954] 10 p3153 N93-27948
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Microstructural understanding and critical current optimization of advanced high field superconductors
[DE93-011046] 11 p3592 N93-28643
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A263464] 11 p3411 N93-29833
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

CURRENT DISTRIBUTION
Far-zone field of a monopole element on a disk ground plane above flat earth
[AD-A253580] 01 p0070 N93-10091
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787

CURRENT REGULATORS
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Regulatable field emitter device and method of production thereof
[AD-D015614] 07 p1893 N93-21250

CURRENT SHEETS
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
A thermal/nonthermal approach to solar flares 03 p0771 N93-13639
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions 03 p0657 N93-13793
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698

CURRENT STABILIZERS
U CURRENT REGULATORS

CURRENTS (OCEANOGRAPHY)
U WATER CURRENTS

CURTISS-WRIGHT MILITARY AIRCRAFT
U MILITARY AIRCRAFT

CURVATURE
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321

Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
On corner and vertex detection
[INRIA-RR-1439] 06 p1646 N93-18594
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
Umbilici, lines of curvature, focal surfaces and their metamorphosis
[ETN-93-93414] 07 p2055 N93-21207
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
The curvature of plane elastic curves
[AD-A263198] 11 p3450 N93-28516
On the scalar curvature of self-dual manifolds
[DE93-608194] 12 p3804 N93-31306
A remark about the mean curvature
[DE93-619668] 12 p3809 N93-32285

CURVE FITTING
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
Curve fitting and error modeling for the digitization process near the Nyquist rate
[DE92-018189] 02 p0286 N93-12417
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Stochastic integrals and goodness-of-fit tests
[ISBN-90-9003836-1] 05 p1275 N93-16223
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension 08 p2318 N93-24184
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
A Petrov-Galerkin mixed finite element method with exponential fitting
[CWI-NM-R9204] 10 p3113 N93-27301
Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856

CURVED BEAMS
Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Vibrational power transmission in curved beams. Part 1: Theory
[ISVR-TR-208] 12 p3742 N93-32340

CURVED PANELS
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process 11 p3301 N93-30435
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871

CURVED SURFACES
U CONTOURS
U SHAPES
U SURFACES

CURVES
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675

CURVES (GEOMETRY)
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Fast algorithms for rendering cubic curves 04 p0953 N93-15536
Parameterization in finite precision 04 p0953 N93-15537
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
Local and global properties of curve congruencies in Euclidean three dimensional space
[ETN-93-93411] 07 p2055 N93-21174
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Elastic curves on the sphere
[AD-A261057] 09 p2829 N93-26228
Graphs on the torus and geometry of numbers
[CWI-BS-R9204] 10 p3117 N93-27608
On ranks of twists of elliptic curves and power-free values of binary forms
[W-9213] 10 p3118 N93-27868
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441
The curvature of plane elastic curves
[AD-A263198] 11 p3450 N93-28516
Packing odd paths
[CWI-BS-R9207] 11 p3549 N93-29849
A method for intersection line calculation between parametric surfaces
[ETN-93-94178] 11 p3551 N93-30572
Generalised curvature continuous rational cubics
[MATHS-REPT-A-180] 12 p3809 N93-32347

CURVILINEAR COORDINATES
U SPHERICAL COORDINATES

CUSHIONS
Design of a portable powered seat lift 08 p2429 N93-22190

CUSPS (LANDFORMS)
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835

CUSTOM INTEGRATED CIRCUITS
U APPLICATION SPECIFIC INTEGRATED CIRCUITS

CUT-OUTS
U OPENINGS

CUTANEOUS PERCEPTION
U TOUCH

CUTTERS
NT DRILL BITS
NT SAWS
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
Cutting parameters with Lasag lasers
[DE93-010403] 12 p3732 N93-32288

CUTTING
NT LASER CUTTING
NT MILLING (MACHINING)
NT SHEARING
Using an interior point cutting plane method to solve integer programming problems
[AD-A256041] 04 p0945 N93-14659
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
A generalized cut condition for multiflows in matroids
[RR-869-M] 07 p2054 N93-20947
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22892
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569

CVD (DEPOSITION)
U VAPOR DEPOSITION

CVI (FABRICATION)
U CHEMICAL VAPOR INFILTRATION

CW RADAR
U CONTINUOUS WAVE RADAR

CYANATES
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457

CYANIDES
NT ACETONITRILE
NT CYANOGEN
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations
[DOT/FAA/AM-93/8] 10 p3083 N93-27158

CYANO COMPOUNDS
NT ISOCYANATES
Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290

CYANOGEN
P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157
Laser spectroscopy of chemically reactive species
[DE93-008672] 08 p2310 N93-24326

CYBERNETICS
Bionics and problems of instrument manufacture
[AD-A254461] 02 p0314 N93-12517

CYCLES
NT ACTIVITY CYCLES (BIOLOGY)
NT BRAYTON CYCLE
NT CARBON CYCLE
NT CARNOT CYCLE
NT HYDROLOGICAL CYCLE
NT RANKINE CYCLE
NT SOLAR CYCLES
NT STIRLING CYCLE
NT STRESS CYCLES
NT THERMODYNAMIC CYCLES
NT WORK-REST CYCLE
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
Thermally stable electrolytes for rechargeable lithium batteries, phase 2
[NASA-CR-190878] 03 p0573 N93-13610
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
On Hamiltonian properties of 2-tough graphs
[MEMO-1037] 05 p1266 N93-16669
Cycles containing all vertices of maximum degree
[MEMO-1044] 05 p1268 N93-16844
Air Force Ni-Cd cell qualification program update 07 p1984 N93-20505
Cycle life status of SAFT VOS nickel-cadmium cells 07 p1985 N93-20511
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Ore-type conditions for cycles through specified vertices 10 p3116 N93-27480
Hamilton cycles in path-tough graphs 10 p3116 N93-27481
Polynomial systems with centers and limit cycles
[REPT-92-38] 10 p3118 N93-27869
Bifurcation of limit cycles in a particular class of quadratic systems with two centres
[REPT-92-43] 10 p3119 N93-27931
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
A note on 2-factors in graphs
[MEMO-1064] 10 p3120 N93-28073
Development of nickel/metal hydride secondary battery
[DE93-781330] 11 p3406 N93-28669
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874
Cycles in tough graphs: Updating the last four years
[MEMO-1091] 12 p3810 N93-32398
A note on dominating cycles in 2-connected graphs
[MEMO-1094] 12 p3810 N93-32401

CYCLIC ACCELERATORS
NT BETATRONS
NT STORAGE RINGS (PARTICLE ACCELERATORS)
NT SYNCHROTRONS

A four channel 250 MHz visual counter
[DE92-016920] 01 p0006 N93-10444
Heavy-ion collisions and the nuclear equation of state
[DE92-019364] 03 p0706 N93-12924

CYCLIC COMPOUNDS
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
NT ASCORBIC ACID
NT AZOLES
NT BENZENE
NT CAFFEINE
NT CHLOROBENZENES
NT CYCLIC HYDROCARBONS
NT CYCLOBUTANE
NT CYCLOHEXANE
NT CYCLOPROPANE
NT HETEROCYCLIC COMPOUNDS
NT HMX
NT INDOLES
NT NAPHTHALENE
NT PHTHALOCYANIN
NT PYRIDINES
NT PYRIDOXINE
NT PYRROLES
NT RDX
NT RHODAMINE
NT TETRAHYDROFURAN
NT TETRAZOLES

Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

CYCLIC HYDROCARBONS
NT BENZENE
NT CHLOROBENZENES
NT CYCLOBUTANE
NT CYCLOHEXANE
NT CYCLOPROPANE
NT NAPHTHALENE

Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

CYCLIC LOADS
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads
02 p0335 N93-11200
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading
[NPL-DMM(A)-47] 02 p0266 N93-11397
A comparison of high cycle fatigue methodologies
[NASA-TM-103601] 02 p0233 N93-12148
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384
Prediction of thermal cycling induced matrix cracking
05 p1100 N93-16780
Spacecraft sustained load fracture control
[NLR-TP-91093-U] 05 p1088 N93-17537
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device
[NLR-TP-91116-U] 05 p1062 N93-17538
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
Cyclic behavior modelling
[ECL-92-09] 07 p1920 N93-20060
Fatigue Design 1992, volume 2
[VTT-SYMPOSIUM-131-VOL-2]
07 p1921 N93-20330
Discriminating experiments for multiaxial fatigue damage models 07 p1921 N93-20331
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
Design against high cycle multiaxial fatigue
07 p1922 N93-20335
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
Thermal plastic strain fatigue life of the roll
07 p1924 N93-20354
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions
07 p1928 N93-20632
Load experience variability of fighter aircraft
[NLR-TP-89172-U] 07 p1781 N93-20742
Analysis of Space Shuttle accelerometer data
[NLR-TP-90141-U] 07 p1821 N93-20744
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338
The use of finite element codes for cyclic stress-strain analysis 07 p1950 N93-21340
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Fatigue of fiberglass wind turbine blade materials
[DE93-005381] 07 p1951 N93-21711
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562
Low cycle fatigue behaviour of titanium disc alloys
12 p3682 N93-31745

CYCLING
U CYCLES

CYCLOBUTANE
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800

CYCLOGENESIS
Anelastic modelling of explosive cyclogenesis
01 p0126 N93-10377
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
A procedure to reduce northward drift of tropical storms in a numerical model
[PB92-226406] 07 p2013 N93-21290
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
An investigation of the ERICA IOP-5A cyclone
[AD-A260214] 08 p2408 N93-24097
Tropical cyclogenesis in the western North Pacific
09 p2783 N93-25714
An investigation into the causative mechanisms for explosive cyclone development over the Atlantic
[AD-A261831] 09 p2786 N93-26273
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

CYCLOHEXANE
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685

CYCLONES
NT HURRICANES
NT TYPHOONS

Anelastic modelling of explosive cyclogenesis
01 p0126 N93-10377
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
Hurricane Research Division fiscal year 1991 programs: Fiscal year 1992 projections
[PB92-138320] 02 p0367 N93-11242
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2
03 p0665 N93-13776
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
Frontogenesis processes in the troposphere
03 p0667 N93-13890
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
Tropical cyclone motion and recurvature in TCM-90
[AD-A258258] 06 p1585 N93-18010
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
A comparison of intense extratropical cyclone life cycles from diverse geographical locations
07 p2011 N93-20278
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
An investigation of the ERICA IOP-5A cyclone
[AD-A260214] 08 p2408 N93-24097
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220

An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Tropical cyclogenesis in the western North Pacific
09 p2783 N93-25714
Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations
09 p2784 N93-25741
An investigation into the causative mechanisms for explosive cyclone development over the Atlantic
[AD-A261831] 09 p2786 N93-26273
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Rhode Island hurricanes and tropical storms: A fifty-six year summary, 1936-1991
[PB93-162006] 11 p3481 N93-29198
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

CYCLONES (EQUIPMENT)
U CENTRIFUGES

CYCLOPROPANE
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800

CYCLOTETRAMETHYLENE TETRANITRAMINE
U HMX

CYCLOTRIMETHYLENE TRINITRAMINE
U RDX

CYCLOTRON FREQUENCY
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031
Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348

CYCLOTRON RADIATION
NT ION CYCLOTRON RADIATION
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation
06 p1709 N93-19183
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Electron cyclotron emission measurements on the Texas Experimental Tokamak 08 p2494 N93-23066
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348
Electron cyclotron thruster new modeling results preparation for initial experiments
10 p2983 N93-26982
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

CYCLOTRON RESONANCE
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Electron Cyclotron Resonance Heating (ECRH)
08 p2495 N93-23259
Electron cyclotron thruster new modeling results preparation for initial experiments
10 p2983 N93-26982
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

CYCLOTRON RESONANCE DEVICES
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Electron Cyclotron Resonance Heating (ECRH)
08 p2495 N93-23259
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
Magnetic field source for bi-chambered electron beam devices
[AD-A261316] 09 p2691 N93-26299
New results and applications for the quasioptical gyrotron
[AD-A261961] 10 p3046 N93-27950
Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980
High-power Ka-band amplifier
11 p3385 N93-29590
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922

CYCLOTRONS
The ORNL radioactive ion beam project with the ORIC accelerator
[DE92-040027] 03 p0708 N93-13574
An H(-) ion source for resonant gamma production
07 p1766 N93-21874
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Quantum adiabatic expansion for dynamics in strong magnetic fields
[DE93-609388] 12 p3831 N93-31226
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721

CYGNUS CONSTELLATION
Morphology and physics of supernova remnants
02 p0482 N93-11476
IRAS studies of galactic supershells
10 p3183 N93-26776

CYLINDERS
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929

CYLINDRICAL AFTERBODIES
U AFTERBODIES
U CYLINDRICAL BODIES

CYLINDRICAL BODIES
NT ROTATING CYLINDERS
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
An analytic phase function for cylindrical particles
[AD-A255750] 04 p0977 N93-15054
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Multi-ion ambipolar diffusion
[AD-A256568] 05 p1283 N93-15659
Hydrostatic pressure testing of graphite/epoxy cylinder C6-1
[DE93-000427] 05 p1185 N93-16240
On canonical cylinder sections for accurate determination of contact angle in microgravity
[DE93-000635] 05 p1130 N93-16377
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Saddle clamp assembly
[NASA-CASE-MFS-28701-1] 05 p1178 N93-17057
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
Comparison of performances of different circular intakes 05 p1067 N93-17616
A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Experimental study of the selective properties of coaxial resonators
[INPE-5375-PRE/1748] 06 p1522 N93-19740
On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
Current displacement in parabolic cylinder
[ETN-93-93423] 08 p2278 N93-22681
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228

Tangential fuselage blowing on an ogive cylinder
09 p2578 N93-25545
Positive displacement rotary pump
[AD-D015678] 09 p2719 N93-26144
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
A thermal stress solution for multilayered composite cylinders
[AD-A262579] 11 p3295 N93-28657
Topics in General Relativity theory: Gravitational-wave measurements of black-hole parameters; gravitational collapse of a cylindrical body; and classical-particle evolution in the presence of closed, timelike curves
11 p3603 N93-28690
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

CYLINDRICAL CHAMBERS
Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers
11 p3257 N93-29955
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606

CYLINDRICAL SHELLS
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges
01 p0045 N93-10471
Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Structural optimization of thin shells using finite element method
[NASA-TM-105903] 03 p0625 N93-13157
Fast optimization of static axisymmetric shell structures 03 p0630 N93-13921
Bifurcation and localization instabilities in plastic bending of cylindrical shells 03 p0630 N93-13923
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
04 p0897 N93-14251
Initial imperfection survey on a cylindrical shell at the Ultra-Centrifuge Nederland n.v.
[LR-682] 05 p1184 N93-16211
A semi-analytical formulation for the elastoplastic analysis of imperfect cylindrical shells
[LR-674] 05 p1185 N93-16282
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition
[AD-A257733] 05 p1188 N93-17690
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
The non-linear dynamics of composite cylindrical shells
[AD-A259026] 06 p1558 N93-18953
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
Analysis of mixed mode cracks in a cylindrical shell
07 p1936 N93-20683
The structure of circumstellar shells
[NASA-CR-192337] 07 p2096 N93-20757
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Stability of single layer composite cylinders subjected to lateral pressure: Numerical approach
10 p2922 N93-27184
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
Terminal project heat convection in thin cylinders
[DE93-609489] 12 p3723 N93-31245

CYLINDRICAL TANKS
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Liquid oscillations under strong surface tension in a circular cylindrical container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Middeck 0-gravity dynamics experiment: Fluid slosh experiments 10 p3010 N93-27895
Liquid Motion in a rotating tank Experiment (LME)
11 p3264 N93-28710
Combined centrifugal force/gravity gas/liquid separator system
[AD-D015726] 11 p3444 N93-29288

CYLINDROIDS
U CYLINDRICAL BODIES

CYTOCHROMES
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768

CYTOGENESIS
NT CELL DIVISION
NT DIFFERENTIATION (BIOLOGY)

CYTOLOGY
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits
02 p0381 N93-11305
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Immunology presentation at the 1990 NASA/NSF Antarctica Biomedical Science Working Group
05 p1222 N93-16806
X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247

CYTOMETRY
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Measuring the metastatic potential of cancer cells
09 p2794 N93-25566
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality
[AD-A263240] 11 p3494 N93-29620

CYTOPHOTOMETRY
U CYTOMETRY

CZECHOSLOVAKIA
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
Remote sensing in Czechoslovakia and Hungary: An analysis of the possible co-operation of The Netherlands with Czechoslovakia and Hungary in the field of remote sensing
[BCRS-92-12] 11 p3461 N93-29466

CZOCHRALSKI METHOD
Growth and characterization of binary and pseudo-binary 3-5 compounds exhibiting non-linear optical behavior. Undergraduate research opportunities in microgravity science and technology
[NASA-CR-192143] 07 p2068 N93-21363
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149

D

D LAYER
U D REGION

D REGION
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event 06 p1728 N93-19560
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735

DAEMO (DATA ANALYSIS)
U DATA PROCESSING
U DATA REDUCTION
U DATA TRANSMISSION

DAMAGE
NT CUMULATIVE DAMAGE
NT EARTHQUAKE DAMAGE
NT FIRE DAMAGE
NT IMPACT DAMAGE
NT LASER DAMAGE
NT METEORITIC DAMAGE
NT RADIATION DAMAGE
NT STORM DAMAGE
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection
01 p0051 N93-10502
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Bifurcations in elastic-damaging materials
[DE92-018818] 03 p0624 N93-13072
Thermodynamically consistent theories for elastoplasticity coupled with damage
[DE92-018283] 03 p0627 N93-13515
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Postoperative hyperbaric oxygen treatment of peripheral nerve damage
[AD-A255842] 03 p0676 N93-14084
Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy
04 p0829 N93-14192
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Method and devices for the in situ repair of damaged threads
[AD-D015416] 04 p0891 N93-14881
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates
05 p1080 N93-15742

Composite material damage and fracture models for numerical simulations in support of fracture control
05 p1080 N93-15743
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures
05 p1080 N93-15744
Damage tolerance checking on Ni/H2 battery cells
05 p1081 N93-15754
Multiple-site-damage in 2024-T3 alloy sheet
[LR-660] 05 p1112 N93-16279
Multiple-site-damage fatigue of riveted joints
[LR-679] 05 p1185 N93-16285
Federal Aviation Administration pavement modeling
05 p1071 N93-16315
Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU]
05 p1182 N93-17048
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061
An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606
Space shuttle solid rocket booster main parachute damage reduction team report
[NASA-TM-4437] 06 p1455 N93-18067
Control of in-service damage: Application to aircraft engines
[DS-2027] 06 p1448 N93-18151
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839
Discriminating experiments for multiaxial fatigue damage models 07 p1921 N93-20331
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
Numerical finite element analysis of damage using Monte Carlo techniques 07 p1842 N93-21522
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Consideration of history dependent damage in creep crack growth
[DE93-004398] 08 p2328 N93-23317
Damage tolerance approach
[ETN-93-93700] 08 p2332 N93-24486
Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Analysis of matrix damage in unidirectional composites 09 p2634 N93-25338
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory
09 p2636 N93-25661
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors
09 p2865 N93-25715
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
Electrostatic fiber spreader
[AD-D015677] 09 p2640 N93-26143
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56
[NASA-TM-107560] 10 p2956 N93-27538
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
High-performance visible/UV CCD focal plane technology for spacebased applications
11 p3434 N93-28771
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
Energetic material response to abnormal environments 11 p3350 N93-30095
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758
Characterization of multiaxial warp knit composites
11 p3304 N93-30851
Progressive failure methodologies for predicting residual strength and life of laminated composites
11 p3307 N93-30866
Remote surface inspection system
12 p3739 N93-32099
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124

DAMAGE ASSESSMENT

A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Additional results on space environmental effects on polymer matrix composites: Experiment A0180
01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA
01 p0039 N93-10592
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
Using NDT techniques in the maintenance of aeronautical products
[REPT-921-430-102] 02 p0332 N93-11587
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Thermal control surfaces on the MSFC LDEF experiments 03 p0547 N93-12778
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Damage mechanics modelisation of composite structures: A physical approach of failure
05 p1079 N93-15741
Stress analysis and damage evaluation of flawed composite laminates by hybrid-numerical methods
05 p1100 N93-17340
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Damage tolerance assessment of boron/epoxy repairs to fuselage lap joints
[AD-A258383] 06 p1439 N93-18257
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
High temperature component analysis with expert systems 06 p1557 N93-18751
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach
06 p1588 N93-19411
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat
06 p1424 N93-19671
Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733
Noncontact nondestructive tests
[ETN-93-93060] 07 p1919 N93-20929
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289
The least and most damaging histories which can be constructed from a specific from-to matrix
07 p1948 N93-21321
Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322
A local approach for fatigue strength evaluation on ship structures 07 p1948 N93-21327
Fatigue life assessment of service damaged and corroded members of structural steel
07 p1949 N93-21331
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
Multi-axial fatigue damage analysis using the boundary element method 07 p1950 N93-21339
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Delamination development under fatigue loading
07 p1842 N93-21521
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
World Data Center A for Solid Earth Geophysics. Catalog of significant earthquakes 2150 B.C.-1991 A.D. including quantitative casualties and damage
[PB93-118198] 07 p2000 N93-21693
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Damage tolerance approach
[ETN-93-93700] 08 p2332 N93-24486
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891

Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Guide for conducting convective windstorm surveys
[PB93-148427] 09 p2787 N93-26570
An overview of elevated temperature damage mechanisms and fatigue behavior of a unidirectional SCS-6/Ti-15-3 composite
[NASA-TM-106131] 10 p2989 N93-26702
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force 10 p2926 N93-27210
Fluorescence measurements of the thermal control experiments coatings on LDEF S0069 and A0114 10 p3008 N93-28280
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
Energetic material response to abnormal environments 11 p3350 N93-30095
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818
Effects of bolt-hole contact on bearing-bypass damage-onset strength 11 p3307 N93-30870
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428
Constitutive and damage material modeling in a high pressure hydrogen environment 12 p3696 N93-31577
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581
Reportable accidents to UK registered aircraft, and to foreign registered aircraft in UK airspace, 1990
[CAP-600] 12 p3674 N93-31730
Damage severity of monitored fatigue load spectra
[NLR-TP-92009-U] 12 p3679 N93-32205

DAMAGE THRESHOLD
U YIELD POINT

DAMPING
NT LANDAU DAMPING
NT VIBRATION DAMPING
NT VISCOELASTIC DAMPING
NT VISCOUS DAMPING
Experimental demonstration of offset control with an application to the tethered payload 01 p0014 N93-10521
Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual
[NASA-TP-3292] 02 p0241 N93-12015
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Generalised damping in fluid structure interaction analyses using modal synthesis 05 p1082 N93-15763
The kappa distribution as a variational solution for an infinite plasma 05 p1313 N93-17319
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
An application of the Observer/Kalman Filter Identification (OKID) technique to Hubble flight data 06 p1462 N93-18825
CSI Flight Computer System and experimental test results 06 p1465 N93-18841
Rotation of split cometary nuclei 06 p1719 N93-19258
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
Oscillations of finite liquid columns 08 p2250 N93-22855
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648
Composite passive damping struts for large precision structures
[NASA-CASE-NPO-17914-1-CU] 08 p2333 N93-24596
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Squeezed states of damped oscillator chain 10 p3143 N93-27329
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028

DAMPING FACTOR
U DAMPING

DAMPING IN PITCH
U DAMPING
U PITCH (INCLINATION)

DAMPING IN ROLL
U DAMPING

DAMPING IN YAW
U DAMPING
U YAW

DAMPNESS
U MOISTURE CONTENT

DAMS
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823

DANGER
U HAZARDS

DARK MATTER
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
Dark matter axions
[DE92-040501] 04 p1022 N93-15346
Experimental particle physics
[DE93-003884] 06 p1655 N93-18538
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
A study of properties of dark galaxy halos in a CDM universe using N-body computer simulations 08 p2546 N93-23132
X ray morphology and the mass of clusters of galaxies 08 p2534 N93-23887
A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Galaxy tracers in N-body simulations 10 p3176 N93-26732
The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
The galaxy velocity field and CDM models 10 p3176 N93-26737
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Low redshift Lyman alpha absorption lines and the dark matter halos of disk galaxies 10 p3180 N93-26762
On the evolution of Lyman alpha clouds based upon the Minihalo model 10 p3181 N93-26765
Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880
Spokes in ring galaxies 10 p3202 N93-26885
Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963
Predictions of a non-Gaussian model for large scale structure
[DE93-010196] 11 p3636 N93-30528
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793
Sterile neutrinos as dark matter
[DE93-012533] 12 p3822 N93-32294

DARKENING
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257

DART TURBOPROP ENGINES
U TURBOPROP ENGINES

DASSAULT AIRCRAFT
NT MIRAGE AIRCRAFT

DATA
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
Data modelling in complex application domains
[TR-92-01] 05 p1355 N93-16371

DATA ACQUISITION
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Long-term data collection and empirical background temperature modeling
[AD-A254044] 01 p0127 N93-10780
First results of an imaging FTS with a NiCMOS camera 01 p0086 N93-10936
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Wind tunnel operator aimed comparison between two electronic pressure scanner systems
[DLAS-EST-TR-040] 02 p0217 N93-11225
A summary of the JANNAF workshop on diagnostics 02 p0248 N93-11451
Design of a PCM data compressor --- pulse code modulation
[DE92-019469] 02 p0404 N93-11539
Trip report: Marshall Space Center computed tomography
[DE92-018139] 02 p0437 N93-11597
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711
High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339
Real-time data archiving for GTA
[DE92-018613] 03 p0733 N93-12567
Data acquisition applications for long duration electromagnetic launcher experiments
[AD-A254546] 03 p0519 N93-12611
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623

Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
Magellan project 04 p1041 N93-14373
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
System for memorizing maximum values
[NASA-CASE-MSC-21922-1] 04 p0882 N93-14841
Results of in-service evaluation of wind shear systems 04 p0785 N93-14856
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
FDAMS: An extendable and reconfigurable solution for avionics data management systems 04 p0794 N93-15157
DAR-2: On-board data acquisition system for aircraft engines 04 p0795 N93-15166
Data collection procedures for the Software Engineering Laboratory (SEL) database
[NASA-TM-108579] 04 p0957 N93-15579
A new approach for data acquisition at the JPL space simulators 04 p0821 N93-15606
Acoustic and thermal testing of the Titan/Centaur upper stage 04 p0814 N93-15621
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
Data acquisition for low-temperature geothermal well tests and long-term monitoring
[DE93-000387] 05 p1193 N93-15669
An investigation of requirements traceability to support systems development
[AD-A257444] 05 p1351 N93-15868
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Single and cross hot wire anemometry in incompressible flow
[LR-663] 05 p1167 N93-16280
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems 05 p1353 N93-16322
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
Undersea data collection, analysis, and display system
[AD-D015476] 05 p1220 N93-16483
Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Automated Weather Observing System (AWOS) Data Acquisition System (ADAS) Operational Test and Evaluation (OT/E) integration and OT/E operational test plan
[DOT/FAA/CT-TN90/65] 05 p1214 N93-16631
Increasingly automated procedure acquisition in dynamic systems
[NASA-TM-108112] 05 p1241 N93-16684
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle 05 p1057 N93-16784
A review of selected energy-related data sets
[DE93-002180] 05 p1355 N93-17036
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
New D3-D tokamak plasma control system
[DE93-000877] 05 p1312 N93-17388
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Cosmic ray NM-64 neutron monitor data-18
[NOTA-INTERNA-972] 05 p1400 N93-17627
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
Cosmic-ray NM-64 neutron monitor data-19 from Rome, Italy
[NOTA-INTERNA-989] 06 p1745 N93-17878
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
CSI Flight Computer System and experimental test results 06 p1465 N93-18841
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
Description of a data acquisition system for the measurements of EMP transient fields
[AD-A259013] 06 p1510 N93-19099
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
The Telecommunications and Data Acquisition Report
[NASA-CR-191228] 06 p1511 N93-19413
Cascaded convolutional codes 06 p1458 N93-19429
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
A method for estimating the phytomass of a tropical forest region through the use of orbital data
[INPE-5320-PRE/1717] 06 p1567 N93-19645
An improved anthropometric test device 06 p1424 N93-19670
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat 06 p1424 N93-19671
Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790
Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
Application possibilities for automated digitizing 07 p1967 N93-20531
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
Scanner technology as an alternative to manual digitizing. The data acquisition of the 1990s 07 p1968 N93-20539
Design of a laboratory computer interface
[AD-A259126] 07 p2028 N93-20594
Acquisition and production of skilled behavior in dynamic decision-making tasks
[NASA-CR-192361] 07 p2025 N93-20908
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
Principles and application tendency of remote sensing: Its principle, function, and utilization 07 p1978 N93-21540
Delineate subsurface structures with ground penetrating radar
[DE93-000474] 07 p1886 N93-21664
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123
Monitoring of Kuroshio current using the data of VTIR obtained by MOS-1 and MOS-1b 08 p2334 N93-22124
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Observation in the East China Sea 08 p2335 N93-22126
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
A three channel telemetry system 08 p2180 N93-22162
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Icing research tunnel rotating bar calibration measurement system
[NASA-TM-106010] 08 p2303 N93-22598
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629
Flight experience with lightweight, low-power miniaturized instrumentation systems
[NASA-TM-4463] 08 p2128 N93-23102
Standardization work for the calibration of intensities of celestial objects
[NASA-CR-192831] 08 p2543 N93-23502
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept 08 p2344 N93-23512
Communications techniques supporting the data management 08 p2276 N93-23543
Delivery of information from Earth observation satellites 08 p2350 N93-23549
Multispectral intelligent fusion techniques 08 p2352 N93-23564
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters 08 p2359 N93-23762
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
An experimental investigation of subsonic flow in a two-dimensional U-duct
[NASA-TM-103931] 08 p2128 N93-24535
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
The Telecommunications and Data Acquisition Report
[NASA-CR-192887] 09 p2671 N93-24659
Failure monitoring in dynamic systems: Model construction without fault training data 09 p2672 N93-24666
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
Analysis of large system black box verification test data
[NASA-CR-192885] 09 p2815 N93-24748
A prototype system for forest fire prevention and control 09 p2749 N93-24844
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Lightning data acquisition 09 p2778 N93-24883
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932
Visual approach data collection at St. Louis Lambert Field (STL)
[DOT/FAA/CT-TN93/2] 09 p2584 N93-24948
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
How to help intelligent systems with different uncertainty representations cooperate with each other
[NASA-CR-192947] 09 p2818 N93-25196
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
The North Dakota thunderstorm project
[PB93-153039] 09 p2785 N93-25776

Development of a tool-set for simultaneous, multi-site observations of astronomical objects
09 p2878 N93-25795
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Goldstone solar system radar signal processing
09 p2680 N93-26130
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156
VETA x ray data acquisition and control system
09 p2854 N93-26186
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A261105] 09 p2591 N93-26572
Near-Earth asteroids: Observer alert network and physical observations 10 p3168 N93-26699
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
EMDABS: Design and formal specification of a datamodel for a clinical research database system
[EUT-91-E-250] 10 p3165 N93-27242
CSU FIRE 2 cirrus field experiment: Description of field deployment phase
[NASA-CR-193162] 10 p3077 N93-27292
Welding process modelling and control
[NASA-CR-192549] 10 p3051 N93-27593
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Collaborations among nuclear emulsion groups in Europe during the 1950's
[NOTA-INTERNA-973] 10 p3133 N93-27701
Generic Application Layer for PC-controlled VME measuring systems (GAL PC-VME)
[OEFZS-4630] 10 p3103 N93-28204
Modal testing using a full instrumentation technique
[DE93-009635] 10 p3046 N93-28373
Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
SPREE Interactive Data Analysis Tool (SIDAT)
[AD-A262782] 11 p3273 N93-29306
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402
The Telecommunications and Data Acquisition Report
[NASA-CR-193144] 11 p3384 N93-29586
Collection, analysis, and archival of LDEF activation data 11 p3624 N93-29631
Project Copernicus: An Earth observing system
11 p3231 N93-29738
TACSAT ground control and data collection
11 p3388 N93-29895
Airborne data acquisition using a front-end processor architecture 11 p3373 N93-30329
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
Data management in NOAA 11 p3617 N93-30454
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Filling the gaps: An overview of data on education in grades K through 12
[PB93-176550] 11 p3608 N93-30821
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179
Personal information management in computer science research
[ISBN-0-315-73783-2] 12 p3842 N93-32325

DATA ADAPTIVE EVALUATOR/MONITOR
U DATA PROCESSING
U DATA REDUCTION
U DATA TRANSMISSION

DATA ANALYSIS
U DATA PROCESSING
U DATA REDUCTION

DATA BASE MANAGEMENT SYSTEMS
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
On the problem of security in data bases
[RSRE-MEMO-4263] 01 p0175 N93-10821
Geographic Information System (GIS) development assistance for Nuclear Regulatory Commission (NRC) incident response capability
[DE92-017595] 01 p0176 N93-10867
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
A probabilistic approach to information retrieval in heterogeneous databases
[DE92-016993] 02 p0473 N93-11151
An iterative method for distributed database design
02 p0474 N93-11255
Lies, damned lies, and databases
[RSRE-MEMO-4503-ISSUE-2] 02 p0474 N93-11333
A front end implementation of the Pollyanna secure DBMS
[RSRE-MEMO-4540] 02 p0475 N93-11404
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
Laboratory information management system proposal
[DE92-018243] 02 p0478 N93-11796
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12287
Application interface engine language and object reference manual
[DE92-017555] 03 p0683 N93-12686
Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808
Increasing the end user's productivity through seamless integration of applications with the database
[DE92-019599] 03 p0735 N93-12824
Applying an object-oriented database model to a scientific database problem: Managing experimental data at CEBAF 03 p0738 N93-13911
Data management for the coordinated Eastern Arctic experiment
[AD-A255648] 04 p1000 N93-14182
Query processing in distributed database systems
04 p1001 N93-14218
Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522
The National Space Science Data Center: An operational perspective 04 p1006 N93-15045
Parallelism in a main-memory DBMS: The performance of PRISMA/DB
[MEMO-INF-92-25] 04 p0958 N93-15093
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
Technical data management at the Yucca Mountain Site Characterization Project
[DE92-018115] 04 p1008 N93-15229
Query optimization and planning in object-oriented knowledge bases
[AD-A256006] 04 p1008 N93-15254
Information technologies for global resources management and environmental assessment
[DE92-041107] 04 p0906 N93-15442
Physical design for network databases
[MEMO-INF-92-26] 04 p1009 N93-15492
Predicting database requirements for geographic information systems in the year 2000: Long-term design issues for GRASS
[AD-A256862] 04 p1009 N93-15627
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
Information engineering and the information engineering facility versus rapid application development and focus
[AD-A257297] 05 p1350 N93-15895
A Relational/Object-Oriented Database Management System: R/OODBMS
[AD-A257339] 05 p1351 N93-15993
International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
Analysis, design, and implementation of a database management system for the Naval Postgraduate School Alumni Association
[AD-A257109] 05 p1352 N93-16116
INFOTECH 1992: DOE Technical Information (TI) Meeting
[DE93-000467] 05 p1352 N93-16151
A review of selected energy-related data sets
[DE93-002180] 05 p1355 N93-17036
NADIR: A prototype system for detecting network and file system abuse
[DE93-000861] 05 p1256 N93-17385
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
Using an object-oriented database management system to enhance the reusability of class definitions
[AD-A257559] 06 p1685 N93-17981
A model for security and distribution of management information systems
[ETN-93-93029] 06 p1685 N93-18107
Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179
Integration of deductive and object oriented data bases: Theoretical and implementation aspects
[REPT-92-039] 06 p1618 N93-18199
Data management plan for the Oak Ridge Environmental Information System, Version 1.1
[DE92-041219] 06 p1687 N93-18526
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Discovery of regularities in databases
06 p1688 N93-19714
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
Distributed database management evaluation software
[AD-A259215] 07 p2090 N93-20565
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
Expanded user's documentation for SHIMS
[PB93-101905] 07 p2092 N93-21694
The Cheetah data management system
[DE93-004010] 07 p2092 N93-21973
Universal Index System 08 p2530 N93-22152
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499
GROPE: A GENESIS/EXODUS database examination program
[DE93-006963] 08 p2523 N93-22514
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
GJOIN: A program for merging two or more GENESIS databases
[DE93-007709] 08 p2523 N93-22914
An object-oriented database approach to the storage and use of medical data 08 p2526 N93-23382
Performance prediction of relational database management systems
[ISBN-0-315-69232-4] 08 p2526 N93-23383
LARCRIM user's guide, version 1.0
[NASA-CR-191416] 08 p2439 N93-23432

Condition monitoring in an active deductive database
08 p2526 N93-23488
Prototype for a regional data management system, a step towards a regional land use project
08 p2353 N93-23571
Database management systems in engineering
[PB93-138964] 08 p2527 N93-23869
Implementation and performance evaluation of a parallel transitive closure algorithm on PRISMA/DB
[MEMO-INF-92-45] 08 p2448 N93-23873
Storage systems for national information assets: A collaborative research project
[DE93-007402] 08 p2529 N93-24450
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
AQUIS: A PC-based air inventory and permit manager
[DE93-003006] 09 p2761 N93-25143
Concurrency control in real-time database systems
09 p2874 N93-25271
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
A distributed heterogeneous client-server environment
[DE93-007496] 09 p2875 N93-25319
A logic-based approach to federated databases
09 p2876 N93-25466
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture
09 p2876 N93-25554
VIEWCACHE: An incremental pointer-based access method for autonomous interoperable databases
09 p2880 N93-25809
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
The Steward Observatory asteroid relational database
10 p3168 N93-26698
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Towards a design theory for database triggers
[CWI-CS-R9201] 10 p3166 N93-27494
Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589
Semantic models for distributed data base management. Part 1: Development of a metamodel for fragmentation
[REPT-92-33] 10 p3168 N93-28390
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
VIEWCACHE: An incremental database access method for autonomous interoperable databases
11 p3614 N93-29238
On the evaluation of fuzzy quantified queries in a database management system
11 p3517 N93-29569
A high performance, ad-hoc, fuzzy query processing system for relational databases
11 p3518 N93-29571
Data management in NOAA 11 p3617 N93-30454
High-performance mass storage system for workstations 11 p3618 N93-30457
Investigations into database management system support for expert system shells, volumes 1 and 2
12 p3835 N93-31108
Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466
Recent developments in database management
[REPT-92-61] 12 p3838 N93-31498
The performance of integrity control through transaction modification in a parallel main-memory database system
[MEMO-INF-92-54] 12 p3839 N93-31615
Automation and hypermedia technology applications
12 p3843 N93-32155

DATA BASES

Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
Analysis of observation report databases/knowledge bases
[AD-A252636] 01 p0172 N93-10428
NASA Electronic Library System (NELS) database schema, version 1.2
[NASA-CR-190643] 01 p0172 N93-10451
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Long Duration Exposure Facility (LDEF) optical systems SIG summary and database 01 p0038 N93-10583
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Document processing 01 p0174 N93-10600
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey
01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Security considerations within military information systems 01 p0174 N93-10603
Object-oriented design unifies databases and applications
[AD-A253313] 01 p0175 N93-10723
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
On the problem of security in data bases
[RSRE-MEMO-4263] 01 p0175 N93-10821
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
A probabilistic approach to information retrieval in heterogeneous databases
[DE92-016993] 02 p0473 N93-11151
Managing data: From vision to reality
[PB92-191212] 02 p0474 N93-11215
An iterative method for distributed database design
02 p0474 N93-11255
Information dissemination: Case studies on electronic dissemination at four agencies. Fact sheet for the Chairman, Committee on Governmental Affairs, US Senate
[GAO/IMTEC-92-6FS] 02 p0474 N93-11274
Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector
[AD-A247266] 02 p0475 N93-11465
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
Acoustic fill factors for a 120 inch diameter fairing
[NASA-CR-189284] 02 p0434 N93-11634
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
An object-oriented approach to spatial databases
[REPT-92-034] 02 p0476 N93-11690
Directory of factual and numeric databases of relevance to aerospace and defence R and D
[AGARD-R-777] 02 p0476 N93-11710
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
LINK user manual
[DE92-017987] 02 p0479 N93-12143
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12287
Exploiting captions in retrieval of multimedia data
[AD-A255184] 02 p0479 N93-12381
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
Coordinating Council. Fourth Meeting: NACA Documents Database Project
[NASA-TM-108017] 03 p0734 N93-12671
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795] 03 p0734 N93-12703
Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
Increasing the end user's productivity through seamless integration of applications with the database
[DE92-019599] 03 p0735 N93-12824
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
DIII-D edge physics database
[DE92-019577] 03 p0714 N93-12971
ECLSS evolution: Advanced instrumentation interface requirements. Volume 3: Appendix C
[NASA-CR-184367] 03 p0678 N93-12990
Report on phase 2 of 1990 OSSA data census
[NASA-TM-107992] 03 p0735 N93-12991
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
Abstract and index collection in the Research Information Center of the National Institute of Standards and Technology
[PB92-217587] 03 p0738 N93-13415
Identifying and describing Federal information inventory/locator systems: Design for networked-based locators, volume 1
[PB93-111037] 03 p0738 N93-13884
Making object-oriented databases more knowledgeable (from ADAM to ABEL) 03 p0738 N93-13910
Applying an object-oriented database model to a scientific database problem: Managing experimental data at CEBAF 03 p0738 N93-13911
A theory of reference graphs in relational databases
03 p0739 N93-13912
Data management for the coordinated Eastern Arctic experiment
[AD-A255648] 04 p1000 N93-14182
Information system constraint language (ISyCL)
[AD-A256268] 04 p0976 N93-14438
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Vendor Information System (VIS) systems manual
[AD-A256174] 04 p1002 N93-14650
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759

The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
Stewardship of very large digital data archives 04 p1005 N93-15032
EMASS (trademark): An expandable solution for NASA space data storage needs 04 p1005 N93-15033
The National Space Science Data Center: An operational perspective 04 p1006 N93-15045
Mass storage system experiences and future needs at the National Center for Atmospheric Research 04 p1007 N93-15046
Source header list. Volume 2: K through Z [AD-A256001] 04 p1007 N93-15112
Wisconsin Inventors' Network Database [DE92-018394] 04 p1007 N93-15137
An eclectic method for object oriented database design [AD-A256439] 04 p1008 N93-15315
User's guide for SearchMAESTRO [AD-A256422] 04 p1008 N93-15335
Physical design for network databases [MEMO-INF-92-26] 04 p1009 N93-15492
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing 04 p0954 N93-15549
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Data collection procedures for the Software Engineering Laboratory (SEL) database [NASA-TM-108579] 04 p0957 N93-15579
Predictions of dose from electrons in space [NASA-CR-191617] 04 p1051 N93-15580
Predicting database requirements for geographic information systems in the year 2000: Long-term design issues for GRASS [AD-A256862] 04 p1009 N93-15627
GRASS 4.0 map digitizing user's manual: V. Digit [AD-A256859] 04 p1009 N93-15642
A structural approach to the photonic processor [AD-A260688] 04 p0986 N93-15648
Cloud data set for neural network classification studies [AD-A256666] 05 p1211 N93-15701
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0 [NASA-TM-4425] 05 p1182 N93-15788
Interfacing 1990 US Census TIGER map files with New S graphics software [DE93-001518] 05 p1351 N93-15808
An MCM/chip concurrent engineering validation [AD-A257415] 05 p1233 N93-15863
The design and implementation of a parallel persistent object system [AD-A257447] 05 p1233 N93-15869
A framework for classifying and resolving semantic conflicts using the enhanced entity-relationship model [AD-A257452] 05 p1351 N93-15870
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope [AD-A256179] 05 p1086 N93-15872
Information engineering and the information engineering facility versus rapid application development and focus [AD-A257297] 05 p1350 N93-15895
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990) [AD-A250032] 05 p1128 N93-15932
A Relational/Object-Oriented Database Management System: R/OODBMS [AD-A257339] 05 p1351 N93-15993
Source header list. Volume 1: A through J [AD-A256000] 05 p1352 N93-16063
PCB tester selection for future systems, volume 1 [AD-A256256] 05 p1065 N93-16088
Development of a faculty research and publication database system [AD-A257107] 05 p1352 N93-16115
Analysis, design, and implementation of a database management system for the Naval Postgraduate School Alumni Association [AD-A257109] 05 p1352 N93-16116
Basic research in the measurement, analysis, and modeling of atmospheric emissions [AD-A256708] 05 p1200 N93-16137
Aerosol and light extinction databases for North America and Europe [AD-A256710] 05 p1213 N93-16169
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991 [NASA-TM-108156] 05 p1353 N93-16233
Directory of design support methods [AD-A256987] 05 p1227 N93-16258
Stewardship of very large digital data archives 05 p1353 N93-16321
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum [AD-A256317] 05 p1097 N93-16403
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data [DE92-040521] 05 p1201 N93-16497
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.) [ESDU-92035] 05 p1177 N93-16524
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars [NASA-CR-191638] 05 p1377 N93-16630
C&RE-SLC: Database for conservation and renewable energy activities [DE93-001929] 05 p1196 N93-16653
Utilizing semantic networks to database and retrieve generalized stochastic colored Petri nets [NASA-CR-191853] 05 p1355 N93-16707
Where have all the sources gone? 05 p1373 N93-17144
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Towards automated support for extraction of reusable components 05 p1244 N93-17163
A comparison of data from SOLMET/ERSATZ and the National Solar Radiation Data Base [DE93-000018] 05 p1399 N93-17174
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data [DE92-041261] 05 p1205 N93-17496
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Semantic query optimization in distributed database systems: A knowledge-based approach [ISBN-90-9003849-3] 05 p1356 N93-17590
A randomised schema mutator for evolutionary database optimisation [TR-91-24] 05 p1356 N93-17595
Program 6 technical interchange meeting proceedings [AD-A257736] 05 p1356 N93-17665
A database approach to aircraft carrier airplan production [AD-A257737] 05 p1053 N93-17666
Cloud model database comparison study [AD-A258065] 05 p1218 N93-17678
Version and variation control of a design database for a computer aided prototyping system [AD-A257480] 05 p1357 N93-17763
A framework for classifying and resolving semantic heterogeneity in object-oriented databases [AD-A257597] 05 p1357 N93-17790
A concept study for a national software engineering database [AD-A258254] 06 p1614 N93-17823
Positioning a camera from a photograph and a scene model [TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
Increase of operational reliability by feedback experience/return in the technical and industrial field [ETN-93-93014] 06 p1685 N93-18075
An information theoretic approach to distributed inference and learning [AD-A257935] 06 p1685 N93-18099
TUNS/TCIS information model/process model [NASA-CR-191654] 06 p1617 N93-18112
Design and implementation of a graphical user interface for a multimedia database management system [AD-A257577] 06 p1686 N93-18179
G-LOG: A graph based query language [REPT-92-013] 06 p1618 N93-18198
MOCAL: A Monte Carlo albedo code [DE93-002049] 06 p1654 N93-18388
The integration of specification aspects in database design [ISBN-90-9004461-2] 06 p1687 N93-18445
AQUIS: A PC-based air quality and permit information system [DE92-040092] 06 p1573 N93-18587
Chemical Release and Radiation Effects Satellite (CRRES) program archiving and Puerto Rican sounding rocket campaign [NASA-CR-184503] 06 p1579 N93-18773
Software Engineering Laboratory (SEL) database organization and user's guide, revision 2 [NASA-TM-108631] 06 p1624 N93-18860
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system [AD-A259018] 06 p1624 N93-19016
Evaluation of regional seismic discriminants using the intelligent seismic event identification system [AD-A258936] 06 p1583 N93-19071
PDES Application Protocol Suite for Composite (PAS-C) scoping and benefits criteria. Volume 1: Executive summary and overview [AD-A258833] 06 p1687 N93-19074
Incorporation of orbital imagery into a cartographic data base [INPE-5300-PRE/1705] 06 p1688 N93-19644
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698
Medical evaluation of spatial disorientation mishaps 06 p1430 N93-19703
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92) [NIAR-92-12] 06 p1688 N93-19711
Patterns for knowledge discovery in databases 06 p1688 N93-19712
Probabilistic data dependencies 06 p1688 N93-19713
Discovery of regularities in databases 06 p1688 N93-19714
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Flight above a virtual world 06 p1609 N93-19766
Condensation phase of the Martian south polar cap 06 p1740 N93-19804
Methods for analysis of networks within a geographical information system [INPE-5299-PRE/1704] 06 p1693 N93-19835
Earth observing system: Information on NASA's selection of data centers. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives [GAO/IMTEC-91-67] 06 p1569 N93-19842
Ada implementation of an object data repository [AD-A259144] 07 p2087 N93-20002
NASA pyrotechnically actuated systems program 07 p1863 N93-20133
Pyrotechnically actuated systems database and applications catalog 07 p1864 N93-20136
Building a knowledge base for the knowledge worker system [AD-A258544] 07 p2089 N93-20370
Thematic maps as data bank objects 07 p1968 N93-20536
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
Geographic data model: A survey 07 p1968 N93-20540
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool [AD-A259138] 07 p2033 N93-20574
Toxic substances registry system: Index of material safety data sheets [NASA-TM-108582] 07 p2024 N93-20998
Design and implementation of LOGRES [REPT-92-040] 07 p2039 N93-21184
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example [PB92-224682] 07 p1990 N93-21211
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present [PB93-112225] 07 p2013 N93-21229
Interactive graphics intersection design system: First-stage development [PB92-227693] 07 p2040 N93-21291
Public Access: A How To Guide [PB93-111029] 07 p1990 N93-21378
Databases available in the Research Information Center of the National Institute of Standards and Technology [PB93-114478] 07 p2092 N93-21387
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport [PB92-221605] 07 p1991 N93-21501
Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575

Documentation of the status of international geothermal power plants and a list by country of selected geothermally active governmental and private sector entities
[DE93-002273] 07 p1988 N93-21665
Global Change Data Base Pilot (Diskette) Project for Africa. Dase base documentation version 1.1
[PB93-117927] 07 p2000 N93-21686
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
Radar seeker based autonomous navigation update system using topography feature matching techniques
08 p2256 N93-22030
Data sets for weather information services
08 p2337 N93-22140
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237
Object technology: A white paper
[DE93-006037] 08 p2522 N93-22495
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499
GROPE: A GENESIS/EXODUS database examination program
[DE93-006963] 08 p2523 N93-22514
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
GJOIN: A program for merging two or more GENESIS databases
[DE93-007709] 08 p2523 N93-22914
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
National security and national competitiveness: Open source solutions; NASA requirements and capabilities
[NASA-TM-4458] 08 p2523 N93-23030
Bibliography of global change, 1992
[NASA-SP-7102] 08 p2342 N93-23239
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Ternd). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Engineering data integration: Problems and solutions
[PNR-90999] 08 p2525 N93-23370
An object-oriented database approach to the storage and use of medical data 08 p2526 N93-23382
Performance prediction of relational database management systems
[ISBN-0-315-69232-4] 08 p2526 N93-23383
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
Parallel evaluation of deductive database queries
08 p2527 N93-23503
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
Remote sensing satellite and thematic applications in high schools and elementary schools in France
08 p2370 N93-23829
Integrated global environmental (global change) data activities support researchers and educators
08 p2370 N93-23834
Development of data sets for the ISY sea surface temperature: MOS-1/MOS-1b data sets
08 p2371 N93-23838
Database management systems in engineering
[PB93-138964] 08 p2527 N93-23869
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
Designing for damage tolerant composite repairs
[AD-A260094] 08 p2214 N93-24053
Intelligent information retrieval for a multimedia database using captions
[AD-A260438] 08 p2528 N93-24113
Modernization and unification: Strategic goals for NASA STI program
[NASA-TM-109186] 08 p2528 N93-24117
Architecture for human-computer design, management and coordination in a collaborative AEC environment
08 p2528 N93-24186
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
A version and configuration model for software evolution
[AD-A260557] 08 p2441 N93-24283
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
Lightning data acquisition 09 p2778 N93-24883
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
The role of ocean climate data in operational Naval oceanography 09 p2732 N93-24916
Data archaeology at ICES 09 p2734 N93-24931
Data management for community research projects: A JGOFS case study 09 p2736 N93-24936
Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082
Efficient inspection of network pollution data
[DE93-003810] 09 p2761 N93-25126
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213
Concurrency control in real-time database systems
09 p2874 N93-25271
Earth observing system. Output data products and input requirements, version 2.0. Volume 3: Algorithm summary tables and non-EOS data products
[NASA-TM-108769] 09 p2756 N93-25462
A logic-based approach to federated databases
09 p2876 N93-25466
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
Design and analysis of algorithms for processing queries in database systems 09 p2876 N93-25482
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture
09 p2876 N93-25554
The database Query Support Processor (QSP)
09 p2807 N93-25577
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
Digital Nautical Chart
[AD-A260810] 09 p2756 N93-25694
Multivariate statistical analysis software technologies for astrophysical research involving large data bases
09 p2878 N93-25796
Knowledge-based assistance for science visualization and analysis using large distributed databases
09 p2879 N93-25801
VIEWCACHE: An incremental pointer-based access method for autonomous interoperable databases
09 p2880 N93-25809
SAVS: A Space Analysis and Visualization System
09 p2881 N93-25812
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942
Visualizing the semantic content of large text databases using text maps 09 p2826 N93-25982
The StarView intelligent query mechanism
09 p2826 N93-25984
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
A database for propagation models
09 p2684 N93-26472
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2684 N93-26568
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
A prototype climate information system
[AD-A261799] 10 p3075 N93-26630
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
A modeling study of the TPC-C benchmark
[NASA-CR-191443] 10 p3092 N93-27070
An expert system shell for inferring vegetation characteristics: Changes to the historical cover type database (Task F)
[NASA-CR-193067] 10 p3083 N93-27072
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
EMDABS: Design and formal specification of a datamodel for a clinical research database system
[EUT-91-E-250] 10 p3165 N93-27242
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Towards a design theory for database triggers
[CWI-CS-R9201] 10 p3166 N93-27494
Handbook for users
[AD-A260738] 10 p3166 N93-27605
Technology for Space Station evolution: The data management system 10 p2963 N93-27705
Age 60 Project: Consolidated database experiments
[HS-TR-8025-3C(R2)] 10 p3087 N93-27851
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Calibrating the BKW-EOS with a large product species data base and measured C-J properties
[DE93-007606] 10 p3008 N93-28151
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
LDEF materials overview 10 p2997 N93-28255

Materials And Processes Technical Information System (MAPTIS) LDEF materials data base
10 p3168 N93-28286
Data bases for LDEF results
10 p3168 N93-28287
Long Duration Exposure Facility experiment M0003 deintegration observation data base
10 p3169 N93-28288
Advanced transportation system studies. Alternate propulsion subsystem concepts: Propulsion database
[NASA-CR-192545] 10 p2987 N93-28325
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
Modeling land-surface/atmosphere dynamics for CHAMMP
[DE93-008520] 11 p3476 N93-28677
The Backgrounds Data Center
11 p3624 N93-28814
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
The meteorological database
[DE93-007289] 11 p3481 N93-29054
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
Program plan for an experimenter's laboratory for visualized interactive science 11 p3613 N93-29224
DataHub knowledge based assistance for science visualization and analysis using large distributed databases 11 p3613 N93-29230
Collection-oriented match: Scaling up the data in production systems
[AD-A262755] 11 p3615 N93-29459
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
A high performance, ad-hoc, fuzzy query processing system for relational databases
11 p3518 N93-29571
EnviroNET: On-line information for LDEF
11 p3624 N93-29625
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
Decision maker's guide to international space
[ANSER-STDN-93-4] 11 p3669 N93-29710
Thunderstorm forecast study for Eglin AFB, Florida
[AD-A263423] 11 p3483 N93-29810
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
On the development of a film cooling layer
11 p3258 N93-29959
Cloudiest year study: An analysis of the 3DNEPH and RTNEPH databases
[AD-A263409] 11 p3483 N93-29967
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
Data quality statements for spatial databases
[AD-A264125] 11 p3616 N93-30195
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
Data management in NOAA 11 p3617 N93-30454
Interim report on Landsat national archive activities
11 p3618 N93-30455
Requirements for a system to analyze HEP events using database computing
[DE93-009960] 11 p3576 N93-30527
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
Office of Water Environmental and Program Information Systems Compendium, FY 1992
[PB93-186203] 11 p3462 N93-30833
Land use database for the Netherlands using LANDSAT Thematic Mapper pictures
[BCRS-91-32] 11 p3463 N93-30839
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
A prototype of a faculty and staff executive information system
[AD-A264852] 11 p3623 N93-30907
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
The management of replicated data
12 p3836 N93-31144
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
End users: New products and services
12 p3837 N93-31220
Spatial relational algebra: An extended relational algebra for spatial database
[REPT-92-051] 12 p3786 N93-31249
European Road Database: Activities within the ATKIS
12 p3744 N93-31257
Access and content of the EDBS topographic-cartographic information system (ATKIS)
12 p3745 N93-31267
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
Managing semantic heterogeneity with production rules and persistent queues
[REPT-92-078] 12 p3811 N93-31464
Recent developments in database management
[REPT-92-61] 12 p3838 N93-31498
Quality support tool of simulation models: A comparison between methodology
[REPT-92-061/BIS] 12 p3839 N93-31605
On the selection of an optimal set of secondary indices
[MEMO-INF-92-68] 12 p3789 N93-31617
Crack growth prediction models
12 p3682 N93-31747
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
Current state of the mass storage system reference model 12 p3840 N93-31965
Measurements over distributed high performance computing and storage systems
12 p3841 N93-31977
Venari/ML interfaces and examples
[AD-A265416] 12 p3841 N93-32048
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142
Producing approximate answers to database queries
12 p3843 N93-32150
Cooperative answers in database systems
12 p3843 N93-32153
The Knowledge-Based Software Assistant: Beyond CASE 12 p3794 N93-32156
Ceramic technology project database
[DE93-012429] 12 p3710 N93-32161
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232
User friendly database for Neptune planetary radio astronomy observations
[NASA-CR-193261] 12 p3851 N93-32324

DATA BUSSES
U CHANNELS (DATA TRANSMISSION)

DATA COLLECTION PLATFORMS
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
DCP communication link monitoring program
10 p3076 N93-26994

DATA COMPACTION
U DATA COMPRESSION

DATA COMPRESSION
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Design of a PCM data compressor --- pulse code modulation
[DE92-019469] 02 p0404 N93-11539
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
Transient Reduction Analysis using Neural Networks (TRANN)
[DE92-012150] 02 p0421 N93-12153
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
One and two dimensional discrete wavelet transforms
[AD-A257981] 06 p1502 N93-18241
Advanced vector quantization techniques
06 p1648 N93-18505
Wavelet image analysis 06 p1628 N93-18506
Locally adaptive vector quantization: Data compression with feature preservation 06 p1513 N93-19425
Data compression by wavelet transforms
06 p1513 N93-19426
Maximal codeword lengths in Huffman codes
06 p1513 N93-19427
Comparisons of theoretical limits for source coding with practical compression algorithms
06 p1513 N93-19428
Study and simulation of low rate video coding schemes
[NASA-CR-191908] 07 p1880 N93-20170
Introduction to study and simulation of low rate video coding schemes 07 p1880 N93-20171
Data compression in remote sensing applications
07 p1881 N93-20172
Compression of color-mapped images
07 p1881 N93-20173
A robust coding scheme for packet video
07 p1881 N93-20174
Recursively indexed differential pulse code modulation
07 p1881 N93-20175
An image compression technique for use on token ring networks 07 p1881 N93-20176
Compressing subbanded image data with Lempel-Ziv-based coders
[NASA-TM-105998] 07 p1882 N93-20257
Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding
08 p2445 N93-22157
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Data compression opportunities in EOSDIS
08 p2430 N93-24545
Compression through decomposition into browse and residual images 08 p2430 N93-24546
Applications of wavelet-based compression to multidimensional Earth science data
08 p2430 N93-24547
Wavelet encoding and variable resolution progressive transmission 08 p2431 N93-24548
Fast image decompression for telebrowsing of images
08 p2431 N93-24549
A survey of quality measures for gray-scale image compression 08 p2431 N93-24550
Digital mammography, cancer screening: Factors important for image compression
08 p2424 N93-24551
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
Systems aspects of COBE science data compression
08 p2431 N93-24553
Proposed data compression schemes for the Galileo S-band contingency mission 08 p2431 N93-24554
Data compression for the Cassini radio and plasma wave instrument 08 p2432 N93-24555
Image coding by way of wavelets
09 p2671 N93-24665
High resolution stereo imaging and data compression
09 p2753 N93-24867

Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
High performance compression of science data 09 p2881 N93-25811
The Space and Earth Science Data Compression Workshop
[NASA-CP-3183] 09 p2803 N93-25921
Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components 09 p2804 N93-25923
Compression of spectral meteorological imagery 09 p2804 N93-25925
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
High-performance compression of astronomical images 09 p2805 N93-25931
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Data compression techniques for digital video recording
[ETN-93-93610] 10 p3166 N93-27881
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
Frequency domain speech compression using the Karhunen-Loeve Transform
[AD-A262613] 11 p3379 N93-28476
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Digital image compression using artificial neural networks 11 p3624 N93-28811
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Transputers, parallel processing in embedded systems for image compression in space applications
[NLR-TP-89242-U] 11 p3522 N93-30840
Fractal image coding techniques and contraction operators
[REPT-92-93] 12 p3789 N93-31632
Remote driving with reduced bandwidth communication 12 p3719 N93-32114

DATA CONVERSION ROUTINES
NT SUBROUTINES
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Federal Communications Commission (FCC) Transponder Loading Data Conversion Software. User's guide and software maintenance manual, version 1.2
[NASA-CR-191067] 09 p2808 N93-24947

DATA CONVERTERS
NT ANALOG TO DIGITAL CONVERTERS
NT DIGITAL TO ANALOG CONVERTERS
The first level energy trigger of the L3 experiment/description of the hardware
[NOTA-INTERNA-987] 06 p1659 N93-17937
Interim report on Landsat national archive activities 11 p3618 N93-30455

DATA CORRELATION
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment 03 p0548 N93-12782
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088

DATA FLOW ANALYSIS
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Analysis of methods --- information systems evolution environment
[NASA-CR-190278] 02 p0407 N93-11368
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
File servers, networking, and supercomputers 03 p0737 N93-13137
File servers, networking, and supercomputers 04 p1004 N93-15030
The failure of failures in a paradigm for asynchronous communication
[CWI-CS-R9147] 05 p1237 N93-16410
Flow models of distributed computations: Event structures and nets
[INRIA-RR-1482] 06 p1646 N93-18612
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
A comparison of multiprocessor scheduling methods for iterative data flow architectures
[NASA-CR-189730] 06 p1521 N93-19107
Efficient compilation of a synchronous declarative language: LUSTRE-V3 code generator
[ETN-93-92679] 07 p2038 N93-20899
Newly available technologies present expanding opportunities for scientific and technical information exchange
[NASA-CR-4494] 08 p2261 N93-22470
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
CAD data exchange development
[DE93-008085] 09 p2809 N93-25307
Data systems dynamic simulator 09 p2814 N93-25602
The ASCIS data flow graph semantics and textual format
[EUT-91-E-251] 10 p3093 N93-27243
Verification of parameterised synchronous concurrent algorithms with OBJ3: The pixel planes architecture revisited
[CWI-CS-R9225] 10 p3095 N93-27378
Current trends in the semantics of dataflow
[RUU-CS-92-22] 10 p3167 N93-28063
Flow control using the theory of zero sum Markov games
[INRIA-RR-1597] 11 p3553 N93-28507
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490
The modern high rate digital cassette recorder 11 p3435 N93-30468
Assuring type safety of object-oriented languages
[REPT-92-061] 12 p3787 N93-31252
Access and content of the EDBS topographic-cartographic information system (ATKIS) 12 p3745 N93-31267
Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337
Conception of a modular real-time system for laser remote sensing with particular consideration of upward compatibility
[SER-C-378] 12 p3731 N93-31340
Intelligent assistance in scientific data preparation 12 p3843 N93-32144
The reuse of large-scale components
[REPT-92-95] 12 p3793 N93-32419

DATA HANDLING SYSTEMS
U DATA SYSTEMS

DATA INTEGRATION
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Applying an object-oriented database model to a scientific database problem: Managing experimental data at CEBAF 03 p0738 N93-13911
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Research on data handling technology 07 p1795 N93-20448
Laser range camera data fusion
[DE93-005159] 08 p2263 N93-23313
A fuzzy logic controller system
[AD-A259723] 08 p2439 N93-23467
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Constant false probability data fusion system
[AD-D015624] 08 p2304 N93-24219
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24845
A logic-based approach to federated databases 09 p2876 N93-25466
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements 09 p2824 N93-25974
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A261105] 09 p2591 N93-26572
Overview of the System of Experts for Intelligent Data Management (SEIDAM) 11 p3613 N93-29228
Multi-channel holographic birfurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
An MCM/chip concurrent engineering validation
[AD-A262959] 11 p3409 N93-29513
The fusion of information via fuzzy integration 11 p3517 N93-29568
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
Hybrid rendering of scientific data using an h-buffer
[REPT-92-68] 12 p3788 N93-31495
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139

DATA LINKS
Link-11 communications --- computer-to-computer communications exchange network
[AD-A252766] 01 p0068 N93-10260
A description of the Mode Select beacon system (Mode S) and its associated benefits to the National Airspace System (NAS)
[DOT/FAA/SE-92/6] 01 p0007 N93-10738
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1
[DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2
[DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET) 02 p0395 N93-11940
Low Density Radio Communications Link (LDRCL) Operational Test and Evaluation (OT/E) integration and operation test plan
[AD-A258216] 02 p0285 N93-12331
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698

Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429

The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498

Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841

Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1662 N93-18335

Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382

Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854

A model to compare performance of space and ground network support of low-Earth orbiters
06 p1508 N93-18925

Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052

Microwave vs optical crosslink study
[NASA-CR-192207] 07 p1879 N93-19989

Reduced electrical bandwidth receivers for direct detection 4-ary PPM optical communication intersatellite links
[NASA-CR-192310] 07 p1880 N93-19993

Development of a realtime DGPS system
[DLR-MITT-92-06] 07 p1779 N93-20749

Interferometric optical fiber data link
[AD-D015581] 07 p2067 N93-20797

Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026

Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589

Controller evaluation of initial terminal data link ATC services: Mini study 3
[DOT/FAA/CT-92/18] 08 p2262 N93-23046

Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514

SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522

Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704

A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005

Frequency generation and synthesis in the DRSS
09 p2693 N93-25054

Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment
[NASA-TM-107748] 09 p2585 N93-26087

ETS-5, ETS-6, and COMETS projects in Japan
09 p2683 N93-26470

Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053

Results of DATAS investigation of ATCRBS environment at the Los Angeles International Airport
[DOT/FAA/CT-93/6] 11 p3245 N93-28625

A comparison of high-speed links, their commercial support and ongoing R/D activities
[DE93-008134] 11 p3382 N93-29245

Hybrid data link
[AD-D015714] 11 p3383 N93-29280

Advanced Earth Observing Satellite (ADEOS)
11 p3279 N93-29648

Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3387 N93-29890

Optoelectronic technology consortium
[AD-A263580] 11 p3580 N93-29973

Security of the remote control link of Anik E satellites
11 p3365 N93-30282

Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines
11 p3399 N93-30755

Process control and recovery in the Link Monitor and Control Operator Assistant 12 p3719 N93-32145

DATA MANAGEMENT

Advanced Scientific Computing Environment Team
[DE92-016714] 01 p0137 N93-10631

Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012

Managing data: From vision to reality
[PB92-191212] 02 p0474 N93-11215

An object-oriented approach to spatial databases
[REPT-92-034] 02 p0476 N93-11690

Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741

Distributed database integrity
[AD-A253272] 02 p0477 N93-11749

Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936

Principles of information resource management: A foundation for the future
[AD-A254447] 03 p0733 N93-12597

Functional system design document for the Intelligent Inspection System (IIS)
[DE92-018240] 03 p0619 N93-12794

Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808

Report on phase 2 of 1990 OSSA data census
[NASA-TM-107992] 03 p0735 N93-12991

Engineering Design Information System (EDIS) Information Services Division (ISD) index function: User's manual
[DE92-041242] 03 p0736 N93-13048

File servers, networking, and supercomputers
03 p0737 N93-13137

Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503

Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522

Data management in NOAA 04 p1003 N93-14779

EMASS (trademark): An expandable solution for NASA space data storage needs 04 p1005 N93-15033

Data archiving 04 p1005 N93-15035

Network accessible multi-terabyte archive
04 p1005 N93-15036

The National Space Science Data Center: An operational perspective 04 p1006 N93-15045

Mass storage system experiences and future needs at the National Center for Atmospheric Research
04 p1007 N93-15046

Requirements for a network storage service
04 p1007 N93-15048

Data fragmentation for parallel transitive closure strategies
[MEMO-INF-92-17] 04 p0959 N93-15142

The Teledyne controls aircraft condition monitoring system 04 p0793 N93-15155

Flight data and flight safety in SAS
04 p0793 N93-15156

FDAMS: An extendable and reconfigurable solution for avionics data management systems
04 p0794 N93-15157

Ground Support Equipment (GSE) for Aircraft Condition Monitoring System (ACMS) 04 p0778 N93-15158

Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171

EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system
04 p0796 N93-15172

Conversion of IRAMMP data to HDF format
[AD-A256515] 04 p1008 N93-15393

Space Station Freedom data management system growth and evolution report
[NASA-TM-103869] 04 p0816 N93-15477

A new approach for data acquisition at the JPL space simulators 04 p0821 N93-15606

User's guide for the longitudinal scalogram analysis program
[AD-A256817] 05 p1232 N93-15682

Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933

A Relational/Object-Oriented Database Management System: R/OODBMS
[AD-A257339] 05 p1351 N93-15993

Department of Defense Directive (DODD) 8000.1 defense Information Management (IM) program
[AD-A256988] 05 p1353 N93-16259

EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323

The challenge of a data storage hierarchy
05 p1354 N93-16325

ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328

Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511

Desktop Computing Integration Project
05 p1254 N93-16795

Data modelization for manufacturing planning and scheduling: Aggregation and disaggregation mechanisms
[LAAS-92263] 06 p1682 N93-17813

Data management: Implementation and lessons learned from Department of the Army data management program
[AD-A257858] 06 p1686 N93-18307

Data management plan for the Oak Ridge Environmental Information System, Version 1.1
[DE92-041219] 06 p1687 N93-18526

Human performance assessment methods
[AGARD-AG-308-ADD] 06 p1603 N93-18868

Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888

En route air traffic controllers use of flight progress strips: A graph-theoretic analysis
[AD-A259062] 06 p1433 N93-18927

Data management: Implementation and lessons learned from the Department of the Army data management program
[AD-A258796] 06 p1687 N93-19063

Metadata in archives: The Atmospheric Radiation Measurement (ARM) Archive experience
[DE93-003011] 06 p1574 N93-19628

Advanced cockpit-mission and image management
06 p1607 N93-19760

Management of avionics data in the cockpit
06 p1611 N93-19777

PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994

Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161

Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315

Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366

Review on parts test data analyzing system
07 p1800 N93-20480

Distributed database management evaluation software
[AD-A259215] 07 p2090 N93-20565

International Gravimetric Bureau
07 p1971 N93-20977

International Centre on Recent Crustal movements
07 p1973 N93-20989

CTOS course
[NASA-CR-191866] 07 p2047 N93-21204

STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218

Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229

National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476

US Global Change Data and Information Management Program Plan: A report by the Committee on Earth and Environmental Sciences
[PB93-101293] 07 p1993 N93-21695

Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784

Environmental data sets in Canada
08 p2338 N93-22143

ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144

Environmental data sets at the University of Alaska
08 p2338 N93-22146

A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196

Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285

The df: A proposed data format standard
[NASA-TM-4467] 08 p2430 N93-22810

Communications techniques supporting the data management 08 p2276 N93-23543

Database management systems in engineering
[PB93-138964] 08 p2527 N93-23869

Archival and analysis of Hubble Space Telescope data
08 p2535 N93-23894

Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896

Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280

Storage systems for national information assets: A collaborative research project
[DE93-007402] 08 p2529 N93-24450

Systems aspects of COBE science data compression
08 p2431 N93-24553

Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Proceedings of the Ocean Climate Data Workshop
[NASA-TM-108711] 09 p2732 N93-24915
Global Temperature and Salinity Pilot Project
09 p2733 N93-24924
Indian Ocean analyses 09 p2733 N93-24925
Data archaeology at ICES 09 p2734 N93-24931
The JGOFS North Atlantic Bloom Experiment: An overview 09 p2735 N93-24934
Data management for JGOFS: Theory and design
09 p2735 N93-24935
Data management for community research projects: A JGOFS case study 09 p2736 N93-24936
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies 09 p2736 N93-24939
Wrap-up session 09 p2737 N93-24940
International ocean services: Is it time - will it ever be time? 09 p2737 N93-24941
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
RAID-2: Design and implementation of a large scale disk array controller
[NASA-CR-192911] 09 p2806 N93-25233
The database Query Support Processor (QSP)
09 p2807 N93-25577
An interactive environment for the analysis of large Earth observation and model data sets
09 p2878 N93-25793
Multivariate statistical analysis software technologies for astrophysical research involving large data bases
09 p2878 N93-25796
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800
Knowledge-based assistance for science visualization and analysis using large distributed databases
09 p2879 N93-25801
Development of an expert data reduction assistant
09 p2880 N93-25808
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
In search of meta-knowledge
09 p2826 N93-25983
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Technology for Space Station evolution: The data management system 10 p2963 N93-27705
Optical disk technology Spaceflight Optical Disk Recorder (SODR) 10 p2964 N93-27710
Electronic neural networks 10 p2964 N93-27711
Space Station displays and controls technology evolution 10 p2964 N93-27712
Data management standards in Computer-Aided acquisition and Logistic Support (CALS)
10 p2964 N93-27714
Automatic management of parallel and distributed system resources 10 p2965 N93-27715
An overview of MCC and its research
10 p2965 N93-27717
Data management system technology discipline
10 p2972 N93-27857
Consistency management for virtually indexed caches
[AD-A261952] 10 p3100 N93-27920
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Applied Information Systems Research Program Workshop 11 p3613 N93-29223
Overview of the System of Experts for Intelligent Data Management (SEIDAM) 11 p3613 N93-29228
DataHub knowledge based assistance for science visualization and analysis using large distributed databases 11 p3613 N93-29230
Flight Projects Office Information Systems Testbed (FIST) 11 p3615 N93-29241
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158
The future role of the Director of Information Management (DOIM) organization within the DOD corporate information management initiative
[AD-A264118] 11 p3616 N93-30193
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
Data management in NOAA 11 p3617 N93-30454
MR-CDF: Managing multi-resolution scientific data
11 p3618 N93-30456
The state of the-state-of-the-art in mass storage technology 11 p3622 N93-30475
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
The management of replicated data
12 p3836 N93-31144
Manual for data administration
[PB93-182053] 12 p3834 N93-31431
Recent developments in database management
[REPT-92-61] 12 p3838 N93-31498
Quality support tool of simulation models: A comparison between methodology
[REPT-92-061/BIS] 12 p3839 N93-31605
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
An overview of PCTE: A basis for a Portable Commo n Tool Environment
[AD-A265202] 12 p3791 N93-32000
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
User friendly database for Neptune planetary radio astronomy observations
[NASA-CR-193261] 12 p3851 N93-32324

DATA PROCESSING

NT ASSOCIATIVE PROCESSING (COMPUTERS)
NT BATCH PROCESSING
NT CENSORED DATA (MATHEMATICS)
NT CEPSTRAL ANALYSIS
NT CONCURRENT PROCESSING
NT DATA CORRELATION
NT DATA REDUCTION
NT DATA RETRIEVAL
NT DATA SMOOTHING
NT DATA STORAGE
NT DATA TRANSFER (COMPUTERS)
NT DISTRIBUTED PROCESSING
NT KARHUNEN-LOEVE EXPANSION
NT MULTIPROCESSING (COMPUTERS)
NT ONBOARD DATA PROCESSING
NT OPTICAL DATA PROCESSING
NT PARALLEL PROCESSING (COMPUTERS)
NT PIPELINING (COMPUTERS)
NT SCENE ANALYSIS
NT SIGNAL ANALYSIS
NT SIGNAL PROCESSING
NT VECTOR PROCESSING (COMPUTERS)
NT VOICE DATA PROCESSING

Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Raster graphics validation
[PB92-196070] 01 p0137 N93-10441
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
The evolution of Ten15
[RSRE-MEMO-4543] 02 p0409 N93-11405
EUROMET project no. 231: Uncertainties in mass measurement. NPL's analysis of data from the calibration of weight set NPLW43
[NPL-MOM-107] 02 p0432 N93-11666
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12686
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
SAR peculiarities, ambiguities and constraints
03 p0563 N93-13051
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Enterprise storage report for the 1990's
03 p0736 N93-13132
Mass storage system experiences and future needs at the National Center for Atmospheric Research
03 p0737 N93-13138
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Enterprise storage report for the 1990's
04 p1004 N93-15028
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
Data fragmentation for parallel transitive closure strategies
[MEMO-INF-92-17] 04 p0959 N93-15142
Indian experience in flight data readout and analysis
04 p0794 N93-15161
Czechoslovak development and experience in flight data recorder readout and analysis 04 p0794 N93-15162
Software for flight recorder data evaluation developed by Lufthansa 04 p0794 N93-15163
The FAIR (Flight Animated and Interactive Reconstruction) tool 04 p0788 N93-15164
The SIROM flight data recorder and evaluation system
04 p0795 N93-15165
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
Application of programmable logic controllers to space simulation 04 p0821 N93-15608
Feasibility study for an integrated data processing system
[PB92-214287] 04 p1009 N93-15644
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
CMOR: A configurable monitor
[DE92-040208] 05 p1233 N93-15902
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Stratified hypermedia structures for information disclosure
[TR-91-27] 05 p1355 N93-16370
Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373

Undersea data collection, analysis, and display system
[AD-D015476] 05 p1220 N93-16483
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
On efficiently characterizing solutions of linear Diophantine equations and its application to data dependence analysis
[RUU-CS-92-01] 05 p1266 N93-16643
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Desktop Computing Integration Project
05 p1254 N93-16795
Verification of the computer programs SLAAP and DATA
[DE93-002597] 05 p1243 N93-16987
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Clustering properties of x ray sources from the analysis of the Ginga P(D) distribution 05 p1374 N93-17150
PDDP: A Parallel Data Distribution Preprocessor
[DE92-040400] 05 p1256 N93-17207
Neural network architectures to analyze OPAD data
05 p1262 N93-17336
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
Program 6 technical interchange meeting proceedings
[AD-A257736] 05 p1356 N93-17665
Automatic information processing and high performance skills: Individual differences and mechanisms of performance improvement in search-detection and complex tasks
[AD-A257711] 05 p1226 N93-17684
Multifractal cloud properties data assessment
[DE93-002638] 05 p1218 N93-17785
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
GUISDAP 06 p1579 N93-18746
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Metadata in archives: The Atmospheric Radiation Measurement (ARM) Archive experience
[DE93-003011] 06 p1574 N93-19628
Charged particle track reconstruction using artificial neural networks
[DE93-003014] 06 p1658 N93-19630
HippoDraw
[DE93-004005] 06 p1627 N93-19633
A method for estimating the phytomass of a tropical forest region through the use of orbital data
[INPE-5320-PRE/1717] 06 p1567 N93-19645
Probabilistic data dependencies
06 p1688 N93-19713
Extracting knowledge from data: SYS8688 approach
06 p1688 N93-19715
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
On automated analysis of flight test data
06 p1444 N93-19913
PDES application protocol suite for composite (PAS-C). Functional needs/state/of-the-art comparison for the PAS-C program
[AD-A258613] 07 p1831 N93-19986
PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994
PDES application protocol suite for composites (PAS-C) 1992 annual report for the PAS-C program
[AD-A258625] 07 p1831 N93-19998
Ada implementation of an object data repository
[AD-A259144] 07 p2087 N93-20002
Research in text processing
[AD-A259434] 07 p2087 N93-20010
Management of Automatic Data Processing (ADP) system documentation in the Department of Defense
[AD-A258507] 07 p2088 N93-20048
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
Application possibilities for automated digitizing
07 p1967 N93-20531
ATKIS: The introduction phase at IfAG
07 p1967 N93-20533
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
Retinal information processing for minimum laser lesion detection and cumulative damage
[AD-A259195] 07 p2023 N93-20563
International Centre on Recent Crustal movements
07 p1973 N93-20989
An order-theoretic model for the algebra of communicating processes
[RUU-CS-92-02] 07 p2054 N93-21034
Reference model for the description of graphic data processing and for the integration of graphic systems with other data processing fields
[ETN-93-93417] 07 p2039 N93-21066
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center
[NASA-CR-191885] 07 p1762 N93-21562
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Comparison of monthly precipitation analyses derived from conventional measurements, satellite estimates and model results 07 p1958 N93-21599
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data
07 p1960 N93-21610
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Delineate subsurface structures with ground penetrating radar
[DE93-000474] 07 p1886 N93-21664
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499
Aprepro: An algebraic preprocessor for parameterizing finite element analyses
[DE93-006989] 08 p2466 N93-22527
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
Visual autonomous automatic landing of airplanes
08 p2121 N93-22791
Neural processing of gravity information
[NASA-CR-192766] 08 p2419 N93-23233
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
The effects of display and response codes on information processing in an identification task
[AD-A259531] 08 p2427 N93-23451
Delivery of information from Earth observation satellites 08 p2350 N93-23549
Multispectral intelligent fusion techniques
08 p2352 N93-23564
The promise of raster data processing in digital terrain modelling 08 p2356 N93-23585
The influence of propagation on high frequency radiogoniometry and single station location
08 p2266 N93-23607
Archival and analysis of Hubble Space Telescope data
08 p2535 N93-23894
Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896
The ROSAT standard analysis software system
08 p2445 N93-23930
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
Intelligent information retrieval for a multimedia database using captions
[AD-A260438] 08 p2528 N93-24113
What makes a good feature?
[AD-A259962] 08 p2463 N93-24249
Advanced information processing
[AD-A260245] 08 p2529 N93-24258
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Editing images of text
[PB93-149896] 08 p2443 N93-24576
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795
The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Data management for community research projects: A JGOFS case study 09 p2736 N93-24936
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study
09 p2736 N93-24938
Efficient inspection of network pollution data
[DE93-003810] 09 p2761 N93-25126
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
The ALEXIS data processing package: An update
[DE93-007374] 09 p2899 N93-25185
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
A distributed heterogeneous client-server environment
[DE93-007496] 09 p2875 N93-25319
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
Earth observing system. Output data products and input requirements, version 2.0. Volume 3: Algorithm summary tables and non-EOS data products
[NASA-TM-108769] 09 p2756 N93-25462
The database Query Support Processor (QSP)
09 p2807 N93-25577
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
A land-surface testbed for EOSDIS
09 p2878 N93-25797
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800
A distributed system for visualizing and analyzing multivariate and multidisciplinary data
09 p2880 N93-25804
The Grid Analysis and Display System (GRADS): A practical tool for Earth science visualization
09 p2880 N93-25805
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
Development of an expert data reduction assistant
09 p2880 N93-25808
SAVS: A Space Analysis and Visualization System
09 p2881 N93-25812
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
Subband coding for image data archiving
09 p2803 N93-25922

Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components 09 p2804 N93-25923
Entropy reduction via simplified image contourization 09 p2804 N93-25924
Compression of spectral meteorological imagery 09 p2804 N93-25925
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
A hypertext framework for group support systems
[AD-A261731] 09 p2885 N93-26582
The Steward Observatory asteroid relational database 10 p3168 N93-26698
DADiSP processing guide 10 p2947 N93-26949
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Physics of solar activity
[NASA-CR-193139] 10 p3217 N93-27114
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
Neural networks: Reliability and data analysis
[AD-A262354] 10 p3109 N93-27646
Space Station displays and controls technology evolution 10 p2964 N93-27712
GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885
An integrated environment for the development of scientific and engineering applications
[AD-A262277] 10 p3103 N93-28239
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
Data bases for LDEF results 10 p3168 N93-28287
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
A survey of network interface designs
[MEMO-INF-92-59] 11 p3379 N93-28502
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
Preprocessing remotely-sensed data for efficient analysis and classification
[DE93-007367] 11 p3611 N93-28580
Exact trajectory determinator for ERS-1 11 p3457 N93-28918
Users manual for fault tree analysis code: CUT-TD
[DE93-753272] 11 p3525 N93-28978
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
Colorado Center for Astrodynamics Research (CCAR) 11 p3614 N93-29233
SAVS: A Space Data Analysis and Visualization System 11 p3614 N93-29235
Spatial Analysis and Modeling Systems (SAMS) 11 p3614 N93-29239
Introduction to cadet center for advanced data evaluation technology 11 p3614 N93-29240
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
Software development and analysis for experimental high frequency surface wave radar data
[AD-A261982] 11 p3383 N93-29438
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 1
[NASA-CP-10112-VOL-1] 11 p3509 N93-29516
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2
[NASA-CP-10112-VOL-2] 11 p3515 N93-29556
Incomplete fuzzy data processing systems using artificial neural network 11 p3519 N93-29578
Collection, analysis, and archival of LDEF activation data 11 p3624 N93-29631
Computer systems laboratory
[PB93-181873] 11 p3521 N93-29662
Capability maturity model for software, version 1.1
[AD-A263403] 11 p3530 N93-29852
ARSRP signal processing software
[AD-A263543] 11 p3391 N93-29975
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023
Generalized octrees for constrained object modeling 11 p3369 N93-30304
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Requirements for a system to analyze HEP events using database computing
[DE93-009960] 11 p3576 N93-30527
Efficient algorithms and data structures in geometric design
[AD-A264678] 11 p3534 N93-30544
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
Automatic acquisition of elevation points in map-making using the TUEK 200 12 p3745 N93-31263
Accuracy estimation for digitizing 12 p3745 N93-31265
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
Instigation and processing of flight tests in DLR 12 p3675 N93-31275
Bayesian analysis of SOHO spectra 12 p3876 N93-31398
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427
Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466
Hybrid rendering of scientific data using an h-buffer
[REPT-92-68] 12 p3788 N93-31495
The standards process: X3 information processing systems 12 p3840 N93-31966
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233
An automated processing system for food frequency and nutrition knowledge questionnaire 12 p3778 N93-32241
Remotely sensed data from space. Distribution, pricing, and applications: An OTA background paper
[PB93-176964] 12 p3747 N93-32309

DATA PROCESSING EQUIPMENT
NT AIRBORNE/SPACEBORNE COMPUTERS
NT ANALOG COMPUTERS
NT COMPUTERS
NT CONNECTION MACHINE
NT CRAY COMPUTERS
NT DIGITAL COMPUTERS
NT EMBEDDED COMPUTER SYSTEMS
NT HYBRID COMPUTERS
NT HYPERCUBE MULTIPROCESSORS
NT IBM PERSONAL COMPUTERS
NT MACINTOSH PERSONAL COMPUTERS
NT MASSIVELY PARALLEL PROCESSORS
NT MICROCOMPUTERS
NT MICROPROCESSORS
NT MIMD (COMPUTERS)
NT MINICOMPUTERS
NT OPTICAL COMPUTERS
NT PARALLEL COMPUTERS
NT PERSONAL COMPUTERS
NT PRINTERS (DATA PROCESSING)
NT REMOTE CONSOLES
NT SEQUENTIAL COMPUTERS
NT SIMD (COMPUTERS)
NT SUPERCOMPUTERS
NT TRANSPUTERS
NT VAX COMPUTERS
NT VSAT (NETWORK)
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Fourier transform spectrometer processing: Data reduction and processor design 01 p0014 N93-10935
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Feasibility study for an integrated data processing system
[PB92-214287] 04 p1009 N93-15644
The CRRES Microelectronics Package (MEP) data processing system
[AD-A256709] 05 p1145 N93-16168
On implementation (World Weather Watch)
[WMO-753] 05 p1217 N93-17597
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
NASA experimental airborne doppler radar and real time processor for wind shear detection 06 p1420 N93-19607
Cable connector/adapter support for multi-terminal data processors
[AD-D015572] 07 p1889 N93-20309
Design of a laboratory computer interface
[AD-A259126] 07 p2028 N93-20594
The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504
Office of Space Flight standard spaceborne Global Positioning System user equipment project 08 p2148 N93-22301
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Implementation of parallel algorithms
[AD-A263126] 11 p3529 N93-29496
Incomplete fuzzy data processing systems using artificial neural network 11 p3519 N93-29578
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
The standards process: X3 information processing systems 12 p3840 N93-31966

DATA PROCESSING TERMINALS
NT VSAT (NETWORK)

DATA PROCESSORS
U DATA PROCESSING EQUIPMENT

DATA READOUT SYSTEMS
U DATA SYSTEMS
U DISPLAY DEVICES

DATA RECORDERS
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
The 19 mm date recorders: Similarities and differences 04 p0883 N93-15042
The SIROM flight data recorder and evaluation system 04 p0795 N93-15165
Solid state flight data recorder with rapid data access 04 p0795 N93-15167
Integrated engine control and monitoring with experiences derived from OLMOS 04 p0795 N93-15168
The 19 mm data recorders similarities and differences 05 p1170 N93-16331
Research on satellite-borne high speed data recorder 07 p1795 N93-20449

US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
Clementine sensor processing system 11 p3285 N93-28778
National Media Laboratory: Media testing results 12 p3840 N93-31972

DATA RECORDING
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
Optical disks become erasable 03 p0736 N93-13133
Magnetic disk 03 p0737 N93-13134
Magnetic tape 03 p0737 N93-13135
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Magnetic disk 04 p1004 N93-15029
ICI optical data storage tape 04 p1005 N93-15037
Mass storage system experiences and future needs at the National Center for Atmospheric Research 04 p1007 N93-15046
Reproduction of digital signals in magnetic recording: A theoretical study
[ISBN-90-6275-757-X] 05 p1168 N93-16564
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device
[NLR-TP-91116-U] 05 p1062 N93-17538
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A261105] 09 p2591 N93-26572
Optical disk technology Spaceflight Optical Disk Recorder (SODR) 10 p2964 N93-27710
Data compression techniques for digital video recording
[ETN-93-93610] 10 p3166 N93-27881
The NT digital micro tape recorder 11 p3435 N93-30461
The modern high rate digital cassette recorder 11 p3435 N93-30468
Optimizing digital 8mm drive performance 11 p3435 N93-30479
National Media Laboratory 11 p3628 N93-30717
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Ultra-high density recording technologies 12 p3840 N93-31971
National Media Laboratory: Media testing results 12 p3840 N93-31972
Data storage: Retrospective and prospective 12 p3841 N93-31976
The redwood project: An overview 12 p3841 N93-31979

DATA REDUCTION
NT DATA SMOOTHING
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
Global positioning systems technology and its application in environmental programs
[PB92-169358] 01 p0007 N93-10442
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811
Fourier transform spectrometer processing: Data reduction and processor design 01 p0014 N93-10935
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Reduction operations on a distributed memory machine with a reconfigurable interconnection network 02 p0410 N93-11484
Computational aspects of Gaussian beam migration
[DE92-018641] 02 p0431 N93-11567
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
Convective scale 4-D data assimilation using simulated single-Doppler radar observations 04 p0921 N93-14683
Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
Single and cross hot wire anemometry in incompressible flow
[LR-663] 05 p1167 N93-16280
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Verification of the computer programs SLAAP and DATA
[DE93-002597] 05 p1243 N93-16987
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
Multifractal cloud properties data assessment
[DE93-002638] 05 p1218 N93-17785
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
A Southern Hemisphere radar meteor orbit survey 06 p1701 N93-19121
Spectroscopic observations of comet Austin (1989c) 06 p1697 N93-19169
Forward-scatter radiant mapping 06 p1697 N93-19178
A method for investigating human factor aspects of military aircraft accidents 06 p1422 N93-19656
Probabilistic data dependencies 06 p1688 N93-19713
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods 06 p1691 N93-19730
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
On automated analysis of flight test data 06 p1444 N93-19913
System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
Analysis of Space Shuttle accelerometer data
[NLR-TP-90141-U] 07 p1821 N93-20744
Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center
[NASA-CR-191885] 07 p1762 N93-21562
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
Archival and analysis of Hubble Space Telescope data 08 p2535 N93-23894
Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24090
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 09 p2880 N93-25804
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis 09 p2880 N93-25807
Development of an expert data reduction assistant 09 p2880 N93-25808
High performance compression of science data 09 p2881 N93-25811
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
AXAF VETA-I mirror encircled energy measurements and data reduction 09 p2855 N93-26188
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
H1 in RSA galaxies 10 p3203 N93-26891
DADiSP processing guide 10 p2947 N93-26949
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
White paper on science operations 10 p3165 N93-27047
On transfinite abstract reduction systems
[CWI-CS-R9205] 10 p3117 N93-27550
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
Data bases for LDEF results 10 p3168 N93-28287
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Data reduction expert assistant 11 p3613 N93-29227
Multi-channel holographic bifurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
SAVS: A Space Data Analysis and Visualization System 11 p3614 N93-29235
Spatial Analysis and Modeling Systems (SAMS) 11 p3614 N93-29239
Introduction to cadet center for advanced data evaluation technology 11 p3614 N93-29240
Empirical quantile function nonparametric integrated analyses
[AD-A263704] 11 p3554 N93-29385
Fuzzy multiple linear regression: A computational approach 11 p3518 N93-29574
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792
A miniature fatigue test machine 11 p3291 N93-30956
Testing of an experimental system for image reconnaissance 12 p3677 N93-31283
Intelligent assistance in scientific data preparation 12 p3843 N93-32144
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172

DATA RETRIEVAL
Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
Lies, damned lies, and databases
[RSRE-MEMO-4503-ISSUE-2] 02 p0474 N93-11333
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150

Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Proceedings of the NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications
[NASA-TM-107989] 04 p1004 N93-15027
Data storage and retrieval system
04 p1005 N93-15034
The 19 mm date recorders: Similarities and differences 04 p0883 N93-15042
Requirements for a network storage service
04 p1007 N93-15048
Flight data and flight safety in SAS
04 p0793 N93-15156
Solid state flight data recorder with rapid data access
04 p0795 N93-15167
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system
04 p0796 N93-15172
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Data storage and retrieval system
05 p1354 N93-16324
The 19 mm data recorders similarities and differences
05 p1170 N93-16331
Data storage and retrieval system abstract
05 p1170 N93-16332
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
Metadata in archives: The Atmospheric Radiation Measurement (ARM) Archive experience
[DE93-003011] 06 p1574 N93-19628
Interactive access and management for four-dimensional environmental data sets using McIDAS
07 p1965 N93-20070
AMPR/SSMI data comparisons
07 p2005 N93-20081
Atmospheric electricity/meteorology analysis
07 p2006 N93-20086
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
A proposal of fuzzy connective with learning function and its application to fuzzy retrieval system
08 p2450 N93-22211
Experience with the UniTree mass storage system
[DE93-004717] 08 p2445 N93-22388
The ROSAT archive 08 p2538 N93-23915
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Earth observing system. Output data products and input requirements, version 2.0. Volume 2: Analysis of IDS input requirements
[NASA-TM-108771] 09 p2755 N93-25461
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
EMDABS: Design and formal specification of a datamodel for a clinical research database system
[EUT-91-E-250] 10 p3165 N93-27242
VIEWCACHE: An incremental database access method for autonomous interoperable databases
11 p3614 N93-29238
LDEF archival system plan 11 p3624 N93-29704
MR-CDF: Managing multi-resolution scientific data
11 p3618 N93-30456
High-performance mass storage system for workstations 11 p3618 N93-30457
GE networked mass storage solutions supporting IEEE network mass storage model 11 p3618 N93-30458

DATA SAMPLING

Optimal sample policies for multirate digital control
01 p0141 N93-10346
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2] 06 p1528 N93-18440
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1] 06 p1528 N93-18510
What makes a family reliable?
06 p1720 N93-19264
Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009
On the evaluation of coherent structures using computer programs 07 p1937 N93-20688
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
Precision geocoding demonstrator system
08 p2348 N93-23539
A wideband parallel sampling system
[ISBN-0-315-60463-8] 08 p2286 N93-24617
The Grid Analysis and Display System (GRADS): A practical tool for Earth science visualization
09 p2880 N93-25805
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
Enhanced resolution and de-aliasing techniques for fast Fourier transforms 11 p3358 N93-30240

DATA SIMULATION

SAR simulation 03 p0564 N93-13056
Data modelling in complex application domains
[TR-92-01] 05 p1355 N93-16371
Numerical simulation of perfect fluid flows around complex 3D configurations by a multidomain solver using the MUSCL approach 11 p3417 N93-28745

DATA SMOOTHING

Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
A variational method for finite element stress recovery: Applications in one-dimension 05 p1189 N93-16785
Beyond the frequency limits of time-linearized methods
[NLR-TP-91216-U] 06 p1405 N93-17929
Empirical quantile function nonparametric integrated analyses
[AD-A263704] 11 p3554 N93-29385

DATA STORAGE

Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
SAR peculiarities, ambiguities and constraints
03 p0563 N93-13051
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Enterprise storage report for the 1990's
03 p0736 N93-13132
Optical disks become erasable
03 p0736 N93-13133
Storage system software solutions for high-end user needs 03 p0737 N93-13136
File servers, networking, and supercomputers
03 p0737 N93-13137
Mass storage system experiences and future needs at the National Center for Atmospheric Research
03 p0737 N93-13138
The long hold: Storing data at the National Archives
03 p0737 N93-13139
Magnetic bearings for a high-performance optical disk buffer, volume 1
[NASA-CR-190873] 03 p0616 N93-13706
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
Network issues for large mass storage requirements
04 p1002 N93-14773
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
EOSDIS/DADS requirements
04 p1003 N93-14776
Status of emerging standards for removable computer storage media and related contributions of NIST
04 p1003 N93-14778
Data management in NOAA 04 p1003 N93-14779
Storage needs in future supercomputer environments
04 p1003 N93-14780
Requirements for a network storage service
04 p1003 N93-14781
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
System for memorizing maximum values
[NASA-CASE-MSC-21922-1] 04 p0882 N93-14841
Proceedings of the NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications
[NASA-TM-107989] 04 p1004 N93-15027
Enterprise storage report for the 1990's
04 p1004 N93-15028
Magnetic disk 04 p1004 N93-15029
File servers, networking, and supercomputers
04 p1004 N93-15030
The long hold: Storing data at the National Archives
04 p1004 N93-15031
Stewardship of very large digital data archives
04 p1005 N93-15032
EMASS (trademark): An expandable solution for NASA space data storage needs 04 p1005 N93-15033
Data storage and retrieval system
04 p1005 N93-15034
Data archiving 04 p1005 N93-15035
Network accessible multi-terabyte archive
04 p1005 N93-15036
ICI optical data storage tape
04 p1005 N93-15037
ATL Products Division's entries into the computer mass storage marketplace 04 p1005 N93-15038
A system approach to archival storage
04 p1006 N93-15040
Stability of Co-gamma-Fe2O3 tape
04 p1006 N93-15041
The 19 mm date recorders: Similarities and differences 04 p0883 N93-15042
An empirical approach to predicting long term behavior of metal particle based recording media
04 p0883 N93-15043
Mass storage system experiences and future needs at the National Center for Atmospheric Research
04 p1007 N93-15046
Storage needs in future supercomputer environments
04 p1007 N93-15047
Requirements for a network storage service
04 p1007 N93-15048
Data fragmentation for parallel transitive closure strategies
[MEMO-INF-92-17] 04 p0959 N93-15142
Rewritable optical disk: Application to flight recording
04 p0794 N93-15160
Solid state flight data recorder with rapid data access
04 p0795 N93-15167
Conversion of IRAMMP data to HDF format
[AD-A256515] 04 p1008 N93-15393
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320

Stewardship of very large digital data archives
05 p1353 N93-16321
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems
05 p1353 N93-16322
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
Data storage and retrieval system
05 p1354 N93-16324
The challenge of a data storage hierarchy
05 p1354 N93-16325
Network accessible multi-terabyte archive
05 p1354 N93-16326
ICI optical data storage tape
05 p1354 N93-16327
ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328
Stability of metal particle and metal particulate media
05 p1170 N93-16329
An empirical approach to predicting long term behavior of metal particle based recording media
05 p1170 N93-16330
The 19 mm data recorders similarities and differences
05 p1170 N93-16331
Data storage and retrieval system abstract
05 p1170 N93-16332
Open systems storage platforms
05 p1355 N93-16333
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Spacecraft optical disk recorder memory buffer control
05 p1170 N93-16773
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
Nanorecording 06 p1539 N93-18467
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
Locally adaptive vector quantization: Data compression with feature preservation 06 p1513 N93-19425
Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315
Research on satellite-borne high speed data recorder
07 p1795 N93-20449
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
Geographic data model: A survey
07 p1968 N93-20540
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
Los Alamos HPDS: High-speed data transfer
[DE93-003804] 08 p2434 N93-22074
Experience with the UniTree mass storage system
[DE93-004717] 08 p2445 N93-22388
The df: A proposed data format standard
[NASA-TM-4467] 08 p2430 N93-22810
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia
08 p2352 N93-23561
Archival and analysis of Hubble Space Telescope data
08 p2535 N93-23894
The IUE archive(s) 08 p2535 N93-23895
Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896
The ROSAT archive 08 p2538 N93-23915
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Storage systems for national information assets: A collaborative research project
[DE93-007402] 08 p2529 N93-24450
RAID-2: Design and implementation of a large scale disk array controller
[NASA-CR-192911] 09 p2806 N93-25233
Striped tape arrays
[NASA-CR-192914] 09 p2806 N93-25267
Distributed information storage
09 p2877 N93-25722
High performance compression of science data
09 p2881 N93-25811
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929
An integrated database with system optimization and design features 10 p3168 N93-26697
A usage and maintenance of meteorological satellite data 10 p3076 N93-26996
Information technologies for astrophysics circa 2001
10 p3165 N93-27045
Linear-time snapshot protocols for unbalanced systems
[CWI-CS-R9236] 10 p3091 N93-28000
Colorado Center for Astrodynamics Research (CCAR)
11 p3614 N93-29233
A planetary version of PC-McIDAS
11 p3614 N93-29236
Holographic data storage crystals for the LDEF
11 p3435 N93-29697
LDEF archival system plan 11 p3624 N93-29704
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
Goddard Conference on Mass Storage Systems and Technologies, Volume 1
[NASA-CP-3198-VOL-1] 11 p3616 N93-30449
Mass storage system reference model, Version 4
11 p3617 N93-30450
Optical media standards for industry
11 p3617 N93-30451
Technology for national asset storage systems
11 p3617 N93-30452
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
Data management in NOAA 11 p3617 N93-30454
Interim report on Landsat national archive activities
11 p3618 N93-30455
MR-CDF: Managing multi-resolution scientific data
11 p3618 N93-30456
High-performance mass storage system for workstations 11 p3618 N93-30457
GE networked mass storage solutions supporting IEEE network mass storage model 11 p3618 N93-30458
High-speed data duplication/data distribution: An adjunct to the mass storage equation
11 p3619 N93-30459
The fundamentals and futures of removable mass storage alternatives 11 p3619 N93-30460
The NT digital micro tape recorder
11 p3435 N93-30461
RAID 7 disk array 11 p3537 N93-30462
Tutorial: Performance and reliability in redundant disk arrays 11 p3537 N93-30463
Striped tertiary storage arrays
11 p3620 N93-30464
National Media Laboratory media testing results
11 p3620 N93-30465
Evaluation of D-1 tape and cassette characteristics: Moisture content of Sony and Ampex D-1 tapes when delivered 11 p3435 N93-30466
Grand challenges in mass storage: A systems integrators perspective 11 p3620 N93-30467
The modern high rate digital cassette recorder
11 p3435 N93-30468
Evolution of a high-performance storage system based on magnetic tape instrumentation recorders
11 p3435 N93-30470
Mass optical storage-tape (MOST)
11 p3621 N93-30471
ICI optical data storage tape: An archival mass storage media 11 p3621 N93-30472
Flexible storage medium for write-once optical tape
11 p3621 N93-30473
Electron trapping data storage system and applications 11 p3622 N93-30474
The state of the-state-of-the-art in mass storage technology 11 p3622 N93-30475
Measurements over distributed high performance computing and storage systems
11 p3622 N93-30476
Analysis of cache for streaming tape drive
11 p3435 N93-30477
LANL High-Performance Data System (HPDS)
11 p3622 N93-30478
Optimizing digital 8mm drive performance
11 p3435 N93-30479
Using Transparent Informed Prefetching (TIP) to reduce file read latency 11 p3522 N93-30480
National Media Laboratory 11 p3628 N93-30717
Testing of an experimental system for image reconnaissance 12 p3677 N93-31283
Recent developments in database management
[REPT-92-61] 12 p3838 N93-31498
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Current state of the mass storage system reference model 12 p3840 N93-31965
Recording and wear characteristics of 4 and 8 mm helical scan tapes 12 p3730 N93-31969
Ultra-high density recording technologies
12 p3840 N93-31971
National Media Laboratory: Media testing results
12 p3840 N93-31972
Grand challenges in mass storage: A system integrator's perspective 12 p3840 N93-31973
Electron trapping optical data storage system and applications 12 p3730 N93-31975
Data storage: Retrospective and prospective
12 p3841 N93-31976
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980

DATA STRUCTURES

Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis
01 p0061 N93-10554
Symbolic Boolean manipulation with ordered binary decision diagrams
[AD-A253822] 01 p0142 N93-10828
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Experience with a course on architectures for software systems. Part 1: Course description
[AD-A256221] 04 p0941 N93-15239
A two-pass physics-based global lighting model
04 p0957 N93-15570
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
A framework for classifying and resolving semantic conflicts using the enhanced entity-relationship model
[AD-A257452] 05 p1351 N93-15870
Data modelling in complex application domains
[TR-92-01] 05 p1355 N93-16371
Datatype laws without signatures
[CWI-CS-R9133] 05 p1268 N93-16851
The dynamic semantics of Kernel ELLA
[AD-A258221] 06 p1617 N93-18024
Theory of algorithm structure and design
[AD-A257948] 06 p1617 N93-18081
TUNS/TCIS information model/process model
[NASA-CR-191654] 06 p1617 N93-18112
Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179
The integration of specification aspects in database design
[ISBN-90-9004461-2] 06 p1687 N93-18445
Flow models of distributed computations: Event structures and nets
[INRIA-RR-1482] 06 p1646 N93-18612
A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959
X-AAARF: An X window based version of the AFIT Algorithm Animation Research Facility
[AD-A258832] 06 p1625 N93-19065
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
An O(n squared) maximal planarization algorithm based on PQ-trees
[RUU-CS-92-03] 07 p2038 N93-21035
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
The Cheetah data management system
[DE93-004010] 07 p2092 N93-21973
Adaptive meshing in solids
[DE93-003238] 08 p2287 N93-22331
Match and move: An approach to data parallel computing
[AD-A259915] 08 p2449 N93-23999
Raster graphics: A tutorial and implementation guide
[PB93-145233] 08 p2443 N93-24562
Towards a formalism for program generation
[AD-A261689] 09 p2812 N93-26368
On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299
Implicit point location in arrangements of line segments, with an application to motion planning
[RUU-CS-92-15] 10 p3116 N93-27505

Virtual data structures
[RUU-CS-92-16] 10 p3097 N93-27506
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
The power of parallel projection
[RUU-CS-92-17] 10 p3100 N93-27908
On parallel data structuring: A parallel priority queue
[RUU-CS-92-19] 10 p3108 N93-28061
Treewidth of chordal bipartite graphs
[RUU-CS-92-28] 10 p3102 N93-28104
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Topology of hybrid objects
[ETN-93-93594] 11 p3546 N93-28466
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Robust and efficient implementation of the Delaunay tree
[INRIA-RR-1619] 11 p3547 N93-28511
Parallel computation and the basis system
[DE93-008755] 11 p3537 N93-28544
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
WARP: Weight Associative Rule Processor. A dedicated VLSI fuzzy logic megacell 11 p3513 N93-29538
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
Qualitative methods in computer vision
[AD-A264335] 11 p3533 N93-30418
Efficient algorithms and data structures in geometric design
[AD-A264678] 11 p3534 N93-30544
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236
High performance FORTRAN without templates: An alternative model for distribution and alignment
[NASA-CR-191451] 12 p3792 N93-32323

DATA SYSTEMS
NT AIR DATA SYSTEMS
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
An object-oriented approach to spatial databases
[REPT-92-034] 02 p0476 N93-11690
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150
Program for implementing software quality metrics
[DE92-018617] 02 p0413 N93-12187
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Magnetic tape 03 p0737 N93-13135
Mass storage system experiences and future needs at the National Center for Atmospheric Research 03 p0737 N93-13138
Applying an object-oriented database model to a scientific database problem: Managing experimental data at CEBAF 03 p0738 N93-13911
EOSDIS/DADS requirements 04 p1003 N93-14776
Data archiving 04 p1005 N93-15035
The National Space Science Data Center: An operational perspective 04 p1006 N93-15045
The SIROM flight data recorder and evaluation system 04 p0795 N93-15165
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
The challenge of a data storage hierarchy 05 p1354 N93-16325
Open systems storage platforms 05 p1355 N93-16333
Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Integration of deductive and object oriented data bases: Theoretical and implementation aspects
[REPT-92-039] 06 p1618 N93-18199
Numerical experiments on consistent horizontal and vertical resolution for atmospheric models and observing systems 06 p1563 N93-18718
Diabatic dynamic initialization 06 p1563 N93-18719
Software Engineering Laboratory (SEL) database organization and user's guide, revision 2
[NASA-TM-108631] 06 p1624 N93-18860
Dark-cycle monitoring of biological subjects on Space Station Freedom
[NASA-TM-103976] 06 p1500 N93-19103
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
An investigation of the role of current and future remote sensing data systems in numerical meteorology 07 p2010 N93-20108
Research on data handling technology 07 p1795 N93-20448
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
Review on parts test data analyzing system 07 p1800 N93-20480
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
Los Alamos HPDS: High-speed data transfer
[DE93-003804] 08 p2434 N93-22074
Data sets for weather information services 08 p2337 N93-22140
Environmental data sets in Canada 08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
The df: A proposed data format standard
[NASA-TM-4467] 08 p2430 N93-22810
Controller evaluation of initial terminal data link ATC services: Mini study 3
[DOT/FAA/CT-92/18] 08 p2262 N93-23046
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Meteosat operational programme current missions and services 08 p2357 N93-23752
The ROSAT archive 08 p2538 N93-23915
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Data compression opportunities in EOSDIS 08 p2430 N93-24545
OCEAN-PC and a distributed network for ocean data 09 p2734 N93-24928
Ocean climate data for user community in West and Central Africa: Needs, opportunities, and challenges 09 p2735 N93-24933
Computer systems 09 p2737 N93-24942
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
The database Query Support Processor (QSP) 09 p2807 N93-25577
Data systems dynamic simulator 09 p2814 N93-25602
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
A land-surface testbed for EOSDIS 09 p2878 N93-25797
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 09 p2880 N93-25804
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
Subband coding for image data archiving 09 p2803 N93-25922
Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components 09 p2804 N93-25923
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Astrophysics science operations in the Great Observatories era 10 p3165 N93-27044
NASA'S information technology activities for the 90's 10 p3165 N93-27046
High rate science data handling 10 p2964 N93-27709
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Applied Information Systems Research Program Workshop 11 p3613 N93-29223
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 11 p3613 N93-29226
Colorado Center for Astrodynamics Research (CCAR) 11 p3614 N93-29233
Spatial Analysis and Modeling Systems (SAMS) 11 p3614 N93-29239
Flight Projects Office Information Systems Testbed (FIST) 11 p3615 N93-29241
Collection-oriented match: Scaling up the data in production systems
[AD-A262755] 11 p3615 N93-29459
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
LANL High-Performance Data System (HPDS) 11 p3622 N93-30478
Using Transparent Informed Prefetching (TIP) to reduce file read latency 11 p3522 N93-30480
Centralized maintenance evaluation
[AD-A264400] 11 p3544 N93-30886
The implementation of the digital wave processor for the ESA/NASA Cluster mission 12 p3858 N93-31708
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
Distributed data systems in space physics 12 p3859 N93-31715
Crack growth prediction models 12 p3682 N93-31747
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230
User friendly database for Neptune planetary radio astronomy observations
[NASA-CR-193261] 12 p3851 N93-32324

DATA TRANSFER (COMPUTERS)
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter
[CTN-92-60593] 01 p0135 N93-10088
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Network issues for large mass storage requirements 04 p1002 N93-14773
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
Storage needs in future supercomputer environments 04 p1003 N93-14780
Requirements for a network storage service 04 p1003 N93-14781
Data storage and retrieval system 04 p1005 N93-15034
Indian experience in flight data readout and analysis 04 p0794 N93-15161
Data storage and retrieval system 05 p1354 N93-16324
Implementation of inheritance by means of relations
[INRIA-RR-1417] 06 p1621 N93-18513

Analysis of timed-token ring protocols
[INRIA-RR-1570] 07 p2044 N93-20894
Los Alamos HPDS: High-speed data transfer
[DE93-003804] 08 p2434 N93-22074
Demonstration plan for real time receiving and processing of flight data from the space transportation system
[NASA-TM-107725] 08 p2152 N93-22468
Engineering data integration: Problems and solutions
[PNR-90999] 08 p2525 N93-23370
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
RAID-2: Design and implementation of a large scale disk array controller
[NASA-CR-192911] 09 p2806 N93-25233
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
A design and realization exercise of a mini message transfer system
[MEMO-INF-92-51] 10 p3095 N93-27386
The impact of communication style on machine resource usage for the iWarp parallel processor
[AD-A262425] 10 p3107 N93-27657
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
An application protocol for CAD to CAD transfer of electronic information
[AD-A264554] 11 p3533 N93-30383
High-speed data duplication/data distribution: An adjunct to the mass storage equation
11 p3619 N93-30459
The modern high rate digital cassette recorder
11 p3435 N93-30468
Mass optical storage-tape (MOST)
11 p3621 N93-30471
Scheduling data transfers in parallel computers and communications systems 12 p3836 N93-31132

DATA TRANSMISSION
NT ALOHA SYSTEM
NT CODE DIVISION MULTIPLE ACCESS
NT FREQUENCY DIVISION MULTIPLE ACCESS
NT MULTIPLE ACCESS
NT PACKET TRANSMISSION
NT SINGLE CHANNEL PER CARRIER TRANSMISSION

Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1
[DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2
[DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
An optical fiber multi-terminal data bus system for aircraft
[NAL-TR-1125] 02 p0209 N93-12370
Computer modeling of tactical high frequency antennas
[AD-A255176] 02 p0286 N93-12377
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
The protection of the Facsimile (FAX) machine against the insider threat
[DE92-019424] 03 p0565 N93-13506
Engineering data transfer test with EDMICS using MIL-R-28002 (Raster)
[DE92-019808] 03 p0738 N93-13619
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255984] 04 p0981 N93-14407
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
Storage needs in future supercomputer environments
04 p1003 N93-14780
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1006 N93-15044
EDI planning and implementation guide
[AD-A255737] 04 p1007 N93-15050
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
An overview of MANIFOLD and its implementation
[CWI-CS-R9142] 05 p1236 N93-16365
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1662 N93-18335
Advanced vector quantization techniques
06 p1648 N93-18505
Implementation of inheritance by means of relations
[INRIA-RR-1417] 06 p1621 N93-18513
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
The use of subcarriers in future DSN missions
06 p1507 N93-18915
A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922
High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022
An image compression technique for use on token ring networks 07 p1881 N93-20176
Research on data relay and tracking satellite systems
07 p1790 N93-20418
Research on data handling technology
07 p1795 N93-20448
Redesigning the window protocol: The block acknowledgement revisited
[RUU-CS-92-04] 07 p2039 N93-21170
Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
An application protocol for CAD to CAD transfer of electronic information 08 p2530 N93-22154
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177
Fully automatic transmission of information via HF and comparison to satellite transmission
08 p2275 N93-23516
Communications techniques supporting the data management 08 p2276 N93-23543
Fast image decompression for telebrowsing of images
08 p2431 N93-24549
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677
CAD data exchange development
[DE93-008085] 09 p2809 N93-25307
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Admission control in integrated voice/data multihop radio networks
[AD-A261055] 09 p2680 N93-26227
Information transmission using CHAOS
[AD-A261519] 09 p2883 N93-26377
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655
Privatization of data communication services by domestic satellite in Thailand 10 p3025 N93-26664
Real time process algebra with prefixed integration
[CWI-CS-R9219] 10 p3114 N93-27362
Specification of MANIFOLD, version 1.0
[CWI-CS-R9220] 10 p3095 N93-27388
Asynchronous communication in process algebra (extended abstract)
[CWI-CS-R9206] 10 p3098 N93-27551
Mars exploration mission 10 p2953 N93-28045
Polarimetric multispectral imaging technology
11 p3434 N93-28774
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490
Galileo post-Gaspra cruise and Earth-2 encounter
11 p3385 N93-29597
DSN support of Mars Observer
11 p3385 N93-29598
Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier
11 p3386 N93-29599
Performance analysis of communication protocols using D-timed Petri net 11 p3356 N93-30227
Automatic synthesis of protocol specifications
11 p3356 N93-30228
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
RAID 7 disk array 11 p3537 N93-30462
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
Testing of an experimental system for image reconnaissance 12 p3677 N93-31283
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

DATA VISUALIZATION
U SCIENTIFIC VISUALIZATION

DATING
U CHRONOLOGY
U TIME MEASUREMENT

DAYGLOW
A study of mid-latitude 5577 A OI dayglow emissions
04 p0913 N93-14199
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics
09 p2896 N93-25285

DAYTIME
NOAA Workshop on Climate Scale Operational Precipitation and Water Vapor Products
[NOAA-TR-NESDIS-62] 03 p0662 N93-13066
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies
05 p1214 N93-16507
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078

DBS (SATELLITES)
U DIRECT BROADCAST SATELLITES

DC (CURRENT)
U DIRECT CURRENT

DE BROGLIE WAVELENGTHS
Free Maxwell equations, Dirac equation, and non-dispersive De Broglie wave packets
[DE93-609848] 12 p3832 N93-31908
Proposal for an absolute, atomic definition of mass
[DE93-609842] 12 p3815 N93-32410

DE LAVAL NOZZLES
U CONVERGENT-DIVERGENT NOZZLES

DEACTIVATION
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914

DEAD RECKONING
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990
DEADWEIGHT
U STATIC LOADS
DEAFNESS
U AUDITORY DEFECTS
DEATH
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
World commercial aircraft accidents
[DE93-010892] 11 p3243 N93-28571
DEBONDING (MATERIALS)
Interface fracture in composite materials
06 p1560 N93-19381
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Debonding/Delamination of Composites
[AGARD-CP-530] 07 p1840 N93-21507
Predicting failure by debonding/delamination
07 p1841 N93-21512
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites
07 p1843 N93-21525
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites
[DE93-004464] 08 p2209 N93-22973
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
DEBRIS
NT SPACE DEBRIS
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46
[NASA-TM-107552] 02 p0223 N93-12151
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters
[NASA-TM-108375] 02 p0375 N93-12174
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
The initial flight anomalies of Skylab 1
09 p2619 N93-24692
Model for transport of floating debris in the ocean
[PB93-172997] 09 p2768 N93-26559
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56
[NASA-TM-107560] 10 p2956 N93-27538
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
DEBUGGING
U CHECKOUT
DEBYE TEMPERATURE
U SPECIFIC HEAT
DECAMETRIC WAVES
An algorithm to quantify the performance of the JOVE program 05 p1254 N93-17306
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
DECARBONATION
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
DECAY
NT ALPHA DECAY
NT NEUTRON DECAY
NT NEUTRON EMISSION
NT PLASMA DECAY
NT RADIOACTIVE DECAY
NT SPACECRAFT GLOW
NT WEAK ENERGY INTERACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Recent developments in the theory of heavy-quark decays
[DE92-017598] 03 p0704 N93-13250
DECAY RATES
Phase mixing and surface wave decay in an inhomogeneous plasma
[IPPCZ-320] 03 p0715 N93-13006
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Measuring pion beta decay with high-energy pion beams
[DE93-007347] 10 p3132 N93-27521
DECELERATION
NT SPIN REDUCTION
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects
04 p1040 N93-14365
Measuring q(sub 0) using supernovae at z approximately 0.2
[DE92-041164] 05 p1363 N93-15918
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem
09 p2603 N93-24718
DECELERATORS
U BRAKES (FOR ARRESTING MOTION)
DECIDUOUS TREES
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
A microwave scattering model for layered vegetation
06 p1565 N93-18074
Scale dependence in the reflectance of deciduous woodland: Evidence from a helicopter-mounted spectroradiometer 09 p2752 N93-24865
DECISION ELEMENTS
U LOGICAL ELEMENTS
DECISION MAKING
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Probability forecasting: A guide for forecasters and staff weather officers
[AD-A254216] 01 p0126 N93-10264
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
Implementing system simulation of C3 systems using autonomous objects
[NASA-CR-190845] 02 p0283 N93-11716
Backward assembly planning with DFA analysis
[NASA-CASE-NPO-18817-1-CU]
02 p0278 N93-12202
Mathematical methods in operations research and computer science
[AD-A254782] 02 p0428 N93-12465
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191208] 03 p0734 N93-12680
Sensitivity analysis of the simultaneous proportionate change of inputs and outputs in data envelopment analysis
[AD-A254821] 03 p0683 N93-12730
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
Information-seeking behavior during the decision-making process: A case study
04 p1000 N93-14206
Information for management, planning, and decision-making in nonprofit organizations: Toward a comprehensive model 04 p1000 N93-14209
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Intelligent path prediction for vehicular travel
04 p0961 N93-14445
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
Workshop on Aeronautical Decision Making (ADM). Volume 2: Plenary Session With Presentations and Proposed Action Plan
[DOT/FAA/RD-92/14-VOL-2] 04 p0785 N93-15013
Does cockpit management training reduce aircrew error? 04 p0785 N93-15014
Cockpit decision making 04 p0786 N93-15015
How expert pilots think 04 p0786 N93-15017
Methodology for studying and training expertise
04 p0786 N93-15018
A cognitive model for training decision making in aircrews 04 p0786 N93-15020
Elements of a theory of natural decision making
04 p0786 N93-15021
Shared mental models and crew decision making
04 p0787 N93-15023
Measuring risk in single-engine and twin-engine helicopters 04 p0787 N93-15025
Proposed action plan to improve ADM effectiveness, part 3: Developing a new ADM paradigm on which to build advanced or expert decision making training
04 p0787 N93-15026
PEX: A reactive procedure based decision maker
[REPT-921-440-105] 04 p0999 N93-15118
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing
04 p0954 N93-15549
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
The formal use of expert judgments in environmental management
[DE92-019481] 05 p1199 N93-15852
Development and enhancement of a model of performance and decision making under stress in a real life setting
[AD-A255699] 05 p1226 N93-16111
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Cognitive and affective components of mental workload: Understanding the effects of each on human decision making behavior 05 p1226 N93-16783
Domain specific software design for decision aiding
05 p1249 N93-17517
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Data modelization for manufacturing planning and scheduling: Aggregation and disaggregation mechanisms
[LAAS-92263] 06 p1682 N93-17813
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
Development and enhancement of a mode of performance and decision making under stress in a real life setting
[AD-A257796] 06 p1598 N93-18363
CABINS: Case-based interactive scheduler
06 p1635 N93-18670

Experiments with a decision-theoretic scheduler
06 p1636 N93-18674
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
JIGSAW: Preference-directed, co-operative scheduling
06 p1639 N93-18689
Time management situation assessment (TMSA)
06 p1639 N93-18692
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
Aids to Navigation Service Force Mix 2000 Project. Volume 1: Development and application of an Aids to Navigation Service Force Mix decision support system
[AD-A259065] 06 p1433 N93-19344
A safety-based decision making architecture for autonomous systems
[NASA-CR-191864] 06 p1641 N93-19362
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach
06 p1588 N93-19411
Underlying causes of accidents: Casual networks
06 p1422 N93-19658
Information access: A research agenda
06 p1692 N93-19798
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Upside-down meta-interpretation of the model elimination theorem-proving procedure for deduction and abduction
[AD-A259436] 07 p2046 N93-20012
Correlates of creative problem solving
[AD-A258720] 07 p2085 N93-20369
Acquisition and production of skilled behavior in dynamic decision-making tasks
[NASA-CR-192361] 07 p2025 N93-20908
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Fuzzy set methods for object recognition in space applications
[NASA-CR-191986] 07 p2041 N93-21563
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Certain and possible rules for decision making using rough set theory extended to fuzzy sets
08 p2454 N93-22359
The ASLOTS concept: An interactive, adaptive decision support concept for Final Approach Spacing of Aircraft (FASA). FAA-NASA Joint University Program
08 p2105 N93-22563
Intelligent flight control systems
08 p2107 N93-22576
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Advanced team decision making: A developmental method
[AD-A259512] 08 p2520 N93-23466
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
How to help intelligent systems with different uncertainty representations cooperate with each other
[NASA-CR-192947] 09 p2818 N93-25196
Organizational politics, participation in decision-making, and job satisfaction
[DOT/FAA/AM-92/17] 09 p2796 N93-25203
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
Design of a cooperative problem-solving system for enroute flight planning: An empirical study of its use by airline dispatchers
[NASA-CR-192709] 09 p2585 N93-25330
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Knowledge-based decision support for Space Station assembly sequence planning
[NASA-CR-193048] 09 p2599 N93-26095
A hypertext framework for group support systems
[AD-A261731] 09 p2885 N93-26582
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
Extensions of choice behaviour
[MEMO-COSOR-92-23] 10 p3163 N93-27280
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing
11 p3501 N93-28853
A new class of mission support for combat air-crew
11 p3501 N93-28854
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
Robotics and artificial intelligence for hazardous environments
[DE93-008271] 11 p3541 N93-29047
MoCog1: A computer simulation of recognition-primed human decision making
[NASA-TM-103866] 11 p3542 N93-29386
Information technology: A force for organizational change
[AD-A261986] 11 p3615 N93-29439
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Estimations of expectedness and potential surprise in possibility theory 11 p3510 N93-29518
A model for amalgamation in group decision making
11 p3513 N93-29540
Fuzzy forecasting and decision making in short dynamic time series 11 p3513 N93-29541
Decision analysis with approximate probabilities
11 p3513 N93-29542
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A fuzzy set preference model for market share analysis 11 p3514 N93-29548
The cognitive bases for the design of a new class of fuzzy logic controllers: The clearness transformation fuzzy logic controller 11 p3515 N93-29554
Determining rules for closing customer service centers: A public utility company's fuzzy decision
11 p3516 N93-29561
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring
11 p3289 N93-29570
AHP version 5.1 user's manual
[DE93-007050] 11 p3532 N93-30034
Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU]
11 p3449 N93-30413
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty
11 p3246 N93-31005
Development of a case tool to support decision based software development
[NASA-CR-193289] 12 p3790 N93-31738
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring
12 p3835 N93-32132
Massively parallel support for a case-based planning system 12 p3797 N93-32135
Strategic management: Managing change by managing participation
[AD-A265796] 12 p3834 N93-32311

DECISION THEORY

NT STATISTICAL DECISION THEORY
A rule-based system for real-time analysis of control systems
[NASA-TM-104258] 02 p0277 N93-11619
Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936
Mathematical methods in operations research and computer science
[AD-A254782] 02 p0428 N93-12465
Wait-free consensus
[AD-A255978] 04 p0943 N93-14423
Probabilistic inference
[AD-A255471] 04 p0963 N93-14786
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
An improved classification tree analysis of high cost modules based upon an axiomatic definition of complexity 05 p1244 N93-17167
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
Decision paths in complex tasks
[NASA-CR-192121] 06 p1603 N93-18359
Optimality of a threshold policy on the M/M/1 queue with repeated vacations
[INRIA-RR-1419] 06 p1632 N93-18515
Experiments with a decision-theoretic scheduler
06 p1636 N93-18674
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Goal-directed learning: A decision-theoretic model for deciding what to learn next 06 p1629 N93-19732
Denumerable constrained Markov decision problems and finite approximations
[INRIA-RR-1568] 07 p2058 N93-20867
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Permissive planning: A machine-learning approach to planning in complex real-world domains
[AD-A260019] 08 p2521 N93-24303
Adaptive decision support systems: Concepts, characterization, and an application
09 p2876 N93-25475
Real-time value-driven monitoring and repair
[AD-A260959] 09 p2811 N93-26221
Extensions of choice behaviour
[MEMO-COSOR-92-23] 10 p3163 N93-27280
A brief survey of zero-knowledge proofs
[CWI-CS-R9232] 10 p3101 N93-27996
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Resource limited reasoning: A study of literature in the context of model-based diagnosis
[MEMO-INF-92-38] 11 p3540 N93-28480
Asymptotic properties of constrained Markov decision processes
[INRIA-RR-1598] 11 p3553 N93-28508
Optimal control of the M/G/1 queue with repeated vacations of the server
[INRIA-RR-1637] 11 p3541 N93-28637
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
Determining rules for closing customer service centers: A public utility company's fuzzy decision
11 p3516 N93-29561
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Decision-theoretic control of EUVE telescope scheduling 12 p3835 N93-32134
Decision theory for computing variable and value ordering decisions for scheduling problems
12 p3835 N93-32137
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143

A decision-theoretic approach to the display of information for time-critical decisions: The Vista project
12 p3784 N93-32152

DECISIONS
Reflections on segmentation
[RR-873-I] 07 p2034 N93-20791

DECKS (FLOORS)
U FLOORS

DECLINATION
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149

DECODERS
NT VITERBI DECODERS
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
A joint source/channel coder design
07 p1881 N93-20177
Versatile Reed-Solomon decoders
[ISBN-0-315-64738-8] 08 p2274 N93-24626
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
Uncorrectable sequences and telecommand
11 p3385 N93-29596

DECODING
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
Self-dual (48,24;12) codes 06 p1505 N93-18905
More box codes 06 p1505 N93-18906
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094
Binary weight distributions of some Reed-Solomon codes 06 p1514 N93-19430
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
Error control techniques for satellite and space communications
[NASA-CR-192368] 07 p1884 N93-20613
Suboptimum decoding of block codes
[NASA-CR-192342] 08 p2437 N93-23099
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Soft decoding a self-dual (48, 24; 12) code
09 p2671 N93-24662
A (72, 36; 15) box code 09 p2671 N93-24663
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
A systolic-array structure for MTCM receivers
11 p3357 N93-30236
An error control protocol based on trellis coded modulations 11 p3358 N93-30237
Comparison of diversity combining, interleaving, and decoding techniques of a scintillated channel
11 p3362 N93-30266
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060

DECOMMUTATORS
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274

DECOMPOSITION
NT CRACKING (CHEMICAL ENGINEERING)
NT GLYCOLYSIS
NT HYDROGENOLYSIS
NT PHOTODECOMPOSITION
NT PHOTODISSOCIATION
NT PHOTOLYSIS
NT PROPELLANT DECOMPOSITION
NT PYROLYSIS
NT RADIOLYSIS
NT THERMAL DECOMPOSITION
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Selective carbon oxygen bond scission during reactions of oxygenates on single crystal catalysts
[DE92-018687] 02 p0247 N93-11439
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
Backward assembly planning with DFA analysis
[NASA-CASE-NPO-18817-1-CU]
02 p0278 N93-12202
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Computed potential energy surfaces for chemical reactions
[NASA-CR-190741] 04 p0843 N93-15356
Matrix animation and polar decomposition
04 p0956 N93-15563
C60 interactions with surfaces, gaseous species and photons: An overview
[DE92-040738] 04 p0978 N93-15654
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Domain decomposition as a mechanism for using asymptotic methods
[DE92-040759] 05 p1263 N93-16201
An intelligent decomposition approach for efficient design of non-hierarchic systems
05 p1254 N93-16762
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
One and two dimensional discrete wavelet transforms
[AD-A257981] 06 p1502 N93-18241
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Theory and implementation of wavelet analyses in rational resolution decompositions
[AD-A259040] 06 p1509 N93-19000
Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Proximal techniques for convex programming
[RR-877-M] 07 p2039 N93-21167
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Direct catalytic decomposition of nitric oxide
[DE93-008107] 08 p2389 N93-24515
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25383
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Mechanisms of decomposition and oxidation of borane compounds
[AD-A261137] 09 p2645 N93-26045
Model reduction for Space Station Freedom
09 p2620 N93-26081
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Methods of optimization under uncertainty
[AD-A261487] 09 p2873 N93-26342
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
[DE93-006737] 09 p2653 N93-26500
Recovery and separation of precious metals from space 10 p3001 N93-26686
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Verification of parallel systems via decomposition
[CWI-CS-R9203] 10 p3107 N93-27539
Some inverse problems for Jacobi and arrow matrices
[AD-A262336] 10 p3118 N93-27644
Extended task space control for robotic manipulators
[NASA-CASE-NPO-18902-1-CU]
10 p3052 N93-28129
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials
11 p3343 N93-30063
Thermal oxidation of HCN by NO2 in shock waves
11 p3318 N93-30064
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
QR decomposition based least squares lattice algorithm 11 p3358 N93-30239
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087
Chemical dehalogenation treatment: Base-Catalyzed Decomposition Process (BCDP)
[PB93-182939] 12 p3751 N93-31432
Lie bialgebras with triangular decomposition
[DE93-604232] 12 p3808 N93-31820

DECOMPRESSION
U PRESSURE REDUCTION

DECOMPRESSION SICKNESS
Complement proteins and decompression sickness susceptibility
[AD-A254448] 03 p0674 N93-12905
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
The Proceedings of the Hypobaric Decompression Sickness Workshop
[AD-A257612] 06 p1597 N93-18362
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Statistically based decompression tables. 7: Selection and treatment of primary air and N2O2 data
[AD-A259090] 07 p2023 N93-20587
Hyperbaric treatment 12 p3689 N93-31454

DECONTAMINATION
Characterization of site geochemistry in support of environmental restoration
[DE92-017512] 03 p0641 N93-12685
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770

DECOUPLING
NT SPIN DECOUPLING
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Research and development at ORNL/CESAR towards cooperating robotic systems for hazardous environments
02 p0331 N93-11979
Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22084
Disturbance decoupling by measurement feedback for structured systems: A graph theoretical approach
[REPT-92-53] 12 p3805 N93-31487

Graph theoretic methods for the computation of disturbance decoupling feedback matrices for structured systems
[REPT-92-54] 12 p3789 N93-31614
Nonlinear disturbance decoupling and linearization: A partial interpretation of integral feedback
[MEMO-1093] 12 p3801 N93-32400

DECOYS
Simulator, Tactical Use, Flare (STUF) project report
[AD-A254890] 02 p0276 N93-12281
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405

DECREMENTING
U REDUCTION

DEDUCTION
A proof of the Church-Rosser theorem and its representation in a logical framework
[AD-A256574] 04 p0942 N93-14268
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
A Gentzen-system for CTL
[RR-865-I-IMAG-122-LIFIA] 07 p2051 N93-20803
Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915
Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929
Equivalence of a number of deduction systems
[REPT-92-34] 10 p3104 N93-28316
The position test: A computer generated process for acquisition of inductive logic thinking
12 p3775 N93-31232
Weak equivalence: Theory and applications
[CT-92-02] 12 p3788 N93-31529

DEEP SPACE
NT INTERPLANETARY SPACE
NT INTERSTELLAR SPACE
ROSAT deep surveys 05 p1362 N93-17145
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770

DEEP SPACE NETWORK
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception
06 p1458 N93-18910
Demonstration of a joint US-Russian very long baseline interferometry tracking capability
06 p1458 N93-18911
Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers 06 p1506 N93-18912
The use of subcarriers in future DSN missions
06 p1507 N93-18915
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites
06 p1507 N93-18921
A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
A model to compare performance of space and ground network support of low-Earth orbiters
06 p1508 N93-18925
The Telecommunications and Data Acquisition Report
[NASA-CR-191228] 06 p1511 N93-19413
Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414
The goldstone real-time connected element interferometer 06 p1512 N93-19417
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422
DSS-13 beam waveguide antenna frequency stability
06 p1513 N93-19424
A model for the cost of doing a cost estimate
06 p1515 N93-19436
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
The Telecommunications and Data Acquisition Report
[NASA-CR-192887] 09 p2671 N93-24659
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661
Failure monitoring in dynamic systems: Model construction without fault training data
09 p2672 N93-24666
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
Management of space networks
09 p2672 N93-24671
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
Applications of inertial-sensor high-inheritance instruments to DSN precision antenna pointing
09 p2621 N93-26112
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model
09 p2678 N93-26119
An OSI architecture for the Deep Space Network
09 p2679 N93-26121
Sequential design of a linear quadratic controller for the Deep Space Network antennas
09 p2679 N93-26123
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Deep Space Network information system architecture study 09 p2679 N93-26126
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites 09 p2679 N93-26127
DSN observations of Titan 09 p2680 N93-26129
The Telecommunications and Data Acquisition Report
[NASA-CR-193144] 11 p3384 N93-29586
The effect of clock, media, and station location errors on Doppler measurement accuracy
11 p3246 N93-29588
Gravity referenced elevation encoder development
11 p3385 N93-29592
Maximum and minimum return losses from a passive two-port network terminated with a mismatched load
11 p3385 N93-29594
Galileo post-Gaspra cruise and Earth-2 encounter
11 p3385 N93-29597
DSN support of Mars Observer
11 p3385 N93-29598
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
The flight performance of the Galileo orbiter USO
11 p3386 N93-29603
Process control and recovery in the Link Monitor and Control Operator Assistant 12 p3719 N93-32145

DEEP WATER
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
Wave information studies of US coastlines: Verification of Pacific Ocean deepwater hindcast wave information
[AD-A262714] 10 p3081 N93-28396
ELF propagation in deep and shallow sea water
11 p3397 N93-30739

DEFECTS
NT AUDITORY DEFECTS
NT CRYSTAL DEFECTS
NT CRYSTAL DISLOCATIONS
NT EDGE DISLOCATIONS
NT FRENKEL DEFECTS
NT INCLUSIONS
NT POINT DEFECTS
NT SCREW DISLOCATIONS
NT SURFACE DEFECTS
NT VACANCIES (CRYSTAL DEFECTS)
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
A comparison of the achieved and predicted defect rates of some continuously operating electronic equipment
[RTP/909/10-ISSUE-2] 02 p0288 N93-11364
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB]
02 p0333 N93-12204
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
Electronic structure of microclusters and defect complexes
[AD-A254807] 03 p0720 N93-12750
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Diagnostic of material defects found in pipelines made of 13 HMF steel on the basis of acoustic emission
03 p0623 N93-12989
Finite element study of ultrasonic imaging
03 p0700 N93-13774
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures
03 p0631 N93-13947
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
Initial imperfection survey on a cylindrical shell at the Ultra-Centrifuge Nederland n.v.
[LR-682] 05 p1184 N93-16211
Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU]
05 p1182 N93-17048
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
Charge-induced structural relaxation in amorphous semiconductors
[MBB-Z-0265-89-PUB] 05 p1151 N93-17641
International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700
The 16th International Conference on Defects in Semiconductors
[AD-A258035] 05 p1328 N93-17754
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Circular dislocation loops and their application to the micromechanics of fibrous composites
06 p1480 N93-19043
Characterization and defect analysis of high temperature aluminum-based metal matrix composites
06 p1480 N93-19060
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Peak stresses in adhesive step lap joints with voids
07 p1932 N93-20656
Electron optical defect inspection in x ray lithography masks
[ETN-93-92570] 07 p1919 N93-20884
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning
07 p1843 N93-21528
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529

Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 1
[AD-A263813] 11 p3335 N93-29886
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
Optimal design and imperfection sensitivity of nonlinear shell structures
[FFA-TN-1992-30] 12 p3739 N93-31123
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982
Remote surface inspection system
12 p3739 N93-32099

DEFENDER PROJECT
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998

DEFENSE COMMUNICATIONS SYSTEM (DCS)
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206

DEFENSE INDUSTRY
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
Aerospace and defence-related industries statistical survey report, 1991
[CTN-92-60514] 01 p0002 N93-10652
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
The use of International Standards Organization ISO 9000 quality assurance standards in place of military standards
[AD-A256203] 04 p0894 N93-14500
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
The German national industry as a source of logistic support for armed forces facing new requirements
[MBB-UL-0002-91-PUB] 07 p1877 N93-21463
Activities report of the Netherlands Organization for Applied Scientific Research (TNO)
[ETN-93-93339] 10 p3226 N93-28317

DEFENSE METEOROLOGICAL SATELLITE PROGRAM
U DMSP SATELLITES

DEFENSE PROGRAM
Raster graphics validation
[PB92-196070] 01 p0137 N93-10441
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Cost estimation of software development and the implications for the program manager
[AD-A255167] 02 p0480 N93-12472
Principles of information resource management: A foundation for the future
[AD-A254447] 03 p0733 N93-12597
An examination of the Total Quality Management (TQM) concept given current Federal/DoD competition initiatives
[AD-A255556] 03 p0620 N93-13876
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Air Force Office of Scientific Research
[AD-A255361] 04 p1051 N93-14673
Air Force Office of Scientific Research
[AD-A255370] 04 p1051 N93-14674
SIDR Relative Weighted Product (RWP) assignment process
[AD-A255801] 04 p0946 N93-15068
Strategic defense initiative: Estimates of brilliant pebbles' effectiveness are based on many unproven assumptions
[AD-A256810] 05 p1277 N93-15679
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
Department of Defense Directive (DODD) 8000.1 defense Information Management (IM) program
[AD-A256988] 05 p1353 N93-16259
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889
Re-engineering software systems in the Department of Defense using integrated computer aided software engineering tools
[AD-A257500] 06 p1617 N93-17905
Report to Congress on the strategic defense initiative, 1992
[AD-A258449] 06 p1650 N93-17992
An evolving joint space campaign concept and the Army's role
[AD-A258112] 06 p1453 N93-18022
Applying commercial style acquisition practices to the procurement of commercially available aircraft
[AD-A258143] 06 p1683 N93-18087
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Software measurement for DoD systems: Recommendations for initial core measures
[AD-A258305] 06 p1619 N93-18250
Data management: Implementation and lessons learned from Department of the Army data management program
[AD-A257858] 06 p1686 N93-18307
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain
06 p1639 N93-18694
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Test and evaluation challenges in the nineties
06 p1442 N93-19902
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
Proceedings: DOD Software Technology Strategy public forum 08 p2437 N93-23092
Military space capabilities and requirements
08 p2154 N93-23161
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Special tooling disposition for aircraft entering post production support
[AD-A261614] 09 p2573 N93-26168
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
AFOSR technical report summaries
[AD-A261551] 09 p2918 N93-26380
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 8: Phillips Laboratory
[AD-A261972] 10 p3163 N93-27642
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
Midcourse Space Experiment (MSX) environmental assessment
[AD-A262460] 10 p3127 N93-27830
Summer research program (1992). Graduate student
[AD-A261971] 10 p3163 N93-28223
Value of space defenses
[DE93-003813] 10 p3127 N93-28295
Activities report of the Netherlands Organization for Applied Scientific Research (TNO)
[ETN-93-93339] 10 p3226 N93-28317
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Workshop on Advanced Technologies for Planetary Instruments, part 1
[NASA-CR-193015] 11 p3639 N93-28764
Defense conversion: Redirecting research and development
[OTA-ITE-552] 11 p3610 N93-29649
The future role of the Director of Information Management (DOIM) organization within the DOD corporate information management initiative
[AD-A264118] 11 p3616 N93-30193
Technology transfer within the government
11 p3627 N93-30709
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841

Research, Development, Test and Evaluation (R, D, T, and E) programs (R-1), Department of Defense budget for fiscal year 1994
[PB93-169878] 11 p3611 N93-30936
The Army and military in space
[AD-A264581] 12 p3812 N93-32013
Air Force construction automation/robotics 12 p3715 N93-32110
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178

DEFINITION
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
From asteroid clusters to families: A proposal for a new nomenclature 06 p1705 N93-19151
Defining contract terms
[AD-A259088] 07 p2085 N93-20394
Efficient implementation of a functional language for the definition of practicable, denotational semantics
[ETN-93-93413] 07 p2055 N93-21176
Equivalence of a number of deduction systems
[REPT-92-34] 10 p3104 N93-28316

DEFLAGRATION
Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
Characterization of deflagrating munitions by rotating prism high speed photography
[MRL-TR-91-43] 02 p0311 N93-11648
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077
Energetic material response to abnormal environments 11 p3350 N93-30095

DEFLATING
U INFLATABLE STRUCTURES
U PRESSURE REDUCTION

DEFLECTION
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions 01 p0066 N93-10575
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
Method and apparatus for deflection measurements using eddy current effects
[NASA-CASE-GSC-13506-1] 09 p2710 N93-26103
A nanoradian differential VLBI tracking demonstration 09 p2677 N93-26108
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
A new tubeless nanosecond streak camera based on optical deflection and direct CCD imaging
[DE93-011893] 11 p3433 N93-30491
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

DEFLECTORS
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU] 03 p0605 N93-13418
Acousto-optic devices and applications 03 p0712 N93-14100
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514

DEFOLIATION
Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846

DEFORESTATION
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
World Forest Watch: A global forest monitoring test 09 p2748 N93-24836
Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839
Advanced Earth Observing Satellite (ADEOS) 11 p3279 N93-29648
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057

DEFORMATION
NT AXIAL STRAIN
NT ELASTIC BENDING
NT ELASTIC BUCKLING
NT ELASTIC DEFORMATION
NT NUCLEAR DEFORMATION
NT PLASTIC DEFORMATION
NT STATIC DEFORMATION
NT TENSILE DEFORMATION
NT WAVE FRONT DEFORMATION
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Structural review of the Vredefort dome 01 p0108 N93-10127
Non-linear thermoelasticity of rubberlike solids 01 p0045 N93-10474
Integrated finite element model of composite materials 01 p0046 N93-10477
Status of dynamic fracture in brittle solids 01 p0049 N93-10493
A multilayered shell finite element 01 p0049 N93-10495
Linear and nonlinear analyses of thick composite circular plates using the finite element method 01 p0096 N93-10873
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Some consistency requirements on hardening-recovery evolution equations for welding, part 1
[DE92-015992] 02 p0329 N93-12220
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
Study of optical techniques for the Ames unitary wind tunnels. Part 4: Model deformation
[NASA-CR-190980] 02 p0219 N93-12349
Experiments, theory, and simulation on the evolution of fabric in granular materials
[AD-A254820] 03 p0545 N93-12729
RHALE: A MMALE shock physics code written in C++
[DE92-018271] 03 p0684 N93-12795
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
Acoustic radiation from a point excited infinite bilaminar plate 03 p0531 N93-13144
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
An investigation into thermomechanical fatigue of metal matrix composites 03 p0534 N93-13810
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
Global deformation on the surface of Venus 04 p1024 N93-14297
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472
Mechanics of composite materials for spacecraft
[AD-A255380] 04 p0831 N93-14550
Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
Structural study of thermohardening matrices: Deformation of composite matrices in relation to their molecular structure
[ONERA-RT-12/3521-M] 04 p0836 N93-15253
Damping
[LR-685] 05 p1184 N93-16214
Micro mechanical behavior of pavements 05 p1070 N93-16312
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
On formulations of path-following techniques for structural stability analysis
[LR-676] 05 p1186 N93-16346
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585

The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
On homogenization method and large deformations 07 p1845 N93-20634
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Improved techniques for thermomechanical testing in support of deformation modeling
[NASA-TM-105944] 08 p2323 N93-22555
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites
[DE93-004464] 08 p2209 N93-22973
Analysis of delamination related fracture processes in composites
[NASA-CR-192632] 08 p2209 N93-23073
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
Application of the boundary element method to finite elasticity 08 p2327 N93-23200
Moire interferometry at high temperatures 08 p2328 N93-23380
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems 08 p2349 N93-23546
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
High temperature deformation characteristics of discontinuous fiber reinforced composites
[DE93-004466] 08 p2214 N93-24047
Computation in mechanics of materials
[AD-A260060] 08 p2332 N93-24409
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
Dynamic deformations and analysis of a metal matrix composite 09 p2634 N93-25234
On existence of solutions and duality for a model of non-linear elastic plates with transverse shear deformations 09 p2726 N93-25437
An integrated finite-state model for rotor deformation, nonlinear airloads, inflow, and trim 09 p2588 N93-25538
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar 09 p2789 N93-25558
Damage and failure analysis on continuous fiber-reinforced polymer composites 09 p2637 N93-25716
Models of crack growth along polymer interfaces 09 p2728 N93-25750
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Repair, evaluation, maintenance, and rehabilitation research program. Continuous Deformation Monitoring System (CDMS)
[AD-A261833] 09 p2586 N93-26274
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
Deformations of the Lie algebras L1(H(2)) and L1(W(2))
[MEMO-1056] 11 p3547 N93-28667
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
Gravity referenced elevation encoder development 11 p3385 N93-29592
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Multiparametric quantum symplectic phase space
[DE93-604081] 12 p3802 N93-31162
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

DEFORMETERS
Moire interferometry at high temperatures 08 p2328 N93-23380

DEGASSING
NT DEOXYGENATION
A new approach for performing contamination control bakeouts in JPL thermal vacuum test chambers 04 p0823 N93-15618
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Chemical transport during formation and alteration of Martian impact and volcanic deposits 12 p3865 N93-31953

DEGENERATION
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818

DEGRADATION
NT BIODEGRADATION
NT THERMAL DEGRADATION
NT WAVE DEGRADATION
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
A preliminary investigation of the degradation and stabilisation of the energetic oxetane binder polyNIMMO
[RARDE-7/91] 02 p0273 N93-11376
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
VLSI reliability research
[AD-A254883] 02 p0295 N93-12360
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491
An experimental and theoretical study of degradation pathways for atmospheric halocarbons 03 p0646 N93-13624
A laser spectroscopy technique for evaluating in-situ degradation of composite materials
[AD-A256983] 05 p1097 N93-16255
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver 06 p1506 N93-18913
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
Special tests and destructive physical analyses as used by the Aerospace Corporation with nickel-hydrogen cells
[NASA-CR-192318] 07 p1888 N93-20162
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Identification of delamination by eigenfrequency degradation: An inverse problem 07 p1843 N93-21526
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques 08 p2355 N93-23578
Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412
Use of high-energy radiation for degradation of environmental pollutants
[PB93-149995] 08 p2390 N93-24636
Application of remote sensing data for the investigation of environmental degradation sites in East Germany 09 p2739 N93-24785
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
A study of the UV and VUV degradation of FEP 10 p3007 N93-28261
LDEF fiber-composite materials characterization 10 p2992 N93-28264
Study of the Staebler-Wronski degradation effect in a-Si:H based p-i-n solar cell
[NASA-CR-193076] 10 p3066 N93-28406
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
Degradation of electro-optic components aboard LDEF 11 p3582 N93-29689
Degradation of optical components in a space environment 11 p3582 N93-29692
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984

DEGREES OF FREEDOM
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks 02 p0330 N93-11967
Remote systems development 02 p0330 N93-11971
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768

Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Updating and localizing structural errors based on minimization of equation errors 05 p1077 N93-15719
Calibration of the Aronson 6-DOF robotic platform [NASA-CR-191856] 05 p1087 N93-16661
Input relegation control for gross motion of a kinematically redundant manipulator [DE93-002735] 05 p1178 N93-16920
Mobile manipulator configuration optimization using evolutionary programming [DE92-041307] 05 p1261 N93-17369
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom [NOTA-INTERNA-993] 06 p1653 N93-17944
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences [AD-A259371] 07 p1907 N93-21265
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
Six-Degree-of-Freedom Test Facility 07 p1817 N93-21443
A macro-micro robot for precise force applications 08 p2465 N93-22158
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231
The MSFC space station/space operations mechanism test bed 08 p2149 N93-22309
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
A nanoradian differential VLBI tracking demonstration 09 p2677 N93-26108
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings [NASA-CR-193130] 10 p2930 N93-27150
Quantum dynamics of X2BC van der Waals clusters [DE93-006416] 11 p3565 N93-28892
Ion motion effects on charged radiators [DE93-009257] 11 p3565 N93-29099
Input relegation control for gross motion of a kinematically redundant manipulator [DE93-005301] 11 p3446 N93-30210
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261

DEHUMIDIFICATION
Life cycle testing of desiccant core samples [PB93-127058] 08 p2220 N93-23098
High performance nanocomposite desiccation materials [PB93-127025] 08 p2223 N93-24210
Study of parameters affecting the performance of solar desiccant cooling systems [DE93-000088] 11 p3465 N93-30206

DEHYDRATION
Design of a high activity and selectivity alcohol catalyst [DE93-008101] 09 p2659 N93-25111
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise [NASA-TM-103942] 09 p2795 N93-26133
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684
High octane ethers from synthesis gas-derived alcohols [DE93-012470] 11 p3341 N93-28752

DEHYDROGENATION
Physics of hydrogen storage in metal-hydrides 04 p0854 N93-14630
Solid state, surface and catalytic studies of oxides [DE93-004640] 06 p1483 N93-18424
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies [DE93-002557] 06 p1484 N93-19485
Chemistry of bimetallic and alloy surfaces [DE93-006893] 08 p2230 N93-22981
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3 [DE93-004800] 08 p2220 N93-22989
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study [DE93-007541] 09 p2647 N93-26595
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition [DE93-609039] 12 p3708 N93-31177
New directions for the catalytic conversion of methane [PB93-188795] 12 p3702 N93-31435

DEICERS
Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel [NASA-TM-105968] 04 p0781 N93-14911
Surface roughness due to residual ice in the use of low power deicing systems [NASA-TM-105971] 04 p0782 N93-15338
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil [NASA-TM-105975] 04 p0787 N93-15345
FAA international conference on airplane ground deicing [AD-A263617] 11 p3244 N93-29286

DEICING
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft [AD-A258212] 03 p0497 N93-12816
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel [NASA-TM-105968] 04 p0781 N93-14911
Icing cloud simulator for use in helicopter engine induction system ice protection testing [DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Aircraft accident report: Takeoff stall in icing conditions. USAIR Flight 405 FOKKER F-28, N485US, LaGuardia Airport, Flushing, New York, 22 March 1992 [PB93-910402] 10 p2940 N93-27034
FAA international conference on airplane ground deicing [AD-A263617] 11 p3244 N93-29286

DEICING SYSTEMS
U DEICERS

DEIMOS
Phobos and Deimos are sources of meteoroids 06 p1700 N93-19116
Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163

DEIONIZATION
Comparative effects of drag-reducing polymers. An experimental report [AD-A254001] 02 p0268 N93-11793

DEKATRONS
U COUNTERS

DELAMINATING
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination 01 p0047 N93-10480
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy [FFA-TN-1992-04] 02 p0237 N93-11128
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading [NPL-DMM(A)-47] 02 p0266 N93-11397
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Method and apparatus for evaluating multilayer objects for imperfections [NASA-CASE-LAR-14581-1-SB] 02 p0333 N93-12204
Fracture toughness testing of polymer matrix composites [NASA-TP-3199] 02 p0243 N93-12302
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners 03 p0621 N93-12632
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures [NASA-CR-4472] 03 p0623 N93-12911
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials [NASA-TM-104222] 03 p0532 N93-13428
Effects of layer waviness on compression-loaded thermoplastic composite laminates 03 p0532 N93-13724
Finite elements for free edge delaminations and delaminated anisotropic beams 03 p0535 N93-13967
Delamination initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites 04 p0829 N93-14193
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles [AD-A255790] 04 p0898 N93-14419
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading [AD-A255974] 04 p0830 N93-14493
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
Characterizing longitudinal splitting and delamination fracture toughness of composites 04 p0831 N93-14607
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
Manufacturing and inspection of artificial delaminations in composite materials [NLR-TP-91085-U] 05 p1099 N93-17582
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads [AD-A259271] 06 p1481 N93-19839
Nondestructive evaluation of composites using infrared imaging [AD-A259412] 07 p1831 N93-20123
Delamination buckling in circular plates 07 p1931 N93-20653
Buckling of clamped angle-ply laminated plates under inplane loads 07 p1931 N93-20654
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings [ESA-TT-1282] 07 p1839 N93-21289
Debonding/Delamination of Composites [AGARD-CP-530] 07 p1840 N93-21507
Free edge delamination prevention in composite laminates 07 p1840 N93-21508
Delamination and fatigue of composite materials: A review 07 p1840 N93-21509
Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510
Predicting failure by debonding/delamination 07 p1841 N93-21512
GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations 07 p1841 N93-21513
Buckling and post-buckling behavior of a delamination in a carbon-epoxy laminated structure: Experiments and modelling 07 p1841 N93-21514
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Edge delamination of composite laminates 07 p1842 N93-21519
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Delamination development under fatigue loading 07 p1842 N93-21521
Identification of delamination by eigenfrequency degradation: An inverse problem 07 p1843 N93-21526
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Fracture at Cu/sapphire interfaces [DE93-003816] 07 p1857 N93-21779
Propagation of elastic waves through inhomogeneous, anisotropic materials [DE93-006247] 08 p2288 N93-22509
Analysis of delamination related fracture processes in composites [NASA-CR-192632] 08 p2209 N93-23073
Localized damage development in notched composite plates subjected to compressive loading [CTN-93-60663] 08 p2209 N93-23113
The effects of delamination on the vibrational characteristics of composite structural elements 08 p2210 N93-23202
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass [DE93-007504] 09 p2635 N93-25383
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532

Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill
09 p2659 N93-25585
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
Low-velocity impact of composite sandwich plate
09 p2637 N93-25695
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
Factors influencing the interlaminar fracture toughness and its evaluation in composites
[FFA-TN-1991-34] 11 p3451 N93-29076
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite
[AD-A262980] 11 p3298 N93-29425
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Progressive failure methodologies for predicting residual strength and life of laminated composites
11 p3307 N93-30866
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982

DELAY
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
The goldstone real-time connected element interferometer 06 p1512 N93-19417
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256

DELAY CIRCUITS
Variable phase sine wave generator for active phased arrays
[AD-D015558] 07 p1888 N93-20028
Variable pulse rate circuit
[AD-D015675] 09 p2691 N93-26233

DELAY LINES
Design and evaluation of a quasi-active delay-line limiter/filter RF protection device
[AD-A254179] 01 p0071 N93-10255
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers
01 p0178 N93-10948
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290
Arm length matching in 10 m delay-line interferometer
[ISAS-TN-649] 03 p0596 N93-12639
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Variable wide band fiber optic delay line
[AD-D015539] 06 p1662 N93-18318
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Acoustic charge transport technology investigation for advanced development transponder
11 p3386 N93-29602

DELINEATION
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676

DELIVERY
NT PAYLOAD DELIVERY (STS)
NT WEAPONS DELIVERY
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035

DELPHI METHOD (FORECASTING)
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542

DELTA FUNCTION
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065

DELTA LAUNCH VEHICLE
GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168

DELTA MODULATION
A new multiplier-free structure for DFT based on delta modulation
[AD-A255927] 04 p0861 N93-15106

DELTA WINGS
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
An experimental and computational investigation of slender wings undergoing wing rock
03 p0505 N93-13915
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions
03 p0496 N93-13929
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
Experimental and numerical investigation of vortex flow over a 76/60-deg double-delta wing
[LR-680] 05 p1054 N93-16210
Comparison of solution of various Euler solvers and one Navier-Stokes solver for the flow about a sharp-edged cropped delta wing
[NLR-TP-90340-U] 05 p1157 N93-16411
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
Algorithm development with applications to aerodynamics and aeroelasticity
06 p1529 N93-18566
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Asymptotic analysis of: 1: Wave propagation in dispersive optical media with quadratic nonlinearity. 2: A hypersonic wing with three-dimensional self-similarity
08 p2112 N93-23594
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics
08 p2113 N93-24136
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings
09 p2574 N93-24772
The transient development of vortices over delta wings 09 p2576 N93-25269
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Leading edge vortices in a chordwise periodic flow
10 p2927 N93-27218
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence
10 p2927 N93-27220
Prediction of vortex breakdown on a delta wing
10 p2936 N93-27459
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733

DELTAS
Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834

DEMAGNETIZATION
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689

DEMAND (ECONOMICS)
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
Future directions: Integrated resource planning
[DE92-040867] 05 p1197 N93-17208
Description of the global petroleum supply and demand outlook updated for the 1993 edition of the GRI baseline projection of US energy supply and demand, December 1992
[PB93-165744] 10 p3008 N93-26633
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634

DEMINERALIZING
NT BONE DEMINERALIZATION

DEMODULATION
The tomographic formulation of spotlight mode synthetic aperture radar extended to three dimensional targets
[DE92-013666] 02 p0280 N93-11234
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207
Demodulation processes in auditory perception
[AD-A255748] 04 p0935 N93-15053
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537

DEMODULATORS
NT MODEMS
NT PHASE DEMODULATORS
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24867
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014

DEMOGRAPHY
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
Density equalizing map projections: A new algorithm
[DE92-017088] 02 p0413 N93-12110
A study regarding information-seeking behavior, valuation of information including perceptions of information attributes, and associated correlates pertaining to information usage 03 p0740 N93-14088
Aviation accidents, incidents, and violations: Psychological predictors among US pilots
04 p0783 N93-14693
Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Effect of personal and situational variables on noise annoyance: With special reference to implications for en route noise
[NASA-CR-189676] 07 p2060 N93-21317
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834

DEMONSTRATION
U PROVING
DEMULTIPLEXING
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
DENATURATION (BIOPOLYMERS)
U BIOPOLYMER DENATURATION
DENDRITIC CRYSTALS
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
On the drag of model dendrite fragments at low Reynolds number
[NASA-TM-105916] 07 p1855 N93-19974
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495
Computation of complex solidification morphologies using a phase-field model
[PB93-156743] 09 p2869 N93-26547
DENDRITIC DRAINAGE
U DRAINAGE PATTERNS
DENMARK
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
DENSE PLASMAS
NT PLASMA FOCUS
NT STRONGLY COUPLED PLASMAS
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
Contributions to plasma focus physics since 1970 from the Institute of Plasma Research, Stuttgart (Fed. Republic of Germany)
[IPF-91-4] 02 p0450 N93-11201
Bremsstrahlung absorption in plasmas 02 p0321 N93-12047
Atomic structure and spectral perturbations in dense and hot plasmas 02 p0321 N93-12049
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
CRRES: The combined release and radiation effects satellite program directory
[NASA-CR-184504] 05 p1076 N93-15713
Dense plasma focus powered by flux compression generators
[DE93-003781] 07 p2076 N93-21837
X ray absorption spectroscopy of dense, shock compressed, laser plasma 08 p2496 N93-23497
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289
Momentum transport through the chromosphere 12 p3852 N93-31677
DENSIFICATION
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A253660] 01 p0041 N93-10779
Laser densification and doping of sol-gel glasses
[AD-A254566] 03 p0604 N93-12644
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Densification of ceramics by gas overpressure sintering
[MTL-TR-92-45] 09 p2657 N93-26432
Lunar regolith densification 11 p3276 N93-29115
Lunar regolith penetrators and cutters 11 p3276 N93-29117
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774
DENSIMETERS
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
DENSITY (MASS/VOLUME)
NT ATMOSPHERIC DENSITY
NT GAS DENSITY
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
DENSITY (NUMBER/VOLUME)
NT CARRIER DENSITY (SOLID STATE)
NT ELECTRON DENSITY (CONCENTRATION)
NT ELECTRON DENSITY PROFILES
NT ELECTRON DISTRIBUTION
NT ION DENSITY (CONCENTRATION)
NT IONOSPHERIC ELECTRON DENSITY
NT IONOSPHERIC ION DENSITY
NT MAGNETOSPHERIC ELECTRON DENSITY
NT MAGNETOSPHERIC ION DENSITY
NT METEOROID CONCENTRATION
NT PACKING DENSITY
NT PARTICLE DENSITY (CONCENTRATION)
NT PLASMA DENSITY
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
The structure of the nearby universe traced by theIRAS galaxies
[NASA-CR-192809] 09 p2889 N93-25331
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
DENSITY (RATE/AREA)
U FLUX DENSITY
DENSITY DISTRIBUTION
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813
Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
Gapwise density distributions in injection-moulded polymethylmethacrylate 02 p0270 N93-11990
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies 02 p0320 N93-12044
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Spatial and temporal variations in the column density distribution of comet Halley's CN coma 06 p1717 N93-19238
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile 06 p1517 N93-19579
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Galaxy tracers in N-body simulations 10 p3176 N93-26732
On the evolution of Lyman alpha clouds based upon the Minihalo model 10 p3181 N93-26765
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
A boson field stochastic calculus and quantum filtering in Fock space
[SSCL-PREPRINT-723] 10 p3156 N93-28096
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Three-neutrino oscillations in matter and topological phases
[DE93-606386] 12 p3813 N93-31290
Modelling the large scale structure of the solar corona 12 p3870 N93-31362
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366
Models of coronal streamers at meter-decameter wavelengths 12 p3872 N93-31374
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
DENSITY MEASUREMENT
NT PHOTON ABSORPTIOMETRY
NT X RAY DENSITY MEASUREMENT
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
Overview of recent diagnostic measurements at the USA MHD facilities
[DE92-015365] 02 p0454 N93-12087
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Zero-gravity quantity gaging system
[NASA-CR-185602] 03 p0556 N93-12699
Acoustic device and method for measuring gas densities
[NASA-CASE-NPO-18155-1-CU] 03 p0700 N93-13421
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel 03 p0602 N93-13681
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering 03 p0602 N93-13684
A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
Dry immunochemical sensor for the detection of PETN vapor 07 p1776 N93-21930
Characterization and durability testing of plasma-sprayed zirconia-yttria and hafnia-yttria thermal barrier coatings. Part 1: Effect of spray parameters on the performance of several lots of partially stabilized zirconia-yttria powder
[NASA-TP-3295] 08 p2227 N93-22556
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry
[DE93-003741] 08 p2220 N93-23051
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093

DENSITY WAVE MODEL
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
Density wave triggered star formation in grand design spirals 10 p3190 N93-26820
DEOXYGENATION
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
DEOXYRIBONUCLEIC ACID
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Measuring the metastatic potential of cancer cells 09 p2794 N93-25566
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035
Genetic algorithms for DNA sequence assembly
[DE93-012708] 12 p3792 N93-32299
DEPENDENCE
NT SPATIAL DEPENDENCIES
NT TEMPERATURE DEPENDENCE
NT TIME DEPENDENCE
DEPENDENT VARIABLES
A surface integral approach to the motion planning of nonholonomic systems
[AD-A254844] 02 p0329 N93-12434
C-integrable nonlinear partial differential equations in N + 1 dimensions
[PREPRINT-833] 05 p1269 N93-16955
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
DEPLETION
NT OZONE DEPLETION
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
DEPLOYMENT
A new deployable mast 01 p0014 N93-10511
Tether deployment monitoring system, phase 2
[NASA-CR-184098] 03 p0522 N93-13425
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
On-orbit deployment anamolies: What can be done? 04 p0821 N93-15603
Offloading techniques for large deployable space structures 04 p0821 N93-15605
Orbital manoeuvre effects on large flexible antennae 05 p1078 N93-15729
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760
TELECOM 2 deployable reflectors 05 p1082 N93-15761
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
Dynamic deployment analysis of a mesh antenna reflector 05 p1083 N93-15770
The numerical simulation of the inflation process of space rigidized antenna structures 05 p1083 N93-15771
Dynamic of large reflectors 05 p1084 N93-15773
Space shuttle solid rocket booster main parachute damage reduction team report
[NASA-TM-4437] 06 p1455 N93-18067
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
An evolutionary construction facility for Space Station Freedom 10 p2971 N93-27839
DEPOLYMERIZATION
Bonding in simple phosphate glass
[DE92-019437] 03 p0550 N93-12917
DEPOSITION
NT ANODIZING
NT ELECTRODEPOSITION
NT ELECTROPLATING
NT LASER DEPOSITION
NT METALORGANIC CHEMICAL VAPOR DEPOSITION
NT PULSED LASER DEPOSITION
NT VACUUM DEPOSITION
NT VAPOR DEPOSITION
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Ion beams as a means of deposition and in-situ characterization of thin films and thin film layered structures
[DE92-016397] 02 p0469 N93-12310
High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
Integrated filter and detector array for spectral imaging
[NASA-CASE-NPO-18317-1-CU] 03 p0709 N93-13419
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition 03 p0726 N93-13904
Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000
Progress report on conductive paints, 3 August - 30 September 1992
[DE93-001353] 06 p1494 N93-18530
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Studies of ozone deposition 07 p1989 N93-20166
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936
Summary report for the National Atmospheric Deposition Program National Trends Network (NADP/NTN) site visitation program
[PB92-219823] 07 p1991 N93-21494
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Plasma technology 08 p2496 N93-23263
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Low-temperature deposition of ZrC thin films from a single source precursor
[DE93-007333] 08 p2514 N93-24518
A study of mass size distributions and particle deposition velocities in ambient air 09 p2763 N93-25263
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Theoretical studies of surface reactions on metals and electronic materials
[DE93-009761] 09 p2650 N93-25502
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams 09 p2658 N93-25564
Erosional and depositional history of central Chryse Planitia
[NASA-CR-193068] 10 p3210 N93-27497
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201
DEPOSITS
NT CRYODEPOSITS
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
Sources and transport of silicone NVR 03 p0547 N93-12777
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Processing of metal and oxygen from lunar deposits 05 p1382 N93-16895
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment 05 p1386 N93-17240
Radon as a tracer for lunar volatiles 05 p1388 N93-17248
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits? 06 p1741 N93-19808
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion 06 p1743 N93-19819
Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Plasma treatment of glass surfaces
[AD-D015619] 08 p2241 N93-24229
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480
DEPRESSIONS (TOPOGRAPHY)
U STRUCTURAL BASINS
DEPRESSURIZATION
U PRESSURE REDUCTION
DEPRIVATION
NT SENSORY DEPRIVATION
NT SLEEP DEPRIVATION
DEPTH
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
A direct mathematical approach to optimize the age-depth relation of deep-sea sediment cores
[MPIM-77] 08 p2414 N93-23636
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741

DEPTH MEASUREMENT
Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Precision liquid-level measurement in deep tanks using a swept-RF resonant cavity
[DE92-017236] 03 p0597 N93-13267
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning 07 p1843 N93-21528
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
DEPTH PERCEPTION
U SPACE PERCEPTION
DERIVATION
Hexagonal and octagonal finite elements 01 p0050 N93-10500
Probability density functions in turbulent channel flow
[NASA-CR-4454] 02 p0202 N93-12399
Modal derivation rules
[ML-91-07] 05 p1274 N93-17784
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement 07 p1967 N93-20532
Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
DERIVATION CALCULUS
U DIFFERENTIAL CALCULUS
DESALINIZATION
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
DESCENT
NT PARACHUTE DESCENT
DESCENT TRAJECTORIES
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
DESCRIPTIVE GEOMETRY
Interactive solid geometry via partitioning trees 04 p0952 N93-15535
DESERTIFICATION
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques 08 p2355 N93-23578
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management 08 p2367 N93-23813
Contribution of remote sensing and GIS for rangeland management in the region of Ouarzazate (Morocco) 08 p2367 N93-23814
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
DESERTS
NT MOJAVE DESERT (CA)
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon 03 p0761 N93-13976
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
DESICCANTS
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
DESICCATION
U DRYING
DESIGN
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
NASA/USRA advanced design program activity, 1991-1992
[NASA-CR-192063] 05 p1135 N93-17778
DESIGN ANALYSIS
Plug nozzle propulsion system 01 p0017 N93-10013
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
LAM actuated propellant flow control device 01 p0018 N93-10017
A 26 kW arcjet system for on-orbit demonstration 01 p0021 N93-10031
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Introduction to radial turbine technology 01 p0077 N93-10051
Performance parameters and assessment 01 p0077 N93-10052
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
Non-dimensional conceptual design of radial inflow turbines. Part B: Application of empirical correlations 01 p0077 N93-10054
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056
An inverse design method for radial turbomachines 01 p0078 N93-10057
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
On the use of coupled finite element boundary element models in numerical design analysis 01 p0063 N93-10563
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
The solar ultraviolet network subtractive double monochromator 01 p0183 N93-10931
Interferometric imaging with the solar ultraviolet network 01 p0184 N93-10932
IFTS: The Imaging Fourier Transform Spectrometer 01 p0014 N93-10933
First results of an imaging FTS with a NICMOS camera 01 p0086 N93-10936
Detectors for the SIMURIS payload 01 p0014 N93-10937
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
The design and commissioning of an acoustic liner for propeller noise testing in the ARA transonic wind tunnel
[PNR-90880] 02 p0433 N93-11204
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
An iterative method for distributed database design 02 p0474 N93-11255
The technical background to standards for shackles
[NPL-DMM(A)-51] 02 p0325 N93-11325
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Advanced control for the design of STT missile autopilot
[REPT-921-320-102] 02 p0215 N93-11585
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
Design guide for the ergonomic aspects of helicopter crew seating
[ISVR-TR-209] 03 p0678 N93-13464
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
The environmental control and life-support system for a lunar base: What drives its design 03 p0680 N93-13991
Validation test of 125 Ah advanced design IPV nickel-hydrogen flight cells
[NASA-TM-105912] 03 p0527 N93-14079
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders 04 p0897 N93-14251
Multiobjective control/structure design optimization in the presence of practical constraints 04 p0898 N93-14446
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
Testability design rating system: Testability handbook, volume 1
[RL-TR-92-12-VOL-1] 04 p0867 N93-14699
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor 04 p0784 N93-14846
Experimental evaluation of candidate graphical microburst alert displays 04 p0785 N93-14853
A robotic planning system 04 p0810 N93-14949
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
High-brightness linac for the Advanced Free-Electron Laser Initiative at Los Alamos
[DE92-040213] 04 p0887 N93-15417
Spacecraft Structures and Mechanical Testing, volume 2
[ESA-SP-321-VOL-2] 05 p1076 N93-15718
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
ROMPS critical design review. Volume 2: Robot module design documentation
[NASA-CR-191614] 05 p1240 N93-16642
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673

Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Multidisciplinary design optimization using response surface analysis 05 p1065 N93-16796
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Design and analysis of seals for extended service life 05 p1181 N93-17283
Guide to object-oriented analysis and design 05 p1254 N93-17296
A process for prototyping onboard payload displays for Space Station Freedom 05 p1073 N93-17315
Design and analysis of the cryopump for the D3-D advanced divertor
[DE93-001357] 05 p1179 N93-17389
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509
Towards automation of user interface design 05 p1248 N93-17510
Domain specific software design for decision aiding 05 p1249 N93-17517
Knowledge modeling for software design 05 p1251 N93-17525
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Spacecraft design project: Low Earth orbit communications satellite
[NASA-CR-192038] 06 p1458 N93-17969
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Activities of the Boom and Chassis Group
[NASA-CR-192028] 06 p1544 N93-17975
Preliminary design of a radiator shading device for a lunar outpost
[NASA-CR-192016] 06 p1605 N93-18019
Helmet-mounted area-of-interest display
[AD-A258275] 06 p1605 N93-18029
Design requirements for force reflecting master controllers 06 p1605 N93-18035
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
A high fidelity simulation of optical detection systems, volume 2
[AD-A258498] 06 p1661 N93-18089
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
Optimum design of experiments in composite reliability
[AD-A257574] 06 p1477 N93-18178
RPH preliminary design, trend analysis and initial analysis of the NPS hummingbird
[AD-A257854] 06 p1439 N93-18304
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
The F-92 RELIANT: Air transport system design simulation
[NASA-CR-192050] 06 p1440 N93-18386
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Axial Flow Compressors, volume 1
[VKI-LS-1992-02-VOL-1] 06 p1530 N93-18721
Endwall flows and blading design for axial flow compressors 06 p1531 N93-18730
Performance of controlled diffusion blades 06 p1532 N93-18735
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 1
[NASA-CP-3177-PT-1] 06 p1461 N93-18818
Integrated design of the CSI evolutionary structure: A verification of the design methodology 06 p1463 N93-18830
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
A Darwinian approach to control-structure design 06 p1465 N93-18840
Design optimization of the JPL Phase B testbed 06 p1466 N93-18845
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931
An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors 06 p1467 N93-18932
Model reduction in integrated controls-structures design 06 p1468 N93-18935
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Design and evaluation of FDDI fiber optics networkfor Ethernets, VAX's and Ingraph work stations 06 p1664 N93-19408
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
Identification of propulsion systems
[NASA-TM-106007] 07 p1784 N93-20109
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm 07 p1823 N93-20167
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
Space Shuttle: Status of advanced solid rocket motor program. Report to the Chair, Subcommittee on Government Activities and Transportation, Committee on Government Operations, House of Representatives
[GAO/NSIAD-93-26] 07 p1829 N93-20293
Development of first generation aerospace NiMH cells 07 p1986 N93-20520
Design considerations for rechargeable lithium batteries 07 p1987 N93-20527
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
YIDOYU and its application to aircraft design
[AD-A259262] 07 p1781 N93-20605
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
Structural shape optimization of robotic links 07 p1918 N93-20717
The next revolution in computer-aided engineering 07 p1943 N93-20722
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728
Proceedings of the International Conference on CAD/CAM and AMT. Volume 2: CIRP Sessions on Tolerancing, for Function in a CAD/CAM Environment
[ITN-92-85128] 07 p2034 N93-20823
Optimization and sensitivity computations for the conception of internal ventilation system in the aircraft engine
[ETN-93-93375] 07 p1785 N93-20913
Formal verification of a microcoded VIPER microprocessor using HOL
[NASA-CR-4489] 07 p2044 N93-21043
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Predesign of the tubular braiding process using a mathematical process description 07 p1836 N93-21143
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
A Government/Industry Summary of the Design Analysis Methods for Vibrations (DAMVIBS) Program
[NASA-CP-10114] 07 p1782 N93-21310
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: A government overview 07 p1782 N93-21311
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program : Bell Helicopter Textron accomplishments 07 p1782 N93-21312
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling 07 p1782 N93-21313
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process 07 p1782 N93-21315
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A] 07 p1783 N93-21401
Autonomous rendezvous and capture system design 07 p1815 N93-21427
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Space Station ECLSS integration analysis
[NASA-CR-192470] 07 p2027 N93-22002
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
System concept for an advanced stand-off weapon 08 p2256 N93-22029
Reliability of solid rocket motor cases and nozzles 08 p2176 N93-22103
Materials and structures technologies for hypersonics 08 p2177 N93-22116
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Design of a portable powered seat lift 08 p2429 N93-22190
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package 08 p2305 N93-22203
Robustness
[NASA-TP-3336] 08 p2181 N93-22458
Computer Aided Control System Design (CACSD) 08 p2107 N93-22572
Integrated and Multi-Function Navigation
[AGARD-CP-525] 08 p2119 N93-22780
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Fluid mechanics applications for the design and test of the surface tension tank OST-2 08 p2248 N93-22841
Design of low-voltage bipolar operational amplifiers
[ISBN-90-9004571-6] 08 p2280 N93-23021
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems
[NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Towards computer-supported creative design based on Altshuller's theory of inventive problem solving
[MEMO-INF-92-49] 08 p2438 N93-23358
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372
The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790

Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
Distributed computer systems and logistics systems: What do they have in common besides distribution?
[MEMO-INF-92-44] 08 p2448 N93-23872
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
TP protocol from specification to implementation
[MEMO-INF-92-42] 08 p2443 N93-24582
Optimization in the systems engineering process 09 p2666 N93-24691
A procedure for defining lightning risk to air vehicles 09 p2583 N93-24885
Miniaturization and stability: A new generation of ovenised oscillators 09 p2693 N93-25004
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Rotor design optimization using a free wake analysis
[NASA-CR-177612] 09 p2575 N93-25075
Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
Poly-coil design for a 60 tesla quasi-stationary magnet
[DE93-007353] 09 p2688 N93-25313
A numerical and experimental studies of flow characteristics in centrifugal fans 09 p2577 N93-25339
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
A computational aerodynamic design optimization method using sensitivity analysis 09 p2589 N93-25552
Application of an on-machine gage for diameter measurements 09 p2711 N93-25578
Variable-speed generators with flux weakening 09 p2694 N93-25599
Integration of design, thermal, structural, and optical analysis, including thermal animation 09 p2814 N93-25601
The effects of reaction on axial compressor performance 09 p2594 N93-25882
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
ASRM design philosophy and modelling challenges 09 p2627 N93-26022
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation
[NASA-CR-192517] 09 p2631 N93-26053
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs 09 p2670 N93-26063
Model reduction for Space Station Freedom 09 p2620 N93-26081
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Develop margin philosophy to attain robustness
[MCR-92-5005] 09 p2610 N93-26182
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Configuration optimization of space structures 09 p2670 N93-26415
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling 10 p2980 N93-26955
Radiator technology 10 p2983 N93-26979
NEP systems model 10 p2984 N93-26987
A noise level analysis of special multiple-spin VAS data during storm-fest
[NOAA-TR-NESDIS-65] 10 p3071 N93-27079
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
Multidisciplinary design optimization: An emerging new engineering discipline
[NASA-TM-107761] 10 p2942 N93-27258
Moment method analysis of linearly tapered slot antennas
[NASA-CR-191474] 10 p2955 N93-27261
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Stability investigations of airfoil flow by global analysis 10 p2932 N93-27436
An interactive boundary-layer approach to multielement airfoils at high lift 10 p2934 N93-27445
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535
Thermoelectric cooler design
[AD-A262149] 10 p3010 N93-27545
Advisory Committee on the Redesign of the Space Station
[NASA-TM-108760] 10 p2963 N93-27579
NIKHEF-K contributions to the 3rd European Particle Accelerator Conference
[NIKHEF-AMPS-92-02] 10 p3139 N93-28337
Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451
The meta model hierarchy: A framework for information systems concepts and techniques
[TR-92-17] 11 p3611 N93-28481
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
Ergonomic development of digital map displays 11 p3503 N93-28866
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Lunar rovers and local positioning system 11 p3277 N93-29119
Design optimization of space structures 11 p3278 N93-29122
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade
[NASA-TM-4264] 11 p3240 N93-29450
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
SAR sensors on TACSATS: A feasibility assessment 11 p3286 N93-29909
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103
Communications systems design for testability: Grey-box testing 11 p3368 N93-30302
Structural design, analysis, and code evaluation of an odd-shaped pressure vessel
[DE93-008182] 11 p3447 N93-30632
Multi-parameter optimization tool for low-cost commercial fuselage crown designs 11 p3305 N93-30858
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
Multiple methods integration for structural mechanics analysis and design 11 p3307 N93-30867
Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995
Structural design using neural networks 11 p3545 N93-31029
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
Analysis of the compliant motion achievable with an industrial robot: Identification, feedback and design
[OUEL-1899/91] 12 p3733 N93-31150
The microwave radiometer as a remote sensing device: Design and application
[ISBN-9-09-005507-X] 12 p3746 N93-31537
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
The implementation of the digital wave processor for the ESA/NASA Cluster mission 12 p3858 N93-31708
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731
RATLER: Robotic All-Terrain Lunar Exploration Rover 12 p3737 N93-32117
Aeronautical engineering: A continuing bibliography with indexes (supplement 292)
[NASA-SP-7037(292)] 12 p3671 N93-32375

DESIGN OF EXPERIMENTS
U EXPERIMENT DESIGN

DESIGN TO COST
Exodus: Prime Mover
[NASA-CR-192051] 05 p1064 N93-17803
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727

DESORPTION
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Photochemical dynamics of surface oriented molecules
[DE92-019813] 03 p0703 N93-13106
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
Operational strategies for contamination control of composite materials 04 p0822 N93-15614
Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051
Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054
Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Laser desorption in an ion trap mass spectrometer
[DE93-007330] 09 p2712 N93-25150

Theoretical studies of surface reactions on metals and electronic materials
[DE93-009761] 09 p2650 N93-25502
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
Photo-desorption from copper alloys
[DE93-011872] 11 p3326 N93-30490
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

DESPINNING
U SPIN REDUCTION

DESTRUCTION
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380

DESTRUCTIVE TESTS
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Crushing behavior of tubular structures in multi-materials
[ECL-91-37] 02 p0336 N93-11579
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Nondestructive evaluation of the in-place compressive strength of concrete based upon limited destructive testing
[PB92-222751] 03 p0623 N93-12981
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
Special tests and destructive physical analyses as used by the Aerospace Corporation with nickel-hydrogen cells
[NASA-CR-192318] 07 p1888 N93-20162
COMSAT's destructive physical analysis of aerospace nickel-cadmium cells for NASA/Goddard Space Flight Center 07 p1983 N93-20495
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
Vulnerability assessment of aircraft: A review of the Department of Defense Live Fire Test and Evaluation Program
[PB93-149946] 08 p2127 N93-23678
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft 11 p3249 N93-29775
Load test set-up for the Airmass Sunburst Ultra-Light Aircraft 11 p3249 N93-29776

DESULFURIZING
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168

DETACHMENT
Negative ion detachment cross sections
[DE93-005679] 08 p2483 N93-23328
Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346

DETECTION
NT AIRCRAFT DETECTION
NT CHANGE DETECTION
NT CORRELATION DETECTION
NT EDGE DETECTION
NT FAULT DETECTION
NT MISSILE DETECTION
NT RADAR DETECTION
NT REMOTE SENSING
NT SIGNAL DETECTION
NT TARGET RECOGNITION
NT ULTRASONIC FLAW DETECTION
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Change analysis
[AD-A253567] 01 p0146 N93-10795
Capacitive skin characterization
[NASA-CR-191261] 03 p0598 N93-13567
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
Improved astigmatic focus error detection method 04 p0984 N93-15507
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU] 05 p1182 N93-17048
The ionosphere as a gamma ray burst detector 05 p1211 N93-17312
The 4th International Symposium on Analysis and Detection of Explosives: Programs and abstracts
[AD-A258029] 05 p1129 N93-17751
Plume: Instructions for use and description of a missile plume visibility program
[AD-A258201] 06 p1473 N93-18201
On corner and vertex detection
[INRIA-RR-1439] 06 p1646 N93-18594
Detecting change as it occurs
[NASA-CR-191939] 06 p1574 N93-19484
Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB] 06 p1538 N93-19492
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups
[DE93-002942] 06 p1484 N93-19752
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
The UK perspective on aviation security 07 p1764 N93-21858
Insights into US domestic aviation 07 p1764 N93-21859
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
An approach to improving TNA EDS 07 p1765 N93-21864
PFNA technique for the detection of explosives 07 p1765 N93-21865
A pulsed fast-thermal neutron interrogation system 07 p1765 N93-21866
Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
The RFQ LINAC: A high-current compact ion accelerator for explosive detection 07 p1766 N93-21872
An H(-) ion source for resonant gamma production 07 p1766 N93-21874
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878
The evolution of Computed Tomography (CT) as an explosives detection modality 07 p1768 N93-21883
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Selective gamma ray resonant absorption for explosives detection 07 p1769 N93-21887
A general protocol for operational testing and evaluation of bulk explosive detection systems 07 p1769 N93-21888
Performance testing of explosives and weapons detection systems 07 p1769 N93-21889
Validation of simulated explosives for testing TNA explosives detection systems 07 p1769 N93-21891
Airport testing of a new thermal neutron analysis explosives detection system 07 p1769 N93-21892
Radiological safety aspects of TNA deployment 07 p1770 N93-21893
Radiological safety regulation and licensing of nuclear-based explosive detection systems 07 p1770 N93-21894
Experience with explosive detection systems in airports 07 p1770 N93-21895
Sampling explosives on airline passengers 07 p1770 N93-21896
Explosive detection using dielectrometry 07 p1770 N93-21898
Liquid explosives screening system 07 p1771 N93-21899
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
Explosive detection using microwave imaging 07 p1771 N93-21902
Consideration of untried magnetic resonance techniques for possible baggage analysis 07 p1771 N93-21903
Dichotomous key approach for high confidence level identification of selected explosive vapors 07 p1771 N93-21904
Explosive vapor emission 07 p1772 N93-21905
Extraction, transportation and processing of explosives vapor in detection systems 07 p1772 N93-21907
Vapor sampling using controlled heating 07 p1772 N93-21908
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Calibration methods for explosives detectors 07 p1773 N93-21911
Vapor detection using SAW sensors 07 p1773 N93-21912
Fourier-transform infrared spectroscopy applied to explosive vapor detection 07 p1773 N93-21913
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
Detection of explosives material on single microparticles 07 p1774 N93-21916
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Modifications to the ionization process to enhance the detection of explosives by API/MS/MS 07 p1774 N93-21918

The role of mass spectrometry in the detection of explosives 07 p1774 N93-21919
Modification to the ionization process to enhance the detection of explosives by IMS 07 p1774 N93-21920
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives 07 p1774 N93-21921
Detection of trace explosive evidence by ion mobilty spectrometry 07 p1774 N93-21922
Analysis of explosives using high speed gas chromatography with chemiluminescent detection 07 p1775 N93-21923
Marking of German plastic explosive for the enhancement of vapor detection 07 p1775 N93-21925
Program to tag military plastic/sheet explosives 07 p1775 N93-21926
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929
The challenge of biodetection for screening persons carrying explosives 07 p1776 N93-21931
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Explosives search dogs 07 p1776 N93-21933
A novel approach to design optimization of nuclear-based explosive detection systems 07 p1777 N93-21935
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
A systems approach to the explosive detection problem 07 p1778 N93-21942
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Multi-window registration algorithm for automatic detection and tracking of moving targets 08 p2255 N93-22022
TRAC based sensing for autonomous rendezvous 08 p2140 N93-22253
Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290
On using scattering statistics for ultra wideband electromagnetic target classification and identification [DE93-003809] 08 p2260 N93-22433
Fault detection and isolation 08 p2106 N93-22568
Sensory sensitivities and discriminations and their roles in aviation [AD-A259742] 08 p2424 N93-23479
Technical Digest. Detection systems and technology, September 1992 [AD-A259812] 08 p2271 N93-23670
Detecting damaged cables using a preionized gas technique [DE93-007588] 09 p2689 N93-25429
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
Automatic detection of seizures with applications 09 p2796 N93-25592
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
Model-based reasoning for system and software engineering: The Knowledge From Pictures (KFP) environment 09 p2825 N93-25978
Pseudomonas screening assay [NASA-CASE-NPO-17653-1-CU] 09 p2793 N93-25994
VETA x ray data acquisition and control system 09 p2854 N93-26186
An analysis of gear fault detection methods as applied to pitting fatigue failure data [NASA-TM-105950] 10 p3049 N93-27074
Aircraft ice detectors and related technologies for onground and inflight applications [DOT/FAA/CT-92/27] 10 p2940 N93-27269
Detection performance of digital polarity sampled phase reversal code pulse compressors [AD-A262930] 10 p3028 N93-28289
Valve malfunction detection apparatus [NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Advanced signal processing requirement in an ion mobility explosives detector 11 p3320 N93-30277
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System [DE93-006283] 11 p3412 N93-30370
Advances in Analysis and Detection of Explosives. Proceedings of the 4th International Symposium on Analysis and Detection of Explosives [AD-A265002] 12 p3713 N93-32077
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

DETECTORS

Operational strategies for contamination control of composite materials 04 p0822 N93-15614
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
An approach to improving TNA EDS 07 p1765 N93-21864
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
Aircraft ice detectors and related technologies for onground and inflight applications [DOT/FAA/CT-92/27] 10 p2940 N93-27269
Sensor systems for monitoring Maglev guideway structures [PB93-154821] 11 p3444 N93-29205
A high resolution 14-bit ADC for Gammasphere Project [DE93-010446] 11 p3598 N93-30393

DETERIORATION

Lunar concrete for construction 03 p0555 N93-13990
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
A literature review of time-deterioration prediction techniques [PB92-229202] 07 p1919 N93-21822

DETERMINANTS

Darboux theorems and Wronskian formulas for integrable systems. 1: Constrained KP flows [MATHS-REPT-A-172] 02 p0424 N93-11126
A primer on polynomial resultants [AD-A246883] 02 p0426 N93-11463
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560

DETERMINATION

U MEASUREMENT

DETONABLE GAS MIXTURES

A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures 09 p2583 N93-24886
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator 10 p2985 N93-27138

DETONATION

Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Molecular dynamics of shocks in crystals with defects [AD-A253353] 01 p0164 N93-10099
Mathematical analysis of reactive multiphase flows [AD-A253854] 01 p0083 N93-10810
Loads from the detonation of hydrogen-air-steam mixtures [DE92-019318] 02 p0249 N93-11551
Detonation reactions frozen by free expansion and analyzed by mass spectrometry [DE92-018605] 02 p0274 N93-11566
Characterization of deflagrating munitions by rotating prism high speed photography [MRL-TR-91-43] 02 p0311 N93-11648
Measurements of cellular structure in spray detonation [DE92-019580] 03 p0555 N93-12933
Development of a laser ignited all secondary explosive DDT detonator [DE92-019340] 03 p0555 N93-13081
High speed cineradiography using electronic imaging [DE92-040366] 05 p1166 N93-15662
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations [DE93-002515] 05 p1201 N93-16363
Performance of blasting caps [NASA-CASE-LAR-13832-1] 06 p1497 N93-18274
International Workshop on Mathematical Methods in Combustion [AD-A258478] 06 p1482 N93-18312
Understanding curved detonation waves [DE93-000799] 06 p1528 N93-18529
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices 07 p1865 N93-20150
Mathematical analysis of gasdynamic wave initiation [AD-A260382] 08 p2297 N93-24174
Numerical studies for the RAM accelerator [AD-A259949] 08 p2224 N93-24423
DSD Technology: A detonation reactive Huygens code [LA-12235-MS] 09 p2706 N93-25987
Molecular composition, structure, and sensitivity of explosives [DE93-003850] 09 p2662 N93-26493
Godunov-type schemes applied to detonation flows [NASA-CR-191447] 10 p2929 N93-27090
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Calibrating the BKW-EOS with a large product species data base and measured C-J properties [DE93-007606] 10 p3008 N93-28151
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials [AD-A263244] 11 p3342 N93-29494
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials [CPIA-PUBL-589] 11 p3343 N93-30061
Propulsion and detonics research in France 11 p3344 N93-30070
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive [LA-UR-92-1427] 11 p3345 N93-30074
Detonation mass spectrometry 11 p3319 N93-30076
Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077
Energetic material response to abnormal environments 11 p3350 N93-30095
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
The measurement of electrical conductivity in detonating condensed explosives [AD-A264482] 11 p3352 N93-30424
The use of quantum chemistry to estimate the performance and properties of explosives [DE92-040369] 11 p3352 N93-30446
Structure and properties of energetic materials [AD-A265775] 12 p3713 N93-31800

DETONATION WAVES

Detonation reactions frozen by free expansion and analyzed by mass spectrometry [DE92-018605] 02 p0274 N93-11566
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves [AD-A254473] 02 p0275 N93-12236
Hydrodynamics of supernova 1987 A 04 p1019 N93-14633
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds [NASA-CR-191368] 06 p1472 N93-18085
Understanding curved detonation waves [DE93-000799] 06 p1528 N93-18529
A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics [SAND-92-1359C] 07 p1865 N93-20148
DSD Technology: A detonation reactive Huygens code [LA-12235-MS] 09 p2706 N93-25987
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Implementation of a single-material version of PAGOSA on MIMD hypercubes [SAND-92-0640] 11 p3526 N93-29127
Response of energetic solids to light, heat and shock pulses [AD-A263702] 11 p3342 N93-29296
Weakly nonlinear dynamics of near-CJ detonation waves [DE93-007344] 11 p3424 N93-29836
Metallization at detonation fronts in solids 11 p3319 N93-30087
Towards a better hydro for dynamic mix calculations [DE93-010702] 11 p3426 N93-30485

The performance of PAGOSA on several MIMD parallel computers
[DE93-003243] 12 p3786 N93-31183
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

DETONATORS
Booster rocket range safety system
[AD-D015363] 02 p0221 N93-11428
Hot-wire vs laser, is there a difference?
[DE92-019337] 02 p0310 N93-11554
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Performance of blasting caps
[NASA-CASE-LAR-13832-1] 06 p1497 N93-18274
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145
Laser diode initiated detonators for space applications 07 p1865 N93-20147
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components 07 p1865 N93-20149
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
High-voltage pulse generator capable of 200 J at 5 kV
[AD-A262111] 10 p3031 N93-27673
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651

DEUTERIDES
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832

DEUTERIUM
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349
Exotic atoms
[DE93-010242] 11 p3564 N93-28611
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
A high field optical-pumping spin-exchange polarized deuterium source
[DE93-009208] 11 p3574 N93-28970
Reaction and reorientation of electronically excited H2(B)
[DE93-010435] 11 p3569 N93-29860
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920

DEUTERIUM COMPOUNDS
NT DEUTERIDES
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653

DEUTERIUM PLASMA
Diagnostics and modeling of H(-) ion sources
[AD-A250664] 02 p0440 N93-11867
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044

DEUTERONS
Photodisintegration of the deuteron at high energy
[DE92-017066] 02 p0445 N93-12108
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959

DEVELOPING NATIONS
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Use of remote sensing as part of the technical co-operation with developing countries 08 p2339 N93-22438
CORECT: Committee On Renewable Energy Commerce and Trade, 1991
[DE92-016436] 08 p2377 N93-22890
Remarks and proposals to adapt some Earth observations space programmes in the period of transition of the countries of central/eastern Europe; focused on Romania 08 p2362 N93-23778
Centres for space science and technology education: A United Nations initiative 08 p2369 N93-23826
The General Information Programme (PGI) and developing countries: A case study of Iraq 09 p2874 N93-25209
The PACSAT Communications Experiment (PCE)
[DE93-008185] 09 p2674 N93-25308
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 2
[PB93-174811] 12 p3748 N93-31105
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166
Information systems strategies for public financial management
[PB93-186948] 12 p3842 N93-32167

DEVITRIFICATION
U CRYSTALLIZATION

DEW POINT
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588

DEWAR SYSTEMS
U CRYOGENIC EQUIPMENT

DEWATERING
Low cost dewatering of waste slurries 09 p2769 N93-25573

DEWETTING
U DRYING

DIAGNOSIS
Phadiatop: A screening test for inhalant allergy 02 p0383 N93-11313
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Allergy screening and follow-up in student pilots of the Belgian Air Force (BAF) 02 p0383 N93-11316
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
Combustion Research Program: Flame studies, laser diagnostics, and chemical kinetics
[DE93-002758] 05 p1106 N93-17212
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
Propulsion diagnostics 06 p1475 N93-18482
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
Capabilities and constraints of combustion diagnostics in microgravity 07 p1869 N93-20185
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Flame spread across liquid pools 07 p1854 N93-20209
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Integrated FASTBUS, VME and CAMAC diagnostic software at Fermilab
[DE93-004424] 07 p2042 N93-21845
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
High performance sapphire windows 08 p2310 N93-22198
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion studies
[AD-A260253] 08 p2224 N93-24333
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Machine learning techniques for fault isolation and sensor placement 09 p2823 N93-25966
The use of multiple models in case-based diagnosis 09 p2823 N93-25969
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances 09 p2626 N93-26015
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry 09 p2627 N93-26025
Infrared fiber optic diagnostic for solid propellant combustion 09 p2628 N93-26031
ADN propellant diffusion flame structure 09 p2629 N93-26036

Efficient model-based diagnosis of dynamic systems with state
[MEMO-INF-92-53] 10 p3096 N93-27488
Qualitative model-based diagnostics for rocket systems
[NASA-TM-106234] 10 p2956 N93-28052
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262106] 10 p3135 N93-28181
Use of RNA hybridization in the diagnosis of a case of ulceroglandular tularemia
[FOA-B-40422-4.4] 10 p3083 N93-28212
Resource limited reasoning: A study of literature in the context of model-based diagnosis
[MEMO-INF-92-38] 11 p3540 N93-28480
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546
A neural network based approach for machine fault diagnosis
[VTT-TIED-1274] 11 p3543 N93-29998
Centralized maintenance evaluation
[AD-A264400] 11 p3544 N93-30886
Fundamental diagnostic hematology: Anemia (second edition)
[PB93-188662] 12 p3773 N93-31140
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition)
[PB93-188670] 12 p3773 N93-31158
Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138
Process control and recovery in the Link Monitor and Control Operator Assistant 12 p3719 N93-32145

DIAGRAMS
NT BLOCK DIAGRAMS
NT CIRCUIT DIAGRAMS
NT COLOR-COLOR DIAGRAM
NT COLOR-MAGNITUDE DIAGRAM
NT FEYNMAN DIAGRAMS
NT HERTZSPRUNG-RUSSELL DIAGRAM
NT NYQUIST DIAGRAM
NT PHASE DIAGRAMS
NT S-N DIAGRAMS
NT STRESS-STRAIN DIAGRAMS
Generalized 3D Voronoi diagram: First results
[RR-879-M] 07 p2039 N93-21051
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337

DIAL (LIDAR)
U DIFFERENTIAL ABSORPTION LIDAR

DIAMAGNETISM
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves 03 p0718 N93-13750
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808

DIAMETERS
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Application of an on-machine gage for diameter measurements 09 p2711 N93-25578
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961
Smallest regular graphs with given diameter
[MEMO-1092] 12 p3810 N93-32399

DIAMINES
NT GUANIDINES
Substituted 1,1,1-triaryl 2,2,2-trifluoroethanes and processes for their synthesis
[NASA-CASE-LEW-14345-7] 05 p1095 N93-17412
Polyimides prepared from 3,5-diamino benzo trifluoride
[NASA-CASE-LAR-14206-1] 11 p3331 N93-29083
Diphenylmethane-containing dianhydride and polyimides prepared therefrom
[NASA-CASE-LAR-14487-1] 11 p3331 N93-29085
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506

DIAMOND FILMS
Growth defects in diamond films
[AD-A253618] 01 p0040 N93-10778
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Growth, characterization and device development in monocrystalline diamond films
[AD-A256283] 04 p0994 N93-15244
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345
Mechanism of diamond film growth 06 p1678 N93-18479
Friction and wear of plasma-deposited diamond films
[NASA-TM-105926] 06 p1495 N93-19035
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Interaction of hydrogen and water with diamond (100): Infrared spectroscopy
[AD-A258535] 07 p1846 N93-20052
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Growth, characterization and device development in monocrystalline diamond films
[AD-A259099] 07 p2079 N93-20407
Plasma technology 08 p2496 N93-23263
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
[AD-A259616] 08 p2510 N93-24126
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090
Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Diamond composite films for protective coatings on metals and method of formation
[NASA-CASE-NPO-18501-1-CU] 10 p3006 N93-28426
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Complex dielectric function of amorphous diamond films deposited by pulsed excimer (ArF) laser ablation of graphite
[AD-A264527] 11 p3598 N93-30408
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

DIAMOND WINGS
U LOW ASPECT RATIO WINGS
U SWEPT WINGS

DIAMONDS
NT METEORITIC DIAMONDS
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
A five-channel, diamond photoconducting x ray detector array for z-pinch experiments
[DE92-017345] 01 p0164 N93-10839
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Dynamic fabrication of diamond thermal management substrates
[AD-A257213] 05 p1118 N93-15814
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164
Heteroepitaxial diamond growth
[AD-A257356] 05 p1317 N93-16175
Growth on the reconstructed diamond (100) surface
[AD-A256954] 05 p1319 N93-16301
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
Heteroepitaxial diamond growth
[AD-A257510] 06 p1671 N93-18079
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Mechanism of diamond film growth 06 p1678 N93-18479
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Construction of a channeling radiation source and production of intensive channeling radiation at the Darmstadt (Germany) superconductive electron accelerator
[ETN-93-93410] 07 p2066 N93-21206
Thermal diffusivity measurement of diamond materials
[AD-A260431] 08 p2238 N93-22947
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Diamond homoepitaxy by chemical vapor deposition
[AD-A260551] 08 p2512 N93-24281
Electrodeposition in low gravity 09 p2663 N93-24774
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams 09 p2658 N93-25564
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364

Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548
High thermal conductivity of diamond 11 p3294 N93-30977
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987
Progress toward atomic layer epitaxy of diamond using radical chemistry
[AD-A265409] 12 p3829 N93-32045

DIAPHRAGMS (MECHANICS)
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503

DIATOMIC GASES
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168

DIATOMIC MOLECULES
Computer program for calculating and fitting thermodynamic functions
[NASA-RP-1271] 03 p0728 N93-12967
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Theory of the dissociation dynamics of small molecules on metal surfaces: Finite temperature studies
[DE93-005870] 08 p2482 N93-23298
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310

DIATOMS (UNICELLULAR PLANTS)
U ALGAE

DICARBOXYLIC ACIDS
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308

DICHLORIDES
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486

DICHROISM
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures 06 p1504 N93-18901
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591

DICHROMATES
U CHROMATES

DICTIONARIES
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
Software process development and enactment: Concepts and definitions
[AD-A258465] 06 p1619 N93-18243
Defining contract terms
[AD-A259088] 07 p2085 N93-20394
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
The database Query Support Processor (QSP) 09 p2807 N93-25577
Glossary of environmental terms and acronym list
[PB93-158004] 09 p2765 N93-25851
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
Acronym dictionary
[NASA-CR-193218] 10 p3164 N93-26900
Handbook of frequently used acronyms and glossary of terms
[DE93-011388] 11 p3616 N93-30123
List of acronyms in environmental sciences
[KNMI-PUBL-180-ED-1] 12 p3838 N93-31596

DIELECTRIC CONSTANT
U PERMITTIVITY

DIELECTRIC MATERIALS
U DIELECTRICS

DIELECTRIC PROPERTIES
NT PERMITTIVITY
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
Dielectric surface properties of Venus 04 p1039 N93-14360
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Dielectric and dynamic mechanical properties of ATBN-containing thermosets
[DREA-CR-91-444] 08 p2239 N93-23725
Accurate evaluation of the real and imaginary material constants for a piezoelectric resonator in the radial mode
[DREA-CR-91-451] 08 p2508 N93-23727
Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation
[AD-A260283] 08 p2483 N93-24261
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
Complex dielectric function of amorphous diamond films deposited by pulsed excimer (ArF) laser ablation of graphite
[AD-A264527] 11 p3598 N93-30408
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970
Sensor fusion for assured vision in space applications 12 p3824 N93-32105

DIELECTRICS
NT LOSSLESS MATERIALS
NT RADOME MATERIALS
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13040
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446
Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures
[ONERA-NT-1992-3] 06 p1501 N93-18190
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233
The resonator handbook
[NASA-CR-192217] 07 p1894 N93-21559

Explosive detection using dielectrometry
07 p1770 N93-21898
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems
08 p2287 N93-22179
On-line process analysis innovation: DiComp (tm) shunting dielectric sensor technology
08 p2287 N93-22200
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Electromagnetic scattering cross sections from the bodies of revolution, volume 1
[DREV-CR-645] 08 p2264 N93-23342
Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072
Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation
[AD-A260283] 08 p2483 N93-24261
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
Liquid filled variable capacitor
[AD-D015639] 09 p2687 N93-25212
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Microwave absorption measurements and interference: Effects for a liquid fuel between 2.5 and 18 GHz
[AD-A260607] 09 p2675 N93-25635
Enhanced backscattering from rough surfaces
[AD-A261000] 09 p2676 N93-25855
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Slot-line end-fire antennas for THz frequencies
10 p3015 N93-27751
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Improving the jitter of the 150 kJ experiments solid dielectric switches
[DE93-009459] 11 p3405 N93-28597
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
Determination of the electrostatic Green's function for stratified media
[REPT-92-067] 12 p3716 N93-31607
Numerical analysis of the spectral domain of transmission lines in dielectric layers
[REPT-92-068] 12 p3716 N93-31608
Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182

DIELECTRONIC SATELLITE LINES
U RESONANCE LINES

DIELS-ALDER REACTIONS
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436
Processable precursors to high performance liquid crystalline polymers
[AD-A260466] 08 p2240 N93-24116

DIENCEPHALON
NT HYPOTHALAMUS
NT PINEAL GLAND

DIENES
Thermal conductivity of liquid aliphatic hydrocarbons. Part 2: Alkenes, dienes and trienes
[ESDU-92025] 04 p0839 N93-14542
Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290

DIES
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597

DIESEL ENGINES
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011868] 01 p0091 N93-10622
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Development of low-expansion ceramics for diesel engine applications
[DE92-041380] 04 p0853 N93-15438
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Center for Advanced Propulsion Systems (fellowship)
[AD-A260571] 09 p2632 N93-26216
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880

DIESEL FUELS
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Limitations of the ideal phase-Doppler system: Extension to spatially and temporally inhomogeneous particle flows with an application to diesel sprays
[DE93-009447] 11 p3416 N93-28595
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085

DIETS
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894
An automated processing system for food frequency and nutrition knowledge questionnaire
12 p3778 N93-32241
Nutritional assessment of United States tactical air command pilots 12 p3778 N93-32242
Protein requirements in hypoxia or hypokinesia
12 p3778 N93-32244
Correlation of life-style and dietary concomitants of Greek pilots with serum analytes
12 p3780 N93-32256
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas
12 p3780 N93-32257
Objective improvements obtained by control of diet and physical training in Spanish Air Force fighter pilots
12 p3780 N93-32258
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259
The effects of an antijet lag diet
12 p3781 N93-32263

DIFFERENCE EQUATIONS
Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
The use of chaos metrics to analyze Lagrangian particle diffusion models
[AD-A256142] 04 p0967 N93-14255
PDF turbulence modeling and DNS
05 p1153 N93-15794
Symmetry group of partial differential equations and of differential difference equations: The Toda lattice versus the Korteweg-de Vries equation
[PREPRINT-841] 05 p1270 N93-16995
Symmetries and conditional symmetries of differential-difference equations
[PREPRINT-858] 05 p1270 N93-16997
A q-analogue of the Wronskian and a second solution of the Hahn-Exton q-Bessel difference equation
[REPT-92-18] 06 p1643 N93-17843
Inhomogeneous Toda lattice: Its hierarchy and Darboux-Backlund transformations
[SSCL-PREPRINT-762] 10 p3121 N93-28146
Continuous symmetries of discrete equations
[SSCL-PREPRINT-738] 10 p3121 N93-28163
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
The generic dimension of a minimal realization of an AR-system
[REPT-92-82] 12 p3805 N93-31492

DIFFERENTIAL ABSORPTION LIDAR
Research on stimulated Raman scattering with applications to atmospheric lidar
02 p0322 N93-12163
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781

DIFFERENTIAL ALGEBRA
U DIFFERENTIAL CALCULUS
U MATRICES (MATHEMATICS)

DIFFERENTIAL AMPLIFIERS
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit
09 p2794 N93-26073

DIFFERENTIAL CALCULUS
Automatic differentiation bibliography
[DE92-040599] 05 p1263 N93-15944
ADIFOR: A FORTRAN system for portable automatic differentiation
[DE92-040743] 05 p1239 N93-16588
Phase portraits of non degenerate quadratic systems with finite multiplicity one
[REPT-92-42] 06 p1643 N93-17874
IMP: A performance code 08 p2139 N93-22245
Extending compile-time reverse mode and exploiting partial separability in ADIFOR
[DE93-004668] 08 p2467 N93-22776
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Differential calculus on quantum spaces and quantum groups
[DE93-010425] 11 p3551 N93-30392
Stable numerical integration of dynamical systems subject to equality state-space constraints
[NLR-TP-91363-U] 12 p3802 N93-31128
Multiparametric quantum symplectic phase space
[DE93-604081] 12 p3802 N93-31162

DIFFERENTIAL EQUATIONS
NT BIHARMONIC EQUATIONS
NT BURGER EQUATION
NT CAUCHY-RIEMANN EQUATIONS
NT DUFFING DIFFERENTIAL EQUATION
NT ELLIPTIC DIFFERENTIAL EQUATIONS
NT EULER-CAUCHY EQUATIONS
NT FOKKER-PLANCK EQUATION
NT GAUSS EQUATION
NT HYPERBOLIC DIFFERENTIAL EQUATIONS
NT LIOUVILLE EQUATIONS
NT PARABOLIC DIFFERENTIAL EQUATIONS
NT PARTIAL DIFFERENTIAL EQUATIONS
NT POISSON EQUATION
NT RICCATI EQUATION
NT VLASOV EQUATIONS
NT VORTICITY EQUATIONS
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
Singularities of the Euler equation and hydrodynamic stability
[NASA-CR-189720] 02 p0306 N93-12173
Stabilization and projection methods for multibody dynamics
[PB92-133883] 03 p0698 N93-12890
A differential equation design method for finite-conjugate, multi-mirror imaging systems 04 p0979 N93-14165
The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412
Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
Turbulence modeling and experiments 05 p1153 N93-15796
Preconditioned time-difference methods for solving advective-diffusive systems
[DE92-014790] 05 p1262 N93-15879
Automatic differentiation bibliography
[DE92-040599] 05 p1263 N93-15944
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Symmetries and conditional symmetries of differential-difference equations
[PREPRINT-858] 05 p1270 N93-16997
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
Parallel-iterated Runge-Kutta methods for stiff ordinary differential equations
[CWI-NM-R9117] 05 p1257 N93-17549
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
A bibliography of the qualitative theory of quadratic systems of differential equations in the plane
[REPT-92-17] 06 p1642 N93-17842
A q-analogue of the Wronskian and a second solution of the Hahn-Exton q-Bessel difference equation
[REPT-92-18] 06 p1643 N93-17843
Preconditioned conjugate gradient techniques for the solution of time-dependent differential equations
[REPT-92-19] 06 p1643 N93-17844
Phase portraits of non degenerate quadratic systems with finite multiplicity one
[REPT-92-42] 06 p1643 N93-17874
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160
Dynamic systems and normal forms
[RR-883-M] 07 p2051 N93-20784
Non standard analysis and ordinary differential equations
[RR-884-M] 07 p2051 N93-20787
Singular points at infinity of quadratic systems of differential equations
[REPT-91-58] 07 p2052 N93-20852
On homogeneous quasilinear evolution equation
[REPT-91-65] 07 p2052 N93-20854
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
On a fundamental notion of equivalence in linear systems theory
[MATHS-REPT-A-162] 07 p2053 N93-20890
Well-posedness and stabilizability of a viscoelastic equation in energy space
[PB93-111920] 07 p2056 N93-21474
CREEPSIM-2: A software package for numerical integration of 1st order differential equations
[NPL-DMM(A)-35] 08 p2435 N93-22452
Trajectory optimization based on differential inclusion
[NASA-CR-4501] 08 p2181 N93-22459
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems
[NASA-CR-4503] 08 p2466 N93-22672
Large scale control and distributed computing systems under stochastic structural perturbations
[AD-A260501] 08 p2447 N93-22933
Coverings and nonlocal symmetries
[MEMO-1057] 08 p2470 N93-24109
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437
A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
Numerically dissipative time integration algorithms for structural dynamics 09 p2725 N93-25394
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078
NSWC library of mathematics subroutines
[AD-A261511] 09 p2884 N93-26575
Introduction to a behavioral approach of continuous-time systems, part 2
[MEMO-COSOR-92-17] 10 p3112 N93-27245
Operator algebra from fusion rules 2: Implementing apparent singularities
[NIKHEF-H/92-06] 10 p3155 N93-27307
Galilean covariant harmonic oscillator 10 p3145 N93-27341
The method of minimal normal forms — for solving nonlinear differential equations
[DE93-008060] 10 p3118 N93-27627
Polynomial systems with centers and limit cycles
[REPT-92-38] 10 p3118 N93-27869
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
Note on the performance of direct and indirect Runge-Kutta-Nystroem methods
[CWI-NM-R9214] 10 p3120 N93-28082
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084
Inhomogeneous Toda lattice: Its hierarchy and Darboux-Backlund transformations
[SSCL-PREPRINT-762] 10 p3121 N93-28146
Proper elimination of latent variables
[MEMO-1072] 10 p3121 N93-28164
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
Determination of low frequency reference slipping for high frequency unstationary motion processes
[ILR-MITT-273(1992)] 11 p3455 N93-31017
Global stability of systems of two differential equations with unstationary nonlinearities, 2
[DE92-642558] 12 p3802 N93-31072
Dissipation and convergence in the systems of differential equations with unstationary nonlinearities
[DE92-642559] 12 p3802 N93-31079
Homoclinic twist bifurcations with Z2 symmetry
[W-9215] 12 p3807 N93-31627
Differential equations method: The calculation of N (N greater than 2)-points diagrams
[DE93-609887] 12 p3814 N93-32412
DIFFERENTIAL GEOMETRY
NT LIE GROUPS
NT RIEMANN MANIFOLD
NT SPINOR GROUPS
NT TENSOR ANALYSIS
Algebra-geometric and differential geometric methods in solid geometric modeling
[AD-A253669] 01 p0145 N93-10870
Coordinates in differential geodesy
[AD-A254951] 03 p0632 N93-12550
Mathematics and string theory
[DE92-019292] 03 p0727 N93-12796
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
Differential cartography
[AD-A257772] 05 p1192 N93-17728
Umbilici, lines of curvature, focal surfaces and their metamorphosis
[ETN-93-93414] 07 p2055 N93-21207
Elastic curves on the sphere
[AD-A261057] 09 p2829 N93-26228
Non-isospectral extension of the chiral model and its geometry
[SSCL-PREPRINT-735] 10 p3128 N93-28101
Manifold shape: From differential geometry to mathematical morphology
[CS-9204] 11 p3552 N93-31012
Cut locus and medial axis in global shape interrogation and representation
[PB93-189884] 12 p3786 N93-31199
A remark about the mean curvature
[DE93-619668] 12 p3809 N93-32285
DIFFERENTIAL OPERATORS
U DIFFERENTIAL EQUATIONS
U OPERATORS (MATHEMATICS)
DIFFERENTIAL PRESSURE
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
DIFFERENTIAL PULSE CODE MODULATION
Compression of color-mapped images 07 p1881 N93-20173
Recursively indexed differential pulse code modulation 07 p1881 N93-20175
An image compression technique for use on token ring networks 07 p1881 N93-20176
DIFFERENTIAL THERMAL ANALYSIS
U THERMAL ANALYSIS
DIFFERENTIATION (BIOLOGY)
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
DIFFRACTION
NT ELECTRON DIFFRACTION
NT NEUTRON DIFFRACTION
NT WAVE DIFFRACTION
NT X RAY DIFFRACTION
Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems 04 p0984 N93-15506
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Integrated device with diffractive polarization components for a magneto-optical disk head 04 p0986 N93-15517
The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518
On the convergence of the coupled-wave approach for lamellar diffraction gratings 04 p0986 N93-15520
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233

Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Scattering by irregular particles in anomalous diffraction and discrete dipole approximations 12 p3817 N93-31154
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062

DIFFRACTION GRATINGS
U GRATINGS (SPECTRA)

DIFFRACTION PATTERNS
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers 01 p0178 N93-10948
Fringe analysis of in-plane displacements on high speed rotating components
[PNR-90920] 02 p0334 N93-11022
In-plane ESPI measurements in hostile environments
[PNR-90919] 02 p0309 N93-11320
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
Liquid tellurides: Structure and properties
[DE93-002909] 06 p1677 N93-19830
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Wide-angle radiation pattern calculation of paraboloidal reflector antennas: A comparative study
[EUT-91-E-252] 10 p3026 N93-27226
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568
Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces 11 p3255 N93-29944
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
The characterization of materials using x ray diffraction 11 p3293 N93-30968
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

DIFFRACTION RADIATION
Laser diagnostics 08 p2311 N93-23260

DIFFRACTION TELESCOPES
U SPECTROSCOPIC TELESCOPES

DIFFRACTOMETERS
Solutions for implementing time-of-flight techniques in low-angle neutron scattering, as realized on the Low-Q Diffractometer at Los Alamos
[DE93-003702] 07 p2065 N93-21998

DIFFUSE RADIATION
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
A radiosity approach realistic image synthesis system
[AD-A259082] 07 p2032 N93-20406

DIFFUSERS
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
MHD integrated topping cycle project
[DE92-018087] 02 p0456 N93-12504
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
MHD Integrated Topping Cycle Project
[DE92-041284] 05 p1306 N93-15678

DIFFUSION
NT AMBIPOLAR DIFFUSION
NT ATMOSPHERIC DIFFUSION
NT ELECTRON DIFFUSION
NT GASEOUS DIFFUSION
NT IONIC DIFFUSION
NT MOLECULAR DIFFUSION
NT PARTICLE DIFFUSION
NT PLASMA DIFFUSION
NT SELF DIFFUSION (SOLID STATE)
NT SELF PROPAGATION
NT SPECIES DIFFUSION
NT SURFACE DIFFUSION
NT THERMAL DIFFUSION
NT TURBULENT DIFFUSION
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Modeling and estimation of reciprocal diffusion and Gauss-Markov random fields
[AD-A255034] 03 p0698 N93-12709
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
On grain boundary transport of hydrogen and mechanism of hydrogen-induced intergranular fracture 03 p0544 N93-14047
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
Adsorption and diffusion of fluids in well-characterized adsorbent materials
[DE92-040160] 04 p0843 N93-15414
Propagation of dissolution/precipitation waves in porous media
[DE92-017348] 05 p1154 N93-15851
Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859
Element diffusion in pulsating variables
[DE93-000795] 05 p1364 N93-16232
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
The ignition diffusion concerning contacted and non contacted n(+) emitter interruptions
[ETN-93-92564] 07 p1891 N93-20878
Reaction and diffusion in turbulent combustion
[DE93-006185] 08 p2216 N93-22055
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-192624] 08 p2292 N93-23220
Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366
Numerical simulations of the transport and diffusion during the 1991 Winter Validation Study along the front range in Colorado
[DE93-002684] 08 p2396 N93-23674
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 08 p2210 N93-23719
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
Diffusion-accelerated solution of the 2-D S(sub n) equations with bilinear-discontinuous differencing
[DE93-008793] 10 p3117 N93-27621
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
Studies of curvature, strain, and unsteady effects on premixed flames 11 p3316 N93-30646
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere 12 p3878 N93-31413
A double-peaked solar flare: Conclusions on particle transport 12 p3879 N93-31415
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014

DIFFUSION BONDING
U DIFFUSION WELDING

DIFFUSION COEFFICIENT
NT SORET COEFFICIENT
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
Numerical simulation of permeation from deposited droplets: Model expansion
[MTL-TR-92-23] 09 p2706 N93-25953
Error analysis for the one-dimensional convection-diffusion equation
[CWI-NM-R9209] 10 p3114 N93-27376
Diffusion coefficients and heats of mixing in aqueous alkanolamines
[PB93-176212] 11 p3316 N93-30661

Tidally averaged models for dispersion in shallow water
[REPT-92-66] 12 p3769 N93-31497
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603
DIFFUSION EFFECT
U DIFFUSION
DIFFUSION FLAMES
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Dynamic behavior of a dense spray diffusion flame in a potential vortex 04 p0839 N93-14463
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames 07 p1853 N93-20189
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
On the structure of gaseous confined laminar diffusion flames: Numerical investigation
[NASA-TM-106039] 07 p1902 N93-21198
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
Transient radiation properties of strongly radiating turbulent flames 08 p2221 N93-23181
ADN propellant diffusion flame structure 09 p2629 N93-26036
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion 11 p3310 N93-29125
Numerical modeling of multidimensional flames with application to energetic materials 11 p3319 N93-30079
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031
DIFFUSION LENGTH
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
DIFFUSION PUMPS
From diffusion pumps to cryopumps: The conversion of GSFC's space environment simulator 04 p0814 N93-15611
DIFFUSION THEORY
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
On a class of stochastic reaction-diffusion equations in two space dimensions
[PREPRINT-777] 05 p1265 N93-16442
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Light diffusion in stochastically perturbed media
[REPT-92-41] 06 p1661 N93-17873
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Curvilinear geometry transport discretizations in the thick diffusion limit
[DE93-007109] 10 p3117 N93-27615
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043
DIFFUSION WAVES
Diffusing wave spectroscopy 04 p0980 N93-14169
Nonlinear stability of viscous shock waves
[TRITA-NA-9205] 11 p3419 N93-29025
DIFFUSION WELDING
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473
High performance titanium plate fin heat exchanger using a novel manufacturing process
[PNR-90933] 04 p0880 N93-15488
Summary of the NASA Lewis component technology program for Stirling power converters
[NASA-TM-105640] 04 p0827 N93-15526
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
Role of atomic size and valence in bonding and diffusion at metal surfaces
[DE93-003994] 07 p1857 N93-21972
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
DIFFUSION-CONVECTION EQUATION
U CONVECTION-DIFFUSION EQUATION
DIFFUSIVITY
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys
[DE92-040978] 04 p0847 N93-15382
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Steady state tokamak sustained by bootstrap current without seed current
[NIFS-159] 07 p2070 N93-20155
Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506
DIFLUORIDES
NT CALCIUM FLUORIDES
DIFLUORO COMPOUNDS
NT PERFLUOROALKANE
NT POLYTETRAFLUOROETHYLENE
NT TEFLON (TRADEMARK)
DIGESTING
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
DIGESTIVE SYSTEM
NT GASTROINTESTINAL SYSTEM
NT INTESTINES
DIGITAL CIRCUITS
U DIGITAL ELECTRONICS
U LOGIC CIRCUITS
DIGITAL COMMUNICATION
U PULSE COMMUNICATION
DIGITAL COMPUTERS
NT CONNECTION MACHINE
NT IBM PERSONAL COMPUTERS
NT MACINTOSH PERSONAL COMPUTERS
NT MASSIVELY PARALLEL PROCESSORS
NT MICROCOMPUTERS
NT MIMD (COMPUTERS)
NT MINICOMPUTERS
NT PARALLEL COMPUTERS
NT PERSONAL COMPUTERS
NT SEQUENTIAL COMPUTERS
NT SIMD (COMPUTERS)
NT VAX COMPUTERS
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313
DIGITAL DATA
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Automatic pattern recognition techniques for geometrical correction on satellite data 03 p0687 N93-13913
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
Data management in NOAA 04 p1003 N93-14779
Stewardship of very large digital data archives 04 p1005 N93-15032
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
Stewardship of very large digital data archives 05 p1353 N93-16321
Network accessible multi-terabyte archive 05 p1354 N93-16326

ICI optical data storage tape
05 p1354 N93-16327
ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328
The 19 mm data recorders similarities and differences
05 p1170 N93-16331
Automated classification of basic-level terrain features in digital elevation models
[AD-A256932] 05 p1190 N93-16504
Reproduction of digital signals in magnetic recording: A theoretical study
[ISBN-90-6275-757-X] 05 p1168 N93-16564
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle
05 p1057 N93-16784
An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Army medical imaging system - ARMIS
[AD-A258885] 07 p2089 N93-20374
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
Delineate subsurface structures with ground penetrating radar
[DE93-000474] 07 p1886 N93-21664
Method and apparatus for filtering visual documents
[NASA-CASE-MSC-22093-1] 08 p2522 N93-22017
ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387
Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Digital Nautical Chart
[AD-A260810] 09 p2756 N93-25694
US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
A usage and maintenance of meteorological satellite data 10 p3076 N93-26996
Multiple image multipoint matching for automatic aerotriangulation 11 p3461 N93-29615
Acousto-optic time-integrating correlators for processing wideband digital data 11 p3360 N93-30253
Applications of digital 3-D imaging
11 p3366 N93-30287
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
GE networked mass storage solutions supporting IEEE network mass storage model 11 p3618 N93-30458
Evaluation of D-1 tape and cassette characteristics: Moisture content of Sony and Ampex D-1 tapes when delivered 11 p3435 N93-30466
Towards a 1000 tracks digital tape recorder
11 p3435 N93-30469
Mass optical storage-tape (MOST)
11 p3621 N93-30471
Electron trapping data storage system and applications 11 p3622 N93-30474
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
The use of digital road data by a navigation system
12 p3678 N93-31269
The standards process: Technical committee X3B5 digital magnetic tape 12 p3840 N93-31967

DIGITAL ELECTRONICS
NT LOGIC CIRCUITS
NT THRESHOLD GATES
The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Precision digital phase lock loop circuit
[AD-D015594] 07 p1891 N93-20785
High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Avionics systems architectures
10 p2919 N93-27169
Electronics mixed-mode simulation
[AD-A264734] 11 p3534 N93-30577
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462

DIGITAL FILTERS
NT FIR FILTERS
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Error feedback for reduction of quantization errors due to arithmetic operations in recursive digital filters
[EL-9] 05 p1272 N93-17633
Application of multirate digital filter banks to wideband all-digital phase-locked loops design
06 p1505 N93-18908
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877

DIGITAL INTEGRATORS
Acousto-optic time-integrating correlators for processing wideband digital data 11 p3360 N93-30253

DIGITAL NAVIGATION
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178
GDF: A digitizing format for geographical data
12 p3744 N93-31260

DIGITAL SIMULATION
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738
Composite material damage and fracture models for numerical simulations in support of fracture control
05 p1080 N93-15743
The numerical simulation of the inflation process of space rigidized antenna structures
05 p1083 N93-15771
PDF turbulence modeling and DNS
05 p1153 N93-15794
Modeling of turbulence and transition
05 p1153 N93-15795
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transitiion
[NAL-SP-15] 05 p1160 N93-16809
Instability of spatially periodic flows
05 p1160 N93-16810
Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811
Turbulence research: Where should we go?
05 p1160 N93-16812
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Consideration on boundary-layer receptivity
05 p1160 N93-16814
Boundary layer transition in Coriolis force field
05 p1160 N93-16815
Laminar turbulent transition of a boundary layer by disturbances in the main stream
05 p1161 N93-16816
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Boundary-layer control on a freely falling sphere
05 p1161 N93-16819
Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom
05 p1161 N93-16820
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
Development of wall turbulence structure
05 p1162 N93-16824
Mechanism of the mode selection in bifurcations
05 p1162 N93-16825
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Drag reduction mechanism and coherent structure in near wall turbulence with riblets
05 p1162 N93-16827
A new parameter for predicting crossflow instability
05 p1162 N93-16828
Experiments on swept-wing boundary-layer transition
05 p1162 N93-16829
Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140] 06 p1404 N93-17880
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
LES turbulence modeling using DNS data base
06 p1409 N93-19274
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Numerical computations using multi-domain technique
06 p1409 N93-19277
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Rarefied gas numerical wind tunnel. Part 7: OREX
06 p1410 N93-19280
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method
06 p1410 N93-19281
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Development of a boundary element method program for numerical analysis of supersonic unsteady flow
06 p1410 N93-19283
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Numerical Wind Tunnel: Requirements and the outline
06 p1411 N93-19288

Numerical Wind Tunnel hardware
06 p1411 N93-19289
The operating system for Numerical Wind Tunnel
06 p1411 N93-19290
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
Generation of longitudinal vortices in supersonic flow
06 p1411 N93-19292
Code development for hypersonic real-gas flow simulations toward the design of space vehicles
06 p1411 N93-19293
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Numerical simulation of flow for a scramjet nozzle
06 p1412 N93-19299
A numerical simulation of flows around a deformable gas bubble 06 p1413 N93-19300
Transonic flow calculation around NACA-0012
06 p1413 N93-19301
Similarity in laminar pipe flows with secondary flows
06 p1413 N93-19302
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region
06 p1413 N93-19304
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe
06 p1413 N93-19306
Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme
06 p1414 N93-19308
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
A numerical investigation for supersonic inlet
06 p1415 N93-19315
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step
06 p1415 N93-19316
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
A numerical simulations of inner flow of scramjet
06 p1415 N93-19318
Three-dimensional measurement of turbulent shear flows using digital image processing
06 p1415 N93-19319
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
Wind tunnel tests and CFD in Fuji Heavy Industries
06 p1416 N93-19323
Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324
Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI
06 p1417 N93-19326
Analysis of the Space Shuttle main engine simulation [NASA-CR-191063] 07 p1820 N93-20251
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data
08 p2350 N93-23552
A Digital Landscape Model for Europe (DLME)
08 p2351 N93-23554
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data
08 p2351 N93-23558
Remote sensing landslide hazard mapping using GIS technology in Colombian Andes
08 p2351 N93-23559
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm
08 p2354 N93-23576
The creation of a DEM from SPOT data
08 p2355 N93-23582
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
The comparison of satellite radar altimeter derived heights with global digital terrain model heights
08 p2355 N93-23584
The promise of raster data processing in digital terrain modelling 08 p2356 N93-23585
Meteosat second generation: A look to the future
08 p2357 N93-23753
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860
A snow cover model for global climatic simulations [MPIM-85] 08 p2388 N93-23861
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
A catalog of landscape features. A modeling instrument for the ATKIS information system
12 p3745 N93-31264

DIGITAL SYSTEMS
NT DIGITAL NAVIGATION
Optimal sample policies for multirate digital control
01 p0141 N93-10346
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Photogrammetric point determination using digital imagery of three-line scanner systems
[SER-C-372] 02 p0309 N93-11346
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0483 N93-11790
Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
ISDN at NASA Lewis Research Center
[NASA-TM-105911] 02 p0419 N93-12410
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
Fundamentals and Special Problems of Synthetic Aperture Radar (SAR)
[AGARD-LS-182] 03 p0563 N93-13049
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
Test and control computer user's guide for a digital beam former test system
[NASA-CR-189208] 03 p0685 N93-13291
Multiple-function multi-input/multi-output digital control and on-line analysis
[NASA-TM-107697] 03 p0500 N93-13565
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Digital bank-to-turn control and guidance
04 p0802 N93-14447
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264
Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy
04 p0820 N93-15598
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Improvement in the control aspect of laser frequency stabilization for SUNLITE project
05 p1175 N93-16798
Analogue to digital transformation
[ESDU-92044] 06 p1517 N93-17959
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver
06 p1506 N93-18913
An extended length digital correlator threshold circuit
[AD-D015610] 07 p1889 N93-20328
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system
07 p1967 N93-20529
Development of an automated cartographic system
07 p1967 N93-20530
Application possibilities for automated digitizing
07 p1967 N93-20531
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement
07 p1967 N93-20532
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421
Autonomous prealignment of a docking mechanism
08 p2137 N93-22238
Apparatus and method for computer vision measurements
[PB93-135077] 08 p2432 N93-22536
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Immunizing digital systems against electromagnetic interference
[DE93-005935] 08 p2271 N93-24041
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642
Satellites and the BISDN: An overview of NASA R/D
[NASA-TM-106108] 10 p3025 N93-26903

Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558
Digital parallel processor array for optimum path planning
[NASA-CASE-NPO-18727-1-CU] 10 p3108 N93-28427
Digital image compression using artificial neural networks 11 p3624 N93-28811
Time-interpolation method for digital beamformers
[AD-D015709] 11 p3383 N93-29275
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
A new way to use fuzzy sets in image sharpening 11 p3363 N93-30273
The NT digital micro tape recorder 11 p3435 N93-30461
Towards a 1000 tracks digital tape recorder 11 p3435 N93-30469
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
ELF/VLF spectrum measurements 11 p3398 N93-30745
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915
The redwood project: An overview 12 p3841 N93-31979
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313

DIGITAL TECHNIQUES
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
The development of optical techniques for component inspection in the aerospace industry 01 p0093 N93-10307
Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343
Photogrammetric point determination using digital imagery of three-line scanner systems
[SER-C-372] 02 p0309 N93-11346
High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
Algorithims and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
Image quality measurement techniques
[INPE-5362-NTC/302] 06 p1664 N93-19794
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Method and apparatus for filtering visual documents
[NASA-CASE-MSC-22093-1] 08 p2522 N93-22017
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
Mapping from SPOT data 08 p2349 N93-23544
Swedish forest information atlas 09 p2749 N93-24847
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
Synopsis of timing measurement techniques used in telecommunications 09 p2687 N93-25064
Digital image compression using artificial neural networks 11 p3624 N93-28811
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
The modern high rate digital cassette recorder 11 p3435 N93-30468

DIGITAL TELEVISION
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Standardization of end-to-end performance of digital video teleconferencing/video telephony systems
[AD-A257186] 05 p1137 N93-16001
Introduction to study and simulation of low rate video coding schemes 07 p1880 N93-20171
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
Digital audio and video broadcasting by satellite 10 p3023 N93-26645
Data compression techniques for digital video recording
[ETN-93-93610] 10 p3166 N93-27881

DIGITAL TO ANALOG CONVERTERS
Arbitrary waveform generator
[AD-D015346] 02 p0280 N93-11354
Parallel processor for real-time structural control
[DE93-006284] 08 p2446 N93-22545

DIGITAL TRANSDUCERS
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254

DIGITIZERS
U ANALOG TO DIGITAL CONVERTERS

DIGITS
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272

DIHEDRAL ANGLE
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508

DIHEDRAL EFFECT
U LATERAL STABILITY

DIHYDRIDES
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238

DIKES (GEOLOGY)
U ROCK INTRUSIONS

DILATATION
U STRETCHING

DILATOMETERS
U EXTENSOMETERS

DILATOMETRY
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488

DILUENTS
Phenylethynyl endcapping reagents and reactive diluents
[NASA-CASE-LAR-14796-1] 12 p3702 N93-31459

DILUTION
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160

DIMENSIONAL ANALYSIS
Fractals and multifractals in fracture 01 p0050 N93-10497
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Three dimensional transient analysis of microstrip circuits in multilaysred anisotropic media
[AD-A259829] 08 p2281 N93-23433
User's guide for the algorithm testing system/version 1.1
[PB93-175990] 10 p3096 N93-27408
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920

DIMENSIONAL MEASUREMENT
Method for non-destructive estimation of waveguide directional coupler dimensions
[NASA-CASE-NPO-18454-1-CU] 06 p1519 N93-18285
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines
[PAPER-C-1-6] 07 p2035 N93-20829
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
Application of an on-machine gage for diameter measurements 09 p2711 N93-25578
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579
A novel method for characterization of superconductors: Physical measurements and modeling of thin films 09 p2871 N93-25584
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
Development of capacitive position transducers through a mechatronic approach
[ISBN-90-9005114-7] 10 p3032 N93-27941
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
Possibilistic measurement and set statistics 11 p3517 N93-29567
Method of continuously determining crack length
[NASA-CASE-LAR-14480-1-CU] 11 p3452 N93-29612
Issues, concepts, and standard techniques in assessing accuracy of coordinate measuring machines
[PB93-184331] 11 p3354 N93-29666
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961
Measurement uncertainty considerations for coordinate measuring machines
[PB93-189819] 12 p3714 N93-31196
Progress in speckle-shift strain measurement 12 p3693 N93-31558

DIMENSIONAL STABILITY
NT SHELL STABILITY
NT STRUCTURAL STABILITY
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
Isostatic mounting platform 05 p1080 N93-15745
Micro-precision control/structure interaction technology for large optical space systems 06 p1462 N93-18826
RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311

DIMENSIONLESS NUMBERS
NT FROUDE NUMBER
NT HIGH REYNOLDS NUMBER
NT LEWIS NUMBERS
NT LOW REYNOLDS NUMBER
NT MACH NUMBER
NT NUSSELT NUMBER
NT PRANDTL NUMBER
NT RAYLEIGH NUMBER
NT REYNOLDS NUMBER
NT RICHARDSON NUMBER

NT SCHMIDT NUMBER
NT SIMILARITY NUMBERS
NT STROUHAL NUMBER
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
Non-dimensional conceptual design of radial inflow turbines. Part B: Application of empirical correlations 01 p0077 N93-10054
Dimensionless scaling of confinement in ATF [DE93-001705] 07 p2069 N93-20030
On the thermoelastohydrodynamic lubrication dimensionless problem formulations 07 p1917 N93-20693

DIMENSIONS
NT DEPTH
NT DIAMETERS
NT DIFFUSION LENGTH
NT FILM THICKNESS
NT FRACTALS
NT HEIGHT
NT LENGTH
NT RADII
NT SCALE HEIGHT

DIMERIZATION
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3 [AD-A248001] 02 p0467 N93-12175
Transition metal mediated transformations of small molecules [DE93-001725] 05 p1117 N93-17623

DIMERS
VUV and UV sources and spectroscopic applications [AD-A247293] 02 p0291 N93-11758
Halogen surface chemistry on Si(100)-(2x1) [AD-A254643] 03 p0536 N93-12618
X ray crystal structure of an organoindium alkoxide dimer, (Ph2InOSiMe3)2 [AD-A257404] 05 p1315 N93-15862
Laser-induced dissociation of HN3(DN3) on GaAs(100) K [AD-A257426] 05 p1315 N93-15865
Growth on the reconstructed diamond (100) surface [AD-A256954] 05 p1319 N93-16301
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon [DE93-002550] 06 p1482 N93-18411
Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing [DE93-006411] 08 p2419 N93-24028
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings [AD-A262518] 11 p3592 N93-28584

DIMINUTION
U REDUCTION

DIODES
NT AVALANCHE DIODES
NT GUNN DIODES
NT JUNCTION DIODES
NT LIGHT EMITTING DIODES
NT PHOTODIODES
NT SCHOTTKY DIODES
NT SEMICONDUCTOR DIODES
NT THERMIONIC DIODES
NT TUNNEL DIODES
NT VARACTOR DIODES
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves [DE92-015974] 02 p0293 N93-12089
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator [DE92-016091] 03 p0716 N93-13191
Development of a short pulse high power infrared laser [NASA-TM-108146] 05 p1170 N93-15822
Optoelectronic materials center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology [AD-A257136] 05 p1301 N93-16079
Current density limitations in a fast-pulsed high-voltage diode [AD-A257866] 06 p1520 N93-18328
Advanced helium magnetometer for space applications [NASA-CR-190880] 06 p1537 N93-18399
Tube diode [INPE-5438-NTC/304] 06 p1551 N93-19832
Laser diode ordnance design 07 p1864 N93-20140
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Magnetically insulated ion diodes for synthesis of advanced materials [DE93-003747] 07 p2076 N93-21776
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
Gas source molecular beam epitaxial growth of GaN [AD-A260524] 08 p2512 N93-24199
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
Electric field effects on quantum-confined semiconductor structures 09 p2865 N93-25703
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Monolithic millimeter-wave diode grid frequency multiplier arrays 10 p3019 N93-27775
Planar doped barrier subharmonic mixers 10 p3019 N93-27777
Analysis of electrothermal interactions in power semiconductor modules [ETN-93-93800] 11 p3591 N93-28470
Influence of optical feedback on the pulse behavior of semiconductor lasers [ETN-93-93798] 11 p3436 N93-28614
Electrochemical fabrication of cadmium chalcogenide microdiode arrays [AD-A263169] 11 p3310 N93-28988
ND laser with co-doped ion(s) pumped by visible laser diodes [AD-D015711] 11 p3437 N93-29277

DIOPHANTINE EQUATION
On efficiently characterizing solutions of linear Diophantine equations and its application to data dependence analysis [RUU-CS-92-01] 05 p1266 N93-16643
On solving the Diophantine equation (x cubed) + (y cubed) + (z cubed) = k on a vector computer [CWI-NM-R9121] 05 p1271 N93-17556
Sub-groups of Z(sup n), standard basis, and linear diophantine systems [INRIA-RR-1510] 06 p1615 N93-17836
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k) [CWI-NM-R9215] 10 p3120 N93-28083

DIOXIDES
NT CARBON DIOXIDE
NT COESITE
NT HYDROGEN PEROXIDE
NT QUARTZ
NT SILICON DIOXIDE
NT STISHOVITE
NT SULFUR DIOXIDES
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium [AD-A253137] 01 p0168 N93-10614

DIPHENYL COMPOUNDS
Polybenzoxazoles via aromatic nucleophilic displacement [NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077
The thermodynamic properties of thianthrene and phenoxathiin [DE93-000124] 11 p3603 N93-28964

DIPHTHERIA
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
Immunization of personnel traveling to a destination in tropical countries: French position 02 p0380 N93-11304

DIPLEXERS
Unequal stub length diplexing microwave frequency discriminator circuit [AD-D015352] 02 p0288 N93-11051
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741

DIPOLE ANTENNAS
Gradiometer antennas for tunnel detection [PB92-205400] 01 p0069 N93-10440
Computer modeling of tactical high frequency antennas [AD-A255176] 02 p0286 N93-12377
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY [DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects 03 p0568 N93-14048
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates 08 p2270 N93-23626
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico [DOT/FAA/CT-TN93/10] 10 p2941 N93-27017
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. A: Multiband dipole antenna [AD-A262010] 10 p3027 N93-27668
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Choice of antenna geometry for microwave power transmission from solar power satellites 10 p2988 N93-27987
Auroral-E observations: The first year's data [AD-A263158] 10 p3074 N93-28308
Coupling gain computation between antennas on circular cylinders at SHF/EHF frequencies 11 p3369 N93-30309
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines 11 p3399 N93-30755
Radiation from a dipole antenna into an inhomogeneous compressible and nonlinear space-plasma [ESA-TT-1261] 12 p3716 N93-31341

DIPOLE MOMENTS
NT ELECTRIC MOMENTS
NT MAGNETIC MOMENTS
Ab initio molecular orbital calculations for magnesium-containing systems [AD-A255811] 05 p1287 N93-16397
Adaptive filters for monitoring localized brain activity from surface potential time series [DE93-003795] 08 p2420 N93-22774
A comparison of the Space Station version of ASTROMAG with two free-flyer versions [DE93-004695] 08 p2193 N93-22777
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation [AD-A260283] 08 p2483 N93-24261
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer [AD-A263661] 11 p3324 N93-29391

DIPOLES
Lightweight deployable antenna system [AD-D015291] 01 p0067 N93-10096
The single-gap hollow spherical dipole in non-conducting media [AD-A260017] 08 p2273 N93-24460
Computation of far-field helicopter rotor tone noise [ONERA-P-1990-5] 11 p3562 N93-30110

DIRAC EQUATION
Finite group actions and elliptic genera [DE92-630207] 01 p0170 N93-10388
Second quantization in bit-string physics [DE92-019645] 03 p0727 N93-12826
A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions [PREPRINT-851] 05 p1270 N93-17071
Relativistic calculations of excitation and ionization of highly charged ions by electron impact [DE93-002129] 05 p1296 N93-17783
The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126
A detailed study of nonperturbative solutions of two-body Dirac equations [DE93-004794] 08 p2468 N93-22965
Multilevel techniques in large scale computation [AD-A261082] 09 p2828 N93-25762
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields [NIKHEF-H/92-1] 10 p3155 N93-27306
Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340
On the spring and mass of the Dirac oscillator 10 p3146 N93-27355
Second quantization in bit-string physics 10 p3146 N93-27357
General method for reducing the two-body Dirac equation [DE93-609833] 11 p3607 N93-30943
Relativity theory in (2 + 2)-space [DE92-644671] 11 p3608 N93-30983
On the Dirac equation in three dimensions [DE93-609915] 12 p3813 N93-31181
Relativistic band gaps in one-dimensional disordered systems [DE93-609841] 12 p3829 N93-31814
Free Maxwell equations, Dirac equation, and non-dispersive De Broglie wave packets [DE93-609848] 12 p3832 N93-31908

Scalar symmetry of the massless Dirac equation
[DE93-609921] 12 p3832 N93-31914

DIRECT BROADCAST SATELLITES
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
HISPASAT DBS reflector: Mechanical analysis-environmental test correlation
05 p1081 N93-15751
Olympus: The communications satellite and its uses. An introduction
[ESA-F-29] 06 p1461 N93-18369
Analytical techniques for improved time transfer using common view of direct broadcasting satellites
09 p2835 N93-25008
Mugunghwa: The first Korean domestic satellite for FSS and DBS services 10 p3023 N93-26651

DIRECT CURRENT
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
Power conversion system modification to permit use of DC power source
[AD-D015409] 04 p0868 N93-14887
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU]
06 p1519 N93-18278
A contribution to the adaptive control of servo-drives with direct current motor
[ETN-93-92562] 07 p2047 N93-20876
Progresses in measuring electrostatic DC fields
[OEFZS-4627] 08 p2280 N93-23112
NIST mesurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348

DIRECT POWER GENERATORS
NT ALKALINE BATTERIES
NT FUEL CELLS
NT HYDROGEN OXYGEN FUEL CELLS
NT MAGNETOHYDRODYNAMIC GENERATORS
NT METAL AIR BATTERIES
NT NICKEL ZINC BATTERIES
NT PHOSPHORIC ACID FUEL CELLS
NT PHOTOVOLTAIC CELLS
NT PRIMARY BATTERIES
NT RADIOISOTOPE BATTERIES
NT REGENERATIVE FUEL CELLS
NT SODIUM SULFUR BATTERIES
NT SOLAR BLANKETS
NT SOLAR CELLS
NT THERMAL BATTERIES
NT THERMIONIC CONVERTERS
NT THERMOELECTRIC GENERATORS
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation
[AD-A254941] 03 p0727 N93-12546
Interagency Advanced Power Group Steering Group meeting minutes
[DE93-005641] 08 p2382 N93-24324
Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435

DIRECTION FINDERS (RADIO)
U RADIO DIRECTION FINDERS

DIRECTION FINDING
Method and apparatus for passive direction finding with sideband determination
[AD-D015546] 07 p1882 N93-20306
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Propagation effects on HF direction finding
08 p2265 N93-23602
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
A new passive SSL technique for HF radiolocation
08 p2267 N93-23609
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Measurements of the direction of arrival of an oblique chirp sounder signal 08 p2268 N93-23616
Communication interference/jamming and propagation analysis system and its application to radio location
08 p2269 N93-23621
Airborne system for detection and location of radio interference sources 08 p2269 N93-23622
Location of emissions by evasion of frequency and gusts by sequential analysis sensor in fast scanning
08 p2270 N93-23625
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates
08 p2270 N93-23626
Multiple emitter direction finding from a circular array by single snapshot processing 08 p2270 N93-23627
Radiolocation in the lower ELF frequency band
08 p2270 N93-23630
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 2
[AD-A262098] 10 p3027 N93-27670
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 1
[AD-A262099] 10 p3027 N93-27671
The use of digital road data by a navigation system
12 p3678 N93-31269
Experimental evaluation of an arrival time difference lightning positioning system
[KNMI-WR-92-01] 12 p3767 N93-31600

DIRECTIONAL ANTENNAS
NT DIPOLE ANTENNAS
NT HELICAL ANTENNAS
NT HORN ANTENNAS
NT LENS ANTENNAS
NT LOG PERIODIC ANTENNAS
NT LOOP ANTENNAS
NT PARABOLIC ANTENNAS
NT RADAR ANTENNAS
NT REFLECTOR ANTENNAS
NT SLOT ANTENNAS
NT STEERABLE ANTENNAS
NT YAGI ANTENNAS
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Feed-forward control upgrade of the deep space network antennas 06 p1514 N93-19434
Emergency vehicle alert system, phase 2
[NASA-CR-192464] 08 p2260 N93-22455
A satellite-tracking millimeter-wave reflector antenna system for mobile satellite-tracking
[NASA-CASE-NPO-18772-1-CU]
11 p3381 N93-28955
Planar microstrip YAGI antenna array
[NASA-CASE-NPO-17873-2-CU]
11 p3384 N93-29507

DIRECTIONAL CONTROL
NT THRUST VECTOR CONTROL
PEX: A reactive procedure based decision maker
[REPT-921-440-105] 04 p0999 N93-15118
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite
10 p2925 N93-27203

DIRECTIONAL COUPLERS
Method for non-destructive estimation of waveguide directional coupler dimensions
[NASA-CASE-NPO-18454-1-CU]
06 p1519 N93-18285

DIRECTIONAL SOLIDIFICATION (CRYSTALS)
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces
04 p0995 N93-15311
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique
04 p0995 N93-15312
Microstructural development during directional solidification of peritectic alloys
[NASA-CR-192090] 06 p1488 N93-18603
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495

DIRECTIONAL STABILITY
NT GYROSCOPIC STABILITY
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration
[NASA-TM-4439] 08 p2108 N93-22558
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828

DIRECTIVITY
Combat aircraft jet engine noise studies
01 p0150 N93-10679
Monopole elements with disk ground planes on flat earth: Atlas of directivity, radiation efficiency, radiation resistance, and input impedance
[AD-A257911] 06 p1503 N93-18366
Evaluation of the scattered pressure due to infinite rigid cylinders, infinite elastic cylindrical shells, and rigid spheres in the presence of an ambient noise field
[AD-A264835] 11 p3563 N93-30899

DIRECTORIES
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
The technology advantage: A guide to science, technology, and innovation in Manitoba
[CTN-92-60571] 01 p0192 N93-10654
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
Directory of factual and numeric databases of relevance to aerospace and defence R and D
[AGARD-R-777] 02 p0476 N93-11710
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
Program Support Communications Network (PSCN) facsimile system directory
[NASA-TM-108051] 03 p0562 N93-12909
Directory of awards, fiscal year 1991. Directorate for engineering
[NSF-92-55] 03 p0775 N93-13704
Directory of research projects: Planetary geology and geophysics program
[NASA-TM-4428] 04 p0864 N93-15638
Directory of design support methods
[AD-A256987] 05 p1227 N93-16258
EHR directory of awards, FY 1990
[NSF-92-75] 06 p1746 N93-17854
Access EPA
[PB92-147438] 07 p1994 N93-21811
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
Directory of US Government software for mainframes and microcomputers, 1993
[PB93-111565] 09 p2807 N93-26569
States and small business: A directory of programs and activities, 1993 edition
[PB93-186427] 12 p3834 N93-31433
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796

DIRICHLET PROBLEM
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264

DIRIGIBLES
U AIRSHIPS

DISABILITIES
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
Compliant walker
[NASA-CASE-GSC-13348-2] 04 p0934 N93-14708
Future Assets, Student Talent (FAST)
[NASA-CR-191632] 05 p1332 N93-16624
Intelligent virtual reality in the setting of fuzzy sets
11 p3513 N93-29544

DISASTERS
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Natural disasters and their mitigation using space technology 09 p2742 N93-24804
Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation 09 p2743 N93-24805
Satellite borne remote sensing data: A tool for natural disaster reduction 09 p2743 N93-24806
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809
The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
Management of the disaster communications by satellite 10 p3024 N93-26656
DISCHARGE COEFFICIENT
Flow conditioner location effects in orifice flowmeters [PB93-159457] 09 p2708 N93-26535
DISCHARGE TUBES
U GAS DISCHARGE TUBES
DISCOLORATION
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
DISCONNECT DEVICES
Fastening apparatus having shape memory alloy actuator [NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters [ETN-93-93421] 08 p2278 N93-22679
DISCONNECTORS
U DISCONNECT DEVICES
DISCONTINUITY
Discontinuous initial value problem of nonlinear elasticity by similarity approach 01 p0064 N93-10569
Calibration of the ARID robot 06 p1552 N93-19394
Full wave characterization of microstrip open end discontinuities patterned on anisotropic substrates using potential theory [NASA-TM-106037] 07 p1889 N93-20259
Propagation of elastic waves through inhomogeneous, anisotropic materials [DE93-006247] 08 p2288 N93-22509
The modeling of complex continua: Fundamental obstacles and grand challenges [DE93-006507] 09 p2696 N93-25193
Tracking sharp interface of two fluids by the CIP (Cubic-Interpolated Propagation) scheme [NIFS-206] 09 p2698 N93-25277
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
An investigation of graphite peek composite under compression with a centrally located circular discontinuity [AD-A262549] 11 p3298 N93-29414
DISCOVERING
U EXPLORATION
DISCOVERY (ORBITER)
Contamination signatures observed during the CIRRIS-1A mission [AD-A258596] 07 p1820 N93-19982
STS-39 Space Shuttle mission report [NASA-CR-193063] 09 p2611 N93-25955
STS-42 Space Shuttle mission report [NASA-CR-193059] 09 p2613 N93-25989
STS-48 Space Shuttle mission report [NASA-CR-193060] 09 p2613 N93-25990
Chronology of KSC and KSC related events for 1992 [NASA-TM-107561] 10 p3219 N93-27285
DISCRETE ADDRESS BEACON SYSTEM
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system [DOT/FAA/CT-92/22] 05 p1059 N93-16498
DISCRETE FUNCTIONS
From comparison density to two sample analysis [AD-A253866] 03 p0698 N93-13064
Conversion of discrete event simulation models to diagnostic models [MEMO-INF-92-37] 05 p1240 N93-16667
Functional expansion representations of artificial neural networks 05 p1262 N93-16772
Discrete time system piecewise linear filtering with small observation noise [INRIA-RR-1451] 06 p1633 N93-18611
Comparison properties of stochastic decision free Petri nets [INRIA-RR-1433] 06 p1649 N93-18646
Topology and statistics in zero dimensions [DE93-604080] 11 p3607 N93-30932
DISCRIMINANT ANALYSIS (STATISTICS)
Misclassification rates of likelihood and predictive discriminant functions for small samples [AD-A253640] 01 p0146 N93-10208
Resistive Grid Kernel Estimator (RGKE) [AD-A253520] 01 p0147 N93-10869
Preliminary results on the use of linear discriminant analysis in the ARM continuous speech recognition system [RSRE-MEMO-4511] 02 p0280 N93-11384
The use of linear discriminant analysis in the ARM continuous speech recognition system [RSRE-MEMO-4512] 02 p0280 N93-11385
SAC contrail formation study [AD-A254410] 03 p0499 N93-12605
Discriminant analysis of plasma fusion data [NIFS-156] 07 p2073 N93-20761
Thunderstorm forecast study for Eglin AFB, Florida [AD-A263423] 11 p3483 N93-29810
DISCRIMINANT FUNCTIONS
U DISCRIMINANT ANALYSIS (STATISTICS)
DISCRIMINATION
NT TACTILE DISCRIMINATION
NT VISUAL DISCRIMINATION
Sensory sensitivities and discriminations and their roles in aviation [AD-A259742] 08 p2424 N93-23479
DISCRIMINATORS
NT FREQUENCY DISCRIMINATORS
DISEASED VEGETATION
U PLANT DISEASES
DISEASES
NT ACQUIRED IMMUNODEFICIENCY SYNDROME
NT ANEMIAS
NT ARTERIOSCLEROSIS
NT ASTHMA
NT ASTIGMATISM
NT BONE DEMINERALIZATION
NT CANCER
NT CARBON MONOXIDE POISONING
NT CATARACTS
NT CHOLERA
NT CORONARY ARTERY DISEASE
NT DIPHTHERIA
NT EMPHYSEMA
NT ENCEPHALITIS
NT EPILEPSY
NT HEART DISEASES
NT HEPATITIS
NT INFECTIOUS DISEASES
NT MENINGITIS
NT METABOLIC DISEASES
NT NEOPLASMS
NT OCCUPATIONAL DISEASES
NT PARASITIC DISEASES
NT POLIOMYELITIS
NT RESPIRATORY DISEASES
NT THROMBOSIS
NT TUBERCULOSIS
NT TUMORS
NT TYPHOID
NT ULCERS
NT VIRAL DISEASES
Density equalizing map projections: A new algorithm [DE92-017088] 02 p0413 N93-12110
The Proceedings of the Hypobaric Decompression Sickness Workshop [AD-A257612] 06 p1597 N93-18362
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy [AD-A262483] 11 p3493 N93-28759
Proceedings of a Workshop on Molecular Nuclear Medicine [DE93-010828] 11 p3493 N93-28835
Gene transcription and electromagnetic fields [DE93-010854] 11 p3490 N93-28848
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
The AFOSR Workshop on the Future of EEG and MEG [AD-A264338] 11 p3495 N93-30160
Survey of smoking habits in the Spanish Air Force 12 p3781 N93-32262
DISHES
U PARABOLIC REFLECTORS
DISILICIDES
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying [DE92-007409] 03 p0551 N93-13315
Dependence of buried CoSi2 resistivity on ion implantation and annealing conditions [DE92-010080] 05 p1322 N93-16930
Refractory metal disilicides research [AD-A262416] 11 p3320 N93-28499
DISINFECTANTS
U ANTISEPTICS
DISINTEGRATION
Photodisintegration of the deuteron at high energy [DE92-017066] 02 p0445 N93-12108
DISK GALAXIES
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
Study of tidal interactions in M81-M82-NGC3077 system 04 p1010 N93-14195
Dynamics of stellar populations in galactic disks [MITT-SER-A-234] 07 p2097 N93-21300
Recurrent swing amplification induced by nonlinear amplitude effects [MITT-SER-A-230] 07 p2097 N93-21302
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background [NASA-CR-192790] 09 p2892 N93-25211
Chemical abundances in low surface brightness galaxies: Implications for their evolution 10 p3178 N93-26748
Low surface brightness galaxies 10 p3178 N93-26750
Low redshift Lyman alpha absorption lines and the dark matter halos of disk galaxies 10 p3180 N93-26782
The multicomponent structure of bulges 10 p3187 N93-26800
High velocity clouds in nearby disk galaxies 10 p3187 N93-26804
A new method to simulate vertical and horizontal structure in galactic disks 10 p3188 N93-26809
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
Tidal interactions and the formation of Magellanic spiral galaxies 10 p3190 N93-26821
Cluster tidal fields: Effects on disk galaxies 10 p3191 N93-26824
Gas in merging galaxies 10 p3202 N93-26886
DISK OPERATING SYSTEM (DOS)
A methodology for the evaluation of structural design software for DOS-based microcomputers [AD-A255421] 04 p0943 N93-14505
OCEAN-PC and a distributed network for ocean data 09 p2734 N93-24928
Study on the concurrent calculation with a multitransputer network [DE93-753191] 11 p3524 N93-28531
DISKS (SHAPES)
NT ACTUATOR DISKS
NT ROTATING DISKS
Fracture toughness using circular discs 07 p1935 N93-20677
DISLOCATIONS (MATERIALS)
NT CRYSTAL DISLOCATIONS
NT EDGE DISLOCATIONS
NT SCREW DISLOCATIONS
Is there a unique effective interaction profile for dislocations? [DE92-018615] 03 p0543 N93-13545
STM tip-induced transitions of dislocation network structures on the surface of highly oriented pyrolytic graphite [AD-A262419] 10 p3004 N93-27655
Fundamental studies of the mechanical behavior of microelectronics thin film materials [AD-A264334] 11 p3337 N93-30417
Electron-microscopic investigations of irradiated and naturally aged aluminum alloy [DE93-606752] 12 p3706 N93-31660
DISORDERS
Symmetry breaking and localization in quantum chaotic systems [DE92-634890] 01 p0170 N93-10294
Semiclassical analysis spectral correlations in mesoscopic systems [DE92-634887] 02 p0471 N93-11780
New techniques for positron emission tomography in the study of human neurological disorders [DE92-015353] 02 p0384 N93-11873
Prevention of cumulative trauma disorders [PB93-188332] 12 p3773 N93-31138
DISORIENTATION
NT DISORDERS
NT JET LAG
Epidemiology of United States Air Force spatial disorientation accidents: 1990-1991 06 p1425 N93-19679
Disorientation and flight safety: A survey of UK Army aircrew 06 p1426 N93-19680
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Medical evaluation of spatial disorientation mishaps 06 p1430 N93-19703
DISPENSERS
Automated dry powder dispenser for explosive components [DE92-019425] 03 p0555 N93-12568

The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028

DISPERSING
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows
[DE93-002794] 06 p1535 N93-19615
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
Tests of random flight and closure models in predicting turbulent scalar transport
[DE93-004123] 08 p2288 N93-22521
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529
The AFTAC model integration project
[DE93-003334] 09 p2761 N93-25122
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

DISPERSION
An experimental study of droplet dispersion in turbulent flows 02 p0248 N93-11455
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498

DISPERSION PRECIPITATION HARDENING
U PRECIPITATION HARDENING

DISPERSIONS
NT AEROSOLS
NT COLLOIDS
NT EMULSIONS
NT FOG
NT LIQUID-GAS MIXTURES
NT NUCLEAR EMULSIONS
NT PHOTOGRAPHIC EMULSIONS
NT SMOKE
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Ordering of aggregating particle suspensions undergoing simple shear 07 p1805 N93-21092
Atmospheric dispersion of air pollutants in Umea (Sweden)
[FOA-C-40300-4.5] 12 p3756 N93-32424

DISPLACEMENT
NT CRACK OPENING DISPLACEMENT
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
Evolution of hybrid-Trefftz FE model: State of the art and future trends 01 p0049 N93-10494
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials 03 p0625 N93-13127
Acoustic radiation from a point excited infinite bilaminar plate 03 p0531 N93-13144
The mechanics of dislocation nucleation at a crack tip 04 p0896 N93-14214
An interferometer having fused optical fibers, and apparatus and method using the interferometer
[NASA-CASE-LAR-14640-1-CU] 05 p1304 N93-17052
Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
ARID relative calibration experimental data and analysis 06 p1552 N93-19395
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Analysis of mixed mode cracks in a cylindrical shell 07 p1936 N93-20683
Comparison of the efficiency of the various methods for rigid-body displacement analyses 07 p1941 N93-20709
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774
Current displacement in parabolic cylinder
[ETN-93-93423] 08 p2278 N93-22681
OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994
Polybenzoxazoles via aromatic nucleophilic displacement
[NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Use of the conventional and tangent derivative boundary integral equations for the solution of problems in linear elasticity 08 p2331 N93-24121
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis 09 p2724 N93-25273
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
Positive displacement rotary pump
[AD-D015678] 09 p2719 N93-26144

DISPLACEMENT MEASUREMENT
Determination of high temperature strains using a PC based vision system 03 p0601 N93-13674
The world of grid methods
[NLR-TP-89298-U] 05 p1186 N93-16292
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079
Calibration of a standard transducer using a laser interferometer (TTCP calibration round-robin)
[NRC-34387] 08 p2305 N93-24289
Development of capacitive position transducers through a mechatronic approach
[ISBN-90-9005114-7] 10 p3032 N93-27941
Issues, concepts, and standard techniques in assessing accuracy of coordinate measuring machines
[PB93-184331] 11 p3354 N93-29666
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510

DISPLAY DEVICES
NT APPROACH INDICATORS
NT HEAD-UP DISPLAYS
NT HELMET MOUNTED DISPLAYS
NT PLASMA DISPLAY DEVICES
NT POSITION INDICATORS
NT RADARSCOPES
NT RADIO DIRECTION FINDERS
NT SPEED INDICATORS
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459
Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
Advanced technology for portable personal visualization
[AD-A253808] 02 p0388 N93-11783
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
Guide to synchronization of video systems to IRIG timing
[AD-A254626] 02 p0285 N93-12240
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
A spurious pop-out in visual search
[AD-A256548] 04 p0936 N93-14267
Advantages of using a projected head-up display in a flight simulator
[AD-A255332] 04 p0804 N93-14559
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0
[AD-A255434] 04 p0944 N93-14566
Experimental evaluation of candidate graphical microburst alert displays 04 p0785 N93-14853
A distributed visualization environment for engineering sciences
[DE92-012629] 04 p1051 N93-15060
Method and apparatus for a high resolution, flat panel cathodoluminescent display screen
[AD-D015400] 04 p0868 N93-15107
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
Grid free, modular, large screen display
[AD-D015474] 05 p1303 N93-16481
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
Helmet-mounted area-of-interest display
[AD-A258275] 06 p1605 N93-18029
Holographic enhanced remote sensing system
[NASA-CR-190867] 06 p1565 N93-18230
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU] 06 p1502 N93-18284
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
A user interface to a true 3-D display device
[AD-A258995] 06 p1614 N93-18891
The effects of iconic presentation on individuals
[AD-A258785] 06 p1603 N93-18949
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Multimodal dialog system for future cockpits 06 p1610 N93-19773
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential 06 p1611 N93-19782
Liquid crystal displays replacing the CRT and CLE of future cockpits 06 p1447 N93-19783
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996

Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations
[AD-A259449] 07 p2030 N93-20058
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
A systems approach to the explosive detection problem 07 p1778 N93-21942
Advanced display object selection methods for enhancing user-computer productivity 08 p2444 N93-22151
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding 08 p2445 N93-22157
The Data Egg: A new solution to text entry barriers 08 p2530 N93-22192
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Motif, the basics: An overview of the widget set
[DE93-005273] 08 p2436 N93-22720
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Comparative evaluation of a monocular head mounted display device versus a flat screen display device in presenting aircraft maintenance technical data
[AD-A259684] 08 p2427 N93-23660
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
Evaluation of advanced displays for engine monitoring and control
[NASA-CR-191418] 09 p2591 N93-24764
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
The Grid Analysis and Display System (GRADS): A practical tool for Earth science visualization 09 p2880 N93-25805
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
SAVS: A Space Analysis and Visualization System 09 p2881 N93-25812
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
Inflight evaluation of an acoustic orientation instrument
[AD-A260752] 09 p2591 N93-25909
Perceptual factors that influence use of computer enhanced visual displays
[NASA-CR-192961] 09 p2811 N93-26150
Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194
Emerging large-screen display technology
[AD-A261066] 09 p2681 N93-26241
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Effect of image update rate on moving-target identification range
[AD-A261562] 09 p2591 N93-26462
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
Optically tiled flat panel displays. A feasibility study
[AD-A262737] 11 p3592 N93-28590
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Oculo-motor responses and virtual image displays 11 p3503 N93-28862
Ergonomic development of digital map displays 11 p3503 N93-28866
Application of ray tracing in radiation heat transfer
[NASA-TM-106206] 11 p3419 N93-29075
Grid Analysis and Display System (GrADS): A practical tool for earth science visualization 11 p3613 N93-29225
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818
Virtual reality flight control display with six-degree-of-freedom controller and spherical orientation overlay
[NASA-CASE-NPO-18733-1-CU] 11 p3251 N93-30416
The effects of superimposing symbology on a simulated night vision goggle display
[AD-A263458] 11 p3508 N93-30590
Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Introduction to the National Information Display Laboratory 11 p3628 N93-30718
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

DISPLAY SYSTEMS
U DISPLAY DEVICES

DISPOSAL
NT WASTE DISPOSAL

DISRUPTING
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989

DISSIPATION
NT ENERGY DISSIPATION
NT OHMIC DISSIPATION
Connection of microscopic with macroscopic dynamics: Towards a hydrodynamical description of quantum mechanics 03 p0729 N93-13957
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
Determination of the dissipative loss of a two-port network from noise temperature measurements 06 p1505 N93-18904
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
Eigenfunction for dissipative dynamics operator and attractor of dissipative structure
[NIFS-194] 07 p2050 N93-20267
Low-voltage-swing CMOS transceivers
[DE93-006607] 08 p2277 N93-22511
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects
[DE93-004524] 08 p2494 N93-22942
Information-theoretic outlook of the quantum dissipation problem
[DE93-608162] 12 p3831 N93-31287
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199

DISSIPATORS
U DISSIPATION

DISSOCIATION
NT AUTOIONIZATION
NT BIODEGRADABILITY
NT GAS DISSOCIATION
NT PHOTODISSOCIATION
NT RADIOLYSIS
NT THERMAL DISSOCIATION
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone 02 p0487 N93-11166
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Laser-induced dissociation of HN3(DN3) on GaAs(100) K
[AD-A257426] 05 p1315 N93-15865
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Theory of field adsorption of hydrogen
[AD-A257139] 05 p1102 N93-15996
The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN
[DE92-040734] 05 p1285 N93-16268
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Theory of the dissociation dynamics of small molecules on metal surfaces: Finite temperature studies
[DE93-005870] 08 p2482 N93-23298
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves
[AD-A263653] 11 p3312 N93-29389
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

DISSOLUTION
U DISSOLVING

DISSOLVED GASES
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
Hydrographic data from Endeavor 214: A study of the Gulf Stream-Deep Western Boundary Current crossover
[AD-A257966] 05 p1221 N93-17737
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327

DISSOLVING
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Anisotropic etching of silicon in KOH solutions 09 p2647 N93-25037
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043

DISSYMMETRY
U ASYMMETRY

DISTANCE
NT DIFFUSION LENGTH
NT MISS DISTANCE
NT RADAR RANGE
NT RANGE AND RANGE RATE TRACKING
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635
Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677

Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399
Analytical techniques for improved time transfer using common view of direct broadcasting satellites 09 p2835 N93-25008
HI observations of dwarf galaxies out to a distance of 50 Mpc 10 p3186 N93-26794

DISTANCE MEASURING EQUIPMENT
NT ALTIMETERS
NT LASER ALTIMETERS
NT LASER RANGE FINDERS
NT OPTICAL RANGE FINDERS
NT RADIO ALTIMETERS
NT RANGE FINDERS
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
SSG 1.79: Optical interferometry and short range distance measurement (EDM) 07 p1969 N93-20965

DISTANCE PERCEPTION
U SPACE PERCEPTION

DISTILLATION
Technology development for lunar base water recycling 03 p0680 N93-13999
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
Design and synthesis of reactive separation systems
[DE93-008764] 09 p2642 N93-25115

DISTILLATION EQUIPMENT
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
Design and synthesis of reactive separation systems
[DE93-008764] 09 p2642 N93-25115

DISTORTION
NT FLOW DISTORTION
NT SIGNAL DISTORTION
NT SURFACE DISTORTION
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
Comparisons of theoretical limits for source coding with practical compression algorithms 06 p1513 N93-19428
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method
[DE93-006095] 08 p2479 N93-22525
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis 09 p2724 N93-25273
Tracking sharp interface of two fluids by the CIP (Cubic-Interpolated Propagation) scheme
[NIFS-206] 09 p2698 N93-25277
Distortion measurements on bandpass filters with powdered iron toroidal inductors
[AD-A260790] 09 p2675 N93-25689
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Geometric distortion analysis of a wide-field astrograph 09 p2621 N93-26111
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I 09 p2855 N93-26191
Removing Malmquist bias from linear regressions 10 p3122 N93-26872
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199

DISTRIBUTED FEEDBACK LASERS
Multiperiod-grating surface-emitting lasers
[NASA-CASE-NPO-17763-1-CU] 04 p0885 N93-14703
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

DISTRIBUTED PARAMETER SYSTEMS
Distributed environmental control 02 p0391 N93-11924
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
On a robust controller design using a minimax optimization approach 03 p0695 N93-14021
Computation and communication constraints for distributed estimation systems
[AD-A256287] 04 p0970 N93-14456
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
Distributed computer systems and logistics systems: What do they have in common besides distribution?
[MEMO-INF-92-44] 08 p2448 N93-23872
A theory of processes with localities
[INRIA-RR-1632] 10 p3108 N93-28438
Distributed traffic signal control using fuzzy logic 11 p3513 N93-29543
Generalized steady-state, applied to 2-D, 3-D massively parallel computing
[REPT-92-71] 12 p3795 N93-31504
Sensitivity analysis of coupled bending and torsional vibrations in flexible robot arms
[MEMO-1088] 12 p3735 N93-31526
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857

DISTRIBUTED PROCESSING
Implementation of parallel algorithms
[AD-A253638] 01 p0140 N93-10227
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
Scalable parallel communications 02 p0279 N93-11117
An iterative method for distributed database design 02 p0474 N93-11255
Dynamic programming and image processing on distributed memory parallel machines
[ETN-92-92174] 02 p0409 N93-11478
Z-buffer on a transputer-based machine 02 p0410 N93-11483
Reduction operations on a distributed memory machine with a reconfigurable interconnection network 02 p0410 N93-11484
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
Lazy checkpoint coordination for bounding rollback propagation
[NASA-CR-191281] 03 p0565 N93-13375
Monitoring and controlling distributed applications using Lomita (position paper)
[NASA-CR-190971] 03 p0687 N93-13695
Wait-free consensus
[AD-A255978] 04 p0943 N93-14423
Network issues for large mass storage requirements 04 p1002 N93-14773
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Transactional distributed shared memory
[AD-A256222] 04 p0941 N93-15240
MATE: The multi-agent test environment
[NASA-TM-108114] 04 p0965 N93-15292
Implementation and analysis of NP-complete algorithms on a distributed memory computer
[AD-A256564] 04 p0951 N93-15405
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing 04 p0954 N93-15549
Proceedings of the Eleventh Annual ACM Symposium on Principles of Distributed Computing
[AD-A257294] 05 p1233 N93-15893
An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364
The failure of failures in a paradigm for asynchronous communication
[CWI-CS-R9147] 05 p1237 N93-16410
A Petri net controller for distributed hierarchical systems
[NASA-CR-191862] 05 p1276 N93-16675
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Parallel processing for scientific computations
[NASA-CR-191910] 05 p1256 N93-17028
PDDP: A Parallel Data Distribution Preprocessor
[DE92-040400] 05 p1256 N93-17207
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
Flow models of distributed computations: Event structures and nets
[INRIA-RR-1482] 06 p1646 N93-18612
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
A static view of localities
[INRIA-RR-1483] 06 p1622 N93-18650
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
The operating system for Numerical Wind Tunnel 06 p1411 N93-19290
The economic use of PC for cartographic distributed tasks 07 p1967 N93-20534
Distributed database management evaluation software
[AD-A259215] 07 p2090 N93-20565
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
A contribution to the study of OR-parallel in PROLOG over distributed memory machines
[ETN-93-92681] 07 p2044 N93-20886
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Evaluation of distributed computing tools
[DE93-007408] 08 p2446 N93-22531
High speed, wide area distributed computing for scientific imaging
[DE93-004727] 08 p2436 N93-22778
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Large scale control and distributed computing systems under stochastic structural perturbations
[AD-A260501] 08 p2447 N93-22933

Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
LOTOS specification style for OSI
[MEMO-INF-92-46] 08 p2448 N93-23357
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Validation of distributed systems by fault injection
[LAAS-92180] 08 p2472 N93-23864
Distributed computer systems and logistics systems: What do they have in common besides distribution?
[MEMO-INF-92-44] 08 p2448 N93-23872
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
Process and event abstraction for debugging distributed programs
[ISBN-0-315-51884-7] 08 p2444 N93-24607
Optimal message log reclamation for independent checkpointing
[NASA-CR-192886] 09 p2815 N93-24749
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
A comparison using APPL and PVM for a parallel implementation of an unstructured grid generation program
[NASA-CR-191425] 09 p2808 N93-25073
On the robustness of Herlihy's hierarchy
[NASA-CR-193002] 09 p2808 N93-25107
Using a Cray Y-MP as an array processor for a RISC Workstation
[NASA-TM-103961] 09 p2809 N93-25246
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Object-oriented tools for distributed computing 09 p2817 N93-25576
Distributed information storage 09 p2877 N93-25722
Knowledge-based assistance for science visualization and analysis using large distributed databases 09 p2879 N93-25801
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
The WorkPlace distributed processing environment 09 p2825 N93-25977
Signed vector timestamps: A secure protocol for partial order time
[AD-A261371] 09 p2817 N93-26338
Process membership in asynchronous environments
[NASA-CR-192977] 10 p3091 N93-26904
A design and realization exercise of a mini message transfer system
[MEMO-INF-92-51] 10 p3095 N93-27386
Efficient grid based techniques for solving the Weighted Region Least Cost Path problem on multicomputers
[AD-A262153] 10 p3107 N93-27548
Automatic management of parallel and distributed system resources 10 p2965 N93-27715
Linear-time snapshot protocols for unbalanced systems
[CWI-CS-R9236] 10 p3091 N93-28000
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
Semantic models for distributed data base management. Part 1: Development of a metamodel for fragmentation
[REPT-92-33] 10 p3168 N93-28390
A theory of processes with localities
[INRIA-RR-1632] 10 p3108 N93-28438
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Applying high-level language paradigms to communications software for distributed systems
[AD-A263001] 11 p3528 N93-29463
Data parallelism
[DE93-009300] 11 p3539 N93-29782
A redesigned Isis and Meta system under Mach
[AD-A263576] 11 p3531 N93-29976
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
Mass storage system reference model, Version 4 11 p3617 N93-30450
Technology for national asset storage systems 11 p3617 N93-30452
Measurements over distributed high performance computing and storage systems 11 p3622 N93-30476
Nonlinear explicit transient finite element analysis on the Intel Delta
[DE93-009561] 11 p3535 N93-30647
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465
Processor-management in distributed systems with a compute-intensive workload
[REPT-92-52] 12 p3787 N93-31486
Distributed data systems in space physics 12 p3859 N93-31715
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
High performance FORTRAN without templates: An alternative model for distribution and alignment
[NASA-CR-191451] 12 p3792 N93-32323
Towards distributed control systems for experiments under micro gravity
[NLR-TP-92027-U] 12 p3714 N93-32387

DISTRIBUTION
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228

DISTRIBUTION (PROPERTY)
NT ANGULAR DISTRIBUTION
NT ANTENNA RADIATION PATTERNS
NT BRIGHTNESS DISTRIBUTION
NT CHARGE DISTRIBUTION
NT CURRENT DISTRIBUTION
NT DIFFRACTION PATTERNS
NT ELECTRON DENSITY PROFILES
NT ELECTRON DISTRIBUTION
NT ENERGY DISTRIBUTION
NT FLOW DISTRIBUTION
NT FORCE DISTRIBUTION
NT FREQUENCY DISTRIBUTION
NT HOLE DISTRIBUTION (ELECTRONICS)
NT HOLE DISTRIBUTION (MECHANICS)
NT ION DISTRIBUTION
NT KURTOSIS
NT LOAD DISTRIBUTION (FORCES)
NT MASS DISTRIBUTION
NT MOMENT DISTRIBUTION
NT NEUTRON DISTRIBUTION
NT PRESSURE DISTRIBUTION
NT RADIAL DISTRIBUTION
NT RADIATION DISTRIBUTION
NT SIDELOBES
NT SPATIAL DISTRIBUTION
NT SPECTRAL ENERGY DISTRIBUTION
NT STAR DISTRIBUTION
NT STRAIN DISTRIBUTION
NT STRESS CONCENTRATION
NT STRESS DISTRIBUTION
NT TEMPERATURE DISTRIBUTION
NT VELOCITY DISTRIBUTION
NT VERTICAL DISTRIBUTION
On the use of coupled finite element boundary element models in numerical design analysis 01 p0063 N93-10563
Analysis of the results of the first year of operation of the Munich Dust Counter 08 p2537 N93-23910
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475

DISTRIBUTION FUNCTIONS
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800
Nucleon structure functions from deep inelastic muon scattering
[NIKHEF-H+K/92-01] 02 p0442 N93-11130
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
The local structure of high-temperature superconductors
[DE93-000653] 05 p1324 N93-17177
On the consequences of bi-Maxwellian plasma distributions for parallel electric fields 05 p1152 N93-17317
The kappa distribution as a variational solution for an infinite plasma 05 p1313 N93-17319
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region 06 p1727 N93-19553
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar 06 p1727 N93-19554
Prediction of the random load fatigue life distribution 07 p1922 N93-20337
Statistical analysis of fatigue tests 07 p1923 N93-20343
A radiosity approach realistic image synthesis system
[AD-A259082] 07 p2032 N93-20406
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
On the prior probabilities for two-stage Bayesian estimates
[DE93-006389] 08 p2472 N93-22593
Transformations of gaussian random fields and a test for independence of a survival time from a covariate
[AD-A260442] 08 p2472 N93-24114
Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
On Bernoulli experiments with imprecise prior probabilities
[MEMO-COSOR-92-19] 10 p3123 N93-27236
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Distribution of photons in squeezed polymode light 10 p3143 N93-27325
The compensation approach applied to a 2 by 2 switch
[MEMO-COSOR-92-28] 10 p3115 N93-27397
Optimal server assignment in the case of service times with monotone failure rates
[TW-92-04] 10 p3125 N93-27906
Finite interpolation of random fields
[CWI-BS-R9210] 10 p3126 N93-28087
Evidence-based classification of satellite image data 11 p3459 N93-28931
Possibilistic measurement and set statistics 11 p3517 N93-29567
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083
Are there missing convective currents?
[DE93-604672] 12 p3825 N93-31084
Distribution function of excitations in systems with fractional statistics
[DE93-608195] 12 p3810 N93-31307

DISTRIBUTION MOMENTS
NT MEAN
NT ORTHOGONALITY
NT STANDARD DEVIATION
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819

DISTRICT OF COLUMBIA
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157

DISTURBANCE THEORY
U PERTURBATION THEORY

DISTURBANCES
The effects of three-dimensional imposed disturbances on bluff body near wake flows
[AD-A259501] 08 p2298 N93-24311

DISULFIDES
NT CARBON DISULFIDE
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964

DITCHING (EXCAVATION)
U EXCAVATION

DITCHING (LANDING)
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Canadian Forces helicopter ditchings: 1952-1990 06 p1426 N93-19685

Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991
06 p1426 N93-19686

DITHIOLS
U THIOLS

DIURESIS
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014

DIURETICS
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612

DIURNAL RHYTHMS
U CIRCADIAN RHYTHMS

DIURNAL VARIATIONS
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
JARE data reports no. 170 (ionosphere 45). HF field strength data measured at Syowa Station, Antarctica from January to December 1988 03 p0652 N93-13432
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Long-term averages of globally-measured ELF/VLF radio noise
[AD-A255518] 03 p0566 N93-13869
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068
Cloud-radiative feedbacks in tropical convection
04 p0919 N93-14180
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies
05 p1214 N93-16507
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Measurements of F-region drift velocities at the dusk sector mid-latitude trough
[AD-A257766] 06 p1575 N93-17907
Diurnal variation of overdense meteor echo duration and ozone 06 p1718 N93-19243
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
EISCAT measurements in the E and F regions during the 12-16 February 1990 LTCS campaign
06 p1726 N93-19546
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions
06 p1726 N93-19547
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendocrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility
[DE93-004778] 08 p2404 N93-22964
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
Study of SCN neurochemistry using in vivo microdialysis in the conscious brain: Correlation with circadian activity rhythms
[AD-A259803] 08 p2421 N93-23459
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits
09 p2602 N93-24706
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors
09 p2772 N93-25535
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Spectral energetics of the lower thermosphere
11 p3477 N93-29467
ELF/VLF spectrum measurements
11 p3398 N93-30745
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983

DIVERGENCE
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768

DIVERGENT NOZZLES
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460

DIVERTERS
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
Future development of the D3-D tokamak program
[DE92-040051] 03 p0715 N93-13044
Measurement of impurity ion densities and energies in the divertor and edge regions of Alcator C-Mod tokamak
[DE92-040510] 05 p1307 N93-15922
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Small steady-state tokamak (TST) for divertor testing
[DE93-001213] 05 p1309 N93-16274
Design and analysis of the cryopump for the D3-D advanced divertor
[DE93-001357] 05 p1179 N93-17389
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619
Apparatus for reduction of vibration in liquid-injected gas compressor system
[AD-D015607] 07 p1914 N93-20772
Design study on divertor plates of Large Helical Device (LHD)
[NIFS-190] 07 p2074 N93-21361
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
Applications of divertor biasing to the next generation tokamaks
[DE93-005848] 08 p2494 N93-23023
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
A survey of problems in divertor and edge plasma theory
[DE93-007531] 11 p3586 N93-29056
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649

DIVIDERS
Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563

DIVIDING (MATHEMATICS)
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k)
[CWI-NM-R9215] 10 p3120 N93-28083

DIVING (UNDERWATER)
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
Statistically based decompression tables. 7: Selection and treatment of primary air and N2O2 data
[AD-A259090] 07 p2023 N93-20587
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

DMSP SATELLITES
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994
Gamma ray burst results from DMSP satellites
[DE93-003823] 08 p2559 N93-23687
Drift scintillation meter for the defense meteorological satellite program
[AD-A259993] 08 p2410 N93-24299
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
TACSAT meteorological payloads
11 p3391 N93-29913

DNA
U DEOXYRIBONUCLEIC ACID

DOCKING
U SPACECRAFT DOCKING

DOCUMENT STORAGE
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Document processing 01 p0174 N93-10600
Security considerations within military information systems 01 p0174 N93-10603
File servers, networking, and supercomputers
04 p1004 N93-15030
The long hold: Storing data at the National Archives
04 p1004 N93-15031
Experience with the UniTree mass storage system
[DE93-004717] 08 p2445 N93-22388
Zebra: A striped network file system
[NASA-CR-192912] 09 p2809 N93-25250

DOCUMENTATION
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Documentation practices: The national scene (Greece)
01 p0173 N93-10595
Establishing a scientific and technical information program: Planning and resource management
01 p0173 N93-10597
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
Document processing 01 p0174 N93-10600
Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
ROMPS critical design review. Volume 3: Furnace module design documentation
[NASA-CR-191615] 05 p1237 N93-16440
Automated documentation generator for advanced protein crystal growth
[NASA-CR-192452] 06 p1673 N93-18425
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
Documentation and bibliographic analysis in the framework of the ATKIS generalization
07 p1968 N93-20537
International Centre on Recent Crustal movements
07 p1973 N93-20989
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
Writer's guide for technical procedures
[DE93-007746] 08 p2529 N93-24573

A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
The computer integrated documentation project: A merge of hypermedia and AI techniques
12 p3801 N93-32148
Knowledge based document retrieval in office environments: The Kabiria system
[REPT-92-032] 12 p3843 N93-32389

DOCUMENTS
NT ABSTRACTS
NT ASTRONOMICAL CATALOGS
NT BIBLIOGRAPHIES
NT CATALOGS (PUBLICATIONS)
NT ENGINEERING DRAWINGS
NT HANDBOOKS
NT INSTALLATION MANUALS
NT MANUALS
NT PERIODICALS
NT POSTLAUNCH REPORTS
NT PRESIDENTIAL REPORTS
NT TEXTBOOKS
NT TEXTS
NT THESES
NT USER MANUALS (COMPUTER PROGRAMS)
NT VIDEO DISKS
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK)
01 p0173 N93-10594
Documentation practices: The national scene (Greece)
01 p0173 N93-10595
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
Document processing 01 p0174 N93-10600
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
Coordinating Council. Seventh Meeting: Acquisitions
[NASA-TM-108020] 03 p0733 N93-12636
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
Evolution of the scientific paper
[DE92-019696] 03 p0735 N93-12994
The long hold: Storing data at the National Archives
03 p0737 N93-13139
Stewardship of very large digital data archives
05 p1353 N93-16321
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
Theoretical studies on the chromosphere, corona, and solar wind
[NASA-CR-192116] 06 p1745 N93-19932
Bibliography of scientific publications 1977-1991
[AD-A259084] 07 p2090 N93-20393
The FY 1992 scientific and technical reports, articles, papers, and presentations
[NASA-TM-108392] 07 p2091 N93-20920
Publications of the National Institute of Standards and Technology 1991 catalog
[PB92-217579] 07 p2091 N93-21344
Databases available in the Research Information Center of the National Institute of Standards and Technology
[PB93-114478] 07 p2092 N93-21387
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Journal of research of the National Institute of Standards and Technology, July-August 1992. Volume 97, number 4
[PB93-124246] 07 p2104 N93-21814
Annual bibliography, 1989
[ISBN-951-22-0488-6] 08 p2526 N93-23424
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
The management of change: Implications for the information professional 12 p3838 N93-31222
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796

DOGS
Explosives search dogs 07 p1776 N93-21933
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943

DOLOMITE (MINERAL)
Low cost dewatering of waste slurries
09 p2769 N93-25573

DOMAIN WALL
Solitons on domain walls
[PREPRINT-876] 05 p1289 N93-16980
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618

DOMAINS
NT MAGNETIC DOMAINS
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Supporting multiple domains in a single reuse repository 02 p0415 N93-12390
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Domain decomposition as a mechanism for using asymptotic methods
[DE92-040759] 05 p1263 N93-16201
The KASE approach to domain-specific software systems 05 p1247 N93-17502
Domain specific software architectures: Command and control 05 p1247 N93-17503
Modeling software systems by domains
05 p1248 N93-17506
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Towards automation of user interface design
05 p1248 N93-17510
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Model-based software design
05 p1249 N93-17514
Description of research interests and current work related to automating software design
05 p1249 N93-17515
Automating the design of scientific computing software 05 p1249 N93-17516
Domain specific software design for decision aiding
05 p1249 N93-17517
Knowledge-intensive software design systems: Can too much knowledge be a burden?
05 p1250 N93-17518
Generic domain models in software engineering
05 p1250 N93-17520
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
A domain-specific design architecture for composite material design and aircraft part redesign
05 p1250 N93-17522
CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
Wrapping mathematical tools
06 p1648 N93-18504
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems
06 p1638 N93-18684
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system
[AD-A259018] 06 p1624 N93-19016
An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560
Permissive planning: A machine-learning approach to planning in complex real-world domains
[AD-A260019] 08 p2521 N93-24303
Intelligent, real-time problem solving, phase 3
[AD-A261441] 09 p2829 N93-26345
Comparison of specificity and information for fuzzy domains 11 p3510 N93-29519
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
Scheduling with partial orders and a causal model
12 p3835 N93-32130

DOMES (GEOLOGY)
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa
01 p0123 N93-10192
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Pancakelike domes on Venus
04 p1035 N93-14345
Venus steep-sided domes: Relationships between geological associations and possible petrogenetic models 04 p1038 N93-14359
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883

DOMES (STRUCTURAL FORMS)
NT RADOMES
Structural review of the Vredefort dome
01 p0108 N93-10127
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996

DOMINANCE
NT EYE DOMINANCE

DONOR MATERIALS
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589

DOORS
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277
F-15 composite engine access door
11 p3302 N93-30442

DOPED CRYSTALS
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
Laser densification and doping of sol-gel glasses
[AD-A254566] 03 p0604 N93-12644
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
Laser spectroscopy of rare earth ions
03 p0608 N93-13846
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Dual active layer photoconductor
[AD-D015423] 04 p0993 N93-14820

The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Photorefractive properties of doped BaTiO 3 and SBN
[AD-A257989] 05 p1305 N93-17748
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Conducting polymers as potential active materials in electrochemical supercapacitors
[DE93-003827] 07 p1861 N93-21675
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
Electron-phonon driven spin frustration in multi-band Hubbard models: MX chains and oxide superconductors
[DE93-003697] 08 p2503 N93-22754
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Radiation effects in germanium doped quartz
09 p2837 N93-25021
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Experimental studies of stress management by optical fluorescence
[AD-A261539] 09 p2730 N93-26362
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Superlattice barrier varactors
10 p3012 N93-27738
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-006285] 11 p3406 N93-28944
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
Quantum devices using Si-based superlattices and structures
[AD-A263700] 11 p3595 N93-29383
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
LEO effects on candidate solar cell cover materials
11 p3467 N93-29687
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

DOPES
Structural equilibration in intrinsic, single-doped, and compensated TFT's: Experiments and calculations
[MBB-Z-0377-91-PUB] 07 p1891 N93-20841
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843
Efficient CW operation of a 2.75 micrometer Er(3+)-doped fluorozirconate fibre laser pumped at 650 and 795 nm
[MBB-Z-0384-91-PUB] 07 p1911 N93-20916

DOPING (ADDITIVES)
U ADDITIVES

DOPPLER EFFECT
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933
An introduction to Doppler effect and fading in mobile communications
[AD-A260976] 09 p2676 N93-25866
Imaging the magnetosphere in the extreme ultraviolet
[NASA-CR-192218] 09 p2775 N93-26151
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
A re-analysis of the spectrum of 2206-199
10 p3182 N93-26775
Quasar redshifts and non-potential interactions
[SSCL-PREPRINT-758] 10 p3205 N93-28143
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
Simulated O VI Doppler dimming measurements of coronal outflow velocities 12 p3871 N93-31367

DOPPLER NAVIGATION
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario
06 p1454 N93-18899
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990

DOPPLER RADAR
NT MULTISTATIC RADAR
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans
04 p0784 N93-14847
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
TDWR 1991 Program Review
04 p0785 N93-14852
Systems issues in airborne Doppler radar/LIDAR certification 04 p0785 N93-14855
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives
06 p1418 N93-19591

Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Doppler radar results 06 p1419 N93-19595
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
NASA experimental airborne doppler radar and real time processor for wind shear detection 06 p1420 N93-19607
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Algorithims and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408
Rendezvous radar for the orbital maneuvering vehicle 07 p1814 N93-21419
Representativity of wind measurement from space 07 p1961 N93-21617
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
Structure and utility of blind speed intervals associated with Doppler measurements of range rate
[DOT/FAA/CT-TN92/27] 08 p2122 N93-23063
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
A satellite-based Radar Wind Sounder (RAWS) 08 p2406 N93-23384
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
Positive cloud-to-ground flashes in severe storms 09 p2780 N93-24896
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Setting values for TDWR/LLWAS 3 integration parameters
[AD-A260740] 09 p2783 N93-25645
The North Dakota thunderstorm project
[PB93-153039] 09 p2785 N93-25776
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095
Control-structures interaction test of the LACE satellite 11 p3263 N93-28706
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
The effect of clock, media, and station location errors on Doppler measurement accuracy 11 p3246 N93-29588
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815
Technique for measuring the spin rate of kinetic energy projectiles
[AD-A264114] 12 p3717 N93-32031
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

DOSAGE
NT RADIATION DOSAGE
Limited toxicity and mutagenicity testing of five unicharge propellant compounds
[AD-A252339] 01 p0043 N93-10636
Future approaches to vaccine development single-dose vaccines using controlled-release delivery systems 02 p0382 N93-11310
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941
Predictions of dose from electrons in space
[NASA-CR-191617] 04 p1051 N93-15580
Nifedipine for treatment of high altitude pulmonary edema
[AD-A256959] 05 p1225 N93-16187
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Dose in water from external irradiation by electrons: Radiation protection data
[PB93-173425] 10 p3131 N93-27425
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153

DOSE
U DOSAGE

DOSIMETERS
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133
Feasibility assessment and applications development of a radiobiological dosimeter for space applications, phase 2
[CTN-93-60609] 05 p1168 N93-16745
Direct-reading dosimeters for space life science experiments 07 p1804 N93-21083
The development of an automated cell culture system for use in space life science research 07 p1804 N93-21085
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787
Detailed component design for a Compact Environmental Anomaly Sensor (CEASE)
[AD-A261729] 09 p2620 N93-26248
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730
The emulsion chamber technology experiment 11 p3268 N93-28743
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
A measurement of the radiation dose to LDEF by passive dosimetry 11 p3572 N93-29634
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments 11 p3573 N93-29640
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641

DOSIMETRY
U DOSIMETERS

DOUBLE BASE PROPELLANTS
NT DOUBLE BASE ROCKET PROPELLANTS
Modeling of H2/N2O flames 09 p2627 N93-26026
Dark zone modeling of solid propellant flames 09 p2628 N93-26028

DOUBLE BASE ROCKET PROPELLANTS
Propellant removal from rocket motors containing double-base compositions
[DE92-013567] 02 p0275 N93-12265

DOUBLE STARS
NT BINARY STARS
NT CATACLYSMIC VARIABLES
NT COMPANION STARS
NT DWARF NOVAE
NT ECLIPSING BINARY STARS
NT X RAY BINARIES
Status and early results of the Hipparcos astrometry project 08 p2533 N93-23879
Washington Double Star Catalog Cross Index (1950 position sort)
[NASA-RP-1302] 10 p3171 N93-27533
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202

DOUGLAS AIRCRAFT
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947

DOVAP
U DOPPLER EFFECT

DOWN-CONVERTERS
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191807] 05 p1230 N93-16709
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
Test results of the advanced translator processing system 08 p2269 N93-23620
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download
[ETN-93-94179] 11 p3466 N93-30573

DOWNBURSTS
NT MICROBURSTS (METEOROLOGY)
The modelling of turbulence and downbursts for flight simulators 03 p0507 N93-13542
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095

DOWNLINKING
An analysis of the low-earth-orbit communications environment 03 p0561 N93-12633
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
A model to compare performance of space and ground network support of low-Earth orbiters 06 p1508 N93-18925
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Proposed data compression schemes for the Galileo S-band contingency mission 08 p2431 N93-24554
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
Performance results of a 300-degree linear phase modulator for spaceborne communications applications 09 p2672 N93-24670
High rate science data handling 10 p2964 N93-27709

Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591
A satellite downlink spread spectrum timing beacon 11 p3362 N93-30267

DOWNWASH
Acoustic noise generation at the air/ocean boundary [DREA-CR-90-445] 01 p0147 N93-10642
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover 03 p0497 N93-14035

DPCM (MODULATION)
U DIFFERENTIAL PULSE CODE MODULATION

DRAFT (GAS FLOW)
An investigation into the role of moist, vertical drafts in the rotational development of storms 04 p0923 N93-15087

DRAFTING (DRAWING)
Tolerancing for function in a CAD/CAM environment [PAPER-C-1-1] 07 p2034 N93-20824

DRAG
NT AERODYNAMIC DRAG
NT FRICTION DRAG
NT INDUCED DRAG
NT PRESSURE DRAG
NT SATELLITE DRAG
NT WAVE DRAG
A method of testing two-dimensional airfoils [AD-A253210] 01 p0004 N93-10375
Drag on an oscillating rod in a non-Newtonian fluid [DE92-014746] 02 p0308 N93-12492
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
Theory and computation of optimal low- and medium-thrust transfers [NASA-CR-191651] 05 p1090 N93-16428
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds [ESDU-92039] 05 p1055 N93-16634
Modelling of interfacial and thermocline waves [AERO-REPT-9209] 06 p1525 N93-18103
Modelling of interfacial and thermocline waves [AERO-REPT-9212] 06 p1526 N93-18106
On the drag of model dendrite fragments at low Reynolds number [NASA-TM-105916] 07 p1855 N93-19974
A convective drag theory for surface fluxes [DE93-004037] 08 p2403 N93-22722
Bounds on internal state variables in viscoplasticity [NASA-TM-106215] 11 p3451 N93-29196
The role of the margins in ice stream dynamics 12 p3761 N93-31896

DRAG BALANCE
U AERODYNAMIC BALANCE
U LIFT DRAG RATIO

DRAG COEFFICIENTS
A method of testing two-dimensional airfoils [AD-A253210] 01 p0004 N93-10375
A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet [DE93-005251] 08 p2293 N93-23300

DRAG DEVICES
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT SPOILERS
NT TRAILING EDGE FLAPS
NT WING FLAPS
Lanchester: The man [AERO-REPT-9111] 05 p1402 N93-16464

DRAG EFFECT
U DRAG

DRAG MEASUREMENT
Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP 03 p0518 N93-13922
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks [AD-A258547] 06 p1471 N93-19899

DRAG REDUCTION
Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550
Comparative effects of drag-reducing polymers. An experimental report [AD-A254001] 02 p0268 N93-11793
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers 02 p0304 N93-12003
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Analysis and design of planar and non-planar wings for induced drag minimization [NASA-CR-191274] 03 p0493 N93-13463
Wall layers [AD-A256152] 04 p0872 N93-14257
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model [MPIS-9/1991] 04 p0781 N93-15131
Drag reduction mechanism and coherent structure in near wall turbulence with riblets 05 p1162 N93-16827
Stall departure resistance enhancer [NASA-CASE-LAR-14221-1] 06 p1447 N93-19023
Drag reduction by polymer additives [AD-A258867] 06 p1534 N93-19076
Computation of H2/air reacting flowfields in drag-reduction external combustion [NASA-CR-191071] 07 p1846 N93-20237
Injection of drag-reducing additives into turbulent water flows. Investigation of laser-induced fluorescence for concentration measurements [AD-A259459] 07 p1898 N93-20243
Analysis and evaluation of an integrated laminar flow control propulsion system [NASA-CR-192162] 07 p1899 N93-20268
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Structural and aerodynamic optimization of joined-wing aircraft 09 p2588 N93-25526
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface 09 p2705 N93-25746
Modified point mass trajectory simulation for base-burn projectiles [BRL-TR-3321] 09 p2609 N93-25985
The generation of side force by distributed suction [NASA-CR-193129] 10 p3039 N93-27151
Flow visualization on helicopter blades using acenaphthen [ESA-TT-1255] 11 p3422 N93-29273
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
Selected experiments in laminar flow: An annotated bibliography [NASA-TM-103989] 12 p3673 N93-32226

DRAGULATORS
U BRAKES (FOR ARRESTING MOTION)
U DRAG DEVICES

DRAINAGE
Numerical simulations of drainage flows on Mars 06 p1742 N93-19816
Classification of TM data as a contribution to remote sensing for a hydrological run-off model 08 p2341 N93-22448
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model [ESA-TT-1238] 08 p2342 N93-22461

DRAINAGE PATTERNS
The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters 03 p0635 N93-13840

DRAINING
U DRAINAGE

DRAWINGS
NT ENGINEERING DRAWINGS
Drawing planar graphs using the lmc-ordering [RUU-CS-92-33] 10 p3102 N93-28108

DREDGING
Dredging research program: Feasibility of a kinematic differential Global Positioning System [AD-A248953] 02 p0205 N93-11419
System analysis for a kinematic positioning system based on the global positioning system [AD-A262830] 11 p3245 N93-29468

DRIFT (INSTRUMENTATION)
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
Drift scintillation meter for the defense meteorological satellite program [AD-A259993] 08 p2410 N93-24299

DRIFT RATE
Measurements of F-region drift velocities at the dusk sector mid-latitude trough [AD-A257766] 06 p1575 N93-17907
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region 06 p1727 N93-19552
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
Mixed constellation synchronization of GPS time 09 p2836 N93-25015
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2 11 p3414 N93-29685

DRILL BITS
Retractable tool bit having slider type catch mechanism [NASA-CASE-GSC-13358-1] 04 p0890 N93-14710

DRILLING
NT LASER DRILLING
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method [AD-A255548] 04 p0791 N93-14571
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
Vectorial tolerancing [PAPER-C-1-4] 07 p2035 N93-20827
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges [PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry [PB93-169118] 10 p3067 N93-26623
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry [PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry [PB93-173979] 10 p3069 N93-27512
Stress analysis and evaluation of a rectangular pressure vessel [DE93-004990] 10 p3060 N93-28059
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1 [PB93-173797] 11 p3468 N93-28899
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide [PB93-173805-VOL-2] 11 p3471 N93-29861

DRINKING
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise [NASA-TM-103942] 09 p2795 N93-26133

DROGUES
U TOWED BODIES

DRONE AIRCRAFT
Application of concurrent engineering methods to the design of an autonomous aerial robot [AD-A254968] 03 p0609 N93-12555
Report to the Chairman, Legislation, and National Security Subcommittee, Committee on Goverment Operations, House of Representatives. Unmanned aerial vehicles: More testing needed before production of short-range system [AD-A259473] 07 p1780 N93-20245

DRONE HELICOPTERS
U DRONE AIRCRAFT
U HELICOPTERS

DRONE VEHICLES
NT DRONE AIRCRAFT
Radar seeker based autonomous navigation update system using topography feature matching techniques 08 p2256 N93-22030

DROP SIZE
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Physical processes involved in injection and atomization of liquid propellants 02 p0248 N93-11453
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
Effect of vaporization on cryogenic spray dropsize measurement [NASA-TM-105909] 03 p0597 N93-13410
A laboratory investigation of raindrop oscillations 03 p0666 N93-13790

Optimization of a Counterflow Virtual Impactor (CVI) for studying aerosol effects on cloud droplet number
04 p0914 N93-14861
Global survey of effective particle size in liquid water clouds by satellite observations
04 p0921 N93-14862
An investigation into the role of moist, vertical drafts in the rotational development of storms
04 p0923 N93-15087
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
A study of the dynamics of droplet break-up
[CTN-93-60621] 05 p1132 N93-16746
On the size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
07 p2011 N93-20281
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130
Limitations of the ideal phase-Doppler system: Extension to spatially and temporally inhomogeneous particle flows with an application to diesel sprays
[DE93-009447] 11 p3416 N93-28595
Modeling the effects of drop drag and breakup on fuel sprays
[AD-A263650] 11 p3445 N93-29388
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069

DROP TESTS
Materials processing in low gravity
[NASA-CR-184421] 02 p0276 N93-12401

DROP TOWERS
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Capabilities and constraints of NASA's ground-based reduced gravity facilities 07 p1819 N93-20184
Capabilities and constraints of combustion diagnostics in microgravity 07 p1869 N93-20185
Opposed-flow flame spreading in reduced gravity
07 p1854 N93-20206
Metals combustion in normal gravity and microgravity
07 p1854 N93-20211
Computational/experimental studies of isolated, single component droplet combustion
07 p1854 N93-20213
High-pressure droplet combustion studies
07 p1854 N93-20216
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
NIST impact test facility
[PB92-226315] 07 p1788 N93-21467
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832
Fluid mechanics applications for the design and test of the surface tension tank OST-2
08 p2248 N93-22841
Polyreactions in microgravity environment
08 p2251 N93-22859
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755

DROP TUBES
U DROP TOWERS

DROP WEIGHT TESTS
U DROP TESTS

DROPOUTS
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381

DROPS (LIQUIDS)
NT RAINDROPS
Metal slurry droplet and spray combustion
02 p0245 N93-11138
An experimental study of droplet dispersion in turbulent flows 02 p0248 N93-11455
Simulation of liquid drop breakup behavior in a flow field using discrete element techniques
[DE92-019435] 02 p0300 N93-11537
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Computational fluid dynamics combustion analysis evaluation
[NASA-CR-184326] 03 p0575 N93-12688
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
Numerical study on mixing of sprayed liquid in an LNG storage tank 03 p0584 N93-13388
Numerical investigation of non-spherical droplet dynamics in viscous convective flows
03 p0591 N93-13918
Introduction to spray combustion modelling
04 p0841 N93-14626
Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686
Optimization of a Counterflow Virtual Impactor (CVI) for studying aerosol effects on cloud droplet number
04 p0914 N93-14861
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3
[CTN-93-60611] 05 p1158 N93-16544
A study of the dynamics of droplet break-up
[CTN-93-60621] 05 p1132 N93-16746
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
High-energy laser-particle interaction
06 p1543 N93-18469
Japan's microgravity combustion science program
07 p1868 N93-20182
Laser diagnostics for microgravity droplet studies
07 p1853 N93-20195
On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199
The structure of particle cloud premixed flames
07 p1853 N93-20202
Studies of droplet burning and extinction
07 p1854 N93-20212
Computational/experimental studies of isolated, single component droplet combustion
07 p1854 N93-20213
Combustion experiments in reduced gravity with two-component miscible droplets
07 p1854 N93-20214
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning
07 p1854 N93-20215
High-pressure droplet combustion studies
07 p1854 N93-20216
Combustion of interacting droplet arrays in a microgravity environment 07 p1854 N93-20217
The electrospray: Fundamentals and combustion application 07 p1855 N93-20218
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
Dynamics of sessile droplets distortion and disruption by electric field in microgravity conditions
07 p1805 N93-21091
Ripening of immiscible liquid droplets in microgravity with constrained Marangoni drift 07 p1810 N93-21122
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Experimental investigation of the influence of the temperature gradient on the thermocapillary convection in spherical drops under low-gravity
08 p2251 N93-22862
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-192624] 08 p2292 N93-23220
A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet
[DE93-005251] 08 p2293 N93-23300
Computation of nonlinear optical scattering by droplets
[AD-A260333] 08 p2490 N93-24267
Size dependence of the chemical properties of cloud droplets: Exploratory studies by aircraft
[PB93-136117] 08 p2410 N93-24501
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Modeling of bubble and drop formation in flowing liquids in terrestrial and microgravity environments
09 p2664 N93-25390
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
Numerical simulation of permeation from deposited droplets: Model expansion
[MTL-TR-92-23] 09 p2706 N93-25953
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013
A summary of the JANNAF workshop on liquid rocket atomization 09 p2625 N93-26014
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances
09 p2626 N93-26015
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566
Studies of complexity in fluid systems
[DE93-010776] 11 p3418 N93-28878
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Transient cooling of a hot surface by droplets evaporation
[PB93-189421] 12 p3722 N93-31114

DROUGHT
Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967

DROUGHT CONDITIONS
U DROUGHT

DROWSINESS
U SLEEP

DRUG THERAPY
U CHEMOTHERAPY

DRUGS
NT ADRENERGICS
NT ANTIADRENERGICS
NT ANTICONVULSANTS
NT ANTIDIURETICS
NT ANTIHISTAMINICS
NT ANTIINFECTIVES AND ANTIBACTERIALS
NT CAFFEINE
NT CENTRAL NERVOUS SYSTEM STIMULANTS
NT CHLOROFORM
NT CHOLINERGICS
NT CYCLOPROPANE
NT HEMOSTATICS
NT INSULIN

NT NARCOTICS
NT NOREPINEPHRINE
NT SEROTONIN
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population
02 p0381 N93-11307
Future approaches to vaccine development single-dose vaccines using controlled-release delivery systems
02 p0382 N93-11310
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612
User's guide for the longitudinal scalogram analysis program
[AD-A256817] 05 p1232 N93-15682
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Nifedipine for treatment of high altitude pulmonary edema
[AD-A256959] 05 p1225 N93-16187
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
Explosive detection using microwave imaging
07 p1771 N93-21902
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988
[PB92-917008] 08 p2117 N93-23187
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
Immunoconjugates: Magic bullets for cancer therapy?
09 p2796 N93-25567
Analysis of neural systems involved in modulation of memory storage
[AD-A262418] 10 p3084 N93-27654
Pharmacokinetics and Pharmacodynamics in Space
[NASA-CP-10048] 11 p3494 N93-29502

DRUMLINS
U GLACIAL DRIFT

DRY CELLS
NT NICKEL ZINC BATTERIES

DRY HEAT
Status and prospects for Hot Dry Rock (HDR) in the US
[DE92-018876] 02 p0345 N93-11381

DRYING
NT DEHUMIDIFICATION
NT DEHYDRATION
NT FREEZE DRYING
Mass transfer in oscillating flows: Efficient drying via pulse combustors
[PB92-204403] 01 p0081 N93-10449
Ultrastructure processing and environmental stability of advanced structural and electronic materials
[AD-A256153] 04 p0831 N93-14665
Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill
09 p2659 N93-25585
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914

DSN (SPACE NETWORK)
U DEEP SPACE NETWORK

DTA (ANALYSIS)
U THERMAL ANALYSIS

DUAL FREQUENCY RADAR
U MULTISPECTRAL RADAR

DUAL MODE PROPULSION
U HYBRID PROPULSION

DUAL SPIN SPACECRAFT
An approximate solution for the linearized spinup dynamics of a dual-spin spacecraft
[AD-A258903] 06 p1470 N93-19350

DUALITY THEOREM
The space of spheres, a geometric tool to unify duality results in Voronoi diagrams
[INRIA-RR-1620] 11 p3547 N93-28512
Duality and sensitivity in quadratic optimization over a sphere
[REPT-92-65] 12 p3804 N93-31470
On a class of geometric vector optimization problems
[REPT-92-51] 12 p3804 N93-31485

DUCT GEOMETRY
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
Modal synthesis technique used in shallow doublewall
[FFA-TN-1992-29] 12 p3722 N93-31053

DUCTED BODIES
The prediction of convective heat transfer in rotating square ducts
[PNR-90985] 02 p0296 N93-11067

DUCTED FAN ENGINES
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705

DUCTED FANS
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773

DUCTED FLOW
NT KNUDSEN FLOW
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
An experimental investigation of the flow in a diffusing S-duct
[NASA-TM-105809] 02 p0213 N93-12077
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
Direct numerical simulation of turbulent flow in a square duct 05 p1158 N93-16513
Streamwise computation of a circular-to-rectangular transition duct potential flow field
[NIAR-92-17] 05 p1159 N93-16628
Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom
05 p1161 N93-16820
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region
06 p1413 N93-19304
Numerical analysis of flow in a heated horizontal square duct 06 p1413 N93-19305
Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968
Film condensation in a horizontal rectangular duct
[NASA-CR-191061] 07 p1898 N93-20063
Experimental investigation of developing and fully developed flow in a curved duct of square cross section
[ISBN-0-315-70029-7] 08 p2291 N93-23177
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404
An experimental investigation of subsonic flow in a two-dimensional U-duct
[NASA-TM-103931] 08 p2128 N93-24535
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct
09 p2699 N93-25342
Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
Experimental study of cross flow mixing in cylindrical and rectangular ducts
[NASA-CR-187141] 10 p2945 N93-27680
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Practical flow duct acoustic modelling
[ISVR-TR-213] 12 p3726 N93-31838

DUCTED PROPELLERS
U SHROUDED PROPELLERS

DUCTED ROCKET ENGINES
Development testing of throttleable ducted rockets
05 p1092 N93-17610
Semi-propellants for ducted rockets
05 p1092 N93-17612
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187

DUCTILITY
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
International ADI-Seminar: Austempered Ductile Iron
[PB92-180660] 02 p0256 N93-11244
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
Ductile fracture process of discontinuous fiber reinforced composites
[DE92-016298] 03 p0531 N93-13264
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
The mechanics of dislocation nucleation at a crack tip
04 p0896 N93-14214
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086
Deformation twinning in ordered alloys transformation induced ductility in intermetallics
[DE93-002879] 05 p1111 N93-16148
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Ductility and fracture in L1(sub 2) intermetallic alloys
[DE93-001644] 06 p1487 N93-18534
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
High temperature alloys 07 p1858 N93-20626
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites
[DE93-004464] 08 p2209 N93-22973
Bend ductility of tungsten heavy alloys
[DE93-004839] 08 p2232 N93-23971
Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972
Acceptable aluminum additions for minimal environmental effect in iron-aluminum alloys
[DE93-006738] 08 p2234 N93-24329
Numerical investigations on fracture behavior of ductile materials 09 p2725 N93-25411
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632

Development and application of an advanced ductile fracture mechanics methodology
09 p2727 N93-25718
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Transformation plasticity in ductile solids
[DE93-008636] 11 p3321 N93-28902
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101
Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Low temperature environmental embrittlement in ordered intermetallics
[DE93-009711] 11 p3324 N93-29786
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813

DUCTS
NT ACOUSTIC DUCTS
NT AIR DUCTS
NT ANNULAR DUCTS
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
On the prediction of turbulent secondary flows
[NASA-CR-189722] 03 p0575 N93-12717
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences
05 p1165 N93-17289
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation
[AD-A257634] 05 p1141 N93-17721
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Enhanced heat transfer in ribbed ducts using vortex generators
[PB93-114320] 07 p1902 N93-21219
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22892
The acoustical impedance at the junction of non-coaxial cylindrical ducts
[MATHS-REPT-A-157] 08 p2477 N93-24123
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Combined forced and free convection in a curved duct
10 p2937 N93-27461
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels
11 p3255 N93-29942

DUFFING DIFFERENTIAL EQUATION
Digital simulation and discrete modelling of a chaotic system
[RR-447] 05 p1279 N93-16561

DUMMIES
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667
Improving manikin biofidelity 06 p1424 N93-19668
The design and use of automotive crash test dummies
06 p1424 N93-19669
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat
06 p1424 N93-19671

DUMMY LOADS
U IMPEDANCE
U LOADING
U OUTPUT

DUMP COMBUSTORS
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877

DUNGEYS WIND SHEAR MECHANISM
U WIND SHEAR

DUNITE
Frequency dependent electrical properties of minerals and partial-melts
[DE93-009254] 11 p3410 N93-29793

DUPLEXERS
Superplastic forming of ceramic insulation
02 p0228 N93-12452

DUPLICATING
U REPRODUCTION (COPYING)

DURABILITY
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Issues/considerations and performance prediction of LEO protective coatings 07 p1847 N93-20813
Reentry systems: Material technology needs
08 p2176 N93-22108
Thermal protection systems for space transportation vehicles 08 p2177 N93-22113
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813

DURATION
U TIME

DUST
NT COSMIC DUST
NT INTERPLANETARY DUST
NT LUNAR DUST
NT TERRESTRIAL DUST BELT
NT ZODIACAL DUST
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations
06 p1705 N93-19154
Numerical simulations of cometary dust
06 p1711 N93-19198
Note on the scattering of electromagnetic waves from charged dust particles in a plasma
06 p1725 N93-19539
Theory of radar scattering from dusty plasmas
06 p1516 N93-19540
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies
06 p1741 N93-19810
Microgravity combustion of dust suspensions
07 p1853 N93-20201
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Temporal and spatial inhomogeneities in comets
08 p2551 N93-24188
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
Drill/borescope system for the Mars Polar Pathfinder
11 p3647 N93-28805
Chemical reactivity of the Martian soil
12 p3867 N93-31963

DUST COLLECTORS
Dust control for Enabler
[NASA-CR-192065] 05 p1180 N93-17774
CoMA: A high resolution Time-Of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for in situ analysis of cometary matter 06 p1721 N93-19272
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Dust protection for environmental control and life support systems in the lunar environment
10 p3089 N93-27979

DUST STORMS
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Degradation of radiator performance on Mars due to dust 04 p0823 N93-15616
Dust transport into Martian polar latitudes
06 p1742 N93-19815
The Martian lower atmosphere
09 p2897 N93-26394

DWARF GALAXIES
Nearby dwarf galaxies: Dust masses and their implications 08 p2540 N93-23928
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
H II regions in the dwarf galaxy UGC-A 86
10 p3178 N93-26749
The evolution of the intergalactic medium and the origin of the galaxy luminosity function
10 p3180 N93-26759
HI observations of dwarf galaxies out to a distance of 50 Mpc 10 p3186 N93-26794
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
Far-infrared line images of dwarf galaxies
10 p3186 N93-26797
The fate of captured gas: NGC 3077 and star formation in the M81 system 10 p3186 N93-26798
The critical density for star formation in HII galaxies
10 p3189 N93-26817
Formation of massive clouds and dwarf galaxies during tidal encounters 10 p3190 N93-26822
Can physical stellar collisions explain the blue stragglers in the dwarf spheroidal galaxies?
[DE93-008711] 11 p3634 N93-28907

The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419

DWARF NOVAE
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Disc structure and variability in dwarf novae 04 p1017 N93-14460
Investigation of serendipitious WFC sources
[NASA-CR-192774] 08 p2544 N93-24458
Multiwavelength studies of classical nova shells 11 p3636 N93-30412

DWARF STARS
NT DWARF NOVAE
NT FLARE STARS
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
Carlsberg meridian catalogue La Palma (Spain). Number 6: Observations of positions of stars and planets 1990
[ISBN-84-7469-052-8] 08 p2543 N93-24059
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Spectroscopic and photometric studies of main sequence M stars and a search for late-type dwarfs in the solar vicinity 11 p3629 N93-28608
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

DWELL
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
An M/G/1 queue with dependence between interarrival and service times
[CWI-BS-R9125] 05 p1276 N93-16849

DYE LASERS
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
Method for detecting chemical vapors using a lasing dye sensor
[AD-D015424] 04 p0885 N93-14821
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801
Efficient laser action from two CW laser pumped pyrromethene-BF2 complexes
[AD-A264887] 11 p3441 N93-30910
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

DYES
NT RHODAMINE
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Microparticle-based fluorescence immunoassay
[DE92-040704] 05 p1103 N93-16195
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV) 10 p2935 N93-27454
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596

DYNAMIC CHARACTERISTICS
NT AERODYNAMIC DRAG
NT AERODYNAMIC STABILITY
NT AIRCRAFT STABILITY
NT ATTITUDE STABILITY
NT BOUNDARY LAYER STABILITY
NT COMBUSTION STABILITY
NT CONTROL STABILITY
NT DIRECTIONAL STABILITY
NT DRAG
NT DYNAMIC PRESSURE
NT DYNAMIC STABILITY
NT FLAME STABILITY
NT FLOW CHARACTERISTICS
NT FLOW DISTRIBUTION
NT FLOW STABILITY
NT FLOW VELOCITY
NT FREQUENCY STABILITY
NT FRICTION DRAG
NT GYROSCOPIC STABILITY
NT HOVERING STABILITY
NT INDUCED DRAG
NT LATERAL STABILITY
NT LIFT
NT LONGITUDINAL STABILITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT MOTION STABILITY
NT PRESSURE DRAG
NT ROTARY STABILITY
NT ROTOR LIFT
NT SATELLITE DRAG
NT SOLAR WIND VELOCITY
NT SPACECRAFT STABILITY
NT TRANSIENT RESPONSE
NT WAVE DRAG
NT WEIBEL INSTABILITY
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467
Vehicle/guideway interaction in maglev systems
[DE92-019051] 02 p0326 N93-11653
Dynamics of space debris 02 p0219 N93-11904
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
A fundamental study of the effect of gravity on the static and dynamic behavior of robots 03 p0610 N93-12760
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
Nonlinear dynamics of optical systems 04 p0979 N93-14124
Dynamic behavior of a dense spray diffusion flame in a potential vortex 04 p0839 N93-14463
Wind shear related research at Princeton University 04 p0785 N93-14854
Theoretical studies of the physics of the solar atmosphere
[NASA-CR-191357] 04 p1049 N93-15085
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
A study of the Lute Metering Structure 05 p1189 N93-17294
Optimal dynamic range integrated continuous-time filters
[ISBN-90-6275-755-3] 05 p1150 N93-17395
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827
The non-linear dynamics of composite cylindrical shells
[AD-A259026] 06 p1558 N93-18953
Lumped mass modelling for the dynamic analysis of aircraft structures 06 p1447 N93-19460
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Methods for modeling contact dynamics of capture mechanisms 08 p2151 N93-22320
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Dynamic and thermodynamic characteristics of a pre-frontal convective rainband in northern Taiwan determined form Tamex data 08 p2409 N93-24162
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Trapped energy quartz crystal resonator on wedge-shaped plate 09 p2837 N93-25022
Dynamic test apparatus for electro-rheological fluids
[AD-D015632] 09 p2643 N93-25284
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Dynamic behavior of helix interaction circuits
[AD-A261362] 09 p2692 N93-26334
1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544
Dynamic characteristics of specialty composite structures with embedded damping layers
[NASA-TM-106165] 10 p2989 N93-26705
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1
[NASA-TP-3347] 10 p2959 N93-27162
Practical limits to the performance of magnetic bearings: Peak force, slew rate, and displacement sensitivity 10 p2961 N93-27571
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Interaction dynamics of on-orbit construction 11 p3274 N93-29109
Hybrid CMS methods with model reduction for assembly of structures 11 p3274 N93-29110
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119
Observations of the quiet Sun from the soft x ray telescope on Yohkoh 12 p3874 N93-31388
Dynamic formation and magnetic support of loop or arcade prominences 12 p3875 N93-31391
The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626
A concept of deployable tethered interferometer 12 p3691 N93-31787

Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192

DYNAMIC CONTROL

Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Model reference adaptive control in large space structures 01 p0013 N93-10365
Experimental demonstration of offset control with an application to the tethered payload 01 p0014 N93-10521
Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Unsymmetric Lanczos model reduction and linear state function observer for flexible structures
[NASA-CR-191231] 03 p0686 N93-13295
Application of Lanczos vectors to control design of flexible structures
[NASA-CR-191230] 03 p0686 N93-13296
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Experiments in two-cooperating-arm manipulation from a platform with unknown motion 03 p0617 N93-13931
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Dynamics and control of a rigid/flexible manipulator 04 p0890 N93-14684
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Ground test validation for precision structures 05 p1085 N93-15785
Dynamic feedback in nonlinear synthesis problems
[ISBN-90-9004142-7] 05 p1259 N93-16474
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Model reduction for the dynamics and control of large structural systems via neutral network processing direct numerical optimization 06 p1461 N93-18820
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
Robot welding process control development task
[NASA-CR-192434] 06 p1549 N93-18851
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB] 06 p1624 N93-18858
CSI related dynamics and control issues in space robotics 06 p1467 N93-18929
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration 06 p1468 N93-18934
Average-cost based robust structural control 06 p1469 N93-18939
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle 06 p1552 N93-19463
Damping characterization in large structures
[NASA-CR-192140] 06 p1560 N93-19944
Green's function method for vibration of structures 07 p1934 N93-20667
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Advanced booster guidance studies
[NASA-CR-192336] 07 p1829 N93-20896
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
Space time neural networks for tether operations in space 08 p2456 N93-22370
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484
Maneuver and vibration control of flexible space structures by Lyapunov stability theory 08 p2195 N93-23956
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Nonholonomic geometry, mechanics and control 09 p2724 N93-25270
Identification and control of lightly damped, large space structures: An experimental evaluation 09 p2616 N93-25351
Analytical and experimental study of control effort associated with model reference adaptive control 09 p2820 N93-25468
The dynamics and control of large flexible asymmetric spacecraft 09 p2617 N93-25525
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Dynamics of on-orbit construction process 09 p2669 N93-26406
Interaction dynamics and control for orbital assembly 09 p2669 N93-26407
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
Controls of interaction dynamics of orbital assembly 11 p3275 N93-29111
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
Automated reasoning with function evaluation for COCOLOG
[INRIA-RR-1713] 11 p3529 N93-29488
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm 11 p3512 N93-29535
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

DYNAMIC LOADS

NT AERODYNAMIC LOADS
NT BLAST LOADS
NT CONTACT LOADS
NT CYCLIC LOADS
NT GUST LOADS
NT IMPACT LOADS
NT LANDING LOADS
NT ROLLING CONTACT LOADS
NT SHOCK LOADS
NT THRUST LOADS
NT TRANSIENT LOADS
NT VIBRATORY LOADS
NT WING LOADING

Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible?
[DE92-016184] 03 p0612 N93-13236
An investigation of dynamic stress reduction of multi-body aircraft using active gust control 03 p0505 N93-13916
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Acoustic tests structural predictions 05 p1081 N93-15750
Development of a force measurement device 05 p1083 N93-15767
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411
Dynamic ice structure interaction: Theory and applications
[VTT-PUBS-90] 11 p3353 N93-28632
Structural load control during construction 11 p3275 N93-29113
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586

DYNAMIC MODELS

A comparative study of semi-empirical dynamic stall models 01 p0005 N93-10544
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
Automatic control laws for aircraft in parabolic flight
[DILC-EST-TR-211] 02 p0214 N93-11160
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Mode interaction models in near-wall turbulence 02 p0303 N93-11856
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Formulation and validation of high-order mathematical models of helicopter flight dynamics 03 p0501 N93-13821
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer 03 p0593 N93-14057
Nonlinear modeling of gated range tracker dynamics with application to radar range resolution, phase 1
[AD-A256074] 04 p0858 N93-14259
Model reduction of flexible manipulators
[AD-A255251] 04 p0889 N93-14528

Modeling and control of a trailing wire antenna towed by an orbiting aircraft
[AD-A256450] 04 p0859 N93-14610
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
Modelling dynamical systems with equality state-space constraints
[NLR-TP-89418-U] 05 p1259 N93-16275
Equivalent flexibility modelling for the recursive simulation of robot manipulator dynamics
[NLR-TP-89076-U] 05 p1259 N93-16291
Numerical solution of dynamical systems with state-space constraints
[NLR-TP-89419-U] 05 p1264 N93-16293
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
Supersymmetry in spin glass dynamics
[PREPRINT-843] 05 p1279 N93-16957
Object-oriented simulation for the Superconducting Super Collider
[DE92-015962] 05 p1299 N93-17205
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
A structure detection algorithm for nonlinear dynamic rational models
[RR-439] 06 p1649 N93-18508
Modelling of dynamic soil-structure-ice interaction 06 p1558 N93-18759
Shock and impact dynamics 06 p1558 N93-18760
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972
Numerical control fabrication technique for dynamic composite models
[NASA-CASE-LAR-14004-1] 06 p1640 N93-19024
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302
Methods for modeling contact dynamics of capture mechanisms 08 p2151 N93-22320
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Understanding and modeling the behavior of a harmonic drive gear transmission
[AD-A259610] 08 p2317 N93-24152
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
An extended supersonic combustion model for the dynamic analysis of hypersonic vehicles
[NASA-CR-192716] 08 p2225 N93-24472
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation 09 p2574 N93-24756
A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121
The 32nd CDC: System identification using interval dynamic models
[NASA-CR-192895] 09 p2818 N93-25155
Dynamic hardness tester and cure meter 09 p2711 N93-25608
Modeling, simulation, and high-autonomy control of a Martian oxygen production plant 10 p3021 N93-26693
Dynamic System Coupler Program (DYSCO 4.1). Volume 1: Theoretical manual
[AD-B131156L] 10 p3098 N93-27531
Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
MODE: Structural Test Article (STA) 10 p3059 N93-27894
Strain actuated aeroelastic control 10 p3059 N93-27899
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Interaction dynamics of on-orbit construction 11 p3274 N93-29109
Lunar crane system 11 p3277 N93-29118
Vibration control of flexible space structures in noisy environment 11 p3285 N93-30235
Trajectory generation for dual-arm robots using artificial impedance approach 11 p3370 N93-30310
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000
A dynamical model of structural phase transition in La2CuO4
[DE93-605325] 11 p3602 N93-31025
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508
Basic structural dynamics 12 p3741 N93-32271
Modified dynamics modelling for maneuvering flexible space manipulators
[NLR-TP-91280-U] 12 p3737 N93-32333
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373

DYNAMIC PRESSURE
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel
[NASA-TM-105626] 04 p0804 N93-15498
Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads 09 p2726 N93-25533

DYNAMIC PROGRAMMING
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Dynamic programming and image processing on distributed memory parallel machines
[ETN-92-92174] 02 p0409 N93-11478
Dynamic programming on a ring of processors 02 p0410 N93-11479
Path planning on a ring of processors 02 p0410 N93-11480
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Optimal control computer programs
[NASA-TM-108384] 03 p0693 N93-13289
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Experiments with an incremental closure algorithm
[MEMO-INF-92-33] 05 p1236 N93-16336
The dynamics of description
[CWI-CS-R9143] 05 p1240 N93-16671
Dynamic parsers, evolving grammars and incremental languages
[PREPRINT-863] 05 p1243 N93-16998
A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831
Optimality of a threshold policy on the M/M/1 queue with repeated vacations
[INRIA-RR-1419] 06 p1632 N93-18515
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
Sketches and computation
[RR-871-I-IMAG-123-LIFIA] 07 p2041 N93-21451
A decomposition approach to suboptimal control of discrete-time systems
[REPT-92-027] 07 p2049 N93-21552
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
Deterministic methods in stochastic optimal control
[AD-A260478] 08 p2462 N93-24100
Transition systems and dynamic semantics
[CWI-CS-R9217] 10 p3094 N93-27256
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling
[MEMO-COSOR-92-08] 10 p3124 N93-27277
Dynamic modal predicate logic
[CWI-CS-R9237] 10 p3101 N93-28001
Flow control using the theory of zero sum Markov games
[INRIA-RR-1597] 11 p3553 N93-28507
Robust and efficient implementation of the Delaunay tree
[INRIA-RR-1619] 11 p3547 N93-28511
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Examinations of perturbation reduction by automatic speech dependent recognition of separately spoken single words
[ETN-93-94180] 11 p3394 N93-30672

DYNAMIC PROPERTIES
U DYNAMIC CHARACTERISTICS

DYNAMIC RANGE
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Development of microchannel plates in advanced wind-tunnel instrumentation
[NASA-CR-181947] 05 p1166 N93-15716
Microchannel plate intensifier gain uniformity improvement in sealed tubes by selective scrubbing
[DE92-041082] 05 p1147 N93-16548
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Log-ratio signal-processing technique for beam position monitors
[DE93-007356] 09 p2851 N93-25314
A compact neutron counter telescope with thick radiator (Cotetra) for fusion experiment
[NIFS-205] 09 p2860 N93-25347
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
ELF/VLF spectrum measurements 11 p3398 N93-30745

DYNAMIC RESPONSE
NT TRANSIENT RESPONSE
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513

Dynamics of an orbiting flexible manipulator
01 p0054 N93-10519
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Dynamics and response of polymer-coated acoustic devices
[DE92-014289] 02 p0433 N93-11523
Description of the structural responses in the medium-frequency range by an energetic formulation
[ECL-92-16] 02 p0336 N93-11582
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Proceedings of the 62nd Shock and Vibration Symposium, Volume 2
[AD-A249267] 03 p0628 N93-13637
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities 03 p0501 N93-13807
Formulation and validation of high-order mathematical models of helicopter flight dynamics 03 p0501 N93-13821
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
The use of inverse frequency response functions for multi degree-of-freedom modal parameter identification with error bounds 05 p1077 N93-15720
Acoustic tests structural predictions 05 p1081 N93-15750
Acoustically induced vibration of platform mounted equipment containing printed circuit boards 05 p1082 N93-15762
Generalised damping in fluid structure interaction analyses using modal synthesis 05 p1082 N93-15763
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Design of joints for damped structures 05 p1084 N93-15776
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications 05 p1085 N93-15780
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
Environmental tailoring: A major perspective for mechanical testing for future space projects 05 p1086 N93-15787
Development of a unified airport pavement analysis and design system 05 p1071 N93-16317
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum
[AD-A256319] 05 p1061 N93-16404
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Mathematical modelling of materials 06 p1557 N93-18753
Dynamics in condition monitoring, a case study 06 p1558 N93-18758
Spacecraft dynamics characterization and control system failure detection
[NASA-CR-192190] 06 p1466 N93-18852
Improving manikin biofidelity 06 p1424 N93-19668
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Dynamic analysis of a variable-mass multibody system 07 p1934 N93-20671
A modular structure for the control of an autonomous mobile robot
[LAAS-92137] 07 p1915 N93-20958
A Government/Industry Summary of the Design Analysis Methods for Vibrations (DAMVIBS) Program
[NASA-CP-10114] 07 p1782 N93-21310
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
Modal identification experiment 08 p2188 N93-22635
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034
Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047
Dynamic response and stability of semi-rigid frames 08 p2327 N93-23199
Dynamic stability of maglev systems
[DE93-004796] 08 p2315 N93-23335
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
Understanding and modeling the behavior of a harmonic drive gear transmission
[AD-A259610] 08 p2317 N93-24152
Mathematical analysis of gasdynamic wave initiation
[AD-A260382] 08 p2297 N93-24174
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
Very wide bandwidth HF crystal filters 09 p2693 N93-25039
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Dynamic System Coupler Program (DYSCO 4.1). Volume 1: Theoretical manual
[AD-B131156L] 10 p3098 N93-27531
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Dynamic System Coupler Program (DYSCO 4.1). Volume 3: User's manual supplement
[AD-B131158L] 10 p3099 N93-27590
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data
[AD-A262363] 10 p2942 N93-27692
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369
High strain Lagrangian hydrodynamics: A three dimensional SPH code for dynamic material response
[AD-A262798] 10 p3043 N93-28378
Control-structures interaction test of the LACE satellite 11 p3263 N93-28706
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution. Appendix 7 --- Transform Domain Skiprope Observer for tethered satellites
[NASA-CR-192836] 12 p3756 N93-31041
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176
One lateral mode isotropic rotor response to nonsynchronous excitation 12 p3738 N93-32276
Dynamic response of a transducer mounted at one end of an acoustical cavity
[DE93-012837] 12 p3816 N93-32301

DYNAMIC STABILITY

NT AERODYNAMIC STABILITY
NT AIRCRAFT STABILITY
NT ATTITUDE STABILITY
NT BOUNDARY LAYER STABILITY
NT COMBUSTION STABILITY
NT CONTROL STABILITY
NT DIRECTIONAL STABILITY
NT FLAME STABILITY
NT FLOW STABILITY
NT FREQUENCY STABILITY
NT GYROSCOPIC STABILITY
NT HOVERING STABILITY
NT LATERAL STABILITY
NT LONGITUDINAL STABILITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT MOTION STABILITY
NT ROTARY STABILITY
NT SPACECRAFT STABILITY
NT WEIBEL INSTABILITY

Stability of coupled semiconductor diode lasers
01 p0088 N93-10379
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361

DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Comparative study of stability of flexible satellites with and without guy-wire constraints
04 p0817 N93-14585
Stability of elastically tailored rotor blades
04 p0791 N93-14828
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
Aircraft landing gear shimmy
06 p1441 N93-19029
Debris about asteroids: Where and how much?
06 p1703 N93-19136
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Dynamic stability of maglev systems
[DE93-004796] 08 p2315 N93-23335
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft
09 p2617 N93-25527
Biped control via nonlinear dynamics
09 p2718 N93-25697
Structural dynamic analysis of bearingless rotor blade
09 p2590 N93-25719
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
Active magnetic bearings applied to industrial compressors 10 p2961 N93-27570
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Vibration analysis in turbomachines
12 p3683 N93-32274

DYNAMIC STRUCTURAL ANALYSIS

Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
New directions in computational mechanics
01 p0044 N93-10467
Dynamic crack division in brittle solids
01 p0048 N93-10489
Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512
Dynamics of systems with time-varying inertial properties 01 p0054 N93-10517
Dynamics of an orbiting flexible manipulator
01 p0054 N93-10519
Evolutionary spectra of time-dependent discretized systems to time-frequency modulated random excitations 01 p0055 N93-10524
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Vibration of a damped double-beam system
01 p0056 N93-10527
Mode localization in a simple continuum model
01 p0056 N93-10529
Flexural vibration of beams with varying section properties 01 p0057 N93-10531
Natural vibrations of multilayered doubly curved shells
01 p0057 N93-10532
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
On the vibration of axisymmetric shells
01 p0057 N93-10535
The vibrations of annular discs: A comparison of experimental and two analytical techniques
01 p0058 N93-10536
Partial solution of the generalized eigenvalue problem using the Woodbury transformation
01 p0064 N93-10567
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
Automated multi-body system dynamics via bond graph modelling and interactive graphics
01 p0066 N93-10576
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices
01 p0066 N93-10577
DYNA2D: A nonlinear, explicit, two-dimensional finite element code for solid mechanics: User manual
[DE92-017310] 01 p0095 N93-10646
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle
[AD-A247261] 02 p0208 N93-12053
Measured data for the Sandia 34-meter vertical axis wind turbine
[DE92-019807] 02 p0348 N93-12075
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Fluid-structure interaction using retarded potential and ABAQUS
[AD-A254735] 02 p0307 N93-12355
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579
A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
Acoustic radiation from a point excited infinite bilaminar plate 03 p0531 N93-13144
A domain decomposition method for parallel transient response calculations 03 p0504 N93-13827
An investigation of dynamic stress reduction of multi-body aircraft using active gust control
03 p0505 N93-13916
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
Updating and localizing structural errors based on minimization of equation errors
05 p1077 N93-15719
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods 05 p1077 N93-15722
An analytical and experimental study on the design and verification of containment subjected to impact loading
05 p1078 N93-15726
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
Vibration characterisation for low level disturbances induced in telecommunications spacecraft
05 p1078 N93-15733
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
CAD to FEM tool 05 p1079 N93-15737
Damage mechanics modelisation of composite structures: A physical approach of failure
05 p1079 N93-15741
Service module structure of ISO spacecraft testing and design qualification 05 p1080 N93-15747
Polar Platform structure development program
05 p1081 N93-15749
Acoustic tests structural predictions
05 p1081 N93-15750
HISPASAT DBS reflector: Mechanical analysis-environmental test correlation
05 p1081 N93-15751
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core
05 p1082 N93-15759
TELECOM 2 deployable reflectors
05 p1082 N93-15761
Generalised damping in fluid structure interaction analyses using modal synthesis
05 p1082 N93-15763
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
Development of a force measurement device
05 p1083 N93-15767
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
Dynamic deployment analysis of a mesh antenna reflector 05 p1083 N93-15770
The numerical simulation of the inflation process of space rigidized antenna structures
05 p1083 N93-15771
Equations of motion of multibody systems in the ESA-MIDAS software 05 p1084 N93-15772
Dynamic of large reflectors 05 p1084 N93-15773
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications
05 p1085 N93-15780
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
On formulations of path-following techniques for structural stability analysis
[LR-676] 05 p1186 N93-16346
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
RPH preliminary design, trend analysis and initial analysis of the NPS hummingbird
[AD-A257854] 06 p1439 N93-18304
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
A comparison of viscoelastic damping models
06 p1464 N93-18836
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875
Model reduction in integrated controls-structures design 06 p1468 N93-18935
Structures research 06 p1447 N93-19453
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures
06 p1561 N93-19459
Lumped mass modelling for the dynamic analysis of aircraft structures 06 p1447 N93-19460
Damping characterization in large structures
[NASA-CR-192140] 06 p1560 N93-19944
Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232

Structural dynamics branch research and accomplishments to FY 1992
[NASA-TM-105824] 07 p1925 N93-20368
Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Numerical stabilities aspects of cable dynamics simulation 07 p1931 N93-20650
An efficient method for the reliability analysis of geometric nonlinear frame structures 07 p1931 N93-20651
Multimodal optimization of vibrating space frames 07 p1931 N93-20652
A method of continuous coordinate condensation 07 p1932 N93-20657
Analysis of structurally-varying systems using component-mode synthesis technique 07 p1932 N93-20658
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
Peano-like dynamics as a model for strange nonchaotic behaviour 07 p1933 N93-20661
Resonant response analysis of a high speed gear 07 p1917 N93-20662
Elimination of resonance with a switching support 07 p1933 N93-20664
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Green's function method for vibration of structures 07 p1934 N93-20667
Forced vibration of non-selfadjoint elastic systems 07 p1934 N93-20668
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
On oscillatory motion of a spring-mass system subjected to piecewise constant forces 07 p1934 N93-20670
Dynamic analysis of a variable-mass multibody system 07 p1934 N93-20671
Vibration of a multi-guided rotating string 07 p1934 N93-20672
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Buckling and dynamic instability phenomena of tapered bar with localized flaw subjected to an intermediate periodic axial load 07 p1935 N93-20675
Performances of finite element solution for crack problem 07 p1936 N93-20682
Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696
The flexural behaviour of thin-walled singly symmetric columns
[PB92-225408] 07 p1946 N93-21020
Integrated view of methods in buckling analysis
[PB93-110468] 07 p1946 N93-21232
A Government/Industry Summary of the Design Analysis Methods for Vibrations (DAMVIBS) Program
[NASA-CP-10114] 07 p1782 N93-21310
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling 07 p1782 N93-21313
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process 07 p1782 N93-21315
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
NIST impact test facility
[PB92-226315] 07 p1788 N93-21467
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
A modal test of a space-truss for structural parameter identification
[DE93-004043] 08 p2323 N93-22518
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671
Temporal identification of linear and nonlinear structures
[ECL-90-33] 08 p2324 N93-22696
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Implementation of the block-Krylov boundary flexibility method of component synthesis
[NASA-TM-106065] 08 p2325 N93-23044
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Dynamic response and stability of semi-rigid frames 08 p2327 N93-23199
The effects of delamination on the vibrational characteristics of composite structural elements 08 p2210 N93-23202
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639
On the effective reflection properties of the randomly segmented elastic bar 09 p2724 N93-25328
Optimal control of large space structures 09 p2819 N93-25343
Numerically dissipative time integration algorithms for structural dynamics 09 p2725 N93-25394
Numerical and experimental analyses of large composite skeletal satellite systems 09 p2616 N93-25463
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
Structural dynamic analysis of bearingless rotor blade 09 p2590 N93-25719
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2728 N93-25842
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
Structural load control during construction 09 p2669 N93-26409
Mechanics and control of multibody structural systems
[AD-A261576] 09 p2619 N93-26456
Dynamic characteristics of specialty composite structures with embedded damping layers
[NASA-TM-106165] 10 p2989 N93-26705
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data
[AD-A262363] 10 p2942 N93-27692
Structural technology challenges for evolutionary growth of Space Station Freedom 10 p2970 N93-27837
A preliminary structural analysis of space-based inflatable tubular frame structures 10 p3086 N93-27849
Power assist EVA glove development 10 p3086 N93-27850
The Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-27893
MODE: Structural Test Article (STA) 10 p3059 N93-27894
Strain actuated aeroelastic control 10 p3059 N93-27899
The Middeck Active Control Experiment (MACE) 10 p3061 N93-28173
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
The dynamics and control of space tethers 11 p3274 N93-28629
Dynamic ice structure interaction: Theory and applications
[VTT-PUBS-90] 11 p3353 N93-28632
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Description of the Joint Damping Experiment (JDX) 11 p3263 N93-28703
Control-structures interaction test of the LACE satellite 11 p3263 N93-28706
Upper atmosphere research satellite jitter study 11 p3264 N93-28708
Controls of interaction dynamics of orbital assembly 11 p3275 N93-29111
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562
Rocketdyne PSAM: In-house enhancement/application 12 p3694 N93-31566
Expert system development for probabilistic load simulation 12 p3695 N93-31570
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
Vibration and Rotor Dynamics
[VKI-LS-1992-06] 12 p3741 N93-32270
Basic structural dynamics 12 p3741 N93-32271
Structural dynamic characteristics of individual blades 12 p3683 N93-32272
Structural dynamic charactertistics of bladed assemblies 12 p3683 N93-32273
Vibration analysis in turbomachines 12 p3683 N93-32274
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275
Vibrational diagnostics of rotating machinery malfunctions 12 p3738 N93-32278
Modified dynamics modelling for maneuvering flexible space manipulators
[NLR-TP-91280-U] 12 p3737 N93-32333

DYNAMIC TESTS

Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
Design guide for the ergonomic aspects of helicopter crew seating
[ISVR-TR-209] 03 p0678 N93-13464
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
Space craft verification at the David Florida Laboratory 04 p0809 N93-14943
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy 04 p0820 N93-15598
The development and testing of the Lens Antenna Deployment Demonstration (LADD) test article 06 p1463 N93-18829
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944
Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665
US Army helicopter inertia reel locking failures 06 p1427 N93-19689
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314

Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
Autonomous docking ground demonstration 07 p1816 N93-21430
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306
Emergency vehicle alert system, phase 2 [NASA-CR-192464] 08 p2260 N93-22455
Suspension device for low-frequency structures [NASA-CASE-LAR-14272-1-CU] 08 p2169 N93-24598
Dynamic test apparatus for electro-rheological fluids [AD-D015632] 09 p2643 N93-25284
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements [NASA-CR-192518] 09 p2631 N93-26057
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data [AD-A262363] 10 p2942 N93-27692
The middeck 0-gravity dynamics experiment [NASA-CR-4500] 11 p3281 N93-30376
On the feasibility of a transient dynamic design analysis [AD-A264882] 12 p3733 N93-31101

DYNAMICAL SYSTEMS
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Self-programming of matter and the evolution of proto-biological organizations [DE92-015244] 01 p0129 N93-10628
Singular perturbation methods for nonlinear dynamical systems and waves [AD-A254116] 01 p0144 N93-10660
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Laminar boundary-layer breakdown [AD-A254489] 02 p0306 N93-12162
Singularities of the Euler equation and hydrodynamic stability [NASA-CR-189720] 02 p0306 N93-12173
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Applications of CFD and visualization techniques 03 p0584 N93-13386
The nonequilibrium statistical mechanics of chaotic maps 03 p0729 N93-13832
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer 03 p0593 N93-14057
Wall layers [AD-A256152] 04 p0872 N93-14257
Fitting microphysical observations to a numerical model through an optimal control theory technique 04 p0924 N93-15100
Dynamics systems applied to Navier-Stokes equations for the study of turbulence [ETN-92-92553] 04 p0878 N93-15122
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Numerical solution of dynamical systems with state-space constraints [NLR-TP-89419-U] 05 p1264 N93-16293
On a class of stochastic reaction-diffusion equations in two space dimensions [PREPRINT-777] 05 p1265 N93-16442
Increasingly automated procedure acquisition in dynamic systems [NASA-TM-108112] 05 p1241 N93-16684
Functional expansion representations of artificial neural networks 05 p1262 N93-16772
Integrable cellular automata [PREPRINT-869] 05 p1269 N93-16967
The Lagrangian approach to stochastic variational principles on curved manifolds [PREPRINT-825] 05 p1277 N93-17221
Complex temporal and spatial patterns in nonequilibrium processes [DE93-001845] 05 p1281 N93-17531
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space [DE93-002046] 05 p1273 N93-17758
Lagrangian chaos: Transport, mixing, and diffusion in fluids [NOTA-INTERNA-988] 06 p1651 N93-17939
Identification and control of non-linear time-varying dynamical systems using artificial neural networks [AD-A257595] 06 p1450 N93-18193
Chaotic dynamics of atoms 06 p1659 N93-18491
Comparison properties of stochastic decision free Petri nets [INRIA-RR-1433] 06 p1649 N93-18646
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
Approximation of attractors and applications [DE93-002420] 06 p1535 N93-19475
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system [AD-A258550] 06 p1650 N93-19953
Eigenfunction for dissipative dynamics operator and attractor of dissipative structure [NIFS-194] 07 p2050 N93-20267
Peano-like dynamics as a model for strange nonchaotic behaviour 07 p1933 N93-20661
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
Dynamic systems and normal forms [RR-883-M] 07 p2051 N93-20784
Estimates of cycle times in stochastic Petri nets [INRIA-RR-1572] 07 p2058 N93-20897
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
Nonlinear ocean waves [AD-A259335] 07 p2019 N93-21260
Data-parallel Langevin dynamics simulations [DE93-003836] 08 p2445 N93-22434
Temporal identification of linear and nonlinear structures [ECL-90-33] 08 p2324 N93-22696
Topological organization of (low-dimensional) chaos [DE93-003693] 08 p2514 N93-22753
Chaotic dynamics in accelerator physics [DE93-004600] 08 p2515 N93-22766
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity 08 p2392 N93-23135
On wave force analysis using system identification [RR-450] 08 p2293 N93-23361
A comparison of polynomial and rational NARMAX models for nonlinear system identification [RR-444] 08 p2469 N93-23374
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge [AD-A259491] 08 p2459 N93-23448
Chaotic dynamics of the solar cycle [AD-A260039] 08 p2557 N93-23644
Topics in stochastic systems, failure time models change-point problems, and sequential analysis [AD-A260047] 08 p2472 N93-23711
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772
Time dependent classification of features with a nonlinear, dynamic network [VTT-PUBS-83] 08 p2448 N93-23868
Learning optimal control using learning automata [MATHS-REPT-A-176] 08 p2462 N93-24078
A global approach to parameter estimation of chaotic dynamical systems [AD-A259932] 08 p2463 N93-24130
Improved dynamic stiffness (system modeling), state-of-the-art review [PB93-127744] 08 p2331 N93-24208
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Control and stabilization of nonholonomic dynamic systems 09 p2596 N93-25729
Estimation of coefficients in a rational function from observed values [AD-A261126] 09 p2828 N93-25773
Using modular neural networks with local representations to control dynamic systems [AD-A261597] 09 p2826 N93-26162
Introduction of chaotic dynamical systems [AD-A261747] 09 p2872 N93-26250
Power iterations and the dominant eigenvalue problem [AD-A261695] 09 p2829 N93-26370
Information transmission using CHAOS [AD-A261519] 09 p2883 N93-26377
The Earth's climate as a dynamical system [DE93-004666] 09 p2767 N93-26496
Kane's dynamics 10 p2926 N93-27211
Efficient model-based diagnosis of dynamic systems with state [MEMO-INF-92-53] 10 p3096 N93-27488
On the asymptotic behavior of discrete events systems [ISBN-90-74488-01-3] 10 p3125 N93-27876
The reflection operator in discrete event systems [CS-9201] 10 p3110 N93-28067
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics [SSCL-PREPRINT-725] 10 p3126 N93-28098
Mixed spectra and rotational symmetry [W-9212] 10 p3121 N93-28139
Nonlinear dynamics and plasma transport [DE93-012238] 11 p3585 N93-28749
SIAM Conference on Applications of Dynamical Systems [DE93-007969] 11 p3548 N93-29057
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Estimating the parameters of chaotic maps [AD-A262574] 11 p3556 N93-29423
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565
Knot invariants and cellular automata [AD-A264199] 11 p3607 N93-30884
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000
On neural networks in identification and control of dynamic systems [NASA-TM-107702] 11 p3455 N93-31038
Stable numerical integration of dynamical systems subject to equality state-space constraints [NLR-TP-91363-U] 12 p3802 N93-31128
Terminology and concepts of control and Fuzzy Logic 12 p3688 N93-31443
Meeting some neighbours: A dynamic modal logic meets theories of change and knowledge representation [LP-92-10] 12 p3806 N93-31531
Investigation of transitions from order to chaos in dynamical systems [DE93-014437] 12 p3833 N93-32290

DYNAMICS
Kane's dynamics 10 p2926 N93-27211

DYNAMICS EXPLORER SATELLITES
Distinct ion population in the polar cusp: Possible signature of transient reconnection 12 p3766 N93-31680

DYNAMO THEORY
Tori and chaos in a nonlinear dynamo model for solar activity [MPE-PREPRINT-218] 02 p0488 N93-11351
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
Numerical models of planetary dynamos [DE93-003848] 07 p2098 N93-21970
Simulation study of MHD dynamo: Convection in a rotating spherical shell [NIFS-207] 09 p2860 N93-25356
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000

DYNAMOMETERS
Testing techniques 01 p0078 N93-10060
Astronaut candidate strength measurement using the Cybex 2 and the LIDO Multi-Joint 2 dynamometers [NASA-CR-185679] 02 p0389 N93-12195
Prevention of cumulative trauma disorders [PB93-188332] 12 p3773 N93-31138

DYSPROSIUM
Magnetic structures of nanometer scale Dy, Cr, and Ni [DE93-002984] 06 p1677 N93-19755
High resolution near edge x ray spectroscopy [DE93-003471] 10 p2996 N93-28294

DYSPROSIUM COMPOUNDS
High temperature rare earth and Si-Ge thermoelectric materials [DE93-006913] 08 p2513 N93-24462

E

E GLASS
Fiber pulling apparatus modification [NASA-CR-184498] 04 p0891 N93-14763
What's a Parabeam 3D? 07 p1835 N93-21137

E LAYERS
U E REGION

E REGION
NT SPORADIC E LAYER

Radar studies of high latitude convection flows
03 p0648 N93-12626
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Determination of E region effective recombination coefficient using impulsive precipitation events
06 p1723 N93-19526
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
EISCAT measurements in the E and F regions during the 12-16 February 1990 LTCS campaign
06 p1726 N93-19546
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564
The neutral wind in the E-region from CP-1 data
06 p1729 N93-19565
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588
The formation and characteristics of E-region thin ionization layers at high latitudes
09 p2861 N93-25829
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308

E-2 AIRCRAFT
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444

EAR
NT OTOLITH ORGANS
NT SEMICIRCULAR CANALS
NT VESTIBULES
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800

EAR PROTECTORS
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406

EARLY STARS
NT A STARS
NT B STARS
NT BLUE STARS
NT HOT STARS
NT O STARS
NT WHITE DWARF STARS
NT WOLF-RAYET STARS
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars
04 p1050 N93-14242
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091

EARLY WARNING SYSTEMS
Domain engineering validation case study: Synthesis for the air traffic display/collision warning monitor domain version 01.00.03
[AD-A259407] 07 p1780 N93-21671
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595

EARPHONES
Inflight evaluation of an acoustic orientation instrument
[AD-A260752] 09 p2591 N93-25909

EARTH (PLANET)
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
Satellite-borne Earth observations in the framework of German global change research
08 p2357 N93-23755
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572

EARTH ALBEDO
Orbital perturbations due to the albedo effect
[GKSS-91/E/59] 02 p0220 N93-11348
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991]
08 p2558 N93-24637

EARTH ATMOSPHERE
NT D REGION
NT E REGION
NT EARTH IONOSPHERE
NT EXOSPHERE
NT F REGION
NT F 2 REGION
NT LOWER ATMOSPHERE
NT LOWER IONOSPHERE
NT MESOPAUSE
NT MESOSPHERE
NT MIDDLE ATMOSPHERE
NT MIDLATITUDE ATMOSPHERE
NT OZONOSPHERE
NT PRIMITIVE EARTH ATMOSPHERE
NT SPORADIC E LAYER
NT STRATOSPHERE
NT THERMOSPHERE
NT TROPOPAUSE
NT TROPOSPHERE
NT UPPER ATMOSPHERE
NT UPPER IONOSPHERE
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Airblast damage from small asteroids
[DE92-017834] 03 p0749 N93-12956
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Method for detecting chemical vapors using a lasing dye sensor
[AD-D015424] 04 p0885 N93-14821
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
Observation of the Earth-atmosphere system by NOAA satellite (acquisition, production, application, and use of NOAA data)
[BCRS-92-02] 05 p1207 N93-16221
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
Low level measurements of atmospheric DMS, H2S, and SO2 for GTE/CITE-3
[NASA-CR-191635] 06 p1573 N93-18863
Fragmentation and densities of meteoroids
06 p1700 N93-19118
Atmospheric measurements taken from an aeroplane
06 p1569 N93-19876
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Basic studies of baroclinic flows
07 p2003 N93-20073
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Screening analysis of CO2 utilization and fixation
[DE93-004313] 07 p1994 N93-21850
Earth's mysterious atmosphere. ATLAS 1: Teachers guide with activities
[NASA-EP-282] 08 p2396 N93-23733
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit 08 p2361 N93-23775
Global ozone monitoring experiment
08 p2364 N93-23793
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
The mysterious atmosphere of the Earth. ATLAS: Instruction guide with activities
[NASA-EP-290/03-93] 08 p2402 N93-24653
A correlated K-distribution model of the heating rates for H2O and a molecular mixture in the 0-2500 cm(exp -1) wavelength region in the atmosphere between 0 and 60 km
[DE93-005741] 09 p2762 N93-25147
ATMOS: Long term atmospheric measurements for mission to planet Earth
[NASA-TM-108720] 09 p2757 N93-26429
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926

EARTH CORE
Modeling the geomagnetic field over Spain: Anomalous field, secular variation, and reference field
[MEMO-15] 05 p1211 N93-17634
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412

EARTH CRUST
Structural review of the Vredefort dome
01 p0108 N93-10127
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments
01 p0110 N93-10140
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Where's the Beaverhead beef? --- meteorite impact structure 01 p0112 N93-10146
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Effects of gravity in folding --- of geological layers
01 p0124 N93-10324
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Seismic studies of crustal structure and tectonic evolution across the central California margin and the Colorado Plateau margin 03 p0657 N93-13794
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
Regional seismic studies in Central Asia
[AD-A256677] 05 p1206 N93-16094
Modeling the geomagnetic field over Spain: Anomalous field, secular variation, and reference field
[MEMO-15] 05 p1211 N93-17634
Applications of marine gravimetry to mid-oceanic spreading centers and volcanos
06 p1590 N93-19382
Crustal deformation measurements in the vicinity of Vandenberg Air Force Base
[AD-A258536] 07 p1996 N93-20053
Lithospheric dynamics near plate boundaries
[NASA-CR-192108] 07 p1997 N93-20310
NASA Space Geodesy Program: GSFC data analysis, 1992. Crustal Dynamics Project VLBI geodetic results, 1979 - 1991
[NASA-TM-104572] 07 p1999 N93-20900
Commission 7: Recent crustal movements
07 p1973 N93-20988
International Centre on Recent Crustal movements
07 p1973 N93-20989

Attenuation and source studies in Northern Eurasia
[AD-A259323] 07 p2000 N93-21700
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems
08 p2349 N93-23546
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Intraplate deformation, stress in the lithosphere and the driving mechanism for plate motions
[NASA-CR-192782] 09 p2772 N93-25529
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models
[AD-A263209] 10 p3075 N93-28384

EARTH CURRENTS
U TELLURIC CURRENTS

EARTH ENVIRONMENT
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
Global Change Research Program: A component of the US Global Change Research Program. 1993 research opportunities
[NSF-92-77] 06 p1572 N93-18319
The US global change research program: Early achievements and future directions
06 p1573 N93-18864
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Russian space system for the Earth remote sensing
07 p1977 N93-21280
Sun-synchronous and geo-synchronous satellite data utilization for environmental studies
07 p1977 N93-21281
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539
Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541
Study for natural environment in Okinawa Islands by using remote sensing 07 p1978 N93-21542
Earth observation in the TIGER programme of the UK Natural Environment Research Council
07 p1953 N93-21572
Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119
Overview of ISY plan 08 p2334 N93-22120
Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123
Monitoring of Kuroshio current using the data of VTIR obtained by MOS-1 and MOS-1b
08 p2334 N93-22124
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Observation in the East China Sea
08 p2335 N93-22126
Estimation of partial cloud cover within a pixel
08 p2335 N93-22127
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Overview of activities of ISY PIE Committee
08 p2335 N93-22129
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk
08 p2336 N93-22131
Microwave remote sensing of ice
08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
Vegetation distribution of South East Asia
08 p2336 N93-22134
Monitoring of growth environment of forest
08 p2336 N93-22135
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Upper-air circulation systems
08 p2337 N93-22138
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Data sets for weather information services
08 p2337 N93-22140
Laser disc for Earth environment data set
08 p2338 N93-22142
Environmental data sets in Canada
08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
Environmental data set in Thailand
08 p2338 N93-22145
Environmental data sets at the University of Alaska
08 p2338 N93-22146
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
Satellite-borne Earth observations in the framework of German global change research
08 p2357 N93-23755
Priroda project: Optical sensors for environment research 08 p2362 N93-23782
The International Space Year programme
08 p2366 N93-23803
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
Earth observation programmes and plans of the Commission of the European Communities (CEC)
08 p2372 N93-23843
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs
08 p2372 N93-23846
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data
09 p2742 N93-24801
Future space activities: How can a baby having grown up too much in a cradle be dealt with?
10 p2948 N93-28015
List of acronyms in environmental sciences
[KNMI-PUBL-180-ED-1] 12 p3838 N93-31596

EARTH FIGURE
U GEODESY

EARTH GRAVITATION
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
Resonance studies of artificial earth satellites
03 p0523 N93-14037
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
SSG 2.107: Gravity field determination by satelli te gravity-gradiometry 07 p1971 N93-20974
SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993
The use of satellites in gravity field determination and model adjustment
[ISBN-90-6275-802-9/CIP] 10 p2973 N93-27946
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179

EARTH HYDROSPHERE
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051

EARTH IONOSPHERE
NT D REGION
NT E REGION
NT F REGION
NT F 2 REGION
NT LOWER IONOSPHERE
NT SPORADIC E LAYER
NT UPPER IONOSPHERE
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Interpretation of measurements from the suprathermal electron spectrometer on the NEED-2 rocket
[FFI-92/7009] 02 p0357 N93-11129
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions
02 p0365 N93-12209
Radar studies of high latitude convection flows
03 p0648 N93-12626
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
JARE data reports no. 170 (ionosphere 45). HF field strength data measured at Syowa Station, Antarctica from January to December 1988 03 p0652 N93-13432
Experimental studies of ionospheric irregularities and related plasma processes
[NASA-CR-191271] 03 p0652 N93-13460
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
Deterministic transfer function for transionospheric propagation
[DE92-040327] 04 p0862 N93-15427
Satellite measurement of ionospheric-induced VHF distortion
[DE92-040328] 04 p0862 N93-15435
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839
The ionosphere as a gamma ray burst detector
05 p1211 N93-17312
The dependence of pulsating auroral events on energetic electrons and cold plasma near the equatorial plane
[DE93-000856] 05 p1376 N93-17384
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Report on the 7th Finnish EISCAT Workshop in 1991
06 p1578 N93-18737
EISCAT related satellites in near future
06 p1578 N93-18738
Freja satellite program and its connection to EISCAT
06 p1578 N93-18739
EISCAT Svalbard radar 06 p1516 N93-18744
EISCAT educational programs
06 p1579 N93-18745
The flow of plasma in the solar terrestrial environment
[NASA-CR-192106] 06 p1744 N93-18780
Modeling the global positioning system signal propagation through the ionosphere
06 p1434 N93-19420
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606

Radiolocation of a satellite-borne LOVHF beacon
08 p2268 N93-23613
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081
Magnetotail processes associated with auroral surge formation
[ATR-90(7186)-1] 09 p2895 N93-26147
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Improvements to the high-frequency benchmark propagation analysis program
[AD-A262278] 10 p3103 N93-28240
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere
11 p3395 N93-30731
Transient (approximately equals 10 s) VLF amplitude and phase perturbations due to lightning-induced electron precipitation into the ionosphere (the Trimpi effect)
11 p3396 N93-30736
Studies of the propagation of Low Frequency (LF) radio waves
11 p3396 N93-30738
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure
12 p3688 N93-31157
One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625
High-latitude electric field studies using DMSP data
[AD-A265032] 12 p3763 N93-31996
Studies of global ionospheric electrodynamics
[AD-A265033] 12 p3764 N93-31997

EARTH LIMB
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806

EARTH MAGNETOSPHERE
NT GEOMAGNETIC TAIL
NT MAGNETOPAUSE
NT MAGNETOSHEATH
Studies of interactive plasma processes in the polar cusp
[NASA-CR-190892] 02 p0357 N93-10964
Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
Flank solar wind interaction
[NASA-CR-189285] 02 p0489 N93-12303
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Analysis and modeling of the CRRES satellite data
[AD-A254349] 03 p0650 N93-12944
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves
03 p0718 N93-13750
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
On the consequences of bi-Maxwellian plasma distributions for parallel electric fields
05 p1152 N93-17317
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis
05 p1170 N93-17338
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Auroral energization and geomagnetic disturbances
06 p1584 N93-18499
Evaluating auroral processes within a magnotospheric model
[NASA-CR-192122] 06 p1577 N93-18606
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
Magnetohydrodynamic wave-associated plasma density fluctuations in the Earth's foreshock region
06 p1667 N93-19385
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Magnetospheric and auroral processes
[NASA-CR-192138] 07 p1996 N93-20250
Electron acceleration in the magnetosphere
07 p1997 N93-20283
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-192141] 07 p1997 N93-20295
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
Report of the working group on magnetotail/plasma sheet structure
[DE93-003857] 08 p2391 N93-22077
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity
08 p2392 N93-23135
Structure and dynamics of the magnetopause
08 p2400 N93-24296
A statistical study of field-aligned currents in the Earth's inner magnetosphere 09 p2773 N93-25709
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
Analysis of magnetometer data/wave signals in the Earth's magnetosphere
[NASA-CR-193169] 10 p3072 N93-27154
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations
[NASA-CR-193152] 11 p3476 N93-28842
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032
A new method for measuring the speed of the bow shock 12 p3854 N93-31687
On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere
12 p3826 N93-31689
A study of the magnetic field annihilation process in the magnetosphere and some geotechnical applications
[DE93-013172] 12 p3765 N93-32164

EARTH MAGNETOTAIL
U GEOMAGNETIC TAIL

EARTH MANTLE
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments
01 p0110 N93-10140
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure
04 p0913 N93-14225
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Regional seismic studies in Central Asia
[AD-A256677] 05 p1206 N93-16094
Evolution of attached and detached slabs and their associated mantle dynamics
[NASA-CR-191920] 06 p1576 N93-18320
Measurement and interpretation of crustal deformation rates associated with postglacial rebound
[NASA-CR-192245] 07 p1996 N93-20238
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea
[DE93-000796] 08 p2392 N93-22807
Intraplate deformation, stress in the lithosphere and the driving mechanism for plate motions
[NASA-CR-192782] 09 p2772 N93-25529
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models
[AD-A263209] 10 p3075 N93-28384
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412

EARTH MOTION
Orbital, Rotational, and Climatic Interactions
[NASA-CP-3185] 06 p1579 N93-18962

EARTH MOVEMENTS
NT EARTHQUAKES
NT LANDSLIDES
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Use of geodetic methods in detecting terrain movements with special reference to the Global Positioning System
[ISBN-0-315-69179-4] 08 p2393 N93-23190

EARTH OBSERVATIONS (FROM SPACE)
NT SATELLITE OBSERVATION
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Earth observation photography: Looking back 20 years after Skylab 03 p0509 N93-13164
Manned observations technology development, FY 1992 report
[NASA-CR-185704] 03 p0597 N93-13373
Taking a global view
[ESA-BR-37-C] 03 p0516 N93-13856
A home port in space
[ESA-BR-37-E] 03 p0516 N93-13858
Earth environment space initiative
04 p0811 N93-14953
Comparative analysis of the indices of vegetation in urban areas obtained from the TM-Landsat and HRV-Spot data: City of Taubate
[INPE-5418-TDI/482] 06 p1575 N93-19831

Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067
Measurement and interpretation of crustal deformation rates associated with postglacial rebound
[NASA-CR-192245] 07 p1996 N93-20238
Report of the NERC Unit for Thematic Information Systems
[REPT-1989/91] 07 p1968 N93-20846
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Earth sensing data service 08 p2339 N93-22439
Communications techniques supporting the data management 08 p2276 N93-23543
1993 Earth Observing System reference handbook
[NASA-NP-202] 08 p2356 N93-23737
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
The Earth Observing System 08 p2356 N93-23749
Italian Space Agency activities in Earth observation 08 p2358 N93-23756
The scientific program of the Priroda project 08 p2360 N93-23771
German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
Observations of atmospheric chemistry on the first European polar platform 08 p2361 N93-23776
Remarks and proposals to adapt some Earth observations space programmes in the period of transition of the countries of central/eastern Europe; focused on Romania 08 p2362 N93-23778
Usage of small-sized aerospace plane in the infrastructure of space research of the Earth 08 p2362 N93-23781
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
The European polar platform and its Earth observation mission 08 p2363 N93-23784
Medium Resolution Imaging Spectrometer (MERIS) 08 p2363 N93-23785
The radar altimeter instrument for POEM-1 mission 08 p2363 N93-23788
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1 08 p2363 N93-23789
The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790
Broadband imaging spectrometer technology and its use potential for environmental change mission 08 p2364 N93-23791
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2 08 p2365 N93-23801
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
Earth observation programmes and plans of the Commission of the European Communities (CEC) 08 p2372 N93-23843
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS) 08 p2372 N93-23844
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs 08 p2372 N93-23846
Canadian Earth observation program 08 p2373 N93-23847
United Kingdom Earth observation programme 08 p2373 N93-23848
The contribution of the Italian Space Agency to the establishment of space services for the changing Earth 08 p2373 N93-23849
US data policy for Earth observation from space 08 p2373 N93-23852
Conditions of access to Earth observation data: Legal aspects 08 p2373 N93-23853
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
The scope of DLR's SAR calibration program 09 p2738 N93-24778
Verification of a climate convention: Role and limitations of a space based remote sensing system 09 p2738 N93-24781
Application of remote sensing data for the investigation of environmental degradation sites in East Germany 09 p2739 N93-24785
Natural disasters and their mitigation using space technology 09 p2742 N93-24804
The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813
Operational use of MOMS-02 (P2) data 09 p2752 N93-24866
An interactive environment for the analysis of large Earth observation and model data sets 09 p2878 N93-25793
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data 09 p2878 N93-25798
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera 10 p2923 N93-27194
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
Advanced Earth Observing Satellite (ADEOS) 11 p3279 N93-29648
The 1990-1991 project summaries 11 p3234 N93-29755
Evolution or revolution: The Catch 22 of TACSATs 11 p3269 N93-29894
NOAA satellite programs and technology requirements 11 p3627 N93-30710

EARTH OBSERVING SYSTEM (EOS)
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191208] 03 p0734 N93-12680
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
EOSDIS/DADS requirements 04 p1003 N93-14776
Stewardship of very large digital data archives 05 p1353 N93-16321
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
MODIS algorithm development and data visualization using ACTS
[NASA-CR-191940] 05 p1191 N93-16759
Earth observing system: Information on NASA's selection of data centers. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-91-67] 06 p1569 N93-19842
Research on diabatic initialization 07 p2004 N93-20075
ER-2 investigations of lightning and thunderstorms 07 p2006 N93-20088
An investigation of the role of current and future remote sensing data systems in numerical meteorology 07 p2010 N93-20108
Report to Congress on the restructuring of the Earth Observing System
[PB93-108587] 07 p1978 N93-21506
1993 Earth Observing System reference handbook
[NASA-NP-202] 08 p2356 N93-23737
The Earth Observing System 08 p2356 N93-23749
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR 08 p2365 N93-23797
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Data compression opportunities in EOSDIS 08 p2430 N93-24545
Compression through decomposition into browse and residual images 08 p2430 N93-24546
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft 09 p2601 N93-24705
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
Earth observing system. Output data products and input requirements, version 2.0. Volume 1: Instrument data product characteristics
[NASA-TM-108770] 09 p2755 N93-25460
Earth observing system. Output data products and input requirements, version 2.0. Volume 2: Analysis of IDS input requirements
[NASA-TM-108771] 09 p2755 N93-25461
Earth observing system. Output data products and input requirements, version 2.0. Volume 3: Algorithm summary tables and non-EOS data products
[NASA-TM-108769] 09 p2756 N93-25462
In search of meta-knowledge 09 p2826 N93-25983
EOS/AMSU-A NASA/Aerojet Interface Meeting
[NASA-TM-108234] 10 p3063 N93-27288
Multi-channel holographic birfurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968

EARTH ORBITAL ENVIRONMENTS
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Some results of the oxidation investigation of copper and silver samples flown on LDEF 01 p0034 N93-10580
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Effect of space exposure on pyroelectric infrared detectors 01 p0038 N93-10582
Long Duration Exposure Facility (LDEF) optical systems SIG summary and database 01 p0038 N93-10583
Polymer matrix composites on LDEF experiments M0003-9 and M0003-10 01 p0038 N93-10584
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF 02 p0270 N93-11994
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
LDEF materials: An overview of the interim findings 03 p0546 N93-12770
LDEF atomic oxygen fluence update 03 p0546 N93-12771
LDEF yaw and pitch angle estimates 03 p0524 N93-12772
Surface contamination on LDEF exposed materials 03 p0547 N93-12776
Thermal control surfaces on the MSFC LDEF experiments 03 p0547 N93-12778
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum 03 p0544 N93-12779

Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment 03 p0548 N93-12782
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Recession of FEP specimens from trays D11 and B7 03 p0549 N93-12786
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Analysis and modeling of the CRRES satellite data [AD-A254349] 03 p0650 N93-12944
Study of plasma environments for the integrated Space Station electromagnetic analysis system [NASA-CR-192513] 03 p0522 N93-13152
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Characterisation and dynamic modelling of the near-earth space particulate environment 04 p1019 N93-14637
Spectral analysis of the shuttle glow. SPA II/IBSS Mission: AIS hardware [PL-TR-92-2148] 04 p0814 N93-14697
Low Earth orbit atomic oxygen simulation for durability evaluation of solar reflector surfaces 04 p0819 N93-15594
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites 04 p0819 N93-15597
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
LDEF: A bibliography with abstracts [NASA-TM-107705] 04 p0813 N93-15646
LDEF solar cell radiation effects analysis [NASA-CR-192458] 05 p1195 N93-16374
A methodology for selective removal of orbital debris [NASA-CR-192052] 06 p1459 N93-18154
An interim overview of LDEF materials findings [NASA-TM-107664] 06 p1493 N93-18329
Four space application material coatings on the long-duration exposure flight (LDEF) [NASA-TM-104574] 06 p1493 N93-18370
Solar-terrestrial physics and astrophysics 06 p1733 N93-18501
A model to compare performance of space and ground network support of low-Earth orbiters 06 p1508 N93-18925
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
Space environment model construction technology 07 p1795 N93-20450
Cycle life status of SAFT VOS nickel-cadmium cells 07 p1985 N93-20511
Protection of Materials and Surface Finishes from the Low Earth Orbit Space Environment [CTN-93-60605] 07 p1847 N93-20810
The LDEF experience. Materials 07 p1847 N93-20811
Protection of composite materials in space. The LDEF experience 07 p1847 N93-20812
Issues/considerations and performance prediction of LEO protective coatings 07 p1847 N93-20813
Recommended practices for in-space and ground laboratory. Atomic oxygen exposure and analysis 07 p1848 N93-20814
Materials Exposure in Low Earth Orbit (MELEO) experiment 07 p1848 N93-20817
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings 07 p1849 N93-20821
Multipurpose protective coatings for spacecraft applications 07 p1849 N93-20822
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite [NASA-TM-104759] 07 p1852 N93-22006
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 08 p2137 N93-22237
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
Preliminary OARE absolute acceleration measurements on STS-50 [NASA-TM-107724] 08 p2182 N93-22587
Spacecraft materials and coatings experiments 08 p2189 N93-22637
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638
Personal communications satellite service system 08 p2275 N93-23521
The space debris environment for remote sensing satellites 08 p2199 N93-23809
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers [NASA-TM-104748] 08 p2243 N93-24474
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory [NASA-CR-192824] 09 p2653 N93-25078
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility [NASA-TM-106132] 09 p2618 N93-26215
Bit hit/solar activity correlation study [AD-A261381] 09 p2896 N93-26340
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings [NASA-TM-106146] 10 p2957 N93-27019
The radiation protection problems of high altitude and space flight [DE93-008573] 10 p3218 N93-27106
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation [NASA-TM-106128] 10 p2989 N93-27266
Debris observation and arresting experiment satellite 10 p2949 N93-28023
LDEF materials overview 10 p2997 N93-28255
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
A study of the UV and VUV degradation of FEP 10 p3007 N93-28261
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
LDEF fiber-composite materials characterization 10 p2992 N93-28264
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel 10 p2992 N93-28265
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
An XPS study of space-exposed polyimide film 10 p3007 N93-28267
Surface characterization of selected LDEF tray clamps 10 p3001 N93-28271
Contamination on LDEF: Sources, distribution, and history 10 p2998 N93-28272
Evaluation of seals, lubricants, and adhesives used on LDEF 10 p3007 N93-28275
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
LDEF thermal control coatings post-flight analysis 10 p3008 N93-28278
Fluorescence measurements of the thermal control experiments coatings on LDEF S0069 and A0114 10 p3008 N93-28280
Atomic oxygen effects on LDEF experiment AO171 10 p3138 N93-28281
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF 10 p3008 N93-28282
Second LDEF Post-Retrieval Symposium interim results of experiment A0034 10 p3008 N93-28283
The interaction of atomic oxygen with copper: An XPS, AES, XRD, optical transmission, and stylus profilometry study 10 p3149 N93-28284
Data bases for LDEF results 10 p3168 N93-28287
Long Duration Exposure Facility experiment M0003 deintegration observation data base 10 p3169 N93-28288
Handbook for the USAF space environment standard (MIL-STD-1809) [AD-A262799] 10 p3074 N93-28379
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 [AD-A263252] 11 p3329 N93-28561
Solar Array Module Plasma Interaction Experiment (SAMPIE) 11 p3265 N93-28716
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
Return flux experiment 11 p3266 N93-28727
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730
LDEF materials data bases [NASA-TM-107757] 11 p3290 N93-29067
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1 [NASA-TM-108408] 11 p3331 N93-29193
Hypervelocity impact facility for simulating materials exposure to impact by space debris 11 p3283 N93-29365
Analysis of LDEF micrometeoroid/debris data and damage to composite materials 11 p3309 N93-29366
LDEF data: Comparisons with existing models 11 p3283 N93-29375
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
LDEF microenvironments, observed and predicted 11 p3283 N93-29623
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments 11 p3428 N93-29624
The effect of the low Earth orbit environment on space solar cells: Results of the Advanced Photovoltaic Experiment (S0014) 11 p3467 N93-29686
LEO effects on candidate solar cell cover materials 11 p3467 N93-29687
New results from FRECOPA analysis 11 p3448 N93-29688
Degradation of electro-optic components aboard LDEF 11 p3582 N93-29689
Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698
Future radiation measurements in low Earth orbit 11 p3654 N93-29708
Advanced research in sky surveillance: A search for low-luminosity objects [AD-A264832] 11 p3631 N93-30629
Solar wind penetration to geostationary altitude during the March 1991 magnetic storm 12 p3857 N93-31706
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance [AD-A265868] 12 p3685 N93-32319
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions [NASA-TM-108416] 12 p3730 N93-32366

EARTH ORBITAL RENDEZVOUS
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan [NASA-CR-192037] 06 p1733 N93-17999
Use of automated rendezvous trajectory planning to improve spacecraft operations efficiency 08 p2146 N93-22292

EARTH ORBITING SPACE STATIONS
U SPACE STATIONS

EARTH ORBITS
NT GEOSYNCHRONOUS ORBITS
EURECA [ESA-F-26] 03 p0522 N93-12964
The LDCE Particle Impact Experiment as flown on STS-46 — limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Report of the Working Group on Space/Lunar Tradeoffs 03 p0747 N93-13599
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
Reusable Reentry Satellite (RRS) system design study: System cost estimates document [NASA-CR-188480] 04 p0818 N93-14872
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study [NASA-CR-188583] 04 p0824 N93-15629
Beamed energy propulsion 05 p1095 N93-16917
IERS standards for 1992 [AD-A257973] 05 p1192 N93-17739
SHARC: Space Habitat, Assembly and Repair Center [NASA-CR-192031] 06 p1606 N93-18153
A methodology for selective removal of orbital debris [NASA-CR-192052] 06 p1459 N93-18154

Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
Orbital, Rotational, and Climatic Interactions
[NASA-CP-3185] 06 p1579 N93-18962
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Satellite situation report, volume 32, no. 4
[NASA-TM-108203] 07 p1824 N93-20999
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Near Earth object fuels (neo-fuels): Discovery, prospecting and use
[DE93-005185] 09 p2892 N93-25164
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
Lageos laser ranging earth rotation
[AD-A261471] 09 p2757 N93-26354
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites
10 p2924 N93-27200
SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058
Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081

EARTH ORIENTATION
Activity report of the IRIS subcommission in the period 1987-1991 07 p1970 N93-20970
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters
09 p2676 N93-26106
Lageos laser ranging earth rotation
[AD-A261471] 09 p2757 N93-26354
Radiointerferometric observations for estimation of pole motion by using long north-south reference axes
[SER-C-368] 12 p3746 N93-31339

EARTH PLANETARY STRUCTURE
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments
01 p0110 N93-10140

EARTH RADIATION
U TERRESTRIAL RADIATION

EARTH RADIATION BUDGET
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
[NASA-RP-1281] 02 p0367 N93-11168
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
Geostationary earth climate sensor: Scientific utility and feasibility, phase A
[NASA-CR-191919] 07 p1996 N93-20248
NASA Center update: Goddard Space Flight Center
07 p1983 N93-20491
Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses
07 p1956 N93-21586
Empirical determination of the effects of clouds on the Earth's Radiation Budget over the Pacific Ocean
[NASA-CR-192696] 08 p2401 N93-24485
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347

EARTH RADIATION BUDGET EXPERIMENT
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses
07 p1956 N93-21586

EARTH RESOURCES
NT AQUIFERS
NT COAL
NT CRUDE OIL
NT FORESTS
NT FOSSIL FUELS
NT GEOTHERMAL RESOURCES
NT GEYSERS
NT GLACIERS
NT ICEBERGS
NT LAND ICE
NT MARINE RESOURCES
NT NATURAL GAS
NT OIL FIELDS
NT RAIN FORESTS
NT RANGE RESOURCES
NT UNDERWATER RESOURCES
NT WATER RESOURCES
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
Report of the NERC Unit for Thematic Information Systems
[REPT-1989/91] 07 p1968 N93-20846
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286
Preserving our future today: Your guide to the United States Environmental Protection Agency
[PB92-226190] 07 p1990 N93-21345
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119
Overview of ISY plan 08 p2334 N93-22120
Review of EPA's Environmental Monitoring and Assessment Program (EMAP)
[PB93-146348] 08 p2387 N93-23441
Environment Observation and Climate Modelling Through International Space Projects, Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
Earth resources and ecological spacecraft
08 p2361 N93-23777
GeoEnvironment Carpathes project
08 p2368 N93-23816
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs
08 p2372 N93-23846
Remote sensing of non-renewable resources
09 p2744 N93-24814
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115
Helium resources of the United States, 1991
[PB93-189652] 12 p3743 N93-31116

EARTH RESOURCES EXPERIMENT PACKAGE
U EREP

EARTH RESOURCES INFORMATION SYSTEM
A method for estimating the phytomass of a tropical forest region through the use of orbital data
[INPE-5320-PRE/1717] 06 p1567 N93-19645

EARTH RESOURCES PROGRAM
International Space Year in China
07 p1975 N93-21272
Status of remote sensing and Geographic Information System (GIS) applications in the Environment and Natural Resources (ENR) sector 07 p1976 N93-21279

EARTH RESOURCES TECHNOLOGY SATELLITE D
U LANDSAT 4

EARTH RESOURCES TECHNOLOGY SATELLITES
U LANDSAT SATELLITES

EARTH ROTATION
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051
A feasibility study of space VLBI for geodesy and geodynamics 04 p0904 N93-14223
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior
04 p0918 N93-14999
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
IERS standards for 1992
[AD-A257973] 05 p1192 N93-17739
Orbital, Rotational, and Climatic Interactions
[NASA-CP-3185] 06 p1579 N93-18962
Numerical investigation of the Earth's rotation during a complete precession cycle 06 p1580 N93-18965
Variations of the Milankovitch frequencies in time
06 p1580 N93-18966
NASA Space Geodesy Program: GSFC data analysis, 1992. Crustal Dynamics Project VLBI geodetic results, 1979 - 1991
[NASA-TM-104572] 07 p1999 N93-20900
SSG 4.119: Relativistic effects in geodesy
07 p1973 N93-20985
International Earth Rotation Service
07 p1974 N93-20990
SSG 5.98: Atmospheric excitation of the Earth's rotation 07 p1974 N93-20991
SSG 5.99: Tidal friction and the Earth's rotation
07 p1974 N93-20992
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
The influence of wind-driven ocean circulation on Earth rotation 08 p2412 N93-22668
Lageos laser ranging earth rotation
[AD-A261471] 09 p2757 N93-26354
Refinements on the pinhole camera measurements of the LDEF attitude 11 p3283 N93-29622
Radiointerferometric observations for estimation of pole motion by using long north-south reference axes
[SER-C-368] 12 p3746 N93-31339

EARTH SCIENCES
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191208] 03 p0734 N93-12680
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
Proceedings of the NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications
[NASA-TM-107989] 04 p1004 N93-15027
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108590] 06 p1564 N93-18070
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
The US global change research program: Early achievements and future directions
06 p1573 N93-18864
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067

Global water cycle 07 p2004 N93-20078
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
US Global Change Data and Information Management Program Plan: A report by the Committee on Earth and Environmental Sciences
[PB93-101293] 07 p1993 N93-21695
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
The Earth Observing System 08 p2356 N93-23749
Innovative interactive Earth systems science courseware for middle and high school students 08 p2334 N93-23823
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Applications of wavelet-based compression to multidimensional Earth science data 08 p2430 N93-24547
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-002] 09 p2737 N93-25426
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
Applied Information Systems Research Program (AISRP). Workshop 2: Meeting Proceedings
[NASA-CR-193096] 09 p2877 N93-25792
An interactive environment for the analysis of large Earth observation and model data sets 09 p2878 N93-25793
The Grid Analysis and Display System (GRADS): A practical tool for Earth science visualization 09 p2880 N93-25805
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
The Space and Earth Science Data Compression Workshop
[NASA-CP-3183] 09 p2803 N93-25921
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Grid Analysis and Display System (GrADS): A practical tool for earth science visualization 11 p3613 N93-29225
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-002] 11 p3456 N93-30624
List of acronyms in environmental sciences
[KNMI-PUBL-180-ED-1] 12 p3838 N93-31596
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176

EARTH SHAPE
U GEODESY

EARTH SURFACE
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
Earth observation photography: Looking back 20 years after Skylab 03 p0509 N93-13164
A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Radiation fluxes at the FIFE site
[NASA-CR-191717] 05 p1208 N93-16718
Modeling energy and mass fluxes from prairie canopies
[NASA-CR-191801] 06 p1566 N93-18232
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers 09 p2738 N93-24776
A land-surface testbed for EOSDIS 09 p2878 N93-25797
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements 09 p2824 N93-25974
SAR shape-from-shading for a populated alpine area 11 p3458 N93-28923
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

EARTH TERMINALS
An agile frequency synthesizer/RF generator for the SCAMP terminal
[AD-A256777] 05 p1137 N93-16052
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications 11 p3389 N93-29902
Teleglobe's international Mobile Earth Terminal service 11 p3371 N93-30317

EARTH TIDES
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior 04 p0918 N93-14999
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
Commission 5: Earth tides 07 p1973 N93-20987
SSG 5.99: Tidal friction and the Earth's rotation 07 p1974 N93-20992
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401

EARTH-IONOSPHERE WAVEGUIDE
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
The ionosphere as a gamma ray burst detector 05 p1211 N93-17312
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
A long wave TE/TM noise prediction model 11 p3397 N93-30742

EARTH-MARS TRAJECTORIES
Detail design of Mars transfer orbit 10 p2953 N93-28046

EARTH-MOON SYSTEM
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
Analysis of lunar laser ranging in the framework of a post-Newtonian theory
[SER-C-383] 02 p0315 N93-11332
Introduction to the International Asteroid Mission 03 p0513 N93-13549
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment 05 p1391 N93-17267
Variations of the Milankovitch frequencies in time 06 p1580 N93-18966
SSG 5.99: Tidal friction and the Earth's rotation 07 p1974 N93-20992
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582

EARTH-MOON TRAJECTORIES
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536

EARTH-VENUS TRAJECTORIES
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125

EARTHQUAKE DAMAGE
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites 06 p1507 N93-18921
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656

EARTHQUAKES
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Propagation of regional phases: Observations and theory
[AD-A246891] 02 p0359 N93-11228
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Lithospheric dynamics near plate boundaries
[NASA-CR-192108] 07 p1997 N93-20310
World Data Center A for Solid Earth Geophysics. Catalog of significant earthquakes 2150 B.C.-1991 A.D. including quantitative casualties and damage
[PB93-118198] 07 p2000 N93-21693
Simulation method for stationary Gaussian random functions based on the sampling theorem
[PB93-127496] 07 p2059 N93-21818
Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
A semi-empirical analysis of strong-motion peaks in terms of seismic source, propagation path, and local site conditions
[PB93-150266] 08 p2402 N93-24629
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991 09 p2753 N93-24873
Low-frequency source parameters of twelve large earthquakes
[NASA-CR-192806] 09 p2771 N93-25202
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
Modeling earthquakes with local and regional broadband data 11 p3478 N93-30005
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305

EATING
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384

EBULLITION
U BOILING

ECCENTRIC ORBITS
The orbital evolution of real asteroids near the 4:1 mean-motion resonance with Jupiter 06 p1704 N93-19146
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
Origin and evolution of cataclysmic variables 09 p2893 N93-25245

ECCENTRICITY
Dynamics of space debris 02 p0219 N93-11904
Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada 06 p1582 N93-18975

The cyclic carbonates of the Latemar Massif: Evidence for the orbital forcing of a carbonate platform during the Middle Triassic 06 p1582 N93-18976
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
Asteroid-type orbit evolution near the 5:2 resonance 06 p1708 N93-19171

ECHELLE GRATINGS
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692

ECHELON FAULTS
U GEOLOGICAL FAULTS

ECHOES
NT CLUTTER
NT RADAR ECHOES
NT SIGNAL REFLECTION
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580

ECLIPSES
NT SOLAR ECLIPSES

ECLIPSING BINARY STARS
NT DWARF NOVAE
A search for point sources of cosmic ray muons using the MACRO detector 03 p0773 N93-13738
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752

ECLIPTIC
Occultation of a compact radio source by Venus 09 p2676 N93-26107

ECOLOGICAL SYSTEMS
U ECOSYSTEMS

ECOLOGY
NT COASTAL ECOLOGY
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept 08 p2344 N93-23512
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM 08 p2354 N93-23573
The scientific program of the Priroda project 08 p2360 N93-23771
Earth resources and ecological spacecraft 08 p2361 N93-23777
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management 08 p2367 N93-23813
Ocean governance: A new vision
[PB93-136299] 08 p2416 N93-24144
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus 09 p2741 N93-24793
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
The ecological balance of Swissair: An example of waste management 12 p3753 N93-31930

ECONOMETRICS
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323

ECONOMIC ANALYSIS
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Considerations for the transition from fuel cell R/D to manufacturing
[DE92-019977] 03 p0640 N93-13622
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
In-situ lunar oxygen extraction 04 p0806 N93-14929
EDI planning and implementation guide
[AD-A255737] 04 p1007 N93-15050
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Small business profiles, 1992
[PB93-110914] 07 p2086 N93-21548
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
State of Small Business: A report of the President transmitted to the Congress
[PB93-137073] 08 p2519 N93-23437
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
Space business indicators 09 p2886 N93-26158
Functional Economic Analysis Guidebook, version 1.1
[AD-A261390] 09 p2886 N93-26305
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region 10 p3022 N93-26641
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013
Electrical power integration for lunar operations 10 p2988 N93-27966
Value of space defenses
[DE93-003813] 10 p3127 N93-28295
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Prefeasibility study on compressed air energy storage systems
[VTT-TIED-1267] 11 p3465 N93-30111
Viability assessment for reliable long-wave communication links 11 p3399 N93-30754
Preliminary study on costs needed for solution of the global environmental problem
[DE93-768474] 12 p3754 N93-32039
Survey on global environmental effects of petroleum substitution energy utilization
[DE93-768475] 12 p3754 N93-32040

ECONOMIC DEVELOPMENT
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
Industrial aerospace activities 06 p1404 N93-19007
Designing and implementing a state quality award
[PB93-154458] 09 p2722 N93-26546
Digital telecommunications are a key development factor: Integration of satellite into overall telecommunication networks as a way to harmonize social and economic implications 10 p3025 N93-26660
Telecommunication service by leased transponders of the regional satellite 10 p3025 N93-26661
Satellite communication programmes for rural education and development 10 p3025 N93-26662
States and small business: A directory of programs and activities, 1993 edition
[PB93-186427] 12 p3834 N93-31433

ECONOMIC FACTORS
Economical development of complex computer systems
[AD-A254752] 03 p0689 N93-12848
Impacts of sociopolitical conditions
05 p1379 N93-16873
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
NASA reports 08 p2154 N93-23163
Public Congressional forum on space
08 p2154 N93-23165
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557
Applied aerodynamics: Challenges and expectations
[NASA-TM-103963] 09 p2575 N93-25091
The challenges and benefits of lunar exploration
10 p3211 N93-27957
Energy for lunar resource exploitation
10 p3212 N93-27961
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671

ECONOMIC IMPACT
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Estimating the regional economic significance of airports
[AD-A257658] 05 p1073 N93-17793
An integrated mission planning approach for the Space Exploration initiative
[DE93-001512] 06 p1473 N93-18588
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Using a neural network to estimate solvent consumption
[PB93-173110] 11 p3467 N93-28873
Metrication: An economic wake-up call for US industry
[PB93-188969] 12 p3714 N93-31109

ECONOMICS
NT DEMAND (ECONOMICS)
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
A basis of settlement: Economic foundations of permanent pioneer communities
03 p0741 N93-14019
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
To build a mine: Prospect to product
05 p1379 N93-16876
Economic geology of the Moon: Some considerations
05 p1388 N93-17249
Estimating the regional economic significance of airports
[AD-A257658] 05 p1073 N93-17793
Strategic factors in the development of the National Technology Transfer Network
[NASA-TM-108594] 06 p1694 N93-18169
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305
Small business profiles, 1992: Region 1
[PB93-110922] 08 p2521 N93-24556
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216

ECONOMY
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013

ECOSYSTEMS
Spatial models of ecological systems and processes: The role of GIS
[DE92-016884] 01 p0175 N93-10788
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
Integration of vegetation indices and thermal measurements for ecosystem modeling
03 p0646 N93-13721
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
The production and use of aeroponically grown inocula of VAM fungi in the native plant nursery
[PB92-204973] 04 p0933 N93-15208
Ecological implications of landscape fragmentation
[DE92-019186] 04 p0911 N93-15273
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Life support and self-sufficiency in space communities
05 p1229 N93-16866
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Global models of ecosystem change
07 p1953 N93-21570
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
Carbon and biogeochemistry
[DE93-001368] 08 p2386 N93-23306
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Measuring variation in ecosystem sensitivity to stress
[AD-A259521] 08 p2387 N93-23450
A strategy for monitoring the tropical forest with ERS-1 SAR imagery 08 p2358 N93-23758
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011
Chaos theory and its application in the atmosphere
08 p2398 N93-24082
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
CEBAS-Aquarack: An artificial aquatic animal plant ecosystem as a tool for basic research in the Columbus Space Station 08 p2166 N93-24401
Ecosystems on Earth and in space (the possible utilization of artificial ecosystems for space life support systems) 08 p2167 N93-24406
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
Biodiversity indication by Earth observation data
09 p2751 N93-24858
The Global Ocean Observing System
09 p2733 N93-24923
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406

Response and feedbacks of forest ecosystems to global climate change
[PB93-167252] 09 p2767 N93-26510
EMAP monitor: February 1993 edition
[PB93-163020] 10 p3067 N93-26632
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Southern global change program. Determining the relationships between air pollutants, climate change, and southern forests
[PB93-176246] 10 p3069 N93-27410
Atoll Research Bulletin numbers 355-364: 40th anniversary issue
[PB93-169654] 10 p3062 N93-27421
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
State of the art: Ecological biomarkers
[DE93-006621] 11 p3469 N93-28992
Proposal to develop guides for high school teachers on global systems science
[DE93-008759] 11 p3624 N93-29100
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591

ECS
U EUROPEAN COMMUNICATIONS SATELLITE

EDDIES
U VORTICES

EDDY CURRENTS
Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550
Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0258 N93-11621
Measurement of AC electrical characteristics of SSC superconducting dipole magnets
[DE92-018888] 02 p0431 N93-11625
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Current displacement in parabolic cylinder
[ETN-93-93423] 08 p2278 N93-22681
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Method and apparatus for deflection measurements using eddy current effects
[NASA-CASE-GSC-13506-1] 09 p2710 N93-26103
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560

EDDY DIFFUSION
U TURBULENT DIFFUSION

EDDY VISCOSITY
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer 04 p0876 N93-14695
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates 10 p2936 N93-27456
Sea breeze simulation with a static profile of the eddy viscosity
[FOA-B-40415-4.5] 10 p3078 N93-27831
Large eddy simulations of shockwave passage through turbulence
[DE92-019503] 11 p3419 N93-29050

EDEMA
Nifedipine for treatment of high altitude pulmonary edema
[AD-A256959] 05 p1225 N93-16187

EDGE DETECTION
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Model-based vision for space applications 02 p0398 N93-11955
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
Wavelet image analysis 06 p1628 N93-18506
An image compression technique for use on token ring networks 07 p1881 N93-20176
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
Automatic modeling of nonpolyhedral objects by monocular observation
[ETN-93-92678] 07 p2068 N93-20898
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
The multi-scale veto model: A two-stage analog network for edge detection and image reconstruction
[AD-A259600] 08 p2462 N93-24069
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
A system for measurement and control of weld pool geometry in automatic arc welding
[ETN-93-93154] 10 p3050 N93-27380
Robust and fast computation of edge characteristics in image sequences
[INRIA-RR-1689] 10 p3105 N93-28446
A robust multi-operator 3-D edge detection approach for range image segmentation 11 p3366 N93-30288
A proposal on the quality of the binary thresholds of a contour detection
[REPT-91-075] 12 p3806 N93-31544

EDGE DISLOCATIONS
Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
Dislocation roles in energetic crystal responses 11 p3348 N93-30086

EDGES
NT BLUNT LEADING EDGES
NT BLUNT TRAILING EDGES
NT LEADING EDGES
NT SHARP LEADING EDGES
NT TRAILING EDGES
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
An extended cuberille model for identification and display of 3D objects from 3D gray value data 04 p0953 N93-15542
Edge delamination of composite laminates 07 p1842 N93-21519
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing 09 p2751 N93-24859
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347

EDITING
Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
How scientific must technical editors be?
[DE92-040741] 04 p1010 N93-15655
Editing images of text
[PB93-149896] 08 p2443 N93-24576

EDITING ROUTINES (COMPUTERS)
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Soar-mode v5.0 user's manual for Soar release 5.2 and 6.0
[AD-A259914] 08 p2441 N93-23997

EDUCATION
NT ASTRONAUT TRAINING
NT FLIGHT TRAINING
NT MAINTENANCE TRAINING
NT PILOT TRAINING
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Total Quality Management (TQM) concepts applied to instruction
[DE92-013399] 01 p0171 N93-10270
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Computer security training and awareness course compendium
[PB92-205442] 02 p0404 N93-11258
Questioning mechanisms during complex learning
[AD-A247382] 02 p0386 N93-11415
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
A summer program in mathematics and computer science for academically oriented students, June 24 - July 26, 1991, Washington, DC
[AD-A249139] 02 p0427 N93-12061
Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
Coordinating Council. Eighth Meeting: Using the Internet
[NASA-TM-108019] 03 p0734 N93-12673
Science and engineering degrees, by race/ethnicity of recipients: 1977-1990
[NSF-92-327] 03 p0729 N93-12694
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
Blacks in undergraduate science and engineering education
[NSF-92-305] 03 p0730 N93-13015
An intelligent position-specific training system for mission operations
[NASA-TM-108381] 03 p0691 N93-13156
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Using DIALOG CIP at Winona State University to educate end-users 03 p0686 N93-13338
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530
The modelling of turbulence and downbursts for flight simulators 03 p0507 N93-13542
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543

Explanation-based knowledge acquisition of electronics
[AD-A255069] 03 p0573 N93-13650
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Fiscal Year 1991 highlights
[NSF-92-23] 03 p0731 N93-13702
NSF Science and Technology Centers
[NSF-92-104] 03 p0507 N93-13712
Application of information system technology to K-12 education
[AD-A255223] 03 p0731 N93-13834
An evaluation of the use and future need of remotely sensed images in grades K-12 03 p0635 N93-13956
The informed citizen: Technology and responsibility in the information age 03 p0742 N93-14049
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
A progressive resistance weight training program designed to improve the armor crewman's strength
[AD-A255553] 04 p0934 N93-14556
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
Space education: A self-perservation strategy for the Canadian space industry 04 p0808 N93-14937
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
Proposed action plan to improve ADM effectiveness, part 3: Developing a new ADM paradigm on which to build advanced or expert decision making training 04 p0787 N93-15026
Continuing engineering education for software engineering professionals
[DE92-019888] 04 p0947 N93-15225
Experience with a course on architectures for software systems. Part 1: Course description
[AD-A256221] 04 p0941 N93-15239
The SWOOPE experience: Precollege students mapping the environment
[DE92-040390] 05 p1198 N93-15663
Extracting viewpoints from multifunctional knowledge bases
[AD-A256008] 05 p1351 N93-15886
CD-ROM applications in Professional Military Education (PME)
[AD-A256662] 05 p1231 N93-15914
Functional requirements of an advanced instructional design advisor. Volume 1: Epitomizing functions
[AD-A256752] 05 p1234 N93-16049
Ventures in science
[DE93-003044] 05 p1331 N93-16521
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Future Assets, Student Talent (FAST)
[NASA-CR-191632] 05 p1332 N93-16624
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-184505] 05 p1339 N93-17279
Updating and expanding the library of materials on NASA Spacelink electronic information system 05 p1340 N93-17282
Development of a prototype interactive learning system using multi-media technology for mission independent training program 05 p1227 N93-17310
Automatic information processing and high performance skills: Individual differences and mechanisms of performance improvement in search-detection and complex tasks
[AD-A257711] 05 p1226 N93-17684
Integrating domain-specific reuse for system/software engineers course description
[AD-A257637] 05 p1252 N93-17723
EHR directory of awards, FY 1990
[NSF-92-75] 06 p1746 N93-17854
Greenhouse Earth: A Traveling Exhibition
[DE93-002419] 06 p1572 N93-17912
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
Activities report of the Institute of Space Physics
[ETN-93-93360] 06 p1665 N93-17947
Reliability, Maintainability, and Supportability (RMS) education in engineering schools
[AD-A258260] 06 p1552 N93-18026
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Space education: Deriving benefits from industrial consortia
[NASA-TM-108593] 06 p1679 N93-18358
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Teaching, learning, and planetary exploration
[NASA-CR-192000] 06 p1734 N93-18569
EISCAT educational programs 06 p1579 N93-18745
The international forum on airline quality teaching guide
[NIAR-92-13] 06 p1680 N93-19376
Training evaluation final report 06 p1682 N93-19405
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452
Aerospace engineering educational program 06 p1681 N93-19457
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Lessons learned from an historical look at flight testing 06 p1442 N93-19904
MB-339: The role of flight testing in the evolution phase of a proven aircraft 06 p1443 N93-19907
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
Human-computer interaction in the school of computer science
[AD-A258634] 07 p2028 N93-20001
Night vision goggle training: Development and production of six video programs
[AD-A258529] 07 p2025 N93-20050
Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations
[AD-A259449] 07 p2030 N93-20058
Correlates of creative problem solving
[AD-A258720] 07 p2085 N93-20369
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579
Education in geodesy 07 p1975 N93-20996
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Prologue to Action. Life Sciences Education and Science Literacy
[PB93-107514] 07 p2021 N93-21230
By the year 2000: First in the world. FY 1993 budget summary
[PB93-108512] 07 p2086 N93-21231
Instructions and advance training measures for the improvement of human reliability
[MBB-FE-313-S-PUB-0500] 07 p2025 N93-21402
The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
Production of teaching materials from Geostationary Meteorological Satellite Himawari images 07 p1978 N93-21544
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
Burst of energy
[DE93-005058] 07 p1988 N93-21833
Laser disc for Earth environment data set 08 p2338 N93-22142
Development of interactive multimedia applications 08 p2530 N93-22171
University guide to NASA, 1993
[NASA-EP-267] 08 p2152 N93-22383
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
FY 1991 safety program status report
[NASA-TM-108707] 08 p2257 N93-23136
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Pre-college education 08 p2516 N93-23142
College education 08 p2516 N93-23143
The use of continuing adult education 08 p2516 N93-23144
Underrepresented groups 08 p2517 N93-23146
Outreach and public service 08 p2517 N93-23147
Pipeline issues 08 p2517 N93-23148
State and local governments 08 p2517 N93-23149
Focusing educational initiatives 08 p2517 N93-23150
University-industry interaction 08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
Space support forum 08 p2153 N93-23160
NASA's strategic plan for education. A strategy for change, 1993-1998
[NASA-EP-289] 08 p2517 N93-23174
NASA's Education Program Inventory FY 91
[NASA-EP-284] 08 p2518 N93-23250
Columbus program: Ground staff training simulation
[ETN-93-93694] 08 p2194 N93-23415
Advanced team decision making: A developmental method
[AD-A259512] 08 p2520 N93-23466
COMLINE 08 p2276 N93-23530
Learning to meet the science and technology challenge
[PB93-139996] 08 p2520 N93-23680
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment 08 p2367 N93-23812
EUROAVIA Design Workshop 1991: Organization and lessons learned 08 p2199 N93-23821
Remote sensing of the Earth: A pilot program in German schools 08 p2369 N93-23822
Innovative interactive Earth systems science courseware for middle and high school students 08 p2334 N93-23823
Space technologies in French education 08 p2369 N93-23824
Computer-based lessons in satellite oceanography: An academic network for teachers and students 08 p2369 N93-23825
The role of planetariums in promoting space sciences 08 p2170 N93-23827
The tropical school for atmospheric and space sciences: An international project proposal 08 p2369 N93-23828
Remote sensing satellite and thematic applications in high schools and elementary schools in France 08 p2370 N93-23829
Satellite-images in secondary education in Baden-Wuerttemberg (Germany) 08 p2370 N93-23830
Space research as a tool to acquaint children and young people with science and technology 08 p2370 N93-23831
The impact of computer instruction on the near transfer and far transfer of a general problem-solving strategy 08 p2527 N93-24094
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148
Training concept for crew, end user, and ground centre personnel in the Columbus utilisation programme 08 p2162 N93-24382
The mysterious atmosphere of the Earth. ATLAS: Instruction guide with activities
[NASA-EP-290/03-93] 08 p2402 N93-24653
A software package for neural network applications development 09 p2827 N93-25610
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711

Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
MIT Space Engineering Research Center
[NASA-CR-192879] 09 p2821 N93-25833
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 1
[NASA-CR-188242-VOL-1] 09 p2911 N93-26056
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 2
[NASA-CR-188242-VOL-2] 09 p2914 N93-26070
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
Design and implementation of a pilot orientation program for new NASA engineering employees
[NASA-TM-105907] 09 p2872 N93-26205
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
The Center of Excellence for Hypersonics Training and Research at the University of Texas at Austin
[NASA-CR-193070] 10 p2930 N93-27126
Mathematics as technology: Mathematical engineering
[CWI-AM-R9202] 10 p3113 N93-27296
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Case study of technology use in adult literacy programs
[PB93-163905] 10 p3161 N93-27415
Software for adult literacy: Scope, suitability, available sources for information, and implications for federal policy
[PB93-163913] 10 p3161 N93-27416
Digest of education statistics, 1992
[PB93-169522] 10 p3161 N93-27420
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 10: Wright Laboratory
[AD-A262018] 10 p3161 N93-27596
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 11: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A262019] 10 p3161 N93-27597
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 12: Armstrong Laboratory
[AD-A262020] 10 p3161 N93-27598
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 13: Phillips Laboratory
[AD-A262021] 10 p3161 N93-27599
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 14: Rome Laboratory
[AD-A262022] 10 p3161 N93-27600
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 15: Wright Laboratory
[AD-A262023] 10 p3162 N93-27601
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 2: Armstrong Laboratory
[AD-A261989] 10 p3162 N93-27628
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 3: Phillips Laboratory
[AD-A261990] 10 p3162 N93-27629
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 4: Rome Laboratory
[AD-A261991] 10 p3162 N93-27630
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5A: Wright Laboratory
[AD-A261992] 10 p3162 N93-27631
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5B: Wright Laboratory
[AD-A261993] 10 p3162 N93-27632
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 6: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A261994] 10 p3162 N93-27633
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 9: Rome Laboratory
[AD-A262017] 10 p3163 N93-27634
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 8: Phillips Laboratory
[AD-A261972] 10 p3163 N93-27642
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
A demonstration of simple airfoils: Structural design and materials choices
[DE93-007882] 11 p3238 N93-28662
Proposal to develop guides for high school teachers on global systems science
[DE93-008759] 11 p3624 N93-29100
Advanced network technology: Background paper
[OTA-BP-TCT-101] 11 p3539 N93-29650
Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657
Filling the gaps: An overview of data on education in grades K through 12
[PB93-176550] 11 p3608 N93-30821
National Educators' Workshop. Update 92: Standard Experiments in Engineering Materials Science and Technology
[NASA-CP-3201] 11 p3290 N93-30948
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Introduction to high performance composites 11 p3291 N93-30957
Materials education activities 11 p3291 N93-30958
Experiments in materials science from household items 11 p3293 N93-30971
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Taguchi method of experimental design in materials education 11 p3294 N93-30975
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976
High thermal conductivity of diamond 11 p3294 N93-30977
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Foreign participation in US Academic science and engineering: 1991
[PB93-186583] 12 p3833 N93-31328
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846
A preliminary empirical evaluation of virtual reality as an instructional medium for visual-spatial tasks 12 p3784 N93-32151
The 1992 Langley Aerospace Research Summer Scholars (LARSS) program
[NASA-CR-193371] 12 p3833 N93-32229

EDUCATIONAL TELEVISION
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
Satellite communication programmes for rural education and development 10 p3025 N93-26662
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362

EEG (ELECTROENCEPHALOGRAMS)
U ELECTROENCEPHALOGRAPHY

EFFECTIVENESS
NT COST EFFECTIVENESS
NT SYSTEM EFFECTIVENESS

EFFERENT NERVOUS SYSTEMS
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
The effect of microgravity on tremor (microvibration) 08 p2160 N93-24368
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592

EFFICIENCY
NT CHARGE EFFICIENCY
NT COMBUSTION EFFICIENCY
NT COMPRESSOR EFFICIENCY
NT ENERGY CONVERSION EFFICIENCY
NT NOZZLE EFFICIENCY
NT POWER EFFICIENCY
NT PROPELLER EFFICIENCY
NT PROPULSIVE EFFICIENCY
NT THERMODYNAMIC EFFICIENCY
NT TRANSMISSION EFFICIENCY
Introduction to radial turbine technology 01 p0077 N93-10051
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Method of moments analysis of symmetric dual reflector antennas with feeds
[AD-A255171] 02 p0286 N93-12407
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory
[DE92-040026] 04 p0893 N93-15278
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
The influence of high clouds on climate 07 p1956 N93-21588
Non-H2Se, ultra-thin CIS devices
[DE93-000078] 09 p2759 N93-25253
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
Variable-speed generators with flux weakening 09 p2694 N93-25599
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597

EFFLUENTS
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197

EFFUSIVES
NT LAVA

EGRESS
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277

EIGENFUNCTIONS
U EIGENVECTORS

EIGENSTATES
U EIGENVECTORS

EIGENVALUES
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials 01 p0045 N93-10470
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges 01 p0045 N93-10471

Experimental investigation of simple support condition in free vibration analysis of plates
01 p0056 N93-10530
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
Partial solution of the generalized eigenvalue problem using the Woodbury transformation
01 p0064 N93-10567
LABAN-PEL: A two-dimensional, multigroup diffusion, high-order response matrix code
[DE92-626845] 01 p0144 N93-10624
Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760
Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122
Acoustic modes in fluid networks
03 p0586 N93-13398
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
On computing accurate singular values and eigenvalues of acyclic matrices
[AD-A255892] 03 p0697 N93-14036
Application of partition matrix methods to solve large eigenproblems in structural dynamics
04 p0896 N93-14188
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
On the convergence of the coupled-wave approach for lamellar diffraction gratings 04 p0986 N93-15520
Updating and localizing structural errors based on minimization of equation errors
05 p1077 N93-15719
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Minimum eigenvalue separation
[AD-A256570] 05 p1262 N93-15848
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
A simple method to generate integrable symplectic maps
[PREPRINT-795] 05 p1265 N93-16416
Stability of elliptical vortices
[ITN-93-85181] 05 p1159 N93-16733
Bose realisation of a noncanonical Heisenberg algebra
[PREPRINT-844] 05 p1269 N93-16958
A discrete Neumann system
[PREPRINT-870] 05 p1279 N93-16968
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
The direct measurement of damping coefficients using an inverse eigenvalue method
[AD-A258214] 06 p1555 N93-18204
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
Suppression of mode-beating in a saturated hole-coupled FEL oscillator
[DE93-002554] 06 p1542 N93-19745
Direct and inverse unitary eigenproblems in signal processing: An overview
[AD-A259348] 07 p2055 N93-21242
Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706
Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830
Variational nodal solution algorithms for multigroup criticality problems
[DE93-003462] 07 p2042 N93-21964
Kinetic theory of toroidicity and ellipticity-induced Alfven eigenmodes
[DE93-003634] 07 p2077 N93-21995
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Parallel-vector unsymmetric Eigen-Solver on high performance computers
[NASA-CR-191417] 08 p2433 N93-24491
Parallel matrix computations
[AD-A260783] 09 p2828 N93-25687
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
Airfoil stability in turbulent flow
10 p2926 N93-27212
Some inverse problems for Jacobi and arrow matrices
[AD-A262336] 10 p3118 N93-27644
A parallel divide and conquer algorithm for the generalized real symmetric definite tridiagonal eigenproblem
[AD-A262297] 10 p3099 N93-27678
A new direction in hydrodynamic stability: Beyond eigenvalues
[NASA-CR-191411] 10 p3040 N93-27688
On the Bogdanov-Takens bifurcation for planar diffeomorphisms
[W-9202] 10 p3121 N93-28124
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
A normally elliptic Hamiltonian bifurcation
[W-9201] 11 p3548 N93-28753
A summary of block schemes for reducing a general matrix to Hessenberg form
[DE93-010621] 11 p3525 N93-28877
Benchmark eigenvalue spectrum calculations with anisotropic effects
[DE93-006387] 11 p3548 N93-28891
Stabilization using low-gain PI control: SISO case
[OUEL-1947/92] 11 p3541 N93-28898
Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804
Modal synthesis technique used in shallow doublewall
[FFA-TN-1992-29] 12 p3722 N93-31053
Calculations of wavefunctions and energies of electron system in Coulomb potential by variational method without a basis set
[DE93-608161] 12 p3819 N93-31286
A normally elliptic Hamiltonian bifurcation
[W-9214] 12 p3807 N93-31623
Hamiltonian moments and the Lanczos method in the Heisenberg model
[DE93-609845] 12 p3813 N93-31905
Plaquette expansion in lattice Hamiltonian models
[DE93-609846] 12 p3813 N93-31906
On the real symmetric inverse eigenvalue problem
[DE93-619667] 12 p3809 N93-32284

EIGENVECTORS

On the measurement of time-dependent quantum phases
[DE92-630206] 01 p0170 N93-10387
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
Partial solution of the generalized eigenvalue problem using the Woodbury transformation
01 p0064 N93-10567
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Darboux theorems and Wronskian formulas for integrable systems. 1: Constrained KP flows
[MATHS-REPT-A-172] 02 p0424 N93-11126
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
Application of partition matrix methods to solve large eigenproblems in structural dynamics
04 p0896 N93-14188
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
Modal ring method for the scattering of electromagnetic waves
[NASA-TM-105966] 07 p1882 N93-20260
Eigenfunction for dissipative dynamics operator and attractor of dissipative structure
[NIFS-194] 07 p2050 N93-20267
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
Implementation of the block-Krylov boundary flexibility method of component synthesis
[NASA-TM-106065] 08 p2325 N93-23044
Demonstration for novel self-organization theory by three-dimensional magnetohydrodynamic simulation
[NIFS-212] 09 p2859 N93-25227
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Some inverse problems for Jacobi and arrow matrices
[AD-A262336] 10 p3118 N93-27644
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
A summary of block schemes for reducing a general matrix to Hessenberg form
[DE93-010621] 11 p3525 N93-28877
Benchmark eigenvalue spectrum calculations with anisotropic effects
[DE93-006387] 11 p3548 N93-28891
Calculations of wavefunctions and energies of electron system in Coulomb potential by variational method without a basis set
[DE93-608161] 12 p3819 N93-31286
On the real symmetric inverse eigenvalue problem
[DE93-619667] 12 p3809 N93-32284

EIKONAL EQUATION

Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743

EINSTEIN EQUATIONS

New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Brownian motion
[PREPRINT-797] 05 p1280 N93-16418
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions
10 p3204 N93-28081
The semiclassical stability of de Sitter spacetime
[DESY-92-131] 11 p3603 N93-28472
Ashtekar variables, self-dual metrics, and w(infinity)
[DE92-642588] 12 p3802 N93-31074
A universal mass in (2+1)-dimensions
[DE93-609888] 12 p3832 N93-31911

EINSTEIN OBSERVATORY

U HEAO 2

EISCAT RADAR SYSTEM (EUROPE)

Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora
02 p0359 N93-11266
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results 02 p0360 N93-11267
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited
02 p0360 N93-11268
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence
02 p0360 N93-11269
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
Report on the 7th Finnish EISCAT Workshop in 1991
06 p1578 N93-18737
EISCAT related satellites in near future
06 p1578 N93-18738
Freja satellite program and its connection to EISCAT
06 p1578 N93-18739
Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991
06 p1578 N93-18741
EISCAT observations of spectral components of atmospheric gravity waves in the F region
06 p1578 N93-18743
EISCAT Svalbard radar 06 p1516 N93-18744
EISCAT educational programs
06 p1579 N93-18745
GUISDAP 06 p1579 N93-18746
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Precipitation associated electric field enhancements
06 p1722 N93-19520
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions
06 p1722 N93-19522
Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523

Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525
Determination of E region effective recombination coefficient using impulsive precipitation events
06 p1723 N93-19526
An incoherent scatter experiment for the measurement of particle collisions 06 p1723 N93-19528
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
Introduction to ionospheric heating at Tromsoe (Norway). Part 1: Experimental overview
06 p1724 N93-19531
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533
The possibilities of observing plasma and gyro lines with the EISCAT polar cap radar 06 p1724 N93-19534
Photoelectron enhanced plasma-line intensities at angles with the geomagnetic field as measured by EISCAT 06 p1724 N93-19536
Tristatic observations of natural plasma lines with the EISCAT UHF radar 06 p1725 N93-19537
Solar wind velocity measurements with the EISCAT UHF antenna array 06 p1725 N93-19542
Main ionospheric trough: Preliminary results from the 1990 Finnish-French EISCAT campaign
06 p1726 N93-19545
EISCAT measurements in the E and F regions during the 12-16 February 1990 LTCS campaign
06 p1726 N93-19546
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions
06 p1726 N93-19547
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven
06 p1727 N93-19551
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564
The neutral wind in the E-region from CP-1 data
06 p1729 N93-19565
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations
06 p1584 N93-19568
Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT
06 p1729 N93-19569
The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles
06 p1517 N93-19573
The EISCAT Svalbard (Arctic) radar
06 p1517 N93-19574
The G2-system, a second generation experimental philosophy for EISCAT 06 p1517 N93-19577
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data
06 p1517 N93-19578
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile
06 p1517 N93-19579
Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580
EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar
06 p1732 N93-19582
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events
06 p1732 N93-19583
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar
06 p1732 N93-19586
Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831

EJECTA
Large meteorite impacts: The K/T model
01 p0107 N93-10120
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud
01 p0109 N93-10135
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Venusian impact basins and cratered terrains
01 p0112 N93-10145
Report on the international Cambodian crater expedition, 1992 01 p0113 N93-10147
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters
01 p0114 N93-10154
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Impactites from Popigai Crater
01 p0117 N93-10164
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Atoms and molecules in supernova 1987A
03 p0699 N93-13851
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus
04 p1041 N93-14371
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Gamma-ray imaging observations of Supernova 1987A
04 p1012 N93-14628
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Hypervelocity impact facility for simulating materials exposure to impact by space debris
11 p3283 N93-29365
Multiwavelength studies of classical nova shells
11 p3636 N93-30412
Spacecraft studies of Phobos and Mars
[NASA-CR-193298] 11 p3651 N93-30635
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Origin of the solar wind and coronal mass ejections
12 p3856 N93-31702
Detecting and tracking changes in solar wind conditions using interplanetary scintillation
12 p3857 N93-31703
Possible manifestation of the critical ionization velocity phenomenon in the solar corona
12 p3861 N93-31726

EJECTION
NT STELLAR MASS EJECTION
An epidemiological study in SAF's pilots ejections
06 p1429 N93-19699

EJECTION INJURIES
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489

EJECTION SEATS
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
Improving manikin biofidelity 06 p1424 N93-19668
An epidemiological study in SAF's pilots ejections
06 p1429 N93-19699

EJECTORS
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
A semiconductor bridge ignited hot gas piston ejector
07 p1864 N93-20137
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480

EKMAN LAYER
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578

EL NINO
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819

ELASTIC BARS
On the effective reflection properties of the randomly segmented elastic bar 09 p2724 N93-25328
A Riemann problem for an elastic bar that changes phase
[AD-A262827] 11 p3452 N93-29432

ELASTIC BENDING
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348

ELASTIC BODIES
Visualization of scattering strength of elastic bodies in a fluid
[AD-A254535] 03 p0699 N93-12601
Identification of parametric finite element models using experimental modal data
[PB92-217819] 03 p0558 N93-12976
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
Forced vibration of non-selfadjoint elastic systems
07 p1934 N93-20668
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Application of the boundary element method to finite elasticity 08 p2327 N93-23200
Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2728 N93-25842

ELASTIC BUCKLING
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Integrated view of methods in buckling analysis
[PB93-110468] 07 p1946 N93-21232
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234

Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
Stability of single layer composite cylinders subjected to lateral pressure: Numerical approach
10 p2922 N93-27184

ELASTIC COLLISIONS
U ELASTIC SCATTERING

ELASTIC CONSTANTS
U ELASTIC PROPERTIES

ELASTIC CYLINDERS
Experimental investigation of scattering from randomly rough plastic cylinders
[AD-A256018] 04 p0975 N93-15259
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Evaluation of the scattered pressure due to infinite rigid cylinders, infinite elastic cylindrical shells, and rigid spheres in the presence of an ambient noise field
[AD-A264835] 11 p3563 N93-30899

ELASTIC DAMPING
NT VISCOELASTIC DAMPING

ELASTIC DEFORMATION
NT ELASTIC BENDING
NT ELASTIC BUCKLING
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Bifurcations in elastic-damaging materials
[DE92-018818] 03 p0624 N93-13072
Elastic and plastic strain measurement in high temperature environment using laser speckle
03 p0600 N93-13673
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
Application of the BEM to the crack growth problem by the coupling of damage-deformation
07 p1940 N93-20702
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2728 N93-25842
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004

ELASTIC MEDIA
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids
02 p0340 N93-12199
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Numerical investigations on fracture behavior of ductile materials 09 p2725 N93-25411
The rate form of equilibrium equation for problems of steady-state, elastic, viscous flows
09 p2704 N93-25708

ELASTIC MODULUS
U MODULUS OF ELASTICITY

ELASTIC PLATES
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
On existence of solutions and duality for a model of non-linear elastic plates with transverse shear deformations 09 p2726 N93-25437

ELASTIC PROPERTIES
NT AEROELASTICITY
NT AEROSERVOELASTICITY
NT ANELASTICITY
NT ELASTOPLASTICITY
NT HYDROELASTICITY
NT MAGNETOSTRICTION
NT MODULUS OF ELASTICITY
NT PHOTOELASTICITY
NT THERMOELASTICITY
NT THERMOVISCOELASTICITY
NT VISCOELASTICITY
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
Elastic stresses, twin boundaries, and fatigue cracking
02 p0338 N93-11890
Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
Large-deflection analysis of cord composite plates
03 p0530 N93-13008
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading
03 p0628 N93-13728
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis
03 p0699 N93-13907
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates
04 p0901 N93-14587
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
A laser spectroscopy technique for evaluating in-situ degradation of composite materials
[AD-A256983] 05 p1097 N93-16255
Morphology, properties, and stability of thermoplastic polymer blends
[ETN-92-92791] 05 p1124 N93-16491
Stiffnesses by (TtN) ensemble molecular dynamics
05 p1274 N93-17331
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Methods for improving damping. Part 3: Damping material data
[ESDU-92001] 06 p1554 N93-17997
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633
Experimental and theoretical study of the elastic and microplastic properties of particles reinforced metal matrix composites
[ISAL-92-0014] 07 p1833 N93-20942
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Application of the boundary element method to finite elasticity 08 p2327 N93-23200
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Accurate evaluation of the real and imaginary material constants for a piezoelectric resonator in the radial mode
[DREA-CR-91-451] 08 p2508 N93-23727
Use of the conventional and tangent derivative boundary integral equations for the solution of problems in linear elasticity 08 p2331 N93-24121
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Fracture of an elliptical inclusion and its implications for the properties of short fiber composites
09 p2634 N93-25333
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements
09 p2635 N93-25544
Inelastic behavior of thermoplastic composites
09 p2636 N93-25674
The induction of elastic fine motion in robotic grasps
09 p2718 N93-25727
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Variational theory of motion of curved, twisted and extensible elastic rods
[AD-A261028] 09 p2729 N93-25941
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361

Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy
[NASA-TM-106125] 09 p2731 N93-26550
Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Power assist EVA glove development
10 p3086 N93-27850
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
The curvature of plane elastic curves
[AD-A263198] 11 p3450 N93-28516
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick
11 p3291 N93-30953
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
Biharmonic pattern selection
[DE93-608186] 12 p3803 N93-31303
An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads
12 p3696 N93-31578
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

ELASTIC SCATTERING
Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Overview of spin physics
[DE93-006412] 08 p2483 N93-24029
Computation of nonlinear optical scattering by droplets
[AD-A260333] 08 p2490 N93-24267
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Medium energy measurements on N-N parameters
[DE93-007304] 10 p3137 N93-28358
Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Measurement of W-Z interference from neutrino-electron scattering
[DE93-010724] 11 p3566 N93-29313
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242
Theoretical investigation of electron-positive ion/atom interactions
[DE93-012933] 12 p3822 N93-32162
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407

ELASTIC SHELLS
Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation
[AD-A262237] 10 p3130 N93-27933
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029

ELASTIC STABILITY
U DAMPING

ELASTIC SYSTEMS
Micro mechanical behavior of pavements
05 p1070 N93-16312

ELASTIC WAVES
NT AERODYNAMIC NOISE
NT AIRCRAFT NOISE
NT BAROCLINIC WAVES
NT BLADE SLAP NOISE
NT CAPILLARY WAVES
NT COMPRESSION WAVES
NT DETONATION WAVES
NT ELECTROSTATIC WAVES
NT ENGINE NOISE
NT GRAVITY WAVES
NT ION ACOUSTIC WAVES
NT IONIC WAVES
NT JET AIRCRAFT NOISE
NT LAMB WAVES
NT MAGNETOACOUSTIC WAVES
NT MAGNETOHYDRODYNAMIC WAVES
NT NOISE (SOUND)
NT NORMAL SHOCK WAVES
NT OBLIQUE SHOCK WAVES
NT P WAVES
NT PHONONS
NT PLASMA WAVES
NT POLARIZED ELASTIC WAVES
NT PROPELLER NOISE
NT RAYLEIGH WAVES
NT RIPPLES
NT S WAVES
NT SEISMIC WAVES
NT SH WAVES
NT SHOCK WAVES
NT SONIC BOOMS
NT SOUND WAVES
NT STRESS WAVES
NT THERMAL NOISE
NT TOLLMIEN-SCHLICHTING WAVES
NT ULTRASONIC RADIATION
Calculation of elastic-plastic wave propagation on the connection machine
[AD-A252429] 01 p0095 N93-10427
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Some theoretical and experimental aspects of the generation of guided elastic waves using finite sources
04 p0897 N93-14219
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
Elastic modeling and migration in Earth models
09 p2771 N93-25433
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024

ELASTICITY
U ELASTIC PROPERTIES

ELASTICIZERS
U PLASTICIZERS

ELASTODYNAMICS
NT ELASTOHYDRODYNAMICS
NT VISCOELASTIC DAMPING
Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
Numerically dissipative time integration algorithms for structural dynamics 09 p2725 N93-25394
Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459

ELASTOHYDRODYNAMICS
On the thermoelastohydrodynamic lubrication dimensionless problem formulations
07 p1917 N93-20693
Boundary element formulation for thermoelastohydrodynamic contact problems
07 p1918 N93-20705
Elastohydrodynamic lubrication of multilayered elastic solids 10 p3053 N93-28413

ELASTOMERS
NT VITON RUBBER (TRADEMARK)
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications
01 p0015 N93-10006
Non-linear thermoelasticity of rubberlike solids
01 p0045 N93-10474
Failure processes in elastomeric composites
01 p0046 N93-10475
Chronorheological characterization of elastomers
01 p0046 N93-10476
NMR imaging of elastomeric materials
[AD-A256034] 04 p0841 N93-14658

Compatibility of refrigerants and lubricants with elastomers
[DE93-000539] 05 p1122 N93-16245
Surface epoxidation of elastomers
[AD-D015457] 05 p1123 N93-16436
Compatibility of refrigerants and lubricants with elastomers
[DE93-006429] 08 p2216 N93-22057
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Elastomer compound developed for high wear applications 09 p2659 N93-25607
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
Positive displacement rotary pump
[AD-D015678] 09 p2719 N93-26144
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1
[NASA-TM-108408] 11 p3331 N93-29193

ELASTOMETERS

Space environmental effects on polymers and composites 05 p1128 N93-17302

ELASTOPLASTICITY

The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Bifurcations in elastic-damaging materials
[DE92-018818] 03 p0624 N93-13072
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
Thermodynamically consistent theories for elastoplasticity coupled with damage
[DE92-018283] 03 p0627 N93-13515
Modeling of the thermal elasto-plastic behavior for composite materials using the homogenization method 04 p0830 N93-14466
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
A semi-analytical formulation for the elastoplastic analysis of imperfect cylindrical shells
[LR-674] 05 p1185 N93-16282
Cyclic behavior modelling
[ECL-92-09] 07 p1920 N93-20060
Multilayered elastoplastic homogeneization and anisotropic plasticity
[ECL-92-24] 07 p1839 N93-21359
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057

ELASTOSTATICS

On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates 04 p0901 N93-14587
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Use of the conventional and tangent derivative boundary integral equations for the solution of problems in linear elasticity 08 p2331 N93-24121

ELBOW (ANATOMY)

Prosthetic elbow joint
[NASA-CASE-MFS-28707-1] 11 p3508 N93-30566

ELECTRETS

Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024

ELECTRIC AIRCRAFT

U FLY BY WIRE CONTROL

ELECTRIC APPLIANCES

U ELECTRIC EQUIPMENT

ELECTRIC ARCS

A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396

ELECTRIC AUTOMOBILES

Technical examination and simulation of a photovoltaic system: Solar generator, battery, download
[ETN-93-94179] 11 p3466 N93-30573
Feasibility study on introduction of petroleum substituting energy for transportation
[DE93-768472] 12 p3750 N93-32058

ELECTRIC BATTERIES

NT ALKALINE BATTERIES
NT LEAD ACID BATTERIES
NT LITHIUM SULFUR BATTERIES
NT METAL AIR BATTERIES
NT NICKEL CADMIUM BATTERIES
NT NICKEL HYDROGEN BATTERIES
NT NICKEL IRON BATTERIES
NT NICKEL ZINC BATTERIES
NT PRIMARY BATTERIES
NT SILVER ZINC BATTERIES
NT SODIUM SULFUR BATTERIES
NT STORAGE BATTERIES
NT THERMAL BATTERIES
NT WET CELLS
NT ZINC-BROMIDE BATTERIES

Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
Long cycle life rechargeable lithium batteries
[NASA-CR-190937] 02 p0291 N93-11604
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
Thermally stable electrolytes for rechargeable lithium batteries, phase 2
[NASA-CR-190878] 03 p0573 N93-13610
First year testing of prototype magnesium/manganese dioxide BA-4590/U battery
[AD-A255503] 03 p0574 N93-13839
S/EV 1991: Solar and Electric Vehicle Symposium, Car and Trade Show
[DE92-019890] 04 p0869 N93-15226
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Exploratory technology research program for electrochemical energy storage
[DE93-001595] 04 p0909 N93-15484
Solid polymer electrolytes for rechargeable batteries
[DE93-001603] 04 p0871 N93-15485
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Development of test procedures for hybrid/electric vehicles
[DE93-001943] 05 p1180 N93-17579
DOE battery program for weapon applications
[DE93-002476] 06 p1522 N93-19637
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
NASA Center update: Jet Propulsion Laboratory 07 p1983 N93-20492
Lewis Research Center battery overview 07 p1983 N93-20493
Marshall Space Flight Center battery activity 07 p1983 N93-20494
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
TOPEX/Poseidon battery performance 07 p1984 N93-20507
Eagle-Picher SPV development 07 p1986 N93-20517
Nickel-hydrogen CPV battery update 07 p1986 N93-20518
Battery Review Board 07 p1986 N93-20519
Development of first generation aerospace NiMH cells 07 p1986 N93-20520
Cathodes for molten-salt batteries 07 p1987 N93-20525
Evaluation of a Schatz heat battery on a flexible-fueled vehicle. Phase 2
[PB92-204585] 07 p1893 N93-21377
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Utility Battery Storage Systems Program Report for FY 1992
[DE93-006459] 08 p2278 N93-22594
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
Safety and performance of a long life lithium-thionyl chloride battery
[DE93-005348] 08 p2279 N93-22821
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Application of quality function deployment to the design of a lithium battery
[DE93-008346] 10 p3033 N93-28459
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581
Approach to extending the cycle life of lithium secondary battery
[DE93-776266] 11 p3406 N93-28983
Evaluation of actuator energy storage and power sources for spacecraft applications
[NASA-CR-193226] 11 p3288 N93-29091
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
Temperature compensated lithium battery energy monitor
[AD-D015680] 11 p3409 N93-29605
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825

ELECTRIC BRIDGES

NT WHEATSTONE BRIDGES

A semiconductor bridge ignited hot gas piston ejector 07 p1864 N93-20137

ELECTRIC CELLS

Development of first generation aerospace NiMH cells 07 p1986 N93-20520
Eagle-Picher Industries Sodium Sulfur Program 07 p1987 N93-20523
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526

ELECTRIC CHARGE
NT ELECTRIC DIPOLES
NT ELECTROSTATIC CHARGE
NT ION CHARGE
NT SPACE CHARGE
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Overcharge and overdischarge protection of ambient temperature secondary lithium cells
[NASA-CASE-NPO-18343-1-CU] 02 p0290 N93-11456
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Development of test procedures for hybrid/electric vehicles
[DE93-001943] 05 p1180 N93-17579
The first particle: The electron
[NOTA-INTERNA-974] 05 p1295 N93-17646
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
Nickel hydrogen battery cell storage matrix test 07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503
Charge retention test experiences on Hubble Space Telescope nickel-hydrogen battery cells 07 p1984 N93-20504
TOPEX/Poseidon battery performance 07 p1984 N93-20507
Reliability study of the NiH2 strain gage 07 p1908 N93-20515
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28716
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626

ELECTRIC CHOPPERS
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208

ELECTRIC CIRCUITS
U CIRCUITS

ELECTRIC COILS
NT MAGNET COILS
NT MAGNETIC COILS
A solenoid with a low input power and a fast switching time
[DLR-FB-91-39] 08 p2278 N93-22661

ELECTRIC CONDUCTORS
NT BEAM LEADS
NT CONDUCTING POLYMERS
Conductive titanate fiber and its production method
[DE92-014738] 01 p0039 N93-10627
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300
Magnetic flux-load current interactions in ferrous conductors
[AD-A256632] 05 p1143 N93-15906
Electrochemical and electrode properties of stabilized bismuth oxide ceramics
[ISBN-90-9003981-3] 05 p1125 N93-16570
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures
[ONERA-NT-1992-3] 06 p1501 N93-18190
Progress report on conductive paints, 3 August - 30 September 1992
[DE93-001353] 06 p1494 N93-18530
Modal ring method for the scattering of electromagnetic waves
[NASA-TM-105966] 07 p1882 N93-20260
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Electromagnetic scattering cross sections from the bodies of revolution, volume 1
[DREV-CR-645] 08 p2264 N93-23342
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616
Apparatus for intercalating large quantities of fibrous structures
[NASA-CASE-LEW-15077-2] 11 p3298 N93-29609
Sealed acoustical element using conductive epoxy
[AD-D015736] 12 p3730 N93-32208

ELECTRIC CONNECTORS
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
Requirements for soldered electrical connections
[NHB-5300.4(3A-2)] 03 p0570 N93-12674
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
Performance measurements of superconducting current leads having low helium boiloff rates
[DE92-040730] 05 p1146 N93-16392
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
Novel interconnect deposition technology 06 p1523 N93-18465
Cable connector/adapter support for multi-terminal data processors
[AD-D015572] 07 p1889 N93-20309
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Automated connector force testing
[DE93-004634] 07 p1907 N93-21704
A berthing and fastening strategy for orbital replacement units 08 p2151 N93-22317
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Wrench for installing an electrical connector
[AD-D015625] 08 p2318 N93-24220
Radio frequency cable to optical fiber cable
[AD-D015620] 08 p2284 N93-24230
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Two- and three-dimensional high performance, patterned overlay multi-chip module technology 09 p2694 N93-25581
Separation tool for multipin electrical connectors
[NASA-CASE-NPO-18786-1-CU] 10 p3052 N93-28131
Characteristic and development report SA3581/MC4196 Lightning Arrestor Connector (LAC)
[DE93-010610] 11 p3412 N93-30118
Service equipment for use in hostile environments
[NASA-CASE-LEW-14906-2] 12 p3734 N93-31314

ELECTRIC CONTACTS
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Ohmic contacts to compound semiconductors 01 p0076 N93-10830
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes
[DE92-017042] 02 p0276 N93-11494
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Preliminary lightning tests: Optical fiber penetration of an exclusion region barrier
[DE92-019804] 04 p0983 N93-15230
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
Directory of design support methods
[AD-A256987] 05 p1227 N93-16258
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
Flex-Gears
[NASA-CR-192364] 07 p1914 N93-20759
Automated connector force testing
[DE93-004634] 07 p1907 N93-21704
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366
P+ contacts on GaAs for semiconductor lasers
[AD-A260207] 08 p2309 N93-24003
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts 10 p2962 N93-27575
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
Method and apparatus for characterizing the quality for electrically thin semiconductor films
[AD-D015734] 12 p3830 N93-32206

ELECTRIC CONTROL
The Trent family of engines
[PNR-90974] 02 p0211 N93-11063
Liquid-crystal heat valve controlled with multiple electrode pairs
[AD-D015739] 12 p3830 N93-32211

ELECTRIC CORONA
A cryogenic enrichment technique for gas chromatographic detection of S2F10 in SF6 discharges
[DE92-011045] 02 p0252 N93-12219
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-192180] 06 p1503 N93-18580
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Coronal shock waves 12 p3853 N93-31681
Coronal mass ejecta and flares: A statistical study 12 p3859 N93-31716

ELECTRIC CURRENT
NT ALTERNATING CURRENT
NT ARC DISCHARGES
NT AURORAL ELECTROJETS
NT BALL LIGHTNING
NT BEAM CURRENTS
NT DIRECT CURRENT
NT EDDY CURRENTS
NT ELECTRIC ARCS
NT ELECTRIC CORONA
NT ELECTRIC DISCHARGES
NT EXTERNAL SURFACE CURRENTS
NT FIELD ALIGNED CURRENTS
NT FLASHOVER
NT GAS DISCHARGES
NT GLOW DISCHARGES
NT HIGH CURRENT
NT IONOSPHERIC CURRENTS
NT LIGHTNING
NT LINE CURRENT
NT PENNING DISCHARGE
NT PLASMA CURRENTS
NT RADIO FREQUENCY DISCHARGE
NT RING CURRENTS
NT TELLURIC CURRENTS
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Current scaling of plasma focus devices
[IPF-90-1] 02 p0449 N93-11029
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323

Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Magnetic flux-load current interactions in ferrous conductors
[AD-A256632] 05 p1143 N93-15906
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926
Scaling laws for the critical current density of NbN films in high magnetic fields
[DE93-000604] 05 p1318 N93-16277
NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
Manifestations of electric currents in interstellar molecular clouds
[TRITA-EPP-91-05] 05 p1376 N93-17638
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
A study into the effects of electric fields and currents on the aging and quench hardening of steels
[AD-A260228] 08 p2233 N93-24098
Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104
Pressure dependence of conductivity
[DE93-008466] 09 p2687 N93-25113
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Internal current probing of integrated circuits using magnetic force microscopy
[DE93-006752] 09 p2692 N93-26501
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
Are there missing convective currents?
[DE93-604672] 12 p3825 N93-31084
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt
12 p3871 N93-31366
Magnetospheric convection and current system in the dayside polar cap 12 p3856 N93-31700
Method and apparatus for characterizing the quality for electrically thin semiconductor films
[AD-D015734] 12 p3830 N93-32206

ELECTRIC DIPOLES
Gradiometer antennas for tunnel detection
[PB92-205400] 01 p0069 N93-10440
On the definition and calculation of effective impedances and averaged boundary conditions with application to the analysis of high complexity frequency selective surfaces
[RSRE-MEMO-4518] 02 p0281 N93-11387
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271
Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere
11 p3395 N93-30731
ELF propagation in deep and shallow sea water
11 p3397 N93-30739
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740

ELECTRIC DISCHARGES
NT ARC DISCHARGES
NT BALL LIGHTNING
NT ELECTRIC ARCS
NT ELECTRIC CORONA
NT FLASHOVER
NT GAS DISCHARGES
NT GLOW DISCHARGES
NT LIGHTNING
NT PENNING DISCHARGE
NT RADIO FREQUENCY DISCHARGE
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
A cryogenic enrichment technique for gas chromatographic detection of S2F10 in SF6 discharges
[DE92-011045] 02 p0252 N93-12219
Characterization of electric discharge in air produced by an environmental ionizator
[INPE-5310-NTC/299] 03 p0651 N93-13310
CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
The first particle: The electron
[NOTA-INTERNA-974] 05 p1295 N93-17646
Air Force Ni-Cd cell qualification program update
07 p1984 N93-20505
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
TOPEX/Poseidon battery performance
07 p1984 N93-20507
Cycle life status of SAFT VOS nickel-cadmium cells
07 p1985 N93-20511
Nickel-hydrogen CPV battery update
07 p1986 N93-20518
Nickel metal hydride, a flight experiment
07 p1986 N93-20522
Cathodes for molten-salt batteries
07 p1987 N93-20525
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
An integrated approach to 300 kV electrostatic discharge application during component testing that will satisfy MIL-STD-331B Appendix F 09 p2693 N93-24882
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746
Approach to extending the cycle life of lithium secondary battery
[DE93-776266] 11 p3406 N93-28983
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

ELECTRIC ENERGY STORAGE
Exploratory technology research program for electrochemical energy storage
[DE93-001595] 04 p0909 N93-15484
High energy and high power density ultracapacitors and supercapacitors
[NASA-CASE-NPO-18568-1-CU]
05 p1149 N93-17274
Electrical power system WP-04
10 p2968 N93-27804
Space Station Freedom electric power system evolutionary energy storage 10 p2968 N93-27807
SPE (tm) regenerative hydrogen/oxygen fuel cells for extraterrestrial surface and microgravity applications
10 p2969 N93-27813
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
Eleventh Annual Conference on Energy Conservation and Storage Technologies
[DE93-768429] 12 p3748 N93-32038

ELECTRIC EQUIPMENT
Geomagnetic storm environments and effects on electrical systems
[DE92-041257] 08 p2262 N93-22980

ELECTRIC EQUIPMENT TESTS
Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments
[DE92-014268] 02 p0367 N93-11236
Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916
Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
Generation of integrated circuit tests based on functional models
[ETN-92-92674] 05 p1151 N93-17628
Development of high heat radiation printed boards
07 p1796 N93-20456
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Review on surface mounting components (wire wound chip resistors) development 07 p1797 N93-20459
Development of transistors (equivalent to 2SC3321)
07 p1797 N93-20460
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108

ELECTRIC FIELD STRENGTH
Progresses in measuring electrostatic DC fields
[OEFZS-4627] 08 p2280 N93-23112
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595

ELECTRIC FIELDS
Method and apparatus for determining return stroke polarity of distant lightning
[NASA-CASE-MFS-26102-2-CU]
01 p0125 N93-10108
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520

Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847

Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504

Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220

Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296

Physics of the L-mode to H-mode transition in tokamaks
[DE92-040697] 05 p1306 N93-15827

Physics and chemistry in high electric fields
[AD-A257138] 05 p1280 N93-15854

Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912

Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166

Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170

High temperature smart sensors and actuators
[AD-A256985] 05 p1158 N93-16517

Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520

Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536

Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552

Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839

Scattering from arbitrarily shaped microstrip patch antennas
[NASA-TP-3291] 05 p1140 N93-16943

Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086

On the consequences of bi-Maxwellian plasma distributions for parallel electric fields
05 p1152 N93-17317

Design and modeling of superconducting RFQ structures
[DE93-000511] 05 p1326 N93-17376

Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter
[AD-A257694] 05 p1141 N93-17689

The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235

A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519

Precipitation associated electric field enhancements
06 p1722 N93-19520

Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521

Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523

A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524

Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525

Plasma flow bursts in the auroral zone
06 p1726 N93-19550

Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region
06 p1727 N93-19552

Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region
06 p1727 N93-19553

Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554

Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause
06 p1730 N93-19575

Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588

Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619

Multi-fluid modeling of interpenetrating plasmas
[DE93-002893] 06 p1668 N93-19829

Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838

Roles of electric field on toroidal magnetic confinement
[NIFS-200] 06 p1669 N93-19884

Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112

Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156

Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263

Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264

Effect of alpha particles on radial electric field structure in Torsatron/Heliotron reactor
[NIFS-182] 07 p2071 N93-20265

Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362

Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1996 N93-20379

Dynamics of sessile droplets distortion and disruption by electric field in microgravity conditions
07 p1805 N93-21091

Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471

Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668

Numerical models of planetary dynamos
[DE93-003848] 07 p2098 N93-21970

Electrically driven convection
08 p2247 N93-22837

Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendoctrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913

Geomagnetic storm environments and effects on electrical systems
[DE92-041257] 08 p2262 N93-22980

Progresses in measuring electrostatic DC fields
[OEFZS-4627] 08 p2280 N93-23112

A study into the effects of electric fields and currents on the aging and quench hardening of steels
[AD-A260228] 08 p2233 N93-24098

Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates
[DE93-007678] 08 p2419 N93-24455

The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer
[DE93-007183] 08 p2273 N93-24466

Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477

Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590

Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606

Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876

Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887

Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893

Zoning of aircraft by electric field modelling
09 p2583 N93-24894

Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899

A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900

Dynamic test apparatus for electro-rheological fluids
[AD-D015632] 09 p2643 N93-25284

Thermal and electric oscillation driven by orbit loss in helical systems
[NIFS-213] 09 p2860 N93-25346

Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509

Electric field effects on quantum-confined semiconductor structures 09 p2865 N93-25703

The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352

Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593

Novel properties of the q-analogue quantized radiation field 10 p3143 N93-27324

Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954

The 80 kV electrostatic wire septum for AmPS
10 p3139 N93-28340

Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349

Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489

Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533

Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809

Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959

Proceedings of the Thunder and Lighting Seminar and the 3D Lightning Warning Workshop
[AD-A262766] 11 p3482 N93-29304

Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336

Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445

Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489

Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787

Partial cross sections in H(-) photodetachment
[DE93-011570] 11 p3569 N93-30130

Progress in the development of broadband electric-field sensors for transient fields 11 p3369 N93-30306

Pulse control in an accelerator for heavy-ion fusion
[DE93-009527] 11 p3576 N93-30390

Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595

The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere
11 p3395 N93-30731

Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751

A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783

Electric magnetic duality in string theory
[DE93-606061] 11 p3606 N93-30807

Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925

Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995

Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191

An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228

One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625

Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710

Viking observations of electric fields
12 p3858 N93-31712

Plasma waves interferometry on Cluster
12 p3827 N93-31714

On the Bernstein modes generation in solar post-flare loops 12 p3859 N93-31718

Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719

Wavefront reconstruction from three dimensional intensity measurements
[DE93-609881] 12 p3832 N93-31909

High-latitude electric field studies using DMSP data
[AD-A265032] 12 p3763 N93-31996

Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182

ELECTRIC FILTERS
NT BANDSTOP FILTERS
NT CRYSTAL FILTERS
NT DIGITAL FILTERS
NT FIR FILTERS
NT MICROWAVE FILTERS
NT RADIO FILTERS
NT TRACKING FILTERS
Order statistics and nonparametric statistics
[AD-A253574] 01 p0146 N93-10699
Optimal dynamic range integrated continuous-time filters
[ISBN-90-6275-755-3] 05 p1150 N93-17395
Improvement of LC feedthrough filters
07 p1797 N93-20458
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013

ELECTRIC FURNACES
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
[CTN-93-60631] 05 p1133 N93-16937
Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace
07 p1811 N93-21123
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723

ELECTRIC GENERATORS
NT AC GENERATORS
NT ALKALINE BATTERIES
NT DIRECT POWER GENERATORS
NT DYNAMOMETERS
NT FUEL CELLS
NT HYDROGEN OXYGEN FUEL CELLS
NT MAGNETOHYDRODYNAMIC GENERATORS
NT METAL AIR BATTERIES
NT NICKEL ZINC BATTERIES
NT PHOSPHORIC ACID FUEL CELLS
NT PHOTOVOLTAIC CELLS
NT PRIMARY BATTERIES
NT RADIOISOTOPE BATTERIES
NT REGENERATIVE FUEL CELLS
NT SODIUM SULFUR BATTERIES
NT SOLAR BLANKETS
NT SOLAR CELLS
NT SOLAR DYNAMIC POWER SYSTEMS
NT SOLAR GENERATORS
NT THERMAL BATTERIES
NT THERMIONIC CONVERTERS
NT THERMOELECTRIC GENERATORS
NT TURBOGENERATORS
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011888] 01 p0091 N93-10622
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
Electricity from biomass: A development strategy
[DE92-010590] 02 p0346 N93-11814
Advanced high-explosive flux compression generator development: The CN-3 series
[DE92-019962] 03 p0713 N93-12809
Power conversion system modification to permit use of DC power source
[AD-D015409] 04 p0868 N93-14887
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
Supply of geothermal power from hydrothermal sources: A study of the cost of power in 20 and 40 years
[DE93-004479] 08 p2382 N93-24036
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663
New alternative for electricity production. Part 3: Electricity production from biomass and natural gas by a solid oxide fuel cell
[VTT-TIED-1397] 12 p3720 N93-31862

ELECTRIC IGNITION
Development of a NASA standard gas generator
07 p1863 N93-20135
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures
09 p2583 N93-24886

ELECTRIC IMPULSES
U ELECTRIC PULSES

ELECTRIC MOMENTS
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392

ELECTRIC MOTOR VEHICLES
Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
Electric and hybrid vehicle program, site operator program
[DE92-018055] 02 p0328 N93-12114
S/EV 1991: Solar and Electric Vehicle Symposium, Car and Trade Show
[DE92-019890] 04 p0869 N93-15226
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
S/EV 92 (Solar and Electric Vehicles): Proceedings, volume 1
[DE93-001501] 05 p1180 N93-17577
Development of test procedures for hybrid/electric vehicles
[DE93-001943] 05 p1180 N93-17579
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
Development of test procedures for hybrid/electric vehicles
[DE93-005179] 08 p2316 N93-23336
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25298
Polymer electrolyte fuel cells for transportation applications
[DE93-008721] 11 p3464 N93-29147
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311

ELECTRIC MOTORS
NT INDUCTION MOTORS
NT MICROMOTORS
NT TORQUE MOTORS
Energy efficient motors reference guide
[DE92-019073] 02 p0290 N93-11514
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Energy efficient drivepower: Literature reference list: Culled references
[PB92-199181] 02 p0294 N93-12192
Energy efficient drivepower: Literature reference list. Volume 1: General user's supplement
[PB92-199157] 02 p0294 N93-12294
Energy efficient drivepower: Literature reference list. Volume 2: Design engineer's supplement
[PB92-199165] 02 p0295 N93-12295
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Compatibility of refrigerants and lubricants with motor materials
[DE93-000540] 05 p1122 N93-16246
Compatibility of refrigerants and lubricants with motor materials
[DE93-006428] 08 p2237 N93-22885
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010
Energy efficient drivepower: An overview
[DE93-012435] 11 p3411 N93-30057
Energy efficient drivepower
[DE93-012436] 11 p3411 N93-30058

ELECTRIC NETWORKS
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

ELECTRIC POTENTIAL
NT BIOELECTRIC POTENTIAL
NT COULOMB POTENTIAL
NT LOW VOLTAGE
NT OPEN CIRCUIT VOLTAGE
NT PHOTOVOLTAGES
NT QUANTUM WELLS
NT THRESHOLD VOLTAGE
Effects of anode material on arcjet performance
01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Thermal management in high average power pulsed compression systems
[DE92-017055] 01 p0076 N93-10836
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Back-gate bias generator
[AD-A255126] 02 p0295 N93-12421
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
Driven shielding capacitive proximity sensor
[NASA-CASE-GSC-13377-1] 04 p0962 N93-14701
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834
A high intensity solar cell invention: The edge-illuminated Vertical Multi-Junction (VMJ) solar cell
[DE92-019015] 04 p0907 N93-15224
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Apparatus and method for non-contact surface voltage probing by scanning photoelectron emission
[AD-D015583] 07 p1891 N93-20799
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
Changes in impedance of Ni/Cd cells with voltage and cycle life
[NASA-TM-106105] 08 p2379 N93-23018
A gel-permeation chromatography study of electrochemically synthesized Poly(3-alkylthiophenes)
[AD-A259864] 08 p2239 N93-23957
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467

Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles 09 p2693 N93-24903
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications 10 p3012 N93-27734
Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299
An improved linear ion trap physics package 11 p3384 N93-29587
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
Two-stage gas measurement system
[NASA-CASE-LAR-14791-1] 12 p3729 N93-31297
Liquid-crystal heat valve controlled with multiple electrode pairs
[AD-D015739] 12 p3830 N93-32211

ELECTRIC POWER
Power conversion system modification to permit use of DC power source
[AD-D015409] 04 p0868 N93-14887
Overview of environmental test plans for Space Station Freedom work package 4 04 p0824 N93-15623
An analysis of power beaming for the Moon and Mars
[NASA-CR-191072] 08 p2182 N93-22554
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
A photovoltaic catenary-tent array for the Martian surface
[NASA-CR-191144] 10 p2976 N93-26703
Power system technology discipline 10 p2973 N93-27862
Renewable resources in the US electricity supply
[DE93-009492] 10 p3066 N93-28370

ELECTRIC POWER CONVERSION
U ELECTRIC GENERATORS

ELECTRIC POWER PLANTS
NT FUEL CELL POWER PLANTS
NT NUCLEAR POWER PLANTS
NT SOLAR THERMAL ELECTRIC POWER PLANTS
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Reliability analysis of a utility-scale solar power plant
[DE92-016550] 02 p0348 N93-12312
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Analysis of electromagnetic interference from power system processing and transmission components for Space Station Freedom
[NASA-CR-192281] 06 p1470 N93-19890
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Documentation of the status of international geothermal power plants and a list by country of selected geothermally active governmental and private sector entities
[DE93-002273] 07 p1988 N93-21665
Supply of geothermal power from hydrothermal sources: A study of the cost of power in 20 and 40 years
[DE93-004479] 08 p2382 N93-24036
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Bibliography of the Maryland Power Plant Research Program, fourteenth edition
[PB93-174241] 10 p3068 N93-27404
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617
New alternative for electricity production. Part 3: Electricity production from biomass and natural gas by a solid oxide fuel cell
[VTT-TIED-1397] 12 p3720 N93-31862

ELECTRIC POWER SUPPLIES
NT AIRCRAFT POWER SUPPLIES
NT SOLAR DYNAMIC POWER SYSTEMS
NT SPACE STATION POWER SUPPLIES
NT SPACECRAFT POWER SUPPLIES
Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011888] 01 p0091 N93-10622
Power system commonality study
[NASA-CR-190765] 02 p0347 N93-12019
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
Photovoltaic power system for a lunar base 04 p0806 N93-14930
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757
Bipolar current sources for the correction magnets of AmPS
[DIGEL-1992-2-REV] 05 p1150 N93-17393
Communications and control for electric power systems
[NASA-CR-192794] 08 p2261 N93-22477
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems
[NASA-CR-191023] 08 p2377 N93-22879
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Manned lunar surface site 10 p2951 N93-28033
Improvement of the 400 kV linac electron source of AmPS 10 p3140 N93-28343
Thulium heat sources for space power application
[DE93-002249] 12 p3691 N93-31168

ELECTRIC POWER TRANSMISSION
Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220
Design aspects of mid-size SMES using high temperature superconductors
[DE92-040723] 05 p1142 N93-15828
Transient analysis for ground fault distance estimation in electrical distribution networks
[VTT-PUBS-115] 12 p3720 N93-31536

ELECTRIC PROPULSION
NT ELECTROMAGNETIC PROPULSION
NT ELECTROSTATIC PROPULSION
NT ION PROPULSION
NT LASER PROPULSION
NT PLASMA PROPULSION
NT SOLAR ELECTRIC PROPULSION
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Electric propulsion applications 01 p0020 N93-10029
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
A 26 kW arcjet system for on-orbit demonstration 01 p0021 N93-10031
Selection of rocket propulsion systems 01 p0022 N93-10034
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Ion thruster development at NASA Lewis Research Center
[NASA-TM-105983] 04 p0827 N93-15429
Advanced hybrid nuclear propulsion Mars mission performance enhancement
[DE93-001309] 05 p1090 N93-16177
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
An analysis of power beaming for the Moon and Mars
[NASA-CR-191072] 08 p2182 N93-22554
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
Stationary plasma thruster evaluation in Russia
[NASA-CR-192823] 09 p2859 N93-25206
Anode power deposition in coaxial MPD thrusters 09 p2623 N93-25665
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
Innovative electric propulsion thruster modeling 10 p2984 N93-26989
An analytical optimization of electric propulsion orbit transfer vehicles
[NASA-CR-191129] 10 p2985 N93-27060
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
Electric propulsion for lightsats: A review of applications and advantages 11 p3290 N93-29907
The PIT MkV pulsed inductive thruster
[NASA-CR-191155] 12 p3698 N93-32353

ELECTRIC PULSES
High performance pulse generator
[AD-D015378] 04 p0869 N93-15269
Optimization of flow-injection analysis for on-line in-process control
[ETN-92-92826] 06 p1499 N93-18444
Optically controlled solid state opening switches
[AD-A262404] 11 p3591 N93-28496
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-010416] 11 p3594 N93-29249

ELECTRIC RELAYS
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842

ELECTRIC ROCKET ENGINES
NT ARC JET ENGINES
NT ION ENGINES
NT PLASMA ENGINES
NT RESISTOJET ENGINES
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Anode power deposition in applied-field MPD thrusters
[NASA-CR-190790] 03 p0526 N93-13283
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
NEP technology: FY 1992 milestones (NASA LeRC)
10 p2983 N93-26977
JPL nuclear electric propulsion task
10 p2983 N93-26980
An analytical optimization of electric propulsion orbit transfer vehicles
[NASA-CR-191129] 10 p2985 N93-27060
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289
ELECTRIC SWITCHES
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
Prediction of electromagnetic pulse generation by picosecond avalanches in high-pressure air
[DE92-019382] 02 p0282 N93-11675
Ultra-wideband generators
[DE92-018026] 02 p0293 N93-12113
Internal grounding arrangement in a switching power converter
[AD-D015435] 04 p0868 N93-14826
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Optically controlled solid state opening switches
[AD-A262404] 11 p3591 N93-28496
Improving the jitter of the 150 kJ experiments solid dielectric switches
[DE93-009459] 11 p3405 N93-28597
An explosively actuated electrical switch using Kapton insulation
[AD-A263835] 11 p3411 N93-30021
ELECTRIC WELDING
NT ARC WELDING
NT GAS TUNGSTEN ARC WELDING
NT PLASMA ARC WELDING
Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184465] 02 p0328 N93-12196
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
ELECTRIC WIRE
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Power coupler and cold window for seven-cell superconducting cavity vertical tests
[DE93-000791] 05 p1150 N93-17380
Wire assembly for electrically conductive circuits
[AD-D015535] 06 p1519 N93-18317
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts
10 p2962 N93-27575
Microstructural understanding and critical current optimization of advanced high field superconductors
[DE93-011046] 11 p3592 N93-28643
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995
ELECTRIC WIRING
U ELECTRIC WIRE
U WIRING
ELECTRICAL BREAKDOWN
U ELECTRICAL FAULTS
ELECTRICAL CONDUCTIVITY
U ELECTRICAL RESISTIVITY
ELECTRICAL ENERGY
U ELECTRIC POWER
ELECTRICAL ENGINEERING
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Energy efficient drivepower: Literature reference list. Volume 1: General user's supplement
[PB92-199157] 02 p0294 N93-12294
Energy efficient drivepower: Literature reference list. Volume 2: Design engineer's supplement
[PB92-199165] 02 p0295 N93-12295
A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191
Basic research in electronics (JSEP)
[AD-A256016] 04 p0869 N93-15257
National Defense Science and Engineering Graduate Fellowship Program in electrical engineering
[AD-A256975] 05 p1146 N93-16254
Interagency Advanced Power Group semi-annual compilation of briefs, September 1992
[DE93-000703] 06 p1571 N93-19613
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, January to March 1992, with 1992/1993 EEEL events calendar
[PB93-120715] 07 p1893 N93-21256
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, October to December 1991, with 1992/1993 EEEL events calendar
[PB93-120723] 07 p1893 N93-21257
Center for Space Microelectronics Technology
[NASA-CR-192799] 08 p2279 N93-22812
Ongoing research projects at VTT in 1991
[ISBN-951-38-3771-8] 08 p2570 N93-23423
Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225
Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049
Engineering: Research development and technology
[UCRL-53868-91] 09 p2917 N93-26326
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
JSEP annual report, 11 January 1991 - 10 January 1993
[AD-A261948] 10 p3031 N93-27918
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Novel methods of acceleration
[AD-A264828] 11 p3590 N93-30600
ELECTRICAL FAULTS
NT SHORT CIRCUITS
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
Transient analysis for ground fault distance estimation in electrical distribution networks
[VTT-PUBS-115] 12 p3720 N93-31536
ELECTRICAL GROUNDING
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786
Internal grounding arrangement in a switching power converter
[AD-D015435] 04 p0868 N93-14826
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398
ELECTRICAL IMPEDANCE
NT CONTACT RESISTANCE
NT ELECTRICAL RESISTANCE
NT TRANSCONDUCTANCE
Far-zone field of a monopole element on a disk ground plane above flat earth
[AD-A253580] 01 p0070 N93-10091
Admittance spectroscopy of copper indium diselenide/cadmium sulfide solar cells
02 p0344 N93-11214
An uncertainty budget for VHF and UHF reflectometers
[NPL-DES-120] 02 p0281 N93-11395
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300
Longitudinal impedance of capacitive pick-up electrodes: Calculations and comparison with measurements
[DE92-019499] 03 p0571 N93-13358
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
Development of an electrical impedance computed tomographic two-phase flows analyzer
[DE92-040527] 05 p1155 N93-15923
Radio-frequency surface impedance of type-2 superconductors: Dependence upon the magnitude and angle of an applied static magnetic field
[DE92-040583] 05 p1316 N93-16014
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Changes in impedance of Ni/Cd cells with voltage and cycle life
[NASA-TM-106105] 08 p2379 N93-23018
P+ contacts on GaAs for semiconductor lasers
[AD-A260207] 08 p2309 N93-24003
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Inverse problems in nondestructive evaluations
[AD-A261370] 09 p2722 N93-26337
Alternating current (AC) impedance testing of coated traycans
[AD-A261256] 10 p3030 N93-27099
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
The 2nd International symposium on electrochemical impedance spectroscopy (extended abstracts)
[AD-A262994] 11 p3312 N93-29462
Frequency dependent electrical properties of minerals and partial-melts
[DE93-009254] 11 p3410 N93-29793
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882

Scattering through apertures and by three-dimensional structures. Application to the measurement of the surface impedance of conductive materials
[ONERA-P-1990-2] 11 p3392 N93-30018
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065

ELECTRICAL INSULATION
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700
Wire assembly for electrically conductive circuits
[AD-D015535] 06 p1519 N93-18317
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Compatibility of refrigerants and lubricants with motor materials
[DE93-006428] 08 p2237 N93-22885
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Detecting damaged cables using a preionized gas technique
[DE93-007586] 09 p2689 N93-25429
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
An explosively actuated electrical switch using Kapton insulation
[AD-A263835] 11 p3411 N93-30021
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548

ELECTRICAL LEADS
U ELECTRIC CONDUCTORS

ELECTRICAL MEASUREMENT
NT COULOMETRY
NT POLAROGRAPHY
Method and apparatus for determining return stroke polarity of distant lightning
[NASA-CASE-MFS-26102-2-CU] 01 p0125 N93-10108
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Ohmic contacts to compound semiconductors 01 p0076 N93-10830
An uncertainty budget for VHF and UHF reflectometers
[NPL-DES-120] 02 p0281 N93-11395
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Two-fluid measurements on thin films
[PB92-205350] 02 p0308 N93-12475
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497
Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495
Correlation in photodetachment
[DE93-001843] 05 p1291 N93-17078
VLF/LF corona investigation
[AD-A258052] 05 p1141 N93-17709
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
Nickel metal hydride, a flight experiment 07 p1986 N93-20522
Dielectric constant measurement probe assembly and apparatus and method
[AD-D015537] 07 p1890 N93-20766
Apparatus and method for non-contact surface voltage probing by scanning photoelectron emission
[AD-D015583] 07 p1891 N93-20799
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, January to March 1992, with 1992/1993 EEEL events calendar
[PB93-120715] 07 p1893 N93-21256
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Progresses in measuring electrostatic DC fields
[OEFZS-4627] 08 p2280 N93-23112
NIST mesurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture 09 p2833 N93-24995
Thermionic current measurement in quartz 09 p2840 N93-25045
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
Internal current probing of integrated circuits using magnetic force microscopy
[DE93-006752] 09 p2692 N93-26501
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
The measurement of electrical conductivity in detonating condensed explosives
[AD-A264482] 11 p3352 N93-30424
Investigation of methods for the measurement of small electron bundle currents
[DIGEL-1992-4] 11 p3413 N93-30763
Analysis of possibilities for using laser scattering for MeV electron beam diagnostics
[DE93-606223] 11 p3441 N93-30767
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer
[DE93-606271] 11 p3590 N93-30768
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Electrical conductivities of molten slags
[NPL-DMM(A)-79] 12 p3705 N93-31324
Characterization of small noble metal electrodes by voltammetry and energy dispersive x ray analysis
[AD-A265208] 12 p3721 N93-32001
Shaly sand formation evaluation in tight gas sands using electrochemical potential measurements
[PB93-163186] 12 p3764 N93-32087

ELECTRICAL PROPERTIES
NT CAPACITANCE
NT CAPACITANCE-VOLTAGE CHARACTERISTICS
NT CARRIER MOBILITY
NT CHARGE DISTRIBUTION
NT CONTACT RESISTANCE
NT DIELECTRIC PROPERTIES
NT ELECTRIC MOMENTS
NT ELECTRICAL IMPEDANCE
NT ELECTRICAL RESISTANCE
NT ELECTRICAL RESISTIVITY
NT ELECTRON MOBILITY
NT ELECTROSTRICTION
NT FERROELECTRICITY
NT HOLE MOBILITY
NT INDUCTANCE
NT IONOSPHERIC CONDUCTIVITY
NT KONDO EFFECT
NT MAGNETORESISTIVITY
NT PERMITTIVITY
NT PHOTOCONDUCTIVITY
NT PIEZOELECTRICITY
NT PYROELECTRICITY
NT SUPERCONDUCTIVITY
NT TRANSCONDUCTANCE
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Dynamics and response of polymer-coated acoustic devices
[DE92-014289] 02 p0433 N93-11523
Application of spin-sensitive electron spectroscopies to investigations of electronic and magnetic properties of solid surfaces and epitaxial systems
[DE92-018597] 02 p0470 N93-12499
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Electronic phenomena in polyanilines
[AD-A254803] 03 p0545 N93-12749
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Properties of textile grade ceramic fibers 04 p0833 N93-14751
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Dynamical properties of Josephson Junctions arrays
[AD-A255464] 04 p0995 N93-15351
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors
[DE92-040760] 05 p1318 N93-16202
Ab initio molecular orbital calculations for magnesium-containing systems
[AD-A255811] 05 p1287 N93-16397
Accurate and efficient layout extraction
[ISBN-90-9004806-5] 05 p1147 N93-16499
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446
Nanotechnology 06 p1678 N93-18489
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398
Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20466
Development of radiation resistant HCMOSIC 07 p1798 N93-20467
Development of radiation resistant linear IC (equivalent to mu PC 806) 07 p1798 N93-20468
Development of 256 kbit SRAM 07 p1799 N93-20471
Development of 10 k gate-gate array 07 p1799 N93-20472
Research on large capacity Ni-Cd batteries 07 p1799 N93-20476
Research on Ni-H2 batteries 07 p1800 N93-20477
Solar cell calibration by balloon flight 07 p1800 N93-20479
Charge trapping centers in ferroelectric ceramics
[DE93-005359] 08 p2238 N93-22954
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
Magnetic anisotropy in the high transition temperature superconductor YBa2Cu3O(7-delta) 08 p2509 N93-23985
Influence of defects in HgCdTe grown by Molecular Beam Epitaxy (MBE) on electrical devices
[AD-A260457] 08 p2511 N93-24194
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225

Electrochemical processing of electrically conductive polymer fibers
[AD-A261793] 09 p2657 N93-26386
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
A detailed technology roadmap for superconductivity 11 p3526 N93-29045
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Frequency dependent electrical properties of minerals and partial-melts
[DE93-009254] 11 p3410 N93-29793
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Electrical relaxation in acid-form nafion
[AD-A263558] 11 p3410 N93-29826
Fundamental studies of the morphology, chemistry, and electrical properties of metals on GaAs and other III-V semiconductor compounds
[AD-A264417] 11 p3597 N93-30120
Affecting factors to the electrical properties of RuO2 thick-film resistors
[DE93-768332] 12 p3721 N93-32055
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187

ELECTRICAL RESISTANCE
NT CONTACT RESISTANCE
NT TRANSCONDUCTANCE
Electrical resistance tomography used in environmental restoration
[DE92-018003] 01 p0103 N93-10763
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
Understanding of carbonate fuel cell resistance issues for performance improvement
[DE92-019976] 03 p0638 N93-13039
Prediction of the quality of resistance welds by computer based color image analysis
[DE93-002402] 08 p2312 N93-22818
NIST mesurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts 10 p2962 N93-27575

ELECTRICAL RESISTIVITY
NT IONOSPHERIC CONDUCTIVITY
NT KONDO EFFECT
NT MAGNETORESISTIVITY
NT PHOTOCONDUCTIVITY
NT SUPERCONDUCTIVITY
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
The effects of molecular structure on the electrical conductivity of polymers
[NASA-CR-191265] 03 p0552 N93-13459
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU] 04 p0940 N93-14704
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
A high intensity solar cell invention: The edge-illuminated Vertical Multi-Junction (VMJ) solar cell
[DE92-019015] 04 p0907 N93-15224
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497
The electrical conductivity of sodium polysulfide melts
[DE92-041217] 05 p1100 N93-15677
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Magnetic flux-load current interactions in ferrous conductors
[AD-A256632] 05 p1143 N93-15906
Dependence of buried CoSi2 resistivity on ion implantation and annealing conditions
[DE92-010080] 05 p1322 N93-16930
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Wire assembly for electrically conductive circuits
[AD-D015535] 06 p1519 N93-18317
Four space application material coatings on the long-duration exposure flight (LDEF)
[NASA-TM-104574] 06 p1493 N93-18370
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Electrical characterization of conducting polymers and polymeric semiconductor devices
[ACTA-POL-SCAND-PH-178] 08 p2238 N93-23006
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
Pressure dependence of conductivity
[DE93-008466] 09 p2687 N93-25113
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
Electrochemical processing of electrically conductive polymer fibers
[AD-A261793] 09 p2657 N93-26386
Electrical conductivity of ion implanted ladder and semi-ladder polymers
[AD-A261401] 09 p2657 N93-26401
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342
Electrical relaxation in acid-form nafion
[AD-A263558] 11 p3410 N93-29826
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
The measurement of electrical conductivity in detonating condensed explosives
[AD-A264482] 11 p3352 N93-30424
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190
Method for producing hybrid graphite composite
[NASA-CASE-LEW-15241-2] 12 p3700 N93-31296
Electrical conductivities of molten slags
[NPL-DMM(A)-79] 12 p3705 N93-31324
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Shaly sand formation evaluation in tight gas sands using electrochemical potential measurements
[PB93-163186] 12 p3764 N93-32087
Two and three dimensional magnetotelluric inversion
[DE93-013233] 12 p3765 N93-32165
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201

ELECTRICITY
NT ALTERNATING CURRENT
NT ATMOSPHERIC ELECTRICITY
NT AURORAL ELECTROJETS
NT GEOELECTRICITY
NT HYDROELECTRICITY
NT IONOSPHERIC CURRENTS
NT STATIC ELECTRICITY
NT TELLURIC CURRENTS
Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
New approaches to linear and nonlinear programming
[DE93-010134] 10 p3103 N93-28214
Renewable resources in the US electricity supply
[DE93-009492] 10 p3066 N93-28370

ELECTRIFICATION
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
ER-2 investigations of lightning and thunderstorms 07 p2006 N93-20088
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A259834] 08 p2343 N93-23461
Lightning precursor signatures from dual-polarization radar measurements of storms 09 p2777 N93-24877
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A260779] 09 p2756 N93-25679

ELECTRO-OPTICAL EFFECT
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16925
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207

ELECTRO-OPTICAL PHOTOGRAPHY
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
ELECTRO-OPTICAL SWITCHING
U OPTICAL SWITCHING
ELECTRO-OPTICS
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices
[AD-A253001] 02 p0446 N93-11071
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Optoelectronics Research Center
[AD-A253132] 02 p0447 N93-11527
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. lifornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666
Multichip module high speed testing
[AD-A254825] 03 p0570 N93-12731
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
Solid state research
[AD-A256019] 04 p0992 N93-14576
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Optoelectronics material center: A collaborative program including center for high technology materials of the University of New Mexico, Stanford University, California Institute of Technology
[AD-A256005] 04 p0886 N93-15115
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
A structural approach to the photonic processor
[AD-A260688] 04 p0986 N93-15648
Optoelectronic materials center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A257136] 05 p1301 N93-16079
Solid state research
[AD-A256965] 05 p1318 N93-16251
Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
OptoElectronic Materials Center: A collaborative program including University of New Mexico, Stanford University, and California Institute of Technology
[AD-A258113] 06 p1540 N93-17894
Development of neural modules based on Si/PLZT technology for opto-electronic implementations of neural networks
[AD-A257937] 06 p1518 N93-18120
New techniques in optical communications and signal processing
[AD-A257894] 06 p1503 N93-18419
Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
Development of a 100 mJ, 5 Hz, flashlamp-pumped, Cr,Tm:YAG coherent lidar transmitter
07 p1912 N93-20100
Advances in laser diodes for pyrotechnic applications
07 p1865 N93-20146
TREND field test report
[AD-A258568] 07 p2067 N93-20372
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Development of a measurement of upper MID frequency errors on arbitrary grazing incidence optics
[NASA-CR-191333] 07 p2067 N93-20731
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177
Electro-optical rendezvous and docking sensors
08 p2150 N93-22314
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
Light-activated solid-state opening switch
[AD-A259770] 08 p2281 N93-23487
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Solid state research
[AD-A259726] 08 p2509 N93-24024
Intelligent, integrated fiber optic networks
[AD-A260282] 08 p2490 N93-24260
Human visual limitations on suprathreshold contrast perception through ANVIS
[AD-A259970] 08 p2425 N93-24431
Ultrafast measurements of 200 gigahertz Schottky photodiodes 09 p2688 N93-25392
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Full complex modulation using two one-parameter spatial light modulators
[NASA-CASE-MSC-22255-1] 10 p3148 N93-28135
Solid state research
[AD-A262273] 10 p3154 N93-28237
Solid state research
[AD-A262874] 10 p3154 N93-28247
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
The quest for an integrated flying helmet
11 p3502 N93-28860
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Multichip module high speed testing
[AD-A262989] 11 p3408 N93-29427
Degradation of electro-optic components aboard LDEF 11 p3582 N93-29689
Optoelectronic technology consortium
[AD-A263580] 11 p3580 N93-29973
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Subpicosecond electrooptic sampling
[AD-A264635] 11 p3581 N93-30520
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052
Development of a large field-of-view KD potassium di-deuterium phosphate modulator: Center Director's Discretionary Fund
[NASA-TM-108410] 12 p3824 N93-32378
ELECTROACOUSTIC TRANSDUCERS
NT HYDROPHONES
NT LOUDSPEAKERS
NT MICROPHONES
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
Transducer circuit
[AD-D015376] 03 p0572 N93-13472
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658
Pressure compensated transducer system with constrained diaphragm
[AD-D015580] 07 p1906 N93-20771
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
ELECTROACOUSTICS
MINT: The multiple error LMS algorithm, and the design of inverse filters for multi-channel sound reproduction systems
[ISVR-TR-211] 03 p0700 N93-13439
ELECTROCARDIOGRAMS
U ELECTROCARDIOGRAPHY
ELECTROCARDIOGRAPHY
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s
[AD-A255691] 04 p0933 N93-14103
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit
09 p2794 N93-26073
ELECTROCATALYSTS
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Components and materials issues in polymer electrolyte fuel cells for transportation applications
[DE92-013384] 04 p0907 N93-15061
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828
ELECTROCHEMICAL CELLS
NT ALKALINE BATTERIES
NT ELECTRIC BATTERIES
NT FUEL CELLS
NT HYDROGEN OXYGEN FUEL CELLS
NT LEAD ACID BATTERIES
NT LITHIUM SULFUR BATTERIES
NT METAL AIR BATTERIES
NT NICKEL CADMIUM BATTERIES
NT NICKEL HYDROGEN BATTERIES
NT NICKEL IRON BATTERIES
NT NICKEL ZINC BATTERIES
NT PHOSPHORIC ACID FUEL CELLS
NT PRIMARY BATTERIES
NT REGENERATIVE FUEL CELLS
NT SILVER ZINC BATTERIES
NT SODIUM SULFUR BATTERIES
NT STORAGE BATTERIES
NT THERMAL BATTERIES
NT WET CELLS
NT ZINC-BROMIDE BATTERIES
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718
Exploratory technology research program for electrochemical energy storage
[DE93-001595] 04 p0909 N93-15484
Electrochemical and electrode properties of stabilized bismuth oxide ceramics
[ISBN-90-9003981-3] 05 p1125 N93-16570

Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Reaction kinetics and product distributions in photoelectrochemical cells
[DE93-003885] 05 p1198 N93-17471
Special tests and destructive physical analyses as used by the Aerospace Corporation with nickel-hydrogen cells
[NASA-CR-192318] 07 p1888 N93-20162
Lewis Research Center battery overview 07 p1983 N93-20493
Battery Review Board 07 p1986 N93-20519
Composite nanostructured material fabrication by electrochemical scanning probe microscopy
[AD-A261017] 09 p2639 N93-25862
Oxygen production on Mars and the Moon 10 p3021 N93-26683
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974

ELECTROCHEMICAL CORROSION
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Adhesion and corrosion behavior of Al-Zn and TiN/Ti/TiN coatings on a DU-0.75 wt. percent Ti alloy
[MTL-TR-92-56] 09 p2658 N93-26433
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Investigation of the electrochemical polarisation behaviour of SiC/6061 Al metal matrix composites
[NPL-DMM(A)-31] 12 p3700 N93-31736

ELECTROCHEMICAL MACHINING
The electrochemical machining of nickel based alloys
[DS-1933] 05 p1135 N93-17741
Study on photochemical and photoelectrochemical etching of gallium arsenide
[ECL-91-25] 07 p1851 N93-21824
Anisotropic etching of silicon in KOH solutions 09 p2647 N93-25037

ELECTROCHEMICAL OXIDATION
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731

ELECTROCHEMISTRY
NT COULOMETRY
NT ELECTROLYSIS
NT PHOTOELECTROCHEMISTRY
Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces
[AD-A252544] 02 p0250 N93-11808
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Studies of components for thermally regenerative electrochemical systems
[AD-A256124] 04 p0842 N93-14664
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects
[AD-A256660] 05 p1101 N93-15913
Application of scanning tunneling microscopy to electrochemistry
[AD-A255680] 05 p1101 N93-15955
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
The electrochemical machining of nickel based alloys
[DS-1933] 05 p1135 N93-17741
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Impedance and voltammetric studies of electrogenerated polyaniline conducting films
[AD-A258328] 06 p1493 N93-18256
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels 06 p1490 N93-19391
DOE battery program for weapon applications
[DE93-002476] 06 p1522 N93-19637
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods 06 p1691 N93-19730
Development of an electrochemical method for field testing of protective coatings
[AD-A258754] 06 p1496 N93-19866
Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341
Correlations between the ligand electrochemical parameter, E(sub L)(L) and the Hammett substituent parameter sigma
[AD-A260299] 08 p2223 N93-24264
Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314
Charge transfer processes on liquid/liquid interfaces: The first hundred years
[AD-A260421] 08 p2225 N93-24429
Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
Electrochemical processing of electrically conductive polymer fibers
[AD-A261793] 09 p2657 N93-26386
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2648 N93-26439
Oxygen production on Mars and the Moon 10 p3021 N93-26683
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
Metals production 10 p3214 N93-27970
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Synthesis of conducting polymer composite fibers in electrochemical flow cells
[AD-A262233] 11 p3294 N93-28492
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Analytical applications of electrified interfaces between two immiscible solutions
[AD-A263085] 11 p3311 N93-29132
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
The 2nd International symposium on electrochemical impedance spectroscopy (extended abstracts)
[AD-A262994] 11 p3312 N93-29462
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods
[AD-A263728] 11 p3411 N93-29986
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

ELECTROCONDUCTIVITY
U ELECTRICAL RESISTIVITY

ELECTRODE MATERIALS
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Overcharge and overdischarge protection of ambient temperature secondary lithium cells
[NASA-CASE-NPO-18343-1-CU] 02 p0290 N93-11456
Alternate electrode materials for the SP100 reactor
[DE92-019570] 03 p0706 N93-12970
Arc-cathode interaction study
[NASA-CR-191356] 04 p0867 N93-14721
Results from a pilot cell test of cermet anodes
[DE92-041357] 04 p0871 N93-15479
The electrical conductivity of sodium polysulfide melts
[DE92-041217] 05 p1100 N93-15677
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1963 N93-20497
Pyrite cathode material for a thermal battery
[AD-D015600] 07 p1891 N93-20792
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Electronic control of pH at sulfonated polyaniline electrodes
[AD-A260074] 08 p2222 N93-23963
Reversible potassium vanadium bronze cathodes (K(x)V6O(13+y)) with various potassium to vanadium ratios
[CTN-93-60709] 08 p2285 N93-24291
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
Lunar mining of oxygen using fluorine 10 p2997 N93-26680
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616

DARPA advanced high current density cathodes for defense applications: Development phase
[AD-A261949] 10 p3032 N93-27919
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
Characterization of small noble metal electrodes by voltammetry and energy dispersive x ray analysis
[AD-A265208] 12 p3721 N93-32001

ELECTRODEPOSITION
NT ELECTROPLATING
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Electrodeposition of high temperature superconductors
[AD-A255095] 03 p0720 N93-12758
Molten salt reactor for potentiostatic electroplating
[AD-D015358] 03 p0551 N93-13101
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study
07 p1803 N93-21079
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Electrodeposition in low gravity
09 p2663 N93-24774
Composite nanostructured material fabrication by electrochemical scanning probe microscopy
[AD-A261017] 09 p2639 N93-25862
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538

ELECTRODES
NT ANODES
NT CATHODES
NT CELL ANODES
NT CELL CATHODES
NT HOLLOW CATHODES
NT HOT CATHODES
NT IMPLANTED ELECTRODES (BIOLOGY)
NT ION SELECTIVE ELECTRODES
NT PHOTOCATHODES
NT PLASMA ELECTRODES
NT THERMIONIC CATHODES
NT TUBE ANODES
NT TUBE CATHODES
Critical technology demonstration of plasma focus type MPD thrusters
[AD-A252428] 01 p0026 N93-10638
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes
[DE92-017042] 02 p0276 N93-11494
Long cycle life rechargeable lithium batteries
[NASA-CR-190937] 02 p0291 N93-11604
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Alternative materials for solid oxide fuel cells: Factors affecting air-sintering of chromite interconnections
[DE92-019356] 03 p0638 N93-13082
Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Gate-all-around device
[AD-A255287] 04 p0866 N93-14534
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
Application of scanning tunneling microscopy to electrochemistry
[AD-A255680] 05 p1101 N93-15955
Gas cooled fuel cell systems technology development
[DE92-001298] 05 p1194 N93-16084
High energy and high power density ultracapacitors and supercapacitors
[NASA-CASE-NPO-18568-1-CU]
05 p1149 N93-17274
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU]
05 p1150 N93-17277
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels
06 p1490 N93-19391
Mesh effect in a parallel plate analyzer
[NIFS-203] 06 p1669 N93-19931
Special tests and destructive physical analyses as used by the Aerospace Corporation with nickel-hydrogen cells
[NASA-CR-192318] 07 p1888 N93-20162
Pulse discharge laser with passive arc protection
[AD-D015601] 07 p1909 N93-20262
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
The JPL/NASA/TAMU nickel-cadmium battery model development status 07 p1985 N93-20509
Method of making composite field-emitting arrays
[AD-D015541] 07 p1832 N93-20780
Development and utilization of a semi-analytic alternative charge process for the rapid calculation of potential distributions and electron orbits
[ETN-93-93416] 07 p2062 N93-21209
Conducting polymers as potential active materials in electrochemical supercapacitors
[DE93-003827] 07 p1861 N93-21675
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
GTAW penetration based on electrode tip location versus weld joint center line
[DE93-004910] 08 p2311 N93-22494
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
Characterization of electrochemical systems and batteries: Materials and systems
[DE93-003472] 09 p2687 N93-24964
Electroelastic equations for electroded thin plates subject to large driving voltages
[AD-A261123] 09 p2675 N93-25772
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
Preliminary investigation of power flow and electrode phenomena in a multi-megawatt coaxial plasma thruster
[NASA-CR-191084] 09 p2633 N93-26555
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
Development of an updated pinch-welding capability
[DE93-009823] 11 p3442 N93-28552
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299
Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods
[AD-A263728] 11 p3411 N93-29986
Potential distributions at gas evolving electrodes
[DLR-FB-92-20] 12 p3702 N93-31319
Characterization of small noble metal electrodes by voltammetry and energy dispersive x ray analysis
[AD-A265208] 12 p3721 N93-32001
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174
Sealed acoustical element using conductive epoxy
[AD-D015736] 12 p3730 N93-32208
Liquid-crystal heat valve controlled with multiple electrode pairs
[AD-D015739] 12 p3830 N93-32211

ELECTRODYNAMICS
NT ELECTROHYDRODYNAMICS
NT ELECTROMECHANICS
NT QUANTUM ELECTRODYNAMICS
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
Tethers 05 p1089 N93-16915
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
A postulational formulation of magnetohydrodynamics
06 p1667 N93-19030
Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause
06 p1730 N93-19575
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
Characteristics and properties of the continuity equations in a semiconductor
[REPT-92-080] 12 p3720 N93-31609

One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625
A generalization of Dirac non-linear electrodynamics, and spinning charged particles
[DE93-609847] 12 p3821 N93-31907
Studies of global ionospheric electrodynamics
[AD-A265033] 12 p3764 N93-31997

ELECTRODYNAMOMETERS
U DYNAMOMETERS

ELECTROENCEPHALOGRAM
U ELECTROENCEPHALOGRAPHY

ELECTROENCEPHALOGRAPHY
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
A toposcopic investigation of brain electrical activity induced by motion sickness
[AD-A259024] 06 p1599 N93-18952
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708
Determining the number of hidden units in multi-layer perceptrons using F-ratios 08 p2451 N93-22214
Adaptive filters for monitoring localized brain activity from surface potential time series
[DE93-003795] 08 p2420 N93-22774
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186
Automatic detection of seizures with applications 09 p2796 N93-25592
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160

ELECTROEPITAXY
Study of the mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions
[CTN-93-60619] 04 p0855 N93-15201
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934

ELECTROEXPLOSIVE DEVICES
U INITIATORS (EXPLOSIVES)

ELECTROFORMING
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681

ELECTROGENERATORS
U ELECTRIC GENERATORS

ELECTROHYDRAULIC CONTROL
U ELECTRIC CONTROL
U HYDRAULIC CONTROL

ELECTROHYDRODYNAMICS
Electrostatic enhancement of heat transfer in a gas-to-gas heat exchanger
[PB93-114338] 07 p1903 N93-21454

ELECTROJETS
NT AURORAL ELECTROJETS

ELECTROKINETICS
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography
[ETN-92-92818] 05 p1104 N93-16473
Instrumental and theoretical development of capillary electrophoresis and its application to biological systems
[DE93-001220] 05 p1106 N93-17348
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity 08 p2247 N93-22836

ELECTROLUMINESCENCE
Spin dependent recombination in conjugated polymers: An optically detected magnetic resonance study
[DE93-001221] 05 p1126 N93-17349
Infrared-induced photoconductivity and electroluminescence in forward-biased a-Si:H pin-diodes
[MBB-Z-0376-91-PUB] 06 p1671 N93-18092
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427

ELECTROLUMINESCENT LAMPS
U ELECTROLUMINESCENCE
U LUMINAIRES

ELECTROLYSIS
NT COULOMETRY
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
A microgravity processing plant for the manufacturing of propellant and water from asteroid ore 03 p0515 N93-13558
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Oxygen from the lunar soil by molten silicate electrolysis 05 p1382 N93-16890
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Defects and impurities in amorphous semiconductors and in liquid electrolytes
[MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Integrated oxygen recovery system
[NASA-CR-192982] 09 p2801 N93-26088
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
Experimental study of the electrolysis of silicate melts 10 p2997 N93-26679
Lunar mining of oxygen using fluorine 10 p2997 N93-26680
Space Station propulsion integrated propulsion test article 10 p2970 N93-27818
SPE (tm) electrolyzers for space propulsion 10 p2970 N93-27819
Propulsion technology discipline 10 p2973 N93-27863
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-27969
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Electrolysis performance improvement and validation experiment 11 p3267 N93-28737
Method for producing oxygen from lunar materials
[NASA-CASE-MSC-21759-1] 11 p3312 N93-29617
Potential distributions at gas evolving electrodes
[DLR-FB-92-20] 12 p3702 N93-31319

ELECTROLYTE METABOLISM
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133

ELECTROLYTES
NT ION EXCHANGE MEMBRANE ELECTROLYTES
NT MOLTEN SALT ELECTROLYTES
NT NONAQUEOUS ELECTROLYTES
NT SOLID ELECTROLYTES
Development of electrosupercapacitors
[AD-A252208] 01 p0071 N93-10250
Sealant research for solid oxide fuel cells
[DE92-019044] 02 p0345 N93-11513
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Thermally stable electrolytes for rechargeable lithium batteries, phase 2
[NASA-CR-190878] 03 p0573 N93-13610
Gas cooled fuel cell systems technology development
[DE92-001298] 05 p1194 N93-16084
Potential modulation of equilibrium and excitation phenomena at the electrolyte-solid interface
[DE93-001685] 05 p1103 N93-16163
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003358] 05 p1198 N93-17574
The electrochemical machining of nickel based alloys
[DS-1933] 05 p1135 N93-17741
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539
Eagle-Picher Industries Sodium Sulfur Program 07 p1987 N93-20523
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Defects and impurities in amorphous semiconductors and in liquid electrolytes
[MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170
NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642
Simulations of solvent effects on confined electrolytes
[AD-A262294] 10 p3133 N93-27677
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
Structure and thermodynamics of the soft ion model electrolyte solutions
[AD-A262293] 10 p3136 N93-28246
Analytical applications of electrified interfaces between two immiscible solutions
[AD-A263085] 11 p3311 N93-29132
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29258
Transcutaneous analyte measuring methods
[AD-A262861] 11 p3494 N93-29509
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828
Dioxygen reduction in various acid electrolytes
[AD-A263564] 11 p3317 N93-30664
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955

ELECTROLYTIC CELLS
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Components and materials issues in polymer electrolyte fuel cells for transportation applications
[DE92-013384] 04 p0907 N93-15061
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
Full system engineering design and operation of an oxygen plant 10 p3021 N93-26696
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229

Electrolysis performance improvement and validation experiment 11 p3267 N93-28737
Polymer electrolyte fuel cells for transportation applications
[DE93-008721] 11 p3464 N93-29147
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

ELECTROLYTIC GRINDING
U ELECTROCHEMICAL MACHINING

ELECTROLYTIC POLISHING
U ELECTROPOLISHING

ELECTROMAGNETIC ABSORPTION
NT AURORAL ABSORPTION
NT GAMMA RAY ABSORPTION
NT INFRARED ABSORPTION
NT MICROWAVE ABSORPTION
NT MULTIPHOTON ABSORPTION
NT PHOTOABSORPTION
NT POLAR CAP ABSORPTION
NT ULTRAVIOLET ABSORPTION
NT X RAY ABSORPTION

Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Laser spectroscopy of rare earth ions
03 p0608 N93-13846
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates
08 p2395 N93-23493
Optical studies of laterally confined quantum well structures grown on ex-situ and in-situ patterned substrates
[AD-A260275] 08 p2511 N93-24167
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
A unique photon bombardment system for space applications 11 p3286 N93-28790
A single band processor for the computation of range from optical absorbance 11 p3363 N93-30272
Triplet states and optical absorptions in finite polyenes and conjugated polymers
[AD-A264552] 11 p3337 N93-30381
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799

ELECTROMAGNETIC ACCELERATION
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Validation of the flux loop diagnostic for the measurement of launch package motion during electromagnetic launch
[AD-A256547] 04 p0814 N93-14266

ELECTROMAGNETIC COMPATIBILITY
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s
[AD-A255691] 04 p0933 N93-14103
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3
[AD-A255849] 04 p0881 N93-14105
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Immunizing digital systems against electromagnetic interference
[DE93-005935] 08 p2271 N93-24041
Coupling gain computation between antennas on circular cylinders at SHF/EHF frequencies
11 p3369 N93-30309

ELECTROMAGNETIC CONTROL
U ELECTROMAGNETS
U REMOTE CONTROL

ELECTROMAGNETIC COUPLING
NT MICROWAVE COUPLING
NT OPTICAL COUPLING
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189151] 03 p0627 N93-13444
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189152] 03 p0627 N93-13445
A quasi-equilibrium kinetic model of HF air breakdown
[AD-A256240] 04 p0859 N93-14453
Mechanical shielding for electric primer
[AD-D015417] 04 p0860 N93-14889
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Topological approach for the study of electromagnetic coupling
[ONERA-P-1992-2] 07 p1881 N93-20230
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Electromagnetic diffusion and wire coupling
[AD-A263183] 11 p3381 N93-29011

ELECTROMAGNETIC DEDUCTION
U MAGNETIC INDUCTION

ELECTROMAGNETIC FIELDS
NT FAR FIELDS
NT NEAR FIELDS
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
Analysis of the prebuncher for the KEK 40-MeV proton linac
[DE92-514988] 02 p0444 N93-11525
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
Mechanisms of microwave induced damage in biologic materials
[AD-A255799] 04 p0933 N93-14648
Basic research in electronics (JSEP)
[AD-A256016] 04 p0869 N93-15257
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
A modal analysis of lamellar diffraction gratings in conical mountings 04 p0986 N93-15519
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Evaluating auroral processes within a magnotospheric model
[NASA-CR-192122] 06 p1577 N93-18606
Description of a data acquisition system for the measurements of EMP transient fields
[AD-A259013] 06 p1510 N93-19099
A kinetic simulation of low-frequency electromagnetic phenomena in inhomogeneous plasmas of three-dimensions
[NIFS-199] 06 p1669 N93-19883
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Smart electromagnetic structures: The neural antenna
[AD-A260469] 08 p2262 N93-22931
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
A figure of merit for Transit-Time-Limited time-derivative electromagnetic field sensors
[AD-A260016] 08 p2273 N93-24459
The single-gap hollow spherical dipole in non-conducting media
[AD-A260017] 08 p2273 N93-24460
The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer
[DE93-007183] 08 p2273 N93-24466
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Which Q-analogue of the squeezed oscillator?
10 p3142 N93-27320
An electromagnetically levitated two-axis gimbaless pointing mechanism 10 p2961 N93-27565
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556
Predicting radiation characteristics from antenna physical dimensions
[AD-A262462] 11 p3379 N93-28654
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877

Applications of three-dimensional modeling in electromagnetic exploration 11 p3391 N93-30010
Quantification of thermographic mapping techniques [AD-A264020] 11 p3391 N93-30016
Transient field computations within or proximity of complex structures: FD-TD approach 11 p3366 N93-30292
Application of integral and differential equation methods for various EM interaction problems [AD-A264821] 11 p3394 N93-30597
Rocket-triggered lightning studies for the protection of critical assets [DE93-009633] 11 p3484 N93-30651
Modern approach to relativity theory (radar formulation) [DE93-606032] 11 p3606 N93-30804
Some problems of relativistic electrodynamics [DE92-644738] 11 p3400 N93-30923
Radiation reaction for the classical relativistic spinning particle in scalar, tensor and linearized gravitational fields [DE93-608191] 12 p3757 N93-31304
Mechanisms of microwave induced damage in biologic materials [AD-A264415] 12 p3772 N93-32035
Benet improvements made on Los Alamos electromagnetic field code [AD-A265474] 12 p3718 N93-32065

ELECTROMAGNETIC INTERACTIONS
NT LASER PLASMA INTERACTIONS
NT PHOTOPRODUCTION
NT PLASMA-ELECTROMAGNETIC INTERACTION
The interaction of UV-Laser radiation with metal and semiconductor surfaces [AD-A253510] 01 p0087 N93-10201
Survey of composite particle models of electroweak interaction [DE92-017110] 02 p0441 N93-12111
Electromagnetic lepton-pair production in relativistic collisions [DE92-011069] 03 p0706 N93-12829
Investigations of the structure and electromagnetic interactions of few-body systems [DE92-040011] 03 p0563 N93-13042
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object 04 p0857 N93-14189
Low energy theorems in pion production [DE92-040071] 04 p0977 N93-15279
Weak-electromagnetic interference in polarized eD scattering [DE93-001763] 04 p0978 N93-15486
The Cabibbo-Kobayashi-Maskawa mixing matrix [DE93-001255] 05 p1283 N93-15976
Dynamical approach to pair production from strong fields [DE92-040224] 05 p1283 N93-16011
Study of high energy particles and protective layers for materials [CTN-93-60613] 05 p1124 N93-16545
Stable isotope enrichment: Current and future potential [DE92-041258] 05 p1326 N93-17368
Research in particle physics [DE92-041135] 05 p1293 N93-17475
High-energy laser-particle interaction 06 p1543 N93-18469
Theoretical studies in medium-energy nuclear and hadronic physics [DE93-004373] 06 p1657 N93-19503
Theoretical aspects of electroweak and other interactions in medium energy physics [DE93-003714] 06 p1657 N93-19507
The N* program at CEBAF [DE93-000829] 07 p1880 N93-20019
Formation of auroral arcs via magnetosphere-ionosphere coupling [AD-A258641] 07 p1998 N93-20363
Study of electroweak interactions [DE93-004367] 07 p2061 N93-20385
Color sextet quarks and new high-energy interactions [DE93-004187] 08 p2478 N93-22059
High sensitivity tests of the standard model for electroweak interactions [DE93-006186] 08 p2483 N93-23684
Study of electroweak interactions [DE93-007261] 08 p2484 N93-24510
Deposition and modification of tantalum carbide coatings on graphite by laser interactions [DE93-008055] 10 p3003 N93-27052
Finite element analysis of time-independent superconductivity [NASA-CR-191140] 11 p3450 N93-28556
Measurement of W-Z interference from neutrino-electron scattering [DE93-010724] 11 p3566 N93-29313
Neutrino mass [DE93-010735] 11 p3566 N93-29315
An improved model-creation program for EM interaction analysis 11 p3367 N93-30294
Application of integral and differential equation methods for various EM interaction problems [AD-A264821] 11 p3394 N93-30597
Parton's picture of the electroweak processes in high energy e(+)e(-)-collisions [DE93-606107] 11 p3571 N93-30788
Massive Majorana neutrinos in pre-bounce supernovae [DE92-642597] 11 p3572 N93-30931
Radiative electroweak breaking and sparticle spectroscopy with tan(beta) is approximately equal to (m(sub t)) divided by (m(sub b)) [DE93-608399] 12 p3832 N93-31663

ELECTROMAGNETIC INTERFERENCE
NT ATMOSPHERICS
NT CHIRP
NT CHIRP SIGNALS
NT COSMIC NOISE
NT CROSSTALK
NT ELECTROMAGNETIC NOISE
NT IONOSPHERICS
NT JAMMING
NT POLAR RADIO BLACKOUT
NT RADIO FREQUENCY INTERFERENCE
NT SHOT NOISE
NT THERMAL NOISE
NT WHISTLERS
NT WHITE NOISE
A Pennsylvania State University/General Electric Get Away Special (GAS) experiment 03 p0511 N93-13177
Hermetic sealing and EMI shielding gasket [AD-D015359] 03 p0552 N93-13414
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s [AD-A255691] 04 p0933 N93-14103
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3 [AD-A255849] 04 p0881 N93-14105
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation [NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
Evaluation of EMP/EMI requirements versus corrosion prevention methods [AD-A257820] 06 p1503 N93-18352
Analysis of electromagnetic interference from power system processing and transmission components for Space Station Freedom [NASA-CR-192281] 06 p1470 N93-19890
Topological approach for the study of electromagnetic coupling [ONERA-P-1992-2] 07 p1881 N93-20230
Immunizing digital systems against electromagnetic interference [DE93-005935] 08 p2271 N93-24041
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Signal processing in impulsive electromagnetic interference [AD-A260755] 09 p2676 N93-25847
Electromagnetic diffusion and wire coupling [AD-A263183] 11 p3381 N93-29011

ELECTROMAGNETIC MEASUREMENT
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements [AD-A253953] 01 p0073 N93-10417
Gradiometer antennas for tunnel detection [PB92-205400] 01 p0069 N93-10440
The first level energy trigger of the L3 experiment/description of the hardware [NOTA-INTERNA-987] 06 p1659 N93-17937
Campaigns to study the aurora borealis focused on myriametric waves in 1991 06 p1578 N93-18740
Electromagnetic characterization measurements at 1000 C in Aerospatiale Microwave Department [REPT-921-430-114] 07 p1884 N93-20938
SSG 4.93: Wave propagation in refractive media 07 p1972 N93-20980
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Progress in the development of broadband electric-field sensors for transient fields 11 p3369 N93-30306
Measurement of electromagnetic properties of composite materials [AD-A264725] 11 p3303 N93-30555

ELECTROMAGNETIC NOISE
NT ATMOSPHERICS
NT COSMIC NOISE
NT IONOSPHERICS
NT SHOT NOISE
NT THERMAL NOISE
NT WHISTLERS
NT WHITE NOISE
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet [AD-A255002] 03 p0712 N93-12705
Longitudinal beam dynamics with rf noise [DE92-040645] 03 p0707 N93-13108
Long-term averages of globally-measured ELF/VLF radio noise [AD-A255518] 03 p0566 N93-13869
WR-10 band noise measurement [AD-A255526] 03 p0566 N93-13871
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams [DE93-000837] 05 p1292 N93-17362
Research on space communication equipment technology: Study on relay system 07 p1790 N93-20420
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 1 [FL-D-22-VOL-1] 08 p2282 N93-23501
Radiolocation in the lower ELF frequency band 08 p2270 N93-23630
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 2 [FL-D-22-VOL-2] 08 p2282 N93-23728
Analysis of DGPS MSK receivers in a non-gausian noise environment [PB93-152866] 08 p2123 N93-24310
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
Microwave interrogation frequency noise and clock frequency stability: Experimental results 09 p2842 N93-25056
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
Fractional brownian motion, wavelets, and infrared detector noise [AD-A262956] 10 p3129 N93-28290
Influence of optical feedback on the pulse behavior of semiconductor lasers [ETN-93-93798] 11 p3436 N93-28614
Analytical predictions of the intermodulation noise of semiconductor laser diode 11 p3361 N93-30256
ELF/VLF/LF Radio Propagation and Systems Aspects [AGARD-CP-529] 11 p3394 N93-30727
A long wave TE/TM noise prediction model 11 p3397 N93-30742
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme 11 p3397 N93-30743
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744

ELECTROMAGNETIC PROPAGATION
U ELECTROMAGNETIC WAVE TRANSMISSION

ELECTROMAGNETIC PROPERTIES
NT ABSORPTANCE
NT ABSORPTIVITY
NT BIDIRECTIONAL REFLECTANCE
NT BIREFRINGENCE
NT BRIGHTNESS
NT BRIGHTNESS DISTRIBUTION
NT COLOR
NT DICHROISM
NT FARADAY EFFECT
NT INDUCTANCE
NT KERR MAGNETOOPTICAL EFFECT
NT LUMINOSITY
NT MAGNETORESISTIVITY
NT OPACITY
NT OPTICAL BISTABILITY
NT OPTICAL PROPERTIES
NT OPTICAL REFLECTION
NT PHOSPHORESCENCE
NT PHOTOCONDUCTIVITY
NT PHOTOELASTICITY
NT RADIANCE
NT REFLECTANCE
NT REFRACTIVITY
NT SKY BRIGHTNESS
NT SPECTRAL REFLECTANCE
NT STELLAR LUMINOSITY
NT TRANSMITTANCE
NT TRANSPARENCE
NT TURBIDITY
NT WATER COLOR

EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures
[ONERA-NT-1992-3] 06 p1501 N93-18190
Plotting the magnitude and direction of waveguide surface currents in three dimensions
[AD-A258872] 06 p1509 N93-19077
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
High-performance visualization applied to computational electromagnetics: Method-of-moments on a silicon graphics workstation
[AD-A260820] 09 p2675 N93-25700
A detailed technology roadmap for superconductivity 11 p3526 N93-29045
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Measurement of electromagnetic properties of composite materials
[AD-A264725] 11 p3303 N93-30555
Low aperture magnetic elements measurements
[DE93-605897] 12 p3814 N93-31088
Electromagnetic response of a superconducting wire of finite length in a perpendicular applied AC magnetic field
[MEMO-1087] 12 p3716 N93-31516
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065

ELECTROMAGNETIC PROPULSION
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
Numerical simulation for the coaxial electromagnetic launcher using hybrid potentials with FE-BE method 02 p0222 N93-11726
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Electromagnetic launch of lunar material 05 p1384 N93-16914
An electromagnetically-controlled Precision Orbital Tracking Vehicle (POTV)
[AD-A259143] 07 p1823 N93-20129
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216

ELECTROMAGNETIC PULSES
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Prediction of electromagnetic pulse generation by picosecond avalanches in high-pressure air
[DE92-019382] 02 p0282 N93-11675
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
A quasi-equilibrium kinetic model of HF air breakdown
[AD-A256240] 04 p0859 N93-14453
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
EMTP based stability analysis of space station electric power system in a test bed environment
[NASA-TM-105845] 04 p0871 N93-15503
Two-dimensional computer calculation of high-power microwave bandwidth broadening by air breakdown in a rectangular waveguide
[DE92-041083] 05 p1138 N93-16072
Possible application of transient electromagnetic pulses to high brightness e-guns
[DE92-040360] 05 p1138 N93-16100
Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
Evaluation of EMP/EMI requirements versus corrosion prevention methods
[AD-A257820] 06 p1503 N93-18352
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
Description of a data acquisition system for the measurements of EMP transient fields
[AD-A259013] 06 p1510 N93-19099
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Signal processing in impulsive electromagnetic interference
[AD-A260755] 09 p2676 N93-25847
Interferometric measurement with squeezed light
[AD-A260910] 09 p2856 N93-26457
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
Electromagnetic diffusion and wire coupling
[AD-A263183] 11 p3381 N93-29011
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983
Radiated fields from an electromagnetic pulse simulator 11 p3366 N93-30290
Transient field computations within or proximity of complex structures: FD-TD approach 11 p3366 N93-30292
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Subpicosecond electrooptic sampling
[AD-A264635] 11 p3581 N93-30520

ELECTROMAGNETIC PUMPS
Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416

ELECTROMAGNETIC RADIATION
NT AIRGLOW
NT BLACK BODY RADIATION
NT BREMSSTRAHLUNG
NT CENTIMETER WAVES
NT CERENKOV RADIATION
NT COHERENT ELECTROMAGNETIC RADIATION
NT COHERENT LIGHT
NT COSMIC X RAYS
NT CYCLOTRON RADIATION
NT DAYGLOW
NT DECAMETRIC WAVES
NT DIFFRACTION RADIATION
NT ELECTROMAGNETIC PULSES
NT ELECTROMAGNETIC SURFACE WAVES
NT EXTREME ULTRAVIOLET RADIATION
NT FAR INFRARED RADIATION
NT FAR ULTRAVIOLET RADIATION
NT GAMMA RAY BURSTS
NT GAMMA RAYS
NT GEOCORONAL EMISSIONS
NT HYDROXYL EMISSION
NT INFRARED RADIATION
NT ION CYCLOTRON RADIATION
NT LASER BEAMS
NT LIGHT (VISIBLE RADIATION)
NT LIGHT BEAMS
NT LONG WAVE RADIATION
NT LYMAN ALPHA RADIATION
NT LYMAN BETA RADIATION
NT MICROWAVE EMISSION
NT MICROWAVES
NT MILLIMETER WAVES
NT NEAR INFRARED RADIATION
NT NIGHTGLOW
NT NONEQUILIBRIUM RADIATION
NT NONTHERMAL RADIATION
NT PHOTON BEAMS
NT PLANETARY RADIATION
NT PLASMONS
NT POLARIZED ELECTROMAGNETIC RADIATION
NT POLARIZED LIGHT
NT RADIO EMISSION
NT RADIO WAVES
NT SHORT WAVE RADIATION
NT SKY WAVES
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
NT SOLAR X-RAYS
NT SUBMILLIMETER WAVES
NT SUNLIGHT
NT SYNCHROTRON RADIATION
NT TERRESTRIAL RADIATION
NT THERMAL RADIATION
NT TWILIGHT GLOW
NT ULTRAVIOLET EMISSION
NT ULTRAVIOLET RADIATION
NT WHISTLERS
NT X RAYS
NT ZODIACAL LIGHT
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Optical generation, control and sensing of millimeter waves
[AD-A254700] 02 p0285 N93-12230
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40 03 p0509 N93-13163
Low-frequency fluctuations of plasma magnetic fields 03 p0717 N93-13496
Theory of lasing without population inversion 03 p0605 N93-13497
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects 03 p0568 N93-14048
Evidence for lightning on Venus 04 p1043 N93-14386
Mechanical shielding for electric primer
[AD-D015417] 04 p0860 N93-14889
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211
Basic research in electronics (JSEP)
[AD-A256016] 04 p0869 N93-15257
On the convergence of the coupled-wave approach for lamellar diffraction gratings 04 p0986 N93-15520
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Reproduction of digital signals in magnetic recording: A theoretical study
[ISBN-90-6275-757-X] 05 p1168 N93-16564
The ionosphere as a gamma ray burst detector 05 p1211 N93-17312
Preliminary observations of electromagnetic radiation from plasma in presence of a double layer
[TRITA-EPP-91-02] 05 p1312 N93-17636
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Solar-terrestrial physics and astrophysics 06 p1733 N93-18501
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures 06 p1504 N93-18901
Meteor fireball sounds identified 06 p1709 N93-19184
International Monitor for Auroral Geomagnetic Effects (IMAGE): A new magnetometer network in Scandinavia 06 p1732 N93-19585
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Modal ring method for the scattering of electromagnetic waves
[NASA-TM-105966] 07 p1882 N93-20260
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Plasma theory 08 p2496 N93-23262
The tropical school for atmospheric and space sciences: An international project proposal 08 p2369 N93-23828
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185

Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Predicting radiation characteristics from antenna physical dimensions
[AD-A262462] 11 p3379 N93-28654
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
An improved model-creation program for EM interaction analysis 11 p3367 N93-30294
Neutrino oscillations and a new Faraday effect
[DE93-606111] 11 p3571 N93-30789
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099
Operation of the helicopter antenna radiation prediction code
[NASA-CR-193259] 12 p3715 N93-31110

ELECTROMAGNETIC SCATTERING
NT HALOS
NT IONOSPHERIC F-SCATTER PROPAGATION
NT LIGHT SCATTERING
NT MICROWAVE SCATTERING
NT MIE SCATTERING
NT RAMAN SPECTRA
NT RAYLEIGH SCATTERING
NT THOMSON SCATTERING
NT X RAY SCATTERING
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Temporal scattering and response software users' manual, version 2 and 3
[DE92-040934] 02 p0282 N93-11632
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Final Technical Report
[AD-A253529] 02 p0284 N93-12083
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies 03 p0567 N93-14042
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects 03 p0568 N93-14048
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object 04 p0857 N93-14189
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Theory and applications of the 3-dimensional finite-difference time-domain method
[AD-A256559] 04 p0968 N93-14804
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function
[AD-A256525] 04 p0862 N93-15397
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Scattering from arbitrarily shaped microstrip patch antennas
[NASA-TP-3291] 05 p1140 N93-16943
Electromagnetic scattering in clouds 05 p1142 N93-17327
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers
[NASA-CR-192094] 06 p1515 N93-19483
Note on the scattering of electromagnetic waves from charged dust particles in a plasma 06 p1725 N93-19539
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233
Modal ring method for the scattering of electromagnetic waves
[NASA-TM-105966] 07 p1882 N93-20260
Study of electroweak interactions
[DE93-004367] 07 p2061 N93-20385
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
A class of hybrid finite element methods for electromagnetics: A review
[NASA-CR-192631] 08 p2260 N93-22467
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
Laser diagnostics 08 p2311 N93-23260
Electromagnetic scattering cross sections from the bodies of revolution, volume 1
[DREV-CR-645] 08 p2264 N93-23342
A proposed study of multiple scattering through clouds up to 1 THz 09 p2684 N93-26474
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

ELECTROMAGNETIC SHIELDING
NT RADIO FREQUENCY SHIELDING
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
Mechanical shielding for electric primer
[AD-D015417] 04 p0860 N93-14889
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Wire assembly for electrically conductive circuits
[AD-D015535] 06 p1519 N93-18317
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Method for providing EMI/EMP hardening and breakdown protection in composite materials
[AD-D015638] 09 p2634 N93-25283
Electromagnetic diffusion and wire coupling
[AD-A263183] 11 p3381 N93-29011

ELECTROMAGNETIC SPECTRA
NT BALMER SERIES
NT ELECTRONIC SPECTRA
NT FRAUNHOFER LINES
NT GAMMA RAY SPECTRA
NT H ALPHA LINE
NT H BETA LINE
NT INFRARED SPECTRA
NT K LINES
NT LINE SPECTRA
NT LYMAN SPECTRA
NT MICROWAVE SPECTRA
NT RADIO SPECTRA
NT RAMAN SPECTRA
NT RYDBERG SERIES
NT SOLAR SPECTRA
NT STELLAR SPECTRA
NT ULTRAVIOLET SPECTRA
NT VIBRATIONAL SPECTRA
NT VISIBLE SPECTRUM
NT X RAY SPECTRA
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
ROSAT and multi-wavelength observations of 3C 371 05 p1361 N93-17121
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393
ELF/VLF spectrum measurements 11 p3398 N93-30745

ELECTROMAGNETIC SURFACE WAVES
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Nonlinear radiation of waves at combination frequencies due to radiation-surface wave interaction in plasmas
[DE93-608570] 12 p3825 N93-31667
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690

ELECTROMAGNETIC WAVE FILTERS
NT BANDPASS FILTERS
NT BANDSTOP FILTERS
NT BIREFRINGENT FILTERS
NT CRYSTAL FILTERS
NT DIGITAL FILTERS
NT ELECTRIC FILTERS
NT FIR FILTERS
NT INFRARED FILTERS
NT MATCHED FILTERS
NT MICROWAVE FILTERS
NT OPTICAL FILTERS
NT RADIO FILTERS
NT TRACKING FILTERS
Advanced atomic filters 06 p1664 N93-18468
Note on the scattering of electromagnetic waves from charged dust particles in a plasma 06 p1725 N93-19539
Theory of radar scattering from dusty plasmas 06 p1516 N93-19540

ELECTROMAGNETIC WAVE TRANSMISSION
NT HALOS
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT LIGHT SCATTERING
NT LIGHT TRANSMISSION
NT MICROWAVE ATTENUATION
NT MICROWAVE TRANSMISSION
NT MULTIPATH TRANSMISSION
NT RADAR TRANSMISSION
NT RADIO TRANSMISSION
NT SCATTER PROPAGATION
NT SHORT WAVE RADIO TRANSMISSION
NT SINGLE SIDEBAND TRANSMISSION
NT SPREAD SPECTRUM TRANSMISSION
NT TELEVISION TRANSMISSION
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Design of laser optical systems
[AD-A254247] 01 p0089 N93-10703
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Joint Services Electronics Program
[AD-A253842] 01 p0076 N93-10829
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
Deterministic transfer function for transionospheric propagation
[DE92-040327] 04 p0862 N93-15427
SSG 4.93: Wave propagation in refractive media 07 p1972 N93-20980
SSG 4.119: Relativistic effects in geodesy 07 p1973 N93-20985
Angle of arrival characteristics of ionospheric skywave signals 08 p2268 N93-23618
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
Introduction 11 p3395 N93-30728
ELF propagation in deep and shallow sea water 11 p3397 N93-30739
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740

Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173

ELECTROMAGNETIC WAVES
U ELECTROMAGNETIC RADIATION

ELECTROMAGNETICS
U ELECTROMAGNETISM

ELECTROMAGNETISM
NT MAGNETOSTATICS
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Basic research in electronics (JSEP)
[AD-A256016] 04 p0869 N93-15257
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-192180] 06 p1503 N93-18580
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388
A proposed approach for developing next-generation computational electromagnetics software
[DE93-007326] 11 p3380 N93-28900
Electronics research at the University of Texas at Austin. Appendix: JSEP sponsored publications
[AD-A262993] 11 p3409 N93-29485
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
A generalization of Dirac non-linear electrodynamics, and spinning charged particles
[DE93-609847] 12 p3821 N93-31907

ELECTROMAGNETS
NT HIGH FIELD MAGNETS
NT SUPERCONDUCTING MAGNETS
Open-loop characteristics of magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TP-3229] 02 p0277 N93-11613
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Design and implementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276
Bipolar current sources for the correction magnets of AmPS
[DIGEL-1992-2-REV] 05 p1150 N93-17393
Device for applying powder coatings
[AD-A258229] 06 p1492 N93-18218
A variable current bypass shunt for electromagnets
[DE93-004273] 08 p2278 N93-22686
Six degrees of freedom vibration isolation using electromagnetic suspension 10 p2960 N93-27559
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
An electromagnetically levitated two-axis gimbaless pointing mechanism 10 p2961 N93-27565
High efficiency magnetic bearings 10 p2962 N93-27574
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512
A decoupled control approach for magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TM-109011] 12 p3715 N93-32227

ELECTROMECHANICAL DEVICES
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
Derating requirements applicable to electronic, electrical, and electro-mechanical components for ESA space systems
[ESA-PSS-01-301-ISSUE-2] 07 p1893 N93-21194
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
Efficient reorientation of a deformable body in space: A free-free beam example 11 p3280 N93-29994
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842
Electropneumatic actuator, phase 1
[PB93-174951] 12 p3720 N93-31876

ELECTROMECHANICS
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527

ELECTROMETERS
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841

ELECTROMIGRATION
VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781
VLSI reliability research
[AD-A254883] 02 p0295 N93-12360
Design for reliability: Current density
[AD-A254770] 03 p0570 N93-12866
Instrumental and theoretical development of capillary electrophoresis and its application to biological systems
[DE93-001220] 05 p1106 N93-17348
Thermionic current measurement in quartz 09 p2840 N93-25045

ELECTROMOTIVE FORCES
NT PONDEROMOTIVE FORCES
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777
Temperature-electromotive force reference functions and tables for the letter-designated thermocouple types based on the ITS-90
[PB93-190338] 12 p3729 N93-31214

ELECTROMYOGRAMS
U ELECTROMYOGRAPHY

ELECTROMYOGRAPHS
U ELECTROMYOGRAPHY

ELECTROMYOGRAPHY
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199

ELECTRON ACCELERATION
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
An inverse free electron laser accelerator experiment
[DE93-003495] 06 p1542 N93-19506
Electron acceleration in the magnetosphere 07 p1997 N93-20283
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987

ELECTRON ACCELERATORS
NT BETATRONS
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
High power picosecond CO2 laser system for ATF electron accelerator project
[DE92-040497] 05 p1171 N93-15832
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
Common analysis of the Relativistic Klystron and the Standing-Wave Free-Electron Laser two-beam accelerator
[DE92-041205] 05 p1173 N93-16529
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Theoretical aspects of electroweak and other interactions in medium energy physics
[DE93-003714] 06 p1657 N93-19507
Configuration and construction of a free electron laser in near infrared at the superconducting electron accelerator in Darmstadt (Germany)
[ETN-93-93412] 07 p1911 N93-21175
Construction of a channeling radiation source and production of intensive channeling radiation at the Darmstadt (Germany) superconductive electron accelerator
[ETN-93-93410] 07 p2066 N93-21206
An infrared free electron laser system for the proposed Chemical Dynamics Research Laboratory at LBL based on a 500 MHz superconducting linac
[DE93-004723] 08 p2307 N93-22346
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
NIKHEF-K contributions to the 3rd European Particle Accelerator Conference
[NIKHEF-AMPS-92-02] 10 p3139 N93-28337
The Amsterdam Pulse Stretcher AmPS as a photon source 10 p3139 N93-28338
Mechanical design philosophy and construction of the Amsterdam Pulse Stretcher ring AmPS 10 p3139 N93-28339
Improvement of the 400 kV linac electron source of AmPS 10 p3140 N93-28343
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
Novel methods of acceleration
[AD-A264828] 11 p3590 N93-30600
Investigation of methods for the measurement of small electron bundle currents
[DIGEL-1992-4] 11 p3413 N93-30763
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

ELECTRON AFFINITY
Correlation in photodetachment
[DE93-001843] 05 p1291 N93-17078

ELECTRON ATTACHMENT
NT NUCLEOPHILES
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186

ELECTRON BEAM WELDING
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326

ELECTRON BEAMS
NT RELATIVISTIC ELECTRON BEAMS
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Thermal management in high average power pulsed compression systems
[DE92-017055] 01 p0076 N93-10836

A semiempirical formula for calculating the coefficients for field emission tip forms
[AD-A254109] 01 p0145 N93-10857
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
The electron-beam water calorimeter project at the National Physical Laboratory
[NPL-RSA(EXT)-30] 02 p0310 N93-11410
The foxhole accelerating structure
[DE92-019052] 02 p0443 N93-11429
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Experimental study of interactions of highly charged ions with atoms at keV energies
[DE92-019512] 02 p0436 N93-11541
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
On some practical consideration of the electron beam breakup transit time oscillator
[DE92-017406] 02 p0445 N93-11919
Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Suppression of the e(-) coextracted from a Penning surface-plasma H(-) source
[DE92-040350] 03 p0714 N93-12997
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity
[DE92-018153] 03 p0707 N93-13090
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Study of heliumlike neon using an electron beam ion trap
[DE92-019544] 03 p0753 N93-13536
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel
03 p0602 N93-13681
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7
03 p0657 N93-13830
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
Monte Carlo analysis of energy deposition in solid state materials by 400 and 200 MeV electrons
[AD-A255335] 04 p0991 N93-14537
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
High power picosecond CO2 laser system for ATF electron accelerator project
[DE92-040497] 05 p1171 N93-15832
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Design of a compact application-oriented free-electron laser
[DE92-040391] 05 p1172 N93-16183
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269
Method and system for electron beam lithography
[AD-D015397] 05 p1146 N93-16399
Conditioner for a helically transported electron beam
[DE92-041169] 05 p1297 N93-16526
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings
[DE92-556477] 05 p1298 N93-16646
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Fundamentals of high energy electron beam generation
[DE93-000745] 05 p1299 N93-17064
Spectroscopy of highly charged multi-electron ions
[DE93-001617] 05 p1291 N93-17181
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Electron beam probing of blow-down hypersonic flows
[ONERA-NT-1992-7] 06 p1408 N93-18701
Use of the CEBAF accelerator for IR and UV free electron lasers
[CEBAF-PR-92-023] 06 p1660 N93-18768
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
An inverse free electron laser accelerator experiment
[DE93-003495] 06 p1542 N93-19506
Physically transparent formulation of a free-electron laser in the linear gain regime
[DE93-002577] 06 p1542 N93-19626
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
The N* program at CEBAF
[DE93-000829] 07 p1880 N93-20019
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM
07 p1801 N93-20484
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
An infrared free electron laser system for the proposed Chemical Dynamics Research Laboratory at LBL based on a 500 MHz superconducting linac
[DE93-004723] 08 p2307 N93-22346
Self-amplified spontaneous emission for short wavelength coherent radiation
[DE93-004724] 08 p2307 N93-22490
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
Studies of the longitudinal instability with an electron beam
[DE93-006513] 08 p2282 N93-23695
Atom wave interferometer
[AD-A260082] 08 p2484 N93-24410
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
The generation of Langmuir waves by thick target electron beams in solar flares 09 p2861 N93-25730
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
Magnetic field source for bi-chambered electron beam devices
[AD-A261316] 09 p2691 N93-26299
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM
[DE93-007724] 10 p3030 N93-26612
Further time-resolved electron-beam characterizations with optical transition radiation
[DE93-007891] 10 p3131 N93-26625
Overview of charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-007898] 10 p3131 N93-26626
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
The Amsterdam Pulse Stretcher AmPS as a photon source 10 p3139 N93-28338
High power density, thin magnetic DC septa for AmPS
10 p3140 N93-28342
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 1
[AD-A262783] 10 p2974 N93-28401
Accelerator research studies
[DE93-009353] 11 p3573 N93-28522
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Low-pump-rate multi-millisecond atomic xenon laser
[DE93-011484] 11 p3437 N93-29180
High-power Ka-band amplifier
11 p3385 N93-29590
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Unexpected increase in the thermal generation rate of bulk GaAs due to electron-beam metallization
[DE93-009829] 11 p3598 N93-30511
Non-perturbative calculation of equilibrium polarization of stored electron beams
[DE93-764500] 11 p3577 N93-30607
Complex apparatus and results of active experiment Electron-1 with injection of electronic beam in the ionosphere
[DE93-605452] 11 p3480 N93-30991
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation
[DE93-605693] 11 p3400 N93-30993
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179
Pulse-beam heating in flare loops
12 p3875 N93-31392
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

ELECTRON BOMBARDMENT

Diagnostics of electron-heated solar flares
02 p0488 N93-11877
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379

ELECTRON BUNCHING

Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192

Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508

ELECTRON CAPTURE
Atomic collision physics: A summary and some projections
[DE92-040638] 05 p1287 N93-16407
Low-energy measurements of electron capture by multicharged ions from excited hydrogen atoms
[DE93-001642] 05 p1292 N93-17345
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
Angular distributions of charge exchange collisions at very low energies
[DE93-002338] 07 p2064 N93-21751
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
An improved vapor taggant detector 07 p1775 N93-21927
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Electron trapping optical data storage system and applications 12 p3730 N93-31975
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

ELECTRON CLOUDS
Quantum chaos without classical counterpart
[PREPRINT-830] 05 p1331 N93-17215

ELECTRON COLLISIONS
U ELECTRON SCATTERING

ELECTRON COMPOUNDS
U INTERMETALLICS

ELECTRON COUNTERS
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172

ELECTRON CYCLOTRON HEATING
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator
[DE93-001204] 05 p1308 N93-16152
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Electron cyclotron emission measurements on the Texas Experimental Tokamak 08 p2494 N93-23066
Electron Cyclotron Resonance Heating (ECRH) 08 p2495 N93-23259
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
Electron cyclotron thruster new modeling results preparation for initial experiments 10 p2983 N93-26982
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Electron cyclotron heating and current drive in toroidal geometry
[DE93-010400] 11 p3586 N93-29049
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303

ELECTRON DENSITY (CONCENTRATION)
NT CARRIER DENSITY (SOLID STATE)
NT ELECTRON DENSITY PROFILES
NT IONOSPHERIC ELECTRON DENSITY
NT MAGNETOSPHERIC ELECTRON DENSITY
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions 02 p0365 N93-12209
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A 04 p1012 N93-14762
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Experimental evidence of off-diagonal transport term and the discrepancy between energy/particle balance and perturbation analyses
[DE92-556732] 05 p1309 N93-16237
Ionospheric processes 06 p1584 N93-18498
Tristatic observations of natural plasma lines with the EISCAT UHF radar 06 p1725 N93-19537
Note on the scattering of electromagnetic waves from charged dust particles in a plasma 06 p1725 N93-19539
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Plasma diagnostics by antenna impedance measurements 11 p3400 N93-28820
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
General properties of the polarization of the Fe 14 5303 A coronal emission line 12 p3877 N93-31404
Exploring the magnetospheric boundary layer 12 p3855 N93-31694

ELECTRON DENSITY PROFILES
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora 02 p0359 N93-11266
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions 02 p0365 N93-12209
The electrostatic wake of a superthermal test electron in a magnetized plasma
[DE92-019394] 03 p0713 N93-12873
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
EISCAT observations of spectral components of atmospheric gravity waves in the F region 06 p1578 N93-18743
A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Determination of E region effective recombination coefficient using impulsive precipitation events 06 p1723 N93-19526
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements? 06 p1724 N93-19533
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases 09 p2712 N93-25280
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
The July 11, 1991 solar corona observed in polarized white light: Preliminary results 12 p3879 N93-31417
Plasma waves interferometry on Cluster 12 p3827 N93-31714

ELECTRON DETECTORS
U ELECTRON COUNTERS

ELECTRON DIFFRACTION
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Investigation of III-V superlattices and heterostructures by convergent-beam electron diffraction
[ETN-92-92784] 05 p1321 N93-16581
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Atomic and electronic structure of ultrathin films 07 p2078 N93-20287
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Beneficiation of ilmenite from lunar analog 10 p2997 N93-26681
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation 11 p3319 N93-30101
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

ELECTRON DIFFUSION
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
On the bootstrap current calculations based on values of the radial electron transport
[IPPCZ-317] 03 p0715 N93-13091
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073
Simulation of electron transport in quantum well devices 10 p3019 N93-27773
Plasma diffusion through multidipole magnetic fields
[DE93-608548] 11 p3591 N93-31007
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere 12 p3878 N93-31413

ELECTRON DISTRIBUTION
NT ELECTRON DENSITY PROFILES
Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
Radiation belt dynamic and quasi-static modeling based on CRRES data: Outer-belt short-term response data base
[AD-A256483] 04 p0916 N93-14899
A spectator model for deep inelastic electron scattering
[ETN-92-92539] 05 p1293 N93-17396
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
Current-drive and plasma-formation experiments on the Versator-2 tokamak using lower-hybrid and electron-cyclotron waves
[DE93-002333] 07 p2075 N93-21482
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Electron cyclotron thruster new modeling results preparation for initial experiments 10 p2983 N93-26982
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Radio observations of coronal streamers 12 p3870 N93-31359

ELECTRON EMISSION
NT FIELD EMISSION
NT PHOTOELECTRIC EMISSION
NT SECONDARY EMISSION
Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
Method of making composite field-emitting arrays
[AD-D015541] 07 p1832 N93-20780
Regulatable field emitter device and method of production thereof
[AD-D015614] 07 p1893 N93-21250
Differential electron emission in multi-charged ion atom collisions: Systematics for distant and close collisions
[DE93-004324] 07 p2064 N93-21851
Theory of electron ejection from surfaces by highly charged ion impact
[DE93-004109] 08 p2479 N93-22070
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

ELECTRON ENERGY
NT ELECTRON STATES
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988
Interpretation of measurements from the suprathermal electron spectrometer on the NEED-2 rocket
[FFI-92/7009] 02 p0357 N93-11129
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere
02 p0360 N93-11270
Comment on 'EISCAT Radar Observations of Enhanced Incoherent Scatter Spectra and Their Relation to Auroral Luminosity and Field-Aligned Currents' by P. N. Collis et al.
02 p0360 N93-11271
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
Diagnostics of electron-heated solar flares
02 p0488 N93-11877
Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535
Wide range, permanent magnet Compton spectrometer
[DE92-017312] 03 p0596 N93-12762
The electrostatic wake of a superthermal test electron in a magnetized plasma
[DE92-019394] 03 p0713 N93-12873
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
Energetics and dynamics of excess electrons in simple fluids 03 p0704 N93-13369
Electron temperature of Gd plasma produced by laser resonance ionization
[DE91-017785] 03 p0718 N93-13732
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
Fine structure of auroral particle acceleration
04 p0912 N93-14121
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Transient x ray laser schemes at 1 millimicron and at 2 millimicron
[DE92-040670] 05 p1171 N93-15948
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA
[NIKHEF-H/92-02] 05 p1297 N93-16340
Electron-temperature-gradient-induced instability in tokamak scrape-off layers
[DE93-000623] 05 p1309 N93-16376
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Ionospheric processes 06 p1584 N93-18498
The contribution of electron collisions to rotational excitations of cometary water 06 p1721 N93-19268
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence
06 p1726 N93-19548
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Theory of electron ejection from surfaces by highly charged ion impact
[DE93-004109] 08 p2479 N93-22070
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Electron cyclotron emission measurements on the Texas Experimental Tokamak 08 p2494 N93-23066
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595
Electron cyclotron thruster new modeling results preparation for initial experiments
10 p2983 N93-26982
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080
Measuring electron temperature in the extended corona 12 p3880 N93-31422
Exploring the magnetospheric boundary layer
12 p3855 N93-31694

ELECTRON FLUX
U ELECTRONS
U FLUX (RATE)

ELECTRON FLUX DENSITY
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612

ELECTRON GAS
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Focal plane arrays for submillimeter waves using two-dimensional electron gas elements: A grant under the Innovative Research Program
[NASA-CR-192271] 08 p2263 N93-23062
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications
10 p3012 N93-27734
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
New edge magnetoplasmon for a two-dimensional electron gas in a ring geometry
[DE93-608737] 12 p3825 N93-31164

ELECTRON GUNS
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
High-speed FPS vidicon camera
[DE92-018989] 02 p0313 N93-12069
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves
[DE92-015974] 02 p0293 N93-12089
Possible application of transient electromagnetic pulses to high brightness e-guns
[DE92-040360] 05 p1138 N93-16100
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
Observation of a charge limit for photocathode electron guns
[DE93-006948] 08 p2485 N93-24464
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880

ELECTRON HOLES
U HOLES (ELECTRON DEFICIENCIES)

ELECTRON IMPACT
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A
04 p1012 N93-14762
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Relativistic calculations of excitation and ionization of highly charged ions by electron impact
[DE93-002129] 05 p1296 N93-17783
Spin effects in electron-atom collisions
06 p1659 N93-18494
Cation production and reactions induced by electron impact on tetraethoxysilane
[AD-A258830] 06 p1675 N93-19064
Electron impact ionization of highly charged lithiumlike ions
[DE93-002895] 07 p2065 N93-21954
Electron impact excitation cross section measurements of highly charged heliumlike and lithiumlike ions
[DE93-003478] 08 p2478 N93-22031
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method
[DE93-006095] 08 p2479 N93-22525
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646

ELECTRON INTENSITY
U ELECTRON FLUX DENSITY

ELECTRON INTERACTIONS
U ELECTRON SCATTERING

ELECTRON IONIZATION
U IONIZATION

ELECTRON IRRADIATION
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350

Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269
Ion produced cometary organic crust
06 p1701 N93-19122
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
Dose in water from external irradiation by electrons: Radiation protection data
[PB93-173425] 10 p3131 N93-27425

ELECTRON MASS
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793

ELECTRON MICROSCOPES
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Nanorecording 06 p1539 N93-18467
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
Tunneling magnetic force microscopy
08 p2514 N93-22194
Resonant tunneling through chemisorbed halogen atoms on Ag(111)
[AD-A261794] 09 p2868 N93-26254
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM
[DE93-007724] 10 p3030 N93-26612
Quantitative high-resolution electron microscopy and holography
[ISBN-90-6275-752-9/CIP] 10 p3046 N93-27875
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps
11 p3283 N93-29369
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476

ELECTRON MICROSCOPY
NT SCANNING ELECTRON MICROSCOPY
NT SCANNING TUNNELING MICROSCOPY
NT TRANSMISSION ELECTRON MICROSCOPY
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study
01 p0117 N93-10163
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Scanning electron microscopy of the effects of moisture and elevated temperature on the fibre/matrix bond in CFRP
[RAE-TM-MAT/STR-1183] 02 p0240 N93-11905
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Immersion objective lenses in electron optics
[ETN-92-92799] 06 p1662 N93-18442
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM
07 p1801 N93-20484
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
[AD-A259616] 08 p2510 N93-24126
Quantitative high-resolution electron microscopy and holography
[ISBN-90-6275-752-9/CIP] 10 p3046 N93-27875
Undulator Spectromicroscopy Facility at the Advanced Light Source
[DE93-007964] 11 p3261 N93-28490
Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130
Scanning ionic microscopy with high spatial resolution: Parallel acquisition of elementary images by high resolution mass spectrometry
[ONERA-NT-1990-7] 11 p3314 N93-30139
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366

ELECTRON MOBILITY
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Construction of a channeling radiation source and production of intensive channeling radiation at the Darmstadt (Germany) superconductive electron accelerator
[ETN-93-93410] 07 p2066 N93-21206
Low temperature Hall and Shubnikov-de Haas effects
[AD-A261871] 09 p2869 N93-26540
Quantum transport of electrons in nanostructured silicon MOSFET's
[ETN-93-93597] 10 p3031 N93-27871
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895

ELECTRON MULTIPLIERS
U PHOTOMULTIPLIER TUBES

ELECTRON OPTICS
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
Electron optical defect inspection in x ray lithography masks
[ETN-93-92570] 07 p1919 N93-20884
Development and utilization of a semi-analytic alternative charge process for the rapid calculation of potential distributions and electron orbits
[ETN-93-93416] 07 p2062 N93-21209

ELECTRON ORBITALS
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
Theory of normal metals
[DE92-016828] 02 p0262 N93-12476
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
Development and utilization of a semi-analytic alternative charge process for the rapid calculation of potential distributions and electron orbits
[ETN-93-93416] 07 p2062 N93-21209

ELECTRON OSCILLATIONS
Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325

ELECTRON PARAMAGNETIC RESONANCE
Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy
05 p1128 N93-16794
Characterization of radiation damage in solids
06 p1659 N93-18478
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997
Magnetic resonance studies of photo-induced electron transfer reactions
[DE93-012239] 11 p3311 N93-29182

ELECTRON PATHS
U ELECTRON TRAJECTORIES

ELECTRON PHONON INTERACTIONS
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Electron-phonon driven spin frustration in multi-band Hubbard models: MX chains and oxide superconductors
[DE93-003697] 08 p2503 N93-22754
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Squeezing phenomena in interacting electron-phonon systems
[SSCL-PREPRINT-727] 10 p3134 N93-28100
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141

ELECTRON PHOTON CASCADES
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems
[DE93-007610] 11 p3281 N93-30509

ELECTRON PLASMA
Atomic structure and spectral perturbations in dense and hot plasmas 02 p0321 N93-12049
The electrostatic wake of a superthermal test electron in a magnetized plasma
[DE92-019394] 03 p0713 N93-12873
Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
The generation of Langmuir waves by thick target electron beams in solar flares 09 p2861 N93-25730
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
A Fokker-Planck operator for the emission and absorption of electron plasma waves in a magnetized plasma
[DE93-009579] 11 p3584 N93-28598

ELECTRON PRECIPITATION
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora
02 p0359 N93-11266
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence
02 p0360 N93-11269
Diagnostics of electron-heated solar flares
02 p0488 N93-11877
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612

A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Precipitation associated electric field enhancements 06 p1722 N93-19520
Determination of E region effective recombination coefficient using impulsive precipitation events 06 p1723 N93-19526
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event 06 p1728 N93-19560
Long period pulsation events in electron precipitation and magnetic fields at the South Pole 08 p2394 N93-23387
Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite
[AD-A260015] 08 p2401 N93-24301
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Transient (approximately equals 10 s) VLF amplitude and phase perturbations due to lightning-induced electron precipitation into the ionosphere (the Trimpi effect) 11 p3396 N93-30736
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737

ELECTRON PRESSURE
Introduction of electronic pressure scanning at the Royal Aerospace Establishment
[RAE-TM-AERO-2222] 02 p0199 N93-11882
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869

ELECTRON PUMPING
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975
Electron-beam-pumped recombination lasers 09 p2712 N93-25344

ELECTRON RADIATION
NT BETA PARTICLES
NT ELECTRON BEAMS
NT RELATIVISTIC ELECTRON BEAMS
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271

ELECTRON RECOMBINATION
NT RADIATIVE RECOMBINATION
Determination of E region effective recombination coefficient using impulsive precipitation events 06 p1723 N93-19526
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646

ELECTRON RING ACCELERATORS
U STORAGE RINGS (PARTICLE ACCELERATORS)

ELECTRON SCATTERING
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
A fresh look at (e,e(prime)) scattering from light nuclei: A GFMC approach
[DE92-016377] 03 p0703 N93-13246
Scattering and order in thermotropic liquid crystals 03 p0723 N93-13332
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
Final Report, 1 November 1988 - 31 October 1991 — spectroscopy of adsorbed and photodissociated molecules
[AD-A255979] 04 p0976 N93-14424
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
A spectator model for deep inelastic electron scattering
[ETN-92-92539] 05 p1293 N93-17396
Spin effects in electron-atom collisions 06 p1659 N93-18494
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
The contribution of electron collisions to rotational excitations of cometary water 06 p1721 N93-19268
The N* program at CEBAF
[DE93-000829] 07 p1880 N93-20019
Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons?
[NASA-CR-192255] 07 p2102 N93-20601
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations
[PB93-126092] 07 p2064 N93-21828
Theory of electron ejection from surfaces by highly charged ion impact
[DE93-004109] 08 p2479 N93-22070
Scattering in electron spectrometers, diagnosis, and avoidance. 1: Concentric hemispherical analysers
[NPL-DMM(A)-70] 08 p2218 N93-22463
Scattering in electron spectrometers, diagnosis, and avoidance. 2: Cylindrical mirror analysers
[NPL-DMM(A)-71] 08 p2218 N93-22464
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
The ZEUS uranium calorimeter: Main characteristics and first operating experience
[NIKHEF-H/92-15] 12 p3728 N93-31117
Scattering of electrons at heterostructure interfaces
[ETN-93-94044] 12 p3828 N93-31523
Excitation of atomic hydrogen
[DE93-604639] 12 p3820 N93-31822
Theoretical investigation of electron-positive ion/atom interactions
[DE93-012933] 12 p3822 N93-32162

ELECTRON SOURCES
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Microchannel electron source
[AD-D015555] 07 p1891 N93-20768
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Studies of the longitudinal instability with an electron beam
[DE93-006513] 08 p2282 N93-23695

ELECTRON SPECTROSCOPY
Interpretation of measurements from the suprathermal electron spectrometer on the NEED-2 rocket
[FFI-92/7009] 02 p0357 N93-11129
Application of spin-sensitive electron spectroscopies to investigations of electronic and magnetic properties of solid surfaces and epitaxial systems
[DE92-018597] 02 p0470 N93-12499
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Scattering in electron spectrometers, diagnosis, and avoidance. 1: Concentric hemispherical analysers
[NPL-DMM(A)-70] 08 p2218 N93-22463
Scattering in electron spectrometers, diagnosis, and avoidance. 2: Cylindrical mirror analysers
[NPL-DMM(A)-71] 08 p2218 N93-22464
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258

ELECTRON SPIN
Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315

ELECTRON SPIN RESONANCE
U ELECTRON PARAMAGNETIC RESONANCE

ELECTRON STATES
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
The 2S(+) - 2P separation in KO
[NASA-TM-108086] 03 p0702 N93-12900
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors 03 p0725 N93-13845
The electronic structure of core states under extreme compressions
[DE92-017451] 05 p1112 N93-16334
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Spin effects in electron-atom collisions 06 p1659 N93-18494
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H88
[AD-A258764] 06 p1658 N93-19868
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 08 p2478 N93-22050
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
The theory behind the SOCRATES code
[AD-A259987] 08 p2196 N93-24298
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
Squeezing phenomena in interacting electron-phonon systems
[SSCL-PREPRINT-727] 10 p3134 N93-28100
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068
Triplet states and optical absorptions in finite polyenes and conjugated polymers
[AD-A264552] 11 p3337 N93-30381
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589
Electronic states in quantum wells with periodically structured interfaces
[DE93-606295] 11 p3600 N93-30769
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063
Electronic Landau levels in quantum wells with periodically structured interfaces
[DE93-608514] 12 p3828 N93-31664

ELECTRON TELESCOPES
U PARTICLE TELESCOPES
ELECTRON TEMPERATURE
U ELECTRON ENERGY
ELECTRON TRAJECTORIES
Energetics and dynamics of excess electrons in simple fluids
03 p0704 N93-13369
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A261954] 10 p3153 N93-27948
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
ELECTRON TRANSFER
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
Experimental study of interactions of highly charged ions with atoms at keV energies
[DE92-019512] 02 p0436 N93-11541
Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271
Photoinduced electron transfer counter to the bias field in coupled quantum wells
[AD-A254719] 02 p0469 N93-12338
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Conditioning electron beams in the ion-focused regime
[AD-A255635] 04 p0978 N93-14127
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
Monte Carlo analysis of energy deposition in solid state materials by 400 and 200 MeV electrons
[AD-A255335] 04 p0991 N93-14537
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
Proceedings of the Sixteenth DOE Solar Photochemistry Research Conference
[DE93-001760] 05 p1193 N93-15899
Electronic transport in 3-5 semiconductors and their lattice matched heterojunctions
[AD-A256904] 05 p1316 N93-16023
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Atomic collision physics: A summary and some projections
[DE92-040638] 05 p1287 N93-16407
Aspects of electron transport in semiconductor nanostructures
[ETN-92-92787] 05 p1321 N93-16486
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 08 p2478 N93-22050
Simulation of electronic transport in semiconductor heterolayer devices
[AD-A260122] 08 p2502 N93-22548
Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889
Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511
Measuring the metastatic potential of cancer cells
09 p2794 N93-25566
NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
A study of electron transfer using a three-level system coupled to an ohmic bath
10 p3145 N93-27346
Fast interfacial electron transfer: Evidence for inverted region kinetic behavior
[AD-A262434] 10 p3133 N93-27658
Quantum transport of electrons in nanostructured silicon MOSFET's
[ETN-93-93597] 10 p3031 N93-27871
Transport of electron-waves and single-charges in semiconductor nanostructures
[ETN-93-93609] 10 p3031 N93-27880
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359
Electron transfer, proton transfer and photoaddition reactions in isolated clusters
[AD-A262719] 10 p3137 N93-28398
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Magnetic resonance studies of photo-induced electron transfer reactions
[DE93-012239] 11 p3311 N93-29182
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Electronics research at the University of Texas at Austin. Appendix: JSEP sponsored publications
[AD-A262993] 11 p3409 N93-29485
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
Monte-Carlo simulations of secondary electron emission from CsI, induced by 1-10 keV x rays and electrons
[DE93-604906] 12 p3818 N93-31239
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797
Quantum transport
[AD-A264935] 12 p3832 N93-32072
ELECTRON TRANSITIONS
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma
02 p0320 N93-12041
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum
02 p0254 N93-12042
Experimental study of x ray laser in lithumoid aluminum
02 p0321 N93-12045
Demonstration of a neon-like rubidium x ray laser
[DE92-019576] 03 p0606 N93-13653
A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum
04 p0884 N93-14141
Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462
Novel short-wavelength lasers
06 p1543 N93-18472
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H88
[AD-A258764] 06 p1658 N93-19868
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
An improved linear ion trap physics package
11 p3384 N93-29587
ELECTRON TUBES
NT BACKWARD WAVE TUBES
NT CATHODE RAY TUBES
NT CYCLOTRON RESONANCE DEVICES
NT GAS DISCHARGE TUBES
NT KLYSTRONS
NT MAGNETRONS
NT MICROWAVE TUBES
NT PHOTOMULTIPLIER TUBES
NT PHOTOTUBES
NT PICTURE TUBES
NT THERMIONIC DIODES
NT THYRATRONS
NT TRAVELING WAVE TUBES
NT VACUUM TUBES
NT VIDICONS
ELECTRON TUNNELING
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Nanorecording
06 p1539 N93-18467
Scanning tunneling microscope studies of nickel oxyhydroxides
06 p1678 N93-18490
Tunneling magnetic force microscopy
08 p2514 N93-22194
Resonant tunneling through chemisorbed halogen atoms on Ag(111)
[AD-A261794] 09 p2868 N93-26254
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
Superconductive fluctuations in the density of states and tunneling resistance in high T(sub c) superconductors
[SSCL-PREPRINT-756] 10 p3153 N93-28141
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
ELECTRON-ION RECOMBINATION
NT RADIATIVE RECOMBINATION
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Electron-beam-pumped recombination lasers
09 p2712 N93-25344
ELECTRON-POSITRON ANNIHILATION
U POSITRON ANNIHILATION
ELECTRON-POSITRON PAIRS
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism
04 p1049 N93-14176
Status of QCD
[PREPRINT-842] 05 p1298 N93-16996
Investigation of neutrino properties in the process e(+)e(-) decay to nu-nu(bar)-gamma
[PREPRINT-887] 05 p1290 N93-17023
Probing the WWZ vertex at 500 GeV e(+)e(-) collider
[PREPRINT-831] 05 p1299 N93-17216
Search for pp decay to neutral H decay to (neutral Z)(neutral Z) decay to (mu +)(mu -)(mu +)(mu -) at the LHC
[NOTA-INTERNA-970] 05 p1300 N93-17644

New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792

ELECTRON-POSITRON PLASMAS
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990

ELECTRONIC AIRCRAFT
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444

ELECTRONIC AMPLIFIERS
U AMPLIFIERS

ELECTRONIC BULLETIN BOARDS
Online guided tour of the Cleanup Information Bulletin Board System. (CLU-IN: Cleanup Information Bulletin Board)
[PB93-193704] 12 p3752 N93-31818

ELECTRONIC CONTROL
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757
Actively controlled shaft seals for aerospace applications
[NASA-CR-191901] 06 p1547 N93-18371
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Electronic control of pH at sulfonated polyaniline electrodes
[AD-A260074] 08 p2222 N93-23963
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Strategic avionics technology definition studies. Subtask 3-1A: Electrical Actuation (ELA) systems
[NASA-CR-193237] 11 p3271 N93-29215
Subpicosecond electrooptic sampling
[AD-A264635] 11 p3581 N93-30520
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462

ELECTRONIC COUNTERMEASURES
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Versatile attack weapon 08 p2256 N93-22027
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Modified Acousto-Optic Adaptive Processor (Mod-AOAP)
[AD-A261983] 11 p3381 N93-28997

ELECTRONIC EQUIPMENT
NT AVALANCHE DIODES
NT BIPOLAR TRANSISTORS
NT CHARGE COUPLED DEVICES
NT CHARGE TRANSFER DEVICES
NT CMOS
NT DIODES
NT ELECTRONIC FILTERS
NT ELECTRONIC MODULES
NT ELECTRONIC PACKAGING
NT ELECTRONIC TRANSDUCERS
NT FIELD EFFECT TRANSISTORS
NT GALLIUM ARSENIDE LASERS
NT GUNN DIODES
NT HETEROJUNCTION DEVICES
NT HIGH ELECTRON MOBILITY TRANSISTORS
NT JFET
NT JUNCTION DIODES
NT JUNCTION TRANSISTORS
NT LIGHT EMITTING DIODES
NT METAL OXIDE SEMICONDUCTORS
NT MIM (SEMICONDUCTORS)
NT MINIATURE ELECTRONIC EQUIPMENT
NT MIS (SEMICONDUCTORS)
NT MODFETS
NT MSM (SEMICONDUCTORS)
NT MULTISPECTRAL LINEAR ARRAYS
NT PHOTODIODES
NT PHOTOTRANSISTORS
NT PHOTOVOLTAIC CELLS
NT RUBY LASERS
NT SCHOTTKY DIODES
NT SEMICONDUCTOR DEVICES
NT SEMICONDUCTOR DIODES
NT SEMICONDUCTOR LASERS
NT SILICON TRANSISTORS
NT SIS (SEMICONDUCTORS)
NT SIS (SUPERCONDUCTORS)
NT SOI (SEMICONDUCTORS)
NT SOLAR CELLS
NT SOLID STATE DEVICES
NT SOLID STATE LASERS
NT SOS (SEMICONDUCTORS)
NT SPACECRAFT ELECTRONIC EQUIPMENT
NT THERMIONIC DIODES
NT THERMISTORS
NT THYRISTORS
NT TRANSISTOR AMPLIFIERS
NT TRANSISTORS
NT TUNNEL DIODES
NT VARACTOR DIODES
NT VARISTORS
NT YAG LASERS
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
Wind tunnel operator aimed comparison between two electronic pressure scanner systems
[DLAS-EST-TR-040] 02 p0217 N93-11225
A comparison of the achieved and predicted defect rates of some continuously operating electronic equipment
[RTP/909/10-ISSUE-2] 02 p0288 N93-11364
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
An analysis of the field service function of selected electronics firms
[AD-A255003] 03 p0570 N93-12868
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
Solid state research
[AD-A256019] 04 p0992 N93-14576
Radiation monitoring for long duration space flights 04 p0812 N93-14959
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15986
Natural convection from a horizontal heater in response to steady and pulsatile input powers
[AD-A257101] 05 p1156 N93-16126
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Joint services electronics program
[AD-A261801] 09 p2692 N93-26539
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
Neural networks: Reliability and data analysis
[AD-A262354] 10 p3109 N93-27646
Solid state research
[AD-A262273] 10 p3154 N93-28237
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408
Low cost instrumentation: Parallel port analog to digital converter
[AD-A263468] 11 p3433 N93-30584
Electronics for a neutron detector and a Geiger-Mueller detector for the radiation protection around MEA and AmPS
[DIGEL-1992-6] 11 p3413 N93-30838
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
Service equipment for use in hostile environments
[NASA-CASE-LEW-14906-2] 12 p3734 N93-31314
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867

ELECTRONIC EQUIPMENT TESTS
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
High sensitivity probes for silicon VLSI internal node testing
[AD-A253924] 01 p0169 N93-10764
A comparison of the achieved and predicted defect rates of some continuously operating electronic equipment
[RTP/909/10-ISSUE-2] 02 p0288 N93-11364
Testability design rating system. Volume 2: Analytical procedure
[AD-A254333] 02 p0413 N93-12146
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Thermal fixture for testing an integrated circuit
[AD-D015380] 04 p0882 N93-15247
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
VHDL (VHSIC hardware description language) in the test environment
[VH-6] 04 p0948 N93-15267
Evaluation of fast ADC's
[DE92-040582] 05 p1145 N93-16013
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1085 N93-16088
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
Improvement of LC feedthrough filters 07 p1797 N93-20458
Development of transistors (equivalent to 2SC3321) 07 p1797 N93-20460
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881

An integrated approach to 300 kV electrostatic discharge application during component testing that will satisfy MIL-STD-331B Appendix F 09 p2693 N93-24882
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles 09 p2693 N93-24903
Step stress testing of receiver/transmitter units [AD-A261286] 09 p2730 N93-26279
Standardization of automatic test equipment in the US Air force [AD-A262076] 11 p3250 N93-29004

ELECTRONIC FILTERS
Improvement of LC feedthrough filters 07 p1797 N93-20458
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937

ELECTRONIC LEVELS
U ELECTRON ENERGY
U ENERGY LEVELS

ELECTRONIC MAIL
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
A change of course: The importance to DoD of international standards for electronic commerce [AD-A253199] 01 p0075 N93-10792
ESIS: An introduction to the European space information system. A modern tool for space scientists [ESA-INT-2] 02 p0479 N93-12404
EDI planning and implementation guide [AD-A255737] 04 p1007 N93-15050
Newly available technologies present expanding opportunities for scientific and technical information exchange [NASA-CR-4494] 08 p2261 N93-22470
An electronic stroll through the global village [DE93-005962] 08 p2446 N93-22763
Online guided tour of the Cleanup Information Bulletin Board System. (CLU-IN: Cleanup Information Bulletin Board) [PB93-193704] 12 p3752 N93-31818

ELECTRONIC MODULES
An MCM/chip concurrent engineering validation [AD-A253783] 01 p0136 N93-10237
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing [AD-A254035] 01 p0071 N93-10240
Holographic optical interconnects for multichip modules [AD-A253403] 01 p0086 N93-10408
Circuit design tool. User's manual, revision 2 [NASA-CR-191361] 03 p0687 N93-13734
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source [DE93-007893] 09 p2848 N93-25368
Two- and three-dimensional high performance, patterned overlay multi-chip module technology 09 p2694 N93-25581
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module [DE93-007609] 11 p3405 N93-28641
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology [AD-A262136] 11 p3408 N93-29408

ELECTRONIC PACKAGING
MMIC GaAs bonding investigation [AD-A254773] 02 p0470 N93-12464
Semiconductor measurement technology: Version 2.0 of the TXYZ thermal analysis program: TXYZ20 [PB92-217603] 03 p0570 N93-12978
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
Innovative techniques for the production of low cost 2D laser diode arrays [AD-A257419] 05 p1171 N93-15864
Temperature distribution and thermally induced stresses in electronic packages [AD-A257334] 05 p1144 N93-15990
The CRRES Microelectronics Package (MEP) data processing system [AD-A256709] 05 p1145 N93-16168
Improvement of voltage reference Zener diode (1SZ48A) 07 p1797 N93-20462
Microelectronics packaging automation [DE93-004822] 07 p1894 N93-21725
Vacuum multilayer lamination of printed wiring boards [DE93-004912] 07 p1894 N93-21727
Two- and three-dimensional high performance, patterned overlay multi-chip module technology 09 p2694 N93-25581
Special technology area review on microwave packaging technology [AD-A261852] 09 p2681 N93-26276
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology [AD-A262136] 11 p3408 N93-29408
Multichip module high speed testing [AD-A262989] 11 p3408 N93-29427

ELECTRONIC PHOTOGRAPHY
U ELECTRO-OPTICAL PHOTOGRAPHY

ELECTRONIC SIGNAL MEASUREMENT
U SIGNAL MEASUREMENT

ELECTRONIC SPECTRA
Experimental study of interactions of highly charged ions with atoms at keV energies [DE92-019512] 02 p0436 N93-11541
Surface phonon dispersion of MoS2 [AD-A255835] 03 p0727 N93-14083
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions [DE93-000970] 05 p1285 N93-16217

ELECTRONIC STRUCTURE
U ATOMIC STRUCTURE

ELECTRONIC SWITCHES
U SWITCHING CIRCUITS

ELECTRONIC TRANSDUCERS
Effect of Reynolds number on the standards of a simplified anemoclinometric probe [IMFL-91-31] 05 p1056 N93-17542
Contribution to the development of an ISFET type integrated sensor using an ASIC thread in CMOS technology [ECL-91-09] 07 p1892 N93-21006
Microelectronic and micromechanical sensors and actuators in CMOS technology: A novel scheme toward s regularization and integration [ISBN-0-315-60192-2] 08 p2305 N93-24609
The SSIMT: A CMOS based magnetic sensor [ISBN-0-315-60334-8] 08 p2305 N93-24610
Development of capacitive position transducers through a mechatronic approach [ISBN-90-9005114-7] 10 p3032 N93-27941

ELECTRONIC WARFARE
An application of exponential neural networks to event-train recognition [AD-A254948] 03 p0690 N93-12548
RJARS: RAND's version of the jamming aircraft and radar simulation [AD-A255560] 05 p1138 N93-16059
Advanced Communication ESM System (ACES) design considerations [AD-A259014] 06 p1510 N93-19100
An analytical and experimental investigation of FM-by-noise jamming [AD-A259124] 07 p1883 N93-20592
Advances in Guidance and Control of Precision Guided Weapons [AGARD-CP-524] 08 p2254 N93-22018
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Detectability of high power aircraft [MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Radiolocation Techniques [AGARD-CP-526] 08 p2265 N93-23598
Detection of active emitters using triangulation and trilateration techniques: Theory and practice 08 p2267 N93-23612
Tracking filters for precision Electronic Support Measures (ESM) systems [AD-A264089] 12 p3719 N93-31085
Deinterleaver technology for future Electronic Support Measures (ESM) systems [AD-A265005] 12 p3721 N93-32079

ELECTRONICS
Research programs at the Research Laboratory of Electronics 06 p1522 N93-19482
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 2 [NASA-CP-3189-VOL-2] 08 p2560 N93-22149
Joint services electronics program: Appendix [AD-A259503] 08 p2285 N93-24312
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1 [NASA-CP-3189-VOL-1] 09 p2901 N93-25561
Prometheus in space: Survey report of Research Committee on Functional New Material 12 p3710 N93-31728

ELECTRONS
NT CONDUCTION ELECTRONS
NT HIGH ENERGY ELECTRONS
NT HOT ELECTRONS
NT PHOTOELECTRONS
NT POLARONS
NT RELATIVISTIC ELECTRON BEAMS
NT SOLAR ELECTRONS
Theory of light-induced drift of electrons in coupled quantum wells [AD-A253609] 01 p0164 N93-10093
Fellowship in physics/modern optics and quantum electronics [AD-A253666] 01 p0087 N93-10228
Multidimensional deterministic electron transport calculations [AD-A254021] 01 p0154 N93-10362
Radiation damage to DNA [DE92-015760] 01 p0130 N93-10834
Electronic structure of highly correlated structures [DE92-017017] 01 p0155 N93-10863
Direct electron absorption of fast waves on the D3-D tokamak [DE92-016254] 02 p0449 N93-11041
Semiclassical analysis spectral correlations in mesoscopic systems [DE92-634887] 02 p0471 N93-11780
Suppression of the e(-) coextracted from a Penning surface-plasma H(-) source [DE92-040350] 03 p0714 N93-12997
Monte Carlo calculation of ionization and excitation rates in electron aurora [ISAS-RN-645] 03 p0652 N93-13405
A quasi-equilibrium kinetic model of HF air breakdown [AD-A256240] 04 p0859 N93-14453
Predictions of dose from electrons in space [NASA-CR-191617] 04 p1051 N93-15580
Experimental investigations in particle physics at intermediate energies [DE93-000406] 05 p1284 N93-16160
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA [NIKHEF-H/92-02] 05 p1297 N93-16340
The first particle: The electron [NOTA-INTERNA-974] 05 p1295 N93-17646
Methods development for electron transport [AD-A257986] 05 p1295 N93-17698
Superconducting materials performance report, 1 May 1992 - 28 February 1993 [DE93-002786] 06 p1672 N93-18400
Experiments on the nuclear interactions of pions and electrons [DE93-001800] 06 p1655 N93-18590
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms [DE93-003142] 06 p1675 N93-19490
Stable clusters in the condensed state and some possibilities for gas phase clusters [DE93-004446] 07 p2064 N93-21846
The GALLEX solar neutrino experiment [DE93-003357] 07 p2102 N93-21962
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions [PB93-146033] 08 p2481 N93-22898
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects [DE93-004524] 08 p2494 N93-22942
Distribution of trapped electrons at interface states in ACTFEL devices [AD-A260396] 08 p2484 N93-24427
Notes on radial drift for dalitz detection [DE93-006971] 09 p2846 N93-24959
The interaction of swift electrons with surface excitations [DE93-007245] 09 p2848 N93-25376
Theoretical and experimental research in infrared technology [AD-A260926] 09 p2853 N93-25646
Particle simulation of auroral double layers 09 p2774 N93-25830
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes [AD-A261636] 09 p2691 N93-26171
Single electron charging effects in mesoscopic systems [AD-A261228] 09 p2868 N93-26302
Penning detachment: A new frontier [AD-A261447] 09 p2850 N93-26346
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2 [AD-A262129] 10 p2995 N93-28186
Selected problems in experimental intermediate energy physics [DE93-007300] 10 p3137 N93-28356
Medium energy measurements on N-N parameters [DE93-007304] 10 p3137 N93-28358
High-energy electron-positron interactions [DE93-011611] 11 p3576 N93-30488
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids [AD-A264711] 11 p3598 N93-30501

Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670
The optical response of a double quantum well driven by two lasers: Localization and low frequency generation
[AD-A265118] 12 p3819 N93-31792
Electron trapping optical data storage system and applications 12 p3730 N93-31975

ELECTROPHORESIS
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films
[AD-A256329] 04 p0869 N93-15194
Fluorescence detection for gel and capillary electrophoresis
[DE92-040585] 05 p1102 N93-16020
Instrumental and theoretical development of capillary electrophoresis and its application to biological systems
[DE93-001220] 05 p1106 N93-17348
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity 08 p2247 N93-22836
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

ELECTROPHOTOMETERS
The unusual lightcurve of 1990 TR 06 p1720 N93-19265

ELECTROPHYSICS
NT ELECTRO-OPTICS
NT MOLECULAR ELECTRONICS
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446

ELECTROPHYSIOLOGY
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
Effective neurons and attractor neural networks in cortical environment
[PREPRINT-829] 05 p1223 N93-17214
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818

ELECTROPLATING
Surface protection in the aircraft industry
[MBB-Z-0432-92-PUB] 02 p0255 N93-11027
Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644
Molten salt reactor for potentiostatic electroplating
[AD-D015358] 03 p0551 N93-13101
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Vacuum deposition of copper on Type 304L stainless steel
[DE93-002704] 06 p1489 N93-19614
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538

ELECTROPOLISHING
Laser initiated corrosion pits on aluminum 09 p2650 N93-25464

ELECTRORHEOLOGICAL FLUIDS
Mechanisms associated with electrorheology 02 p0294 N93-12198
Smart materials for Army structures
[AD-A254925] 04 p0836 N93-15218
Coarsening of a quiescent electrorheological fluid I: Experiment
[DE93-006776] 09 p2642 N93-24972
Dynamic test apparatus for electro-rheological fluids
[AD-D015632] 09 p2643 N93-25284
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879

ELECTROSEISMIC EFFECT
U ELECTRIC CURRENT
U SEISMIC WAVES

ELECTROSTATIC CHARGE
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398

ELECTROSTATIC FIELDS
U ELECTRIC FIELDS

ELECTROSTATIC PLASMA
U PLASMAS (PHYSICS)

ELECTROSTATIC PRECIPITATORS
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617

ELECTROSTATIC PROBES
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
Propulsion diagnostics 06 p1475 N93-18482
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Solar extreme ultraviolet sensor and advanced langmuir probe
[NASA-CR-191972] 06 p1744 N93-18880
Mesh effect in a parallel plate analyzer
[NIFS-203] 06 p1669 N93-19931
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280

ELECTROSTATIC PROPULSION
NT ION PROPULSION
Evaluation of transportation systems for advanced space flight missions
[ESA-TT-1256] 02 p0223 N93-11685
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310

ELECTROSTATIC WAVES
The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378
Fast ion-driven Bernstein instabilities
[DE92-019393] 03 p0705 N93-12713

ELECTROSTATICS
Mechanisms associated with electrorheology 02 p0294 N93-12198
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
Electrostatic potential in a collisionless plasma flow along open magnetic field lines
[NIFS-155] 06 p1666 N93-18421
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Electrostatic charging of spacecraft in geosynchronous orbit
[DRA-TM-SPACE-389] 08 p2181 N93-22489
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation
[AD-A260283] 08 p2483 N93-24261
An integrated approach to 300 kV electrostatic discharge application during component testing that will satisfy MIL-STD-331B Appendix F 09 p2693 N93-24882
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Electroelastic equations for electroded thin plates subject to large driving voltages
[AD-A261123] 09 p2675 N93-25772
Electrostatic fiber spreader
[AD-D015677] 09 p2640 N93-26143
Influence of stochastic contact resistance on coupling losses
[MEMO-1067] 10 p3028 N93-28076
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Defining protein electrostatic recognition processes
[AD-A264838] 11 p3571 N93-30901
An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310

ELECTROSTRICTION
Piezoelectric and electrostrictive materials for transducers applications, volume 1
[AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2
[AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3
[AD-A250891] 01 p0072 N93-10280
Piezoelectric and electrostrictive materials for transducers applications, volume 4
[AD-A250892] 01 p0072 N93-10282
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332

ELECTROTHERMAL ENGINES
NT ARC JET ENGINES
NT PLASMA ENGINES
NT RESISTOJET ENGINES

ELECTROWINNING
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437

ELEMENT ABUNDANCE
U ABUNDANCE

ELEMENTARY EXCITATIONS
NT EXCITONS
NT MAGNONS
NT PHONONS
NT PLASMONS
NT POLARONS
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229

Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Research program in elementary particle theory
[DE92-017399] 01 p0155 N93-10840
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-010416] 11 p3594 N93-29249
On the method of determining relations
[DE93-606041] 11 p3551 N93-30765
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912

ELEMENTARY PARTICLE INTERACTIONS
NT ELECTRON CAPTURE
NT HIGH ENERGY INTERACTIONS
NT MESON-MESON INTERACTIONS
NT MESON-NUCLEON INTERACTIONS
NT NUCLEAR CAPTURE
NT NUCLEON-NUCLEON INTERACTIONS
NT STRONG INTERACTIONS (FIELD THEORY)
NT WEAK ENERGY INTERACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Research in elementary particle physics
[DE92-017869] 03 p0704 N93-13251
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
Neutrino(e) appearance for neutrino(mu)-neutrino(tau) oscillations in matter
[DE92-040303] 03 p0772 N93-13533
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Experimental studies of elementary particle interactions at high energies
[DE93-003652] 05 p1294 N93-17575
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Classical confined particles 10 p3146 N93-27356
Photoerosion in astrophysical environments
10 p3205 N93-28450
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961
New Mexico Center for Particle Physics: Studies of fundamental interactions
[DE93-008302] 11 p3566 N93-29261
New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
Elementary particle interactions
[DE93-005113] 11 p3568 N93-29764
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931

ELEMENTARY PARTICLES
NT ALPHA PARTICLES
NT ANTINEUTRINOS
NT ANTINUCLEONS
NT ANTIPARTICLES
NT ANTIPROTONS
NT BARYONS
NT BETA PARTICLES
NT BOSONS
NT COLD NEUTRONS
NT CONDUCTION ELECTRONS
NT DEUTERONS
NT ELECTRON-POSITRON PAIRS
NT ELECTRONS
NT ETA-MESONS
NT FAST NEUTRONS
NT FERMIONS
NT GLUONS
NT GRAVITONS
NT HADRONS
NT HIGH ENERGY ELECTRONS
NT HOT ELECTRONS
NT HYPERONS
NT KAONS
NT LEPTONS
NT MAGNETIC MONOPOLES
NT MESONS
NT MUONS
NT NEUTRINOS
NT NEUTRONS
NT NUCLEONS
NT PARTONS
NT PHOTOELECTRONS
NT PHOTONS
NT PIONS
NT POLARONS
NT POSITRONS
NT PROTONS
NT QUARKS
NT RECOIL PROTONS
NT RHO-MESONS
NT SOLAR ELECTRONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
NT THERMAL NEUTRONS
NT VECTOR MESONS
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
Medium energy nuclear physics research
[DE92-016972] 02 p0442 N93-12444
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Elementary particle physics research
[DE92-019746] 03 p0702 N93-12855
Indiana University High Energy Physics Group, task C
[DE92-040458] 03 p0707 N93-13002
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Proceedings of the fifth workshop on elementary-particle picture of the universe
[DE92-538746] 05 p1375 N93-17190
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Research in elementary particle physics
[DE93-003153] 05 p1294 N93-17488
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Summary talk --- particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3608 N93-30796
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912
A squeezed state holomorphic phase space representation of equations of motion
[DE93-609835] 11 p3607 N93-30945
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles
[DE93-608203] 12 p3818 N93-31240

ELEVATION
Impact of Digital Terrain Elevation Data (DTED) resolution on terrain visualization: Simulation versus reality
[AD-A254237] 03 p0634 N93-13333
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0906 N93-15007
An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Gravity referenced elevation encoder development
11 p3385 N93-29592
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889

ELEVATION ANGLE
Particle emission from artificial cometary materials
06 p1710 N93-19188
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data
07 p1954 N93-21576
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data
08 p2350 N93-23552
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
The comparison of satellite radar altimeter derived heights with global digital terrain model heights
08 p2355 N93-23584

ELEVATIONS (DRAWINGS)
U DRAWINGS

ELEVATORS (LIFTS)
Platform stair lift
[NASA-CASE-MFS-28772-1] 11 p3507 N93-29845

ELIMINATION
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Proper elimination of latent variables
[MEMO-1072] 10 p3121 N93-28164

ELLIPSES
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884

ELLIPSOIDS
Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
A semiempirical formula for calculating the coefficients for field emission tip forms
[AD-A254109] 01 p0145 N93-10857
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923

ELLIPSOMETERS
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372

ELLIPSOMETRY
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614

Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon
[DE93-005767] 08 p2509 N93-24017
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si
[PB93-152098] 08 p2225 N93-24632
Study of surface behavior in function of temperature of the quaternary system (Hg, Cd, Zn)Te
[AD-A260968] 09 p2867 N93-26223
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991

ELLIPTIC DIFFERENTIAL EQUATIONS
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273
Transformation of two and three-dimensional regions by elliptic systems
[NASA-CR-192955] 09 p2810 N93-25669

ELLIPTIC FUNCTIONS
On ranks of twists of elliptic curves and power-free values of binary forms
[W-9213] 10 p3118 N93-27868

ELLIPTIC INTEGRALS
U ELLIPTIC FUNCTIONS

ELLIPTICAL CYLINDERS
Analytical surface singularity distributions for flow about elliptical cylinders
[AERO-REPT-9202] 06 p1526 N93-18132

ELLIPTICAL GALAXIES
Evolution of galaxies in compact groups 03 p0750 N93-13148
The planetary nebula system and the dynamics of the galaxy Centaurus A 03 p0754 N93-13645
The interstellar medium of elliptical galaxies 03 p0757 N93-14071
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660 09 p2607 N93-25396
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726
Environmental influences on galaxy evolution 10 p3175 N93-26727
Globular cluster systems as clues to galaxy evolution 10 p3175 N93-26728
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
Do galactic potential wells depend on their environment? 10 p3177 N93-26739
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
The hot interstellar medium in NGC 1399 10 p3179 N93-26753
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem 10 p3188 N93-26810
Dissipative merging of galaxies 10 p3191 N93-26827
The nature of the evolution of galaxies by mergers 10 p3192 N93-26831
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane 10 p3204 N93-26894

ELLIPTICAL ORBITS
NT TRANSFER ORBITS
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
Optimal impulsive trajectories for orbital rendezvous between elliptic orbits 04 p0813 N93-15103
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428
Debris about asteroids: Where and how much? 06 p1703 N93-19136
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684

ELONGATION
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction 01 p0054 N93-10516
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445

EMANATION
U EMISSION

EMBEDDED COMPUTER SYSTEMS
NT AIRBORNE/SPACEBORNE COMPUTERS
Design of an Ada expert system shell for the VHSIC avionic modular flight processor 02 p0397 N93-11947
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
Transputers, parallel processing in embedded systems for image compression in space applications
[NLR-TP-89242-U] 11 p3522 N93-30840
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849

EMBEDDING
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
MIT Space Engineering Research Center testbed programs
[NASA-CR-192115] 07 p2103 N93-21660
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Intelligent structures technology 10 p3061 N93-28176
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Information for the user in design of intelligent systems 12 p3801 N93-32149

EMBOLISMS
NT AEROEMBOLISM

EMBRITTLEMENT
NT HYDROGEN EMBRITTLEMENT
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524
Spacecraft sustained load fracture control
[NLR-TP-91093-U] 05 p1088 N93-17537
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
Acceptable aluminum additions for minimal environmental effect in iron-aluminum alloys
[DE93-006738] 08 p2234 N93-24329
Mechanical properties of martensitic alloy AISI 422
[DE93-006563] 09 p2649 N93-25255
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

EMERGENCIES
Hubble Space telescope thermal cycle test report for large solar array samples with BSFR cells (Sample numbers 703 and 704)
[NASA-TM-108373] 01 p0104 N93-10809
Assured crew return vehicle post landing configuration design and test
[NASA-CR-191253] 03 p0520 N93-12910
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834
Emergency egress requirements for caution and warning, logistics, maintenance, and assembly stage MB-6 of Space Station Freedom 05 p1089 N93-17323
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents 06 p1428 N93-19693
Emergency vehicle alert system, phase 2
[NASA-CR-192464] 08 p2260 N93-22455
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Low bandwidth robust controllers for flight
[NASA-CR-193085] 10 p2946 N93-27156

EMERGENCY BREATHING TECHNIQUES
Inward contaminant leakage tests of the S-Tron Corporation emergency escape breathing device. Phase 1: Tests of the original design. Phase 2: Tests with the redesigned neck seal
[DOT/FAA/AM-92/18] 09 p2582 N93-25205

EMERGENCY LIFE SUSTAINING SYSTEMS
Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686

EMISSION
NT ACOUSTIC EMISSION
NT BIOLUMINESCENCE
NT CATHODOLUMINESCENCE
NT CHEMILUMINESCENCE
NT ELECTROLUMINESCENCE
NT ELECTRON EMISSION
NT EXHAUST EMISSION
NT FIELD EMISSION
NT FLUORESCENCE
NT HYDROXYL EMISSION
NT ION EMISSION
NT LASER INDUCED FLUORESCENCE
NT LIGHT EMISSION
NT LUMINESCENCE
NT LUNAR LUMINESCENCE
NT MICROWAVE EMISSION
NT NEUTRON EMISSION
NT OPTICAL RESONANCE
NT PARTICLE EMISSION
NT PHOSPHORESCENCE
NT PHOTOELECTRIC EMISSION
NT PHOTOIONIZATION

NT PHOTOLUMINESCENCE
NT RADIO EMISSION
NT RESONANCE FLUORESCENCE
NT SECONDARY EMISSION
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
NT SONOLUMINESCENCE
NT SPACECRAFT GLOW
NT SPECTRAL EMISSION
NT SPONTANEOUS EMISSION
NT STIMULATED EMISSION
NT THERMAL EMISSION
NT THERMIONIC EMISSION
NT THERMOLUMINESCENCE
NT ULTRAVIOLET EMISSION
NT X RAY FLUORESCENCE

Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991] 04 p0911 N93-15460

Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480

Explosive vapor emission 07 p1772 N93-21905

EMISSION SPECTRA

Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101

Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224

Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911

High resolution observations of solar ejecta 01 p0181 N93-10916

Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164

The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165

A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347

Rosat deep surveys 02 p0482 N93-11474

Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826

Analysis of the instrument operation of a focal circle spectrograph and numerical reconstitution of the spectrum emitted by a plasma column 02 p0321 N93-12051

Studies of extra-solar Oort Clouds and the Kuiper disk
[NASA-CR-190958] 03 p0769 N93-12669

Zodiacal emission 03 p0772 N93-13147

G-133: A soft x ray solar telescope 03 p0510 N93-13171

Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258

The emission-line properties of quasars 03 p0753 N93-13487

An infrared polarimetric study of sunspots 03 p0770 N93-13627

Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689

Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements 03 p0647 N93-13723

Laser spectroscopy of rare earth ions 03 p0608 N93-13846

Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891

Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315

Physical properties of extended emission-line regions in active and cooling-flow galaxies 04 p1018 N93-14461

Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596

Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A 04 p1012 N93-14762

Method for detecting chemical vapors using a lasing dye sensor
[AD-D015424] 04 p0885 N93-14821

Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies 04 p1020 N93-14869

LISA: A limb imaging spectrograph for airglow 04 p0811 N93-14952

High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324

A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance 04 p1014 N93-15591

Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument
[AD-A256830] 05 p1166 N93-15688

Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702

Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137

New high temperature plasmas and sample introduction systems for analytical atomic emission and mass spectrometry
[DE92-040602] 05 p1308 N93-16145

Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171

Gravitationally induced synchrotron radiation: A new test for general relativity
[PREPRINT-822] 05 p1297 N93-16420

International Ultraviolet Explorer (IUE)
[NASA-CR-191952] 05 p1359 N93-17029

X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096

Neural network architectures to analyze OPAD data 05 p1262 N93-17336

Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464

High-energy laser-particle interaction 06 p1543 N93-18469

Radiation properties of high-temperature flames 06 p1485 N93-18477

Propulsion diagnostics 06 p1475 N93-18482

Solar-terrestrial physics and astrophysics 06 p1733 N93-18501

Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763

High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135

The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum 06 p1703 N93-19139

Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156

A strong 3.4 micron emission feature in comet Austin 1989c1 06 p1706 N93-19162

Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163

Spectroscopic observations of comet Austin (1989c) 06 p1697 N93-19169

Evolution of near UV Halley's spectrum in the inner coma 06 p1716 N93-19235

Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237

Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747

Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203

ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387

ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408

A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469

Spectroscopic and dynamical studies of highly energized small polyatomic molecules
[DE93-006504] 08 p2480 N93-22712

Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762

Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949

Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae 08 p2547 N93-23208

Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315

Active galactic nuclei: The view from space 08 p2534 N93-23886

X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898

Emission from relativistic jets in blazars 08 p2536 N93-23900

EUV spectral features of active binaries 08 p2536 N93-23904

SUMER: Solar Ultraviolet Measurements of Emitted Radiation 08 p2541 N93-23931

Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072

Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326

Compression of spectral meteorological imagery 09 p2804 N93-25925

The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492

Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710

The nature of faint emission-line galaxies 10 p3173 N93-26716

Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask 10 p3173 N93-26719

Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801

Molecular clouds in the centers of galaxies: Constraints from HCN and CO-13 line emission 10 p3188 N93-26806

Searching for emission-line galaxies: The UCM survey 10 p3195 N93-26849

Infrared coronal emission lines and the possibility of their maser emission in Seyfert nuclei 10 p3196 N93-26853

High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859

Long slit spectroscopy of NGC 5506 10 p3198 N93-26861

The disk-halo interface in edge-on spirals 10 p3198 N93-26865

A halo and a blow-out in NGC 253 10 p3199 N93-26869

The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871

Emission line gas in early-type galaxies: Kinematics and physical conditions 10 p3200 N93-26874

Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875

Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877

Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883

Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888

H1 in RSA galaxies 10 p3203 N93-26891

Powering the superwind in NGC 253 10 p3203 N93-26893

Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471

Multifractal analysis of radio lobes 11 p3380 N93-28689

The Backgrounds Data Center 11 p3624 N93-28814

Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966

A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052

Multiwavelength studies of classical nova shells 11 p3636 N93-30412

Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU] 11 p3440 N93-30415

Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564

Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

Ground-based coronagraphic observations of solar streamers 12 p3870 N93-31358

Quiet and active solar structures as observed at the bottom of the transition region 12 p3874 N93-31382

General properties of the polarization of the Fe 14 5303 A coronal emission line 12 p3877 N93-31404

A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406

Abundance determination in the quiet corona 12 p3877 N93-31407

Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561

Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950

An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009

EMISSIVITY

Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150

Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping
04 p1040 N93-14368
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
Low-emissivity impact craters on Venus
04 p1044 N93-14392
Venus: Geochemical conclusions from the Magellan data
04 p1044 N93-14394
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
Protective coating development for Space Station Freedom at McDonnell Douglas
07 p1849 N93-20820
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
Sensor fusion for assured vision in space applications
12 p3824 N93-32105

EMISSOGRAPHS
U RECORDING INSTRUMENTS

EMITTANCE
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
Emittance, brilliance, and bandpass issues related to an inclined crystal monochromator
[DE92-019671] 03 p0721 N93-12881
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers
09 p2892 N93-24949
The Amsterdam Pulse Stretcher AmPS as a photon source
10 p3139 N93-28338
Improvement of the 400 kV linac electron source of AmPS
10 p3140 N93-28343
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558
Sensor fusion for assured vision in space applications
12 p3824 N93-32105

EMITTERS
NT THERMIONIC CATHODES
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
RF vacuum microelectronics
[AD-A257208] 05 p1145 N93-16004
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Method of making composite field-emitting arrays
[AD-D015541] 07 p1832 N93-20780
The ignition diffusion concerning contacted and non contacted n(+) emitter interrruptions
[ETN-93-92564] 07 p1891 N93-20878
Regulatable field emitter device and method of production thereof
[AD-D015614] 07 p1893 N93-21250
Low-temperature emitter-passivation for silicon solar cells
[DE93-002483] 07 p1987 N93-21487
Propagation effects on HF direction finding
08 p2265 N93-23602
The influence of propagation on high frequency radiogoniometry and single station location
08 p2266 N93-23607
A current assessment of single site locating technology
08 p2267 N93-23608
Detection of active emitters using triangulation and trilateration techniques: Theory and practice
08 p2267 N93-23612
Multiple emitter direction finding from a circular array by single snapshot processing 08 p2270 N93-23627
RF vacuum microelectronics
[AD-A261784] 09 p2692 N93-26565
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A261954] 10 p3153 N93-27948
Field-emitter arrays for RF vacuum microelectronics
[AD-A262677] 11 p3404 N93-28483
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A263464] 11 p3411 N93-29833
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
RF vacuum microelectronics
[AD-A264528] 11 p3412 N93-30409
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033
Deinterleaver technology for future Electronic Support Measures (ESM) systems
[AD-A265005] 12 p3721 N93-32079

EMOTIONAL FACTORS
Effectiveness of birthdate biorhythm theory on flight accidents
06 p1431 N93-19710
Subjective mood and fatigue of C-141 crew during Desert Storm
12 p3782 N93-32264

EMPENNAGE
U TAIL ASSEMBLIES

EMPHYSEMA
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318

EMPLOYEE RELATIONS
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Organizational politics, participation in decision-making, and job satisfaction
[DOT/FAA/AM-92/17] 09 p2796 N93-25203

EMULSIONS
NT NUCLEAR EMULSIONS
NT PHOTOGRAPHIC EMULSIONS
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
Detonation shock dynamics of composite energetic materials
11 p3350 N93-30096

ENCAPSULATING
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system
06 p1496 N93-19402
Isopycnic systems as models for the behavior of liquids in a microgravity environment 07 p1805 N93-21089
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell
[DE93-004519] 08 p2317 N93-24049
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems
09 p2700 N93-25472
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207

ENCEPHALITIS
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304

ENCODERS
U CODERS

ENCODING
U CODING

ENCOUNTERS
Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
The vicinity of Jupiter: A region to look for comets
06 p1719 N93-19253

END EFFECTORS
EXOS research on master controllers for robotic devices
02 p0399 N93-11957
A new scheme of force reflecting control
02 p0399 N93-11960
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair 02 p0400 N93-11965
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Advanced mechanisms for robotics
02 p0330 N93-11969
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
The ROMPS robot in HitchHiker
03 p0511 N93-13179
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Force-closure grasping with two hands
03 p0616 N93-13742
Enhanced accuracy for closed-loop robot
03 p0617 N93-13808
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Dexterous grasp and manipulation
03 p0618 N93-14075
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Force and position control of robot manipulators: Learning and repetitive control approach
04 p0888 N93-14473
Retractable tool bit having slider type catch mechanism
[NASA-CASE-GSC-13358-1] 04 p0890 N93-14710
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674
New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU]
05 p1261 N93-17275
Double-V block fingers with cruciform recess
[NASA-CASE-GSC-13356-2] 05 p1180 N93-17625
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288
Capacifiector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Modelling robot trajectory errors using time series
07 p1942 N93-20716
Linear passive impedance 07 p1943 N93-20719
Grasp admittance center. A concept
07 p1918 N93-20720
Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
Magnetic end effectors for space operations
08 p2146 N93-22291

Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
Force distribution formulation and analysis for multiple-contact power grasp 08 p2461 N93-23718
End effectors and grapple fixtures [CA-PATENT-1-294-917] 08 p2316 N93-23966
Grapple fixture [CA-PATENT-1-297-519] 08 p2317 N93-23967
Reliable vision-guided grasping [NASA-CR-193197] 08 p2464 N93-24603
Vision-guided gripping of a cylinder [NASA-CR-193199] 08 p2465 N93-24657
The induction of elastic fine motion in robotic grasps 09 p2718 N93-25727
Analysis and design of a novel robotic finger-tip sensor for adaptive grasping 09 p2719 N93-25745
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
Flight telerobotic servicer 10 p2970 N93-27820
Spline screw autochanger [NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
Robot arm with positional absolute encoded joints 11 p3370 N93-30312
A testbed for autonomous reflexive grasping [AD-A264557] 11 p3446 N93-30384
Contact mechanics and the dynamics of manipulation 12 p3733 N93-31103
A theory of planar grasp [OUEL-1958/92] 12 p3785 N93-31126
Split rail gripper assembly and tool driver therefor [NASA-CASE-GSC-13370-1] 12 p3734 N93-31317
A comparison of force control algorithms for robots in contact with flexible environments [NASA-CR-193251] 12 p3789 N93-31638
Ground Robotic Hand Applications for the Space Program study (GRASP) [NASA-CR-193571] 12 p3737 N93-32235

END MORAINES
U GLACIAL DRIFT

END-TO-END DATA SYSTEMS
Description of the SSF PMAD DC testbed control system data acquisition function [NASA-TM-105843] 02 p0417 N93-11005
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Integrated modeling of advanced optical systems 06 p1463 N93-18832

ENDEAVOUR (ORBITER)
Chronology of KSC and KSC related events for 1992 [NASA-TM-107561] 10 p3219 N93-27285

ENDFIRE ARRAYS
NT YAGI ANTENNAS
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751

ENDOCRINE GLANDS
NT HYPOTHALAMUS
NT PINEAL GLAND
NT PITUITARY GLAND
Joint HVAC transmission EMF environmental study [DE92-017863] 04 p0933 N93-15211

ENDOCRINE SECRETIONS
NT ALDOSTERONE
NT HORMONES
NT INSULIN
NT PITUITARY HORMONES
NT PROSTAGLANDINS

ENDOCRINE SYSTEMS
A review of models of the human temperature regulation system [AD-A258023] 06 p1595 N93-17918
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates [DE93-007678] 08 p2419 N93-24455

ENDOCRINOLOGY
AFRRI reports [AD-A254581] 03 p0674 N93-12649
Transcutaneous Analyte Measuring Methods (TAMM), phase 2 [AD-A256327] 04 p0936 N93-15192
A review of models of the human temperature regulation system [AD-A258023] 06 p1595 N93-17918
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine [AD-A265497] 12 p3773 N93-31917

ENDOSCOPES
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805

ENDOTHERMIC REACTIONS
Effects of delocalization on intrinsic barriers for H-atom transfer: Implications for the radical hydrogen transfer reaction [DE93-001565] 05 p1107 N93-17461
Solar reforming applications study summary [DE93-002286] 08 p2244 N93-22424

ENDURANCE
A computer-based visual analog scale [AD-A258152] 06 p1597 N93-18280
Combined strength and endurance training: Functional and morphological adaptations to ten weeks of training [AD-A261059] 09 p2802 N93-26229

ENERGETIC PARTICLES
NT ARGON PLASMA
NT BETA PARTICLES
NT BOUNDARY LAYER PLASMAS
NT COLD PLASMAS
NT COLLISIONAL PLASMAS
NT COLLISIONLESS PLASMAS
NT CONDUCTION ELECTRONS
NT COSMIC PLASMA
NT DENSE PLASMAS
NT DEUTERIUM PLASMA
NT ELECTRON PLASMA
NT ELECTRON-POSITRON PLASMAS
NT ELECTRONS
NT EVEN-EVEN NUCLEI
NT HEAVY NUCLEI
NT HELIUM PLASMA
NT HIGH ENERGY ELECTRONS
NT HIGH TEMPERATURE PLASMAS
NT HOT ELECTRONS
NT HYDROGEN PLASMA
NT HYPERNUCLEI
NT LASER PLASMAS
NT METALLIC PLASMAS
NT MICROPLASMAS
NT NITROGEN PLASMA
NT NONEQUILIBRIUM PLASMAS
NT NUCLEI (NUCLEAR PHYSICS)
NT ODD-EVEN NUCLEI
NT OXYGEN PLASMA
NT PLASMA FOCUS
NT PLASMAS (PHYSICS)
NT RELATIVISTIC PLASMAS
NT ROTATING PLASMAS
NT SOLAR WIND
NT SPACE PLASMAS
NT STELLAR WINDS
NT STRONGLY COUPLED PLASMAS
NT THERMAL PLASMAS
NT TOROIDAL PLASMAS
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon [NASA-CR-191388] 04 p0917 N93-15574
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982 06 p1565 N93-18072
Visible Airglow Experiment data analysis [NASA-CR-192119] 06 p1577 N93-18361
Deeply penetrating events in the extremely high-energy cosmic ray flux 06 p1746 N93-19384
Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588
Research on single event resistance evaluation technology: Research by heavy ion irradiation 07 p1801 N93-20483
Photoerosion in astrophysical environments 10 p3205 N93-28450
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
Energetic particle analyser ERNE 12 p3869 N93-31354
Energetic particle observations and the abundances of elements in the solar corona 12 p3878 N93-31410
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification 12 p3854 N93-31686
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle 12 p3855 N93-31691
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft 12 p3856 N93-31699

ENERGY ABSORPTION
NT AURORAL ABSORPTION
NT ELECTROMAGNETIC ABSORPTION
NT GAMMA RAY ABSORPTION
NT INFRARED ABSORPTION
NT MICROWAVE ABSORPTION
NT MOLECULAR ABSORPTION
NT MULTIPHOTON ABSORPTION
NT PHOTOABSORPTION
NT POLAR CAP ABSORPTION
NT RADIATION ABSORPTION
NT ULTRAVIOLET ABSORPTION
NT X RAY ABSORPTION
Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992 [PB92-181106] 02 p0438 N93-11715
Atomic structure of mixed ferroelectrics [AD-A254369] 03 p0702 N93-12947
Relationship between mechanical-property and energy-absorption trends for composite tubes [NASA-TP-3284] 05 p1098 N93-16537
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station [NASA-CR-192015] 06 p1605 N93-17973
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers [DE93-010140] 09 p2655 N93-25524
New directions in phthalocyanine pigments [NASA-CR-192443] 09 p2656 N93-26155
Thermal analysis of transmissive elements in high average power laser beam delivery systems [DE93-009235] 10 p3049 N93-28451
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972

ENERGY BANDS
NT CONDUCTION BANDS
Implanted contacts for diamond semiconductor devices [AD-A245568] 01 p0165 N93-10274
The electronic structure of core states under extreme compressions [DE92-017451] 05 p1112 N93-16334
Electronic structure and phase separation in superconducting cuprates [PREPRINT-889] 05 p1323 N93-17025
The broad-band x ray spectral variability of Mkn 841 06 p1561 N93-18711
A tight binding model for the electronic structure of FCC and SC C60 [DE93-606214] 11 p3601 N93-30794

ENERGY BUDGETS
NT ATMOSPHERIC HEAT BUDGET
NT EARTH RADIATION BUDGET
NT HEAT BUDGET
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Performance of the Bowen ratio systems on a 22 deg slope [NASA-CR-191278] 03 p0644 N93-13254
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
Climate sensitivity study with energy balance models 03 p0666 N93-13817
Transformation of energy and momentum due to Landau damping in time [IPPCZ-316] 04 p0988 N93-14813
On the variation of the Nimbus 7 total solar irradiance [NASA-TP-3316] 04 p1049 N93-15532
Physical and dynamic properties of sea ice in the polar oceans [AD-A256303] 05 p1219 N93-15843
Numerical and experimental studies of high-velocity impact fragmentation [DE92-041145] 05 p1183 N93-15972
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves [NASA-TM-108608] 06 p1590 N93-18525
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers 06 p1710 N93-19189
Variational iterative method for the calculation of heat flux and mean energy balance [INPE-5236-RPQ/648] 06 p1583 N93-19824
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune [NASA-CR-192131] 07 p2099 N93-20732

Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results
[NASA-TM-108607] 07 p2018 N93-20891
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
An investigation of the role of flux divergence in the turbulent kinetic energy balance of the atmospheric surface layer 09 p2773 N93-25756
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Spectral energetics of the lower thermosphere 11 p3477 N93-29467
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045

ENERGY CONSERVATION
Energy efficient motors reference guide
[DE92-019073] 02 p0290 N93-11514
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Energy efficient drivepower: Literature reference list. Volume 1: General user's supplement
[PB92-199157] 02 p0294 N93-12294
Energy efficient drivepower: Literature reference list. Volume 2: Design engineer's supplement
[PB92-199165] 02 p0295 N93-12295
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
World energy: Building a sustainable future
[DE93-001598] 04 p0909 N93-15467
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135
C&RE-SLC: Database for conservation and renewable energy activities
[DE93-001929] 05 p1196 N93-16653
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
The effect of different collision operators on the standard data analysis model 06 p1670 N93-19584
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
CORECT: Committee On Renewable Energy Commerce and Trade, 1991
[DE92-016436] 08 p2377 N93-22890
Investigation and study scenarios to introduce CO2 fixation technologies in the energy sector
[DE93-761912] 08 p2378 N93-22958
Heat pump technology: Responding to new opportunities
[DE93-005939] 08 p2379 N93-22978
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Energy efficient drivepower: An overview
[DE93-012435] 11 p3411 N93-30057
Energy efficient drivepower
[DE93-012436] 11 p3411 N93-30058
Study survey on a high-efficiency environment harmony type energy cascade utilization system
[DE93-768469] 12 p3748 N93-31812
Preliminary study on costs needed for solution of the global environmental problem
[DE93-768474] 12 p3754 N93-32039
International Energy Agency's Heat Pump Centre (IEA-HPC) Annual National Team Working Group Meeting
[DE93-009932] 12 p3750 N93-32281

ENERGY CONSUMPTION
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
Electric and hybrid vehicle program, site operator program
[DE92-018055] 02 p0328 N93-12114
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937
World energy: Building a sustainable future
[DE93-001598] 04 p0909 N93-15467
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
Climate change and related activities
[DE93-000477] 05 p1201 N93-16191
C&RE-SLC: Database for conservation and renewable energy activities
[DE93-001929] 05 p1196 N93-16653
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
Comparison of major parameters in electrodynamic and electromagnetic levitation transport systems
[PB93-154755] 10 p3051 N93-27412
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
Nutritional assessment of United States tactical air command pilots 12 p3778 N93-32242

ENERGY CONVERSION
NT BIOMASS ENERGY PRODUCTION
NT GEOTHERMAL ENERGY CONVERSION
NT OCEAN THERMAL ENERGY CONVERSION
NT PHOTOTHERMAL CONVERSION
NT PHOTOVOLTAIC CONVERSION
NT SOLAR ENERGY CONVERSION
NT WATERWAVE ENERGY CONVERSION
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
A review of selected energy-related data sets
[DE93-002180] 05 p1355 N93-17036
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 3: Space power and thermal management
[NASA-TM-108652] 08 p2519 N93-23109
Advanced modular power supplies for Space Station Freedom 10 p2969 N93-27811
Solar energy emplacement developer 11 p3230 N93-29732
Fusion energy for space: Feasibility demonstration. A proposal to NASA
[NASA-TM-109227] 12 p3825 N93-31309
Eleventh Annual Conference on Energy Conservation and Storage Technologies
[DE93-768429] 12 p3748 N93-32038
Japan's Sunshine Project
[DE93-768157] 12 p3749 N93-32041
Japan's Sunshine Project
[DE93-768166] 12 p3749 N93-32042
Session of alcohol and biomass energy technology
[DE93-768440] 12 p3749 N93-32056

ENERGY CONVERSION EFFICIENCY
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Energy efficient motors reference guide
[DE92-019073] 02 p0290 N93-11514
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors
[DE92-015946] 02 p0346 N93-11823
Selected case studies of technology transfer from mission-oriented applied research
[DE92-018957] 02 p0481 N93-12067
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135
Climate change and related activities
[DE93-000477] 05 p1201 N93-16191
A review of selected energy-related data sets
[DE93-002180] 05 p1355 N93-17036
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
Conversion efficiency in solar thermal systems 07 p1982 N93-20301
Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20486
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Basic studies of 3-5 high efficiency cell components
[DE92-010563] 08 p2382 N93-24432
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
New concepts for high efficiency energy conversion: The avalanche heterostructure and superlattice solar cells
[DE92-010592] 09 p2758 N93-25098
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Diode-pumped laser altimeter
[NASA-CR-193166] 10 p3047 N93-27153
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules 10 p3066 N93-27962
Study of the Staebler-Wronski degradation effect in a-Si:H based p-i-n solar cell
[NASA-CR-193076] 10 p3066 N93-28406
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
The effect of the low Earth orbit environment on space solar cells: Results of the Advanced Photovoltaic Experiment (S0014) 11 p3467 N93-29686

Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

ENERGY CONVERTERS
U DIRECT POWER GENERATORS

ENERGY DENSITY
U FLUX DENSITY

ENERGY DISSIPATION
Fractals and multifractals in fracture
01 p0050 N93-10497
Numerical considerations for structural system identification from modal information
01 p0063 N93-10564
Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Application of the Moyer method to transverse shielding of linear Bremsstrahlung sources
[DE92-017027] 02 p0443 N93-11493
Effects of cooling-air injection on secondary flows and losses in a turbine cascade
[NAL-TR-1121T] 02 p0307 N93-12382
Airblast damage from small asteroids
[DE92-017834] 03 p0749 N93-12956
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Cascade processes and fully developed turbulence
03 p0591 N93-13901
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows
05 p1152 N93-15793
Damping
[LR-685] 05 p1184 N93-16214
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
Passive scalar fluctuations in intermittent turbulence
[PREPRINT-779] 05 p1159 N93-16575
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
Explosive detection using dielectrometry
07 p1770 N93-21898
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Energy dissipator
[NASA-CASE-MSC-21555-1] 08 p2314 N93-23075
Spacecraft detumbling through energy dissipation
09 p2600 N93-24696
Notes on radial drift for dalitz detection
[DE93-006971] 09 p2846 N93-24959
Demonstration for novel self-organization theory by three-dimensional magnetohydrodynamic simulation
[NIFS-212] 09 p2859 N93-25227
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-26314
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595
A radio continuum survey of edge-on spiral galaxies at 90 cm 10 p3185 N93-26790
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Contact mechanics and the dynamics of manipulation
12 p3733 N93-31103
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers
12 p3880 N93-31423

ENERGY DISTRIBUTION
NT SPECTRAL ENERGY DISTRIBUTION
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
Radar signal processing for over resolved targets
[AD-A255256] 03 p0566 N93-13838
Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959
Fine structure of auroral particle acceleration
04 p0912 N93-14121
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals
06 p1708 N93-19173
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991

ENERGY EQUIPARTITION
U EQUIPARTITION THEOREM

ENERGY EXCHANGE
U ENERGY TRANSFER

ENERGY GAPS (SOLID STATE)
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption
04 p0989 N93-14172
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems
[PREPRINT-881] 05 p1289 N93-17017
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Analysis of the gap in high-temperature superconductors using photoemission spectroscopy
09 p2865 N93-25744
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Role of oxygen vacancies in anodic TiO2 thin films
[DE92-642137] 11 p3602 N93-31027
Relativistic band gaps in one-dimensional disordered systems
[DE93-609841] 12 p3829 N93-31814

ENERGY LEVELS
NT ATOMIC ENERGY LEVELS
NT ELECTRON STATES
NT GROUND STATE
NT INTERMOLECULAR FORCES
NT MOLECULAR ENERGY LEVELS
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
Variational derivation of equation for generalized pair correlation function 05 p1254 N93-16778
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
The first level energy trigger of the L3 experiment/description of the hardware
[NOTA-INTERNA-987] 06 p1659 N93-17937
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
Characterization of radiation damage in solids
06 p1659 N93-18478
Recent progress on astrophysical opacity
[DE93-002892] 06 p1722 N93-19513
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential
10 p3141 N93-27314
The harmonic oscillator and nuclear physics
10 p3146 N93-27354
Number of saddle points of the energy surface in SK spin-glass
[SSCL-PREPRINT-726] 10 p3134 N93-28099
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Electronic states in quantum wells with periodically structured interfaces
[DE93-606295] 11 p3600 N93-30769
Schroedinger equations of higher (greater than 2) order
[DE92-644677] 11 p3552 N93-30984
The constraint for the lowest Landau level and the effective field theory approach for the fractional quantum hall system
[DE93-608200] 12 p3831 N93-31509
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

ENERGY LOSS
U ENERGY DISSIPATION

ENERGY METHODS
NT BERNSTEIN ENERGY PRINCIPLE
NT STRAIN ENERGY METHODS
Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
The vibrations of annular discs: A comparison of experimental and two analytical techniques
01 p0058 N93-10536
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556
Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
Energy method for analysis of measured airspeed change in landing airborne manoeuvre
[ESDU-92020] 06 p1436 N93-18042
Stratified plate model for composite plate analysis
[AD-A259001] 06 p1481 N93-19359
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
Improvement to the higher order finite strip method
07 p1939 N93-20697
Modelling of multi-link spatial flexible manipulators employing the finite element method
07 p1941 N93-20707

Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414

ENERGY OF FORMATION

Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials 11 p3343 N93-30063
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086

ENERGY POLICY

Selected case studies of technology transfer from mission-oriented applied research
[DE92-018957] 02 p0481 N93-12067
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
World energy: Building a sustainable future
[DE93-001598] 04 p0909 N93-15467
A review of selected energy-related data sets
[DE93-002180] 05 p1355 N93-17036
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
International energy outlook 1992
[PB93-107951] 07 p1988 N93-21550
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Assessment of costs and benefits of flexible and alternative fuel use in the US transportation sector
[DE93-004659] 08 p2244 N93-22325
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
Overview of Advanced Turbine Systems Program
[DE93-003193] 08 p2311 N93-22413
Utility Battery Storage Systems Program Report for FY 1992
[DE93-006459] 08 p2278 N93-22594
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes
[DE93-005611] 08 p2312 N93-22737
CORECT: Committee On Renewable Energy Commerce and Trade, 1991
[DE92-016436] 08 p2377 N93-22890
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
Status report on renewable energy in the States
[DE93-000032] 08 p2381 N93-23671
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Development of alternative fuels from coal-derived syngas
[DE93-011629] 11 p3341 N93-28668
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
Survey on global environmental effects of petroleum substitution energy utilization
[DE93-768475] 12 p3754 N93-32040

ENERGY REQUIREMENTS

Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
Power system requirements 05 p1383 N93-16906
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
Atomic hydrogen in the disturbed edge-on galaxy NGC 4631 10 p3189 N93-26815
Strategic avionics technology definition studies. Subtask 3-1A: Electrical Actuation (ELA) systems
[NASA-CR-193237] 11 p3271 N93-29215
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Portable equipment developed to estimate energy expenditure by simultaneous recording of heart rate and body position 12 p3778 N93-32243

ENERGY SOURCES

International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
Space and surface power for the space exploration initiative: Results from project outreach
[NASA-CR-191254] 06 p1474 N93-18848
Burst of energy
[DE93-005058] 07 p1988 N93-21833
Department of Energy new technology
[DE92-041170] 08 p2522 N93-22058

ENERGY SPECTRA

NT ELECTRONIC SPECTRA
NT NEUTRON SPECTRA
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
The use of ring ratios to detect sample differences in passive neutron counting
[DE92-018920] 03 p0702 N93-13076
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
A study of the generation of linear energy transfer spectra for space radiations
[NASA-TM-4410] 03 p0772 N93-13572
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135
Radiative heat transfer in combustion systems 04 p0840 N93-14621
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
Passive scalar fluctuations in intermittent turbulence
[PREPRINT-779] 05 p1159 N93-16575
Energy spectrum of the cosmic x ray background: Some considerations based on the Ginga results 05 p1373 N93-17143
Meson spectroscopy and decay constants with Wilson fermions at beta = 6.4
[PREPRINT-823] 05 p1291 N93-17213
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations 06 p1584 N93-19568
The GALLEX solar neutrino experiment
[DE93-003357] 07 p2102 N93-21962
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2650 N93-26314
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Quasiclassical approach to ionization of atoms by strong laser pulses: The comparison with the simpleman's models and Newtonian dynamics
[DE93-008738] 10 p3137 N93-28463
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Nonconservative and reverse spectral transfer in Hasegawa-Mima turbulence
[DE93-010132] 11 p3585 N93-28913
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Spectral energetics of the lower thermosphere 11 p3477 N93-29467
LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637
Light-heavy ion measurements in CR-39 located on the Earth side of LDEF 11 p3573 N93-29638
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Characterizing transient vibrations using band limited temporal moments
[DE93-009639] 11 p3453 N93-30185
Energy spectra and photoelectron work function from YBa2Cu3O7 high-T(sub c) superconductor
[DE93-606329] 11 p3600 N93-30766
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer
[DE93-606271] 11 p3590 N93-30768
Complex apparatus and results of active experiment Electron-1 with injection of electronic beam in the ionosphere
[DE93-605452] 11 p3480 N93-30991
QUASAR: An interactive program for spectrum analysis in personal computers
[DE93-609814] 12 p3786 N93-31248
Energetic particle analyser ERNE 12 p3869 N93-31354

ENERGY STORAGE

NT ELECTRIC ENERGY STORAGE
NT HEAT STORAGE
NT MAGNETIC ENERGY STORAGE
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Design aspects of mid-size SMES using high temperature superconductors
[DE92-040723] 05 p1142 N93-15828
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet
[DE93-000448] 05 p1134 N93-15896
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Energy storage in supercritical solvents 06 p1498 N93-18492
Phase-change composites TES for nickel-hydrogen batteries 07 p1987 N93-20524
Battery compatibility with photovoltaic charge controllers
[DE93-005373] 08 p2377 N93-22537
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Advanced energy systems and technologies - National R and D programme
[DE93-769943] 09 p2758 N93-25097
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
Fuel cell energy storage for Space Station enhancement 10 p2969 N93-27815
Power system technology discipline 10 p2973 N93-27862
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158

Sodium-Sulfur Cell Technology flight experiment (SSCT) 11 p3264 N93-28715
Evaluation of actuator energy storage and power sources for spacecraft applications [NASA-CR-193226] 11 p3288 N93-29091
Research and development of lithium secondary batteries for load conditioner use, volume 2 [DE93-781329] 11 p3410 N93-29673
Nuclear isomers as ultra-high-energy-density materials [DE93-009520] 11 p3568 N93-29784
New hydrogen technologies [DE93-778353] 11 p3343 N93-30042
Prefeasibility study on compressed air energy storage systems [VTT-TIED-1267] 11 p3465 N93-30111

ENERGY STORAGE DEVICES
U ENERGY STORAGE

ENERGY TECHNOLOGY
NT GEOTHERMAL TECHNOLOGY
EIA publications directory, 1991 [DE92-015686] 01 p0174 N93-10607
Electricity from biomass: A development strategy [DE92-010590] 02 p0346 N93-11814
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors [DE92-015946] 02 p0346 N93-11823
Energy efficient drivepower: Literature reference list: Culled references [PB92-199181] 02 p0294 N93-12192
The hydrogen technology assessment, phase 1 [NASA-CR-190969] 02 p0349 N93-12394
Medium energy nuclear physics research [DE92-016972] 02 p0442 N93-12444
The collaborative program of research in engineering sciences [DE92-016838] 02 p0490 N93-12477
Gas cooled fuel cell systems technology development [DE92-0012983-3103] 03 p0636 N93-12683
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 1 through 300 [PB92-226265] 03 p0637 N93-12987
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 301-563 [PB92-226273] 03 p0637 N93-12988
Advanced energy projects FY 1992 research summaries [DE92-040442] 03 p0637 N93-13001
Proceedings of the Tenth Symposium on Energy Engineering Sciences: Synergism of Analysis, Modeling, and Experiment [DE92-018777] 03 p0638 N93-13069
Considerations for the transition from fuel cell R/D to manufacturing [DE92-019977] 03 p0640 N93-13622
Storage needs in future supercomputer environments 04 p1003 N93-14780
Solar thermal electric and biomass power: Program overviews, fiscal years 1990-1991 [DE92-010582] 05 p1193 N93-15850
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies [DE93-716346] 05 p1194 N93-15952
Preparation of the Pacific region energy information exchange system [DE93-716353] 05 p1351 N93-15953
Energy analysis program [DE93-001570] 05 p1199 N93-16045
Energy technology evaluation report: Energy security [DE93-001830] 05 p1194 N93-16046
Energy and global warming impacts of CFC alternative technologies for foam building insulations [DE92-019477] 05 p1200 N93-16085
Climate change and related activities [DE93-000477] 05 p1201 N93-16191
An overview of current activities at the National Solar Thermal Test Facility [DE92-041160] 05 p1196 N93-16553
Technologies --- space power sources 05 p1198 N93-16907
A review of selected energy-related data sets [DE93-002180] 05 p1355 N93-17036
Investigation of pion-nucleus interactions [DE93-004375] 06 p1657 N93-19504
Integration of carbonate fuel cells with advanced coal gasification systems [DE93-003485] 06 p1572 N93-19622
Summaries of FY 1992 geosciences research [DE93-004826] 07 p1965 N93-21726
Burst of energy [DE93-005058] 07 p1988 N93-21833
Department of Energy new technology [DE92-041170] 08 p2522 N93-22058
Market penetration of new energy technologies [DE92-016409] 08 p2375 N93-22323
Capsule review of DOE research and development laboratories and field facilities [DE93-003282] 08 p2570 N93-22402
Analysis of operational, institutional and international limitations for alternative fuel vehicles and technologies: Means/methods for implementing changes [DE93-005611] 08 p2312 N93-22737
The collaborative program of research in engineering sciences [DE93-005126] 08 p2257 N93-22768
CORECT: Committee On Renewable Energy Commerce and Trade, 1991 [DE92-016436] 08 p2377 N93-22890
Future trends in power generation cost by power resource [DE93-761825] 08 p2378 N93-22957
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 3: Space power and thermal management [NASA-TM-108652] 08 p2519 N93-23109
Status report on renewable energy in the States [DE93-000032] 08 p2381 N93-23671
Energy and Technology Review, August-September 1992 [DE93-005882] 09 p2901 N93-24974
Advanced energy systems and technologies - National R and D programme [DE93-769943] 09 p2758 N93-25097
Energy and Technology Review, October - December 1992 [DE93-007784] 09 p2674 N93-25299
The PACSAT Communications Experiment (PCE) [DE93-008185] 09 p2674 N93-25308
SIHTI: The research and development program of energy and environmental technology [DE93-769925] 09 p2763 N93-25360
Published assessments bearing on the future use of ceramic superconductors by the electric power sector [DE93-007737] 09 p2658 N93-26588
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Operation of a solar photocatalytic water treatment system at a Superfund Site [DE93-005354] 10 p3065 N93-28060
Renewable resources in the US electricity supply [DE93-009492] 10 p3066 N93-28370
Development of alternative fuels from coal-derived syngas [DE93-011629] 11 p3341 N93-28668
JPRS report: Science and technology. Central Eurasia: Engineering and equipment [JPRS-UEQ-93-003] 11 p3353 N93-28691
Assessment of energy technologies contributing to environmental conservation [DE93-781439] 11 p3468 N93-28882
JPRS report: Science and technology. Central Eurasia: Engineering and equipment [JPRS-UEQ-93-001] 11 p3274 N93-29014
Solar energy emplacement developer 11 p3230 N93-29732
Strategic Environmental Research and Development Program (SERDP) [AD-A263745] 11 p3471 N93-29858
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2 [PB93-174779] 11 p3465 N93-30001
Energy efficient drivepower: An overview [DE93-012435] 11 p3411 N93-30057
Energy efficient drivepower [DE93-012436] 11 p3411 N93-30058
Power generation and transportation systems research department [PB93-178309] 11 p3352 N93-30663
Departmental technology transfer update 11 p3625 N93-30694
Plasma Physics Network Newsletter, no. 5 [DE93-606216] 11 p3591 N93-30795
Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 2 [PB93-174795] 11 p3466 N93-30935
Computer simulation of energy profiles in a plasma focus device [DE93-608560] 12 p3826 N93-31673
Japan's Sunshine Project [DE93-768309] 12 p3748 N93-31811
Study survey on a high-efficiency environment harmony type energy cascade utilization system [DE93-768469] 12 p3748 N93-31812
Eleventh Annual Conference on Energy Conservation and Storage Technologies [DE93-768429] 12 p3748 N93-32038
Survey on global environmental effects of petroleum substitution energy utilization [DE93-768475] 12 p3754 N93-32040
Japan's Sunshine Project [DE93-768157] 12 p3749 N93-32041
Japan's Sunshine Project [DE93-768166] 12 p3749 N93-32042
Session of alcohol and biomass energy technology [DE93-768440] 12 p3749 N93-32056
Feasibility study on introduction of petroleum substituting energy for transportation [DE93-768472] 12 p3750 N93-32058

ENERGY TRANSFER
NT LINEAR ENERGY TRANSFER (LET)
Multidimensional deterministic electron transport calculations [AD-A254021] 01 p0154 N93-10362
A new energy transfer model for turbulent free shear flow [NASA-TM-105854] 01 p0081 N93-10454
Experimental plasma research project summaries [DE92-016274] 01 p0162 N93-10464
Energy build-up, transport, and release in solar flares 01 p0181 N93-10913
Determination of stepsize parameters for intermolecular vibrational energy transfer [DE92-010770] 02 p0435 N93-11189
Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992 [PB92-181106] 02 p0438 N93-11715
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering [DE92-018508] 02 p0453 N93-11730
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules [AD-A253299] 02 p0441 N93-12323
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence 03 p0590 N93-13900
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis 03 p0699 N93-13907
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions [AD-A255642] 04 p0976 N93-14283
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371
Monte Carlo analysis of energy deposition in solid state materials by 400 and 200 MeV electrons [AD-A255335] 04 p0991 N93-14537
Modelling the engine temperature distribution between shut down and restart for life usage monitoring 04 p0796 N93-15177
Development of an electrical impedance computed tomographic two-phase flows analyzer [DE92-040527] 05 p1155 N93-15923
The contribution of electronically excited states to the radiation chemistry of organic systems [DE92-040465] 05 p1104 N93-16585
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems [PREPRINT-881] 05 p1289 N93-17017
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses [DE93-002133] 05 p1324 N93-17079
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence 06 p1726 N93-19548
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence [NASA-CR-189640] 07 p1899 N93-20253
Electron impact ionization of highly charged lithiumlike ions [DE93-002895] 07 p2065 N93-21954
Multi-heat addition turbine engine [NASA-CASE-LEW-15094-1] 08 p2129 N93-22034
Selective reactivity, ultrafast energy transfer and the development of chemically pumped visible lasers [AD-A260123] 08 p2309 N93-24071
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses [AD-A260525] 08 p2241 N93-24201
Low temperature transport through a quantum dot: The Anderson model out of equilibrium [AD-A260184] 08 p2484 N93-24467
Time dependent simulation of cosmic-ray shocks including Alfven transport [NASA-CR-192931] 09 p2899 N93-24752

Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Nonconservative and reverse spectral transfer in Hasegawa-Mima turbulence
[DE93-010132] 11 p3585 N93-28913
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
New hydrogen technologies
[DE93-778353] 11 p3343 N93-30042
Vibrational spectroscopy of shock-compressed fluids 11 p3318 N93-30072
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations 12 p3857 N93-31705

ENGINE AIRFRAME INTEGRATION
A configuration development strategy for the NASP 01 p0009 N93-10011
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Test techniques for engine/airframe integration 03 p0577 N93-13200
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
Flight analysis of air intake/engine compatibility 03 p0502 N93-13212
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
Hypersonic propulsion system force accounting 03 p0503 N93-13229
Integration of turbo-ramjet engines for hypersonic aircraft 03 p0503 N93-13230
Aerothermodynamic flow phenomena of the airframe-integrated supersonic combustion ramjet
[NASA-TM-4376] 04 p0827 N93-15528
Aerodynamic engine/airframe integration for high performance aircraft and missiles 05 p1065 N93-17618
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Propelling force and resistance 06 p1403 N93-19003
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610

ENGINE ANALYZERS
Analysis of the Space Shuttle main engine simulation
[NASA-CR-191063] 07 p1820 N93-20251
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759

ENGINE CONTROL
NT ROCKET ENGINE CONTROL
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
Integrated engine control and monitoring with experiences derived from OLMOS 04 p0795 N93-15168
Real-time in-flight engine performance and health monitoring techniques for flight research application 04 p0795 N93-15169
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Evaluation of advanced displays for engine monitoring and control
[NASA-CR-191418] 09 p2591 N93-24764
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
A modified approach to controller partitioning
[NASA-TM-106167] 10 p3110 N93-28051

ENGINE COOLANTS
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019

ENGINE DESIGN
NT ROCKET ENGINE DESIGN
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
The Trent family of engines
[PNR-90974] 02 p0211 N93-11063
Advanced three-shaft engines: Configured for reliability, efficiency, and growth
[PNR-90986] 02 p0211 N93-11068
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
Space Transportation Booster Engine Configuration Study. Volume 3: Program Cost estimates and work breakdown structure and WBS dictionary
[NASA-CR-184458] 02 p0233 N93-12088
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Application interface engine language and object reference manual
[DE92-017555] 03 p0683 N93-12686
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
Alternative systems for fuel gas boosters for small gas turbine engines
[PB92-223049] 03 p0612 N93-12977
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
SNECMA M88 engine development status
[ASME-90-GT-118] 06 p1448 N93-17849
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
The technological evolution of high thrust turbine engines
[DS-1881] 06 p1448 N93-17882
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
What is the progress in propulsion? 06 p1404 N93-19006
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI 06 p1417 N93-19326
Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459

Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Development of CPG dish-Stirling systems for remote power applications
[DE93-003251] 08 p2376 N93-22414
Conceptual design study of a variable cycle engine for a supersonic business jet
[ETN-93-93486] 08 p2130 N93-23371
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
A preliminary sizing method for unmanned aircraft using multi-variate optimisation 09 p2587 N93-25408
Design and performance of nozzle-less volute casings for inward flow radial turbines 09 p2593 N93-25471
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480
Evaluation of the Migrating Combustion Chamber (MCC) engine
[AD-A260780] 09 p2718 N93-25682
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Center for Advanced Propulsion Systems (fellowship)
[AD-A260571] 09 p2632 N93-26216
Enabler 1 and 2 engine system design modeling and comparisons 10 p2978 N93-26924
Clustered engine study 10 p2978 N93-26925
SNTP propellant management system 10 p2979 N93-26937
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase 10 p2922 N93-27186
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686
Experimental evaluation of a cooled radial-inflow turbine
[NASA-TM-106230] 11 p3251 N93-28697
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Advanced engine study program
[NASA-CR-187217] 11 p3287 N93-28946
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Aero-thermal design of a cooled transonic NGV and comparison with experimental results 11 p3257 N93-29957
The Thermionic Fuel Element Verification Program: Technical progress and future plans
[DE93-003797] 12 p3691 N93-31185
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

ENGINE FAILURE

Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
Real-time in-flight engine performance and health monitoring techniques for flight research application 04 p0795 N93-15169
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system 04 p0796 N93-15173
Experimental analysis of steady-state and dynamic monitoring of power shaft turbines 04 p0796 N93-15176
System for Anomaly and Failure Detection (SAFD) system development
[NASA-CR-184475] 06 p1552 N93-17856
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
Technology test bed engine real-time failure control
[NASA-CR-192414] 06 p1474 N93-18879

ENGINE INLETS

Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Test techniques for engine/airframe integration 03 p0577 N93-13200
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Flight analysis of air intake/engine compatibility 03 p0502 N93-13212
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods 03 p0592 N93-13953
Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel
[NASA-TM-105968] 04 p0781 N93-14911
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Comparison of performances of different circular intakes 05 p1067 N93-17616
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Instrumentation for in-flight acoustic measurements in an engine inlet duct of a Fokker 100 aircraft
[NLR-TP-91200-U] 12 p3680 N93-32332

ENGINE MONITORING INSTRUMENTS

Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
DAR-2: On-board data acquisition system for aircraft engines 04 p0795 N93-15166
Integrated engine control and monitoring with experiences derived from OLMOS 04 p0795 N93-15168
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system 04 p0796 N93-15172
A philosophy for integrated monitoring system design 04 p0796 N93-15174
Experimental analysis of steady-state and dynamic monitoring of power shaft turbines 04 p0796 N93-15176
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
The Galileo PPS expert monitoring and diagnostic prototype
[NASA-CR-191914] 07 p1828 N93-21823
Evaluation of advanced displays for engine monitoring and control
[NASA-CR-191418] 09 p2591 N93-24764
OPAD 1991 12 p3693 N93-31559
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230

ENGINE NOISE

Combat aircraft jet engine noise studies 01 p0150 N93-10679
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Combat aircraft noise reduction by technical measures 01 p0152 N93-10689
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft 01 p0152 N93-10690
Study results on combat aircraft source noise reduction 01 p0152 N93-10691
Reduction of propeller noise by active noise control 01 p0152 N93-10692
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Publications on acoustics research at the Langley Research Center, January 1987 - September 1992
[NASA-TM-107674] 02 p0435 N93-12080
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Air Force procedure for predicting noise around airbases: Noise exposure model (Noisemap)
[AD-A255769] 04 p0910 N93-14655
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Engine exhaust characteristics evaluation in support of aircraft acoustic testing
[NASA-TM-104263] 12 p3682 N93-32220

ENGINE PARTS

Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs 01 p0010 N93-10539
Neutron diffraction residual stress studies for aero-engine component applications
[PNR-90908] 02 p0334 N93-11014
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
The Trent family of engines
[PNR-90974] 02 p0211 N93-11063
Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
Ceramic Technology Project
[DE92-018748] 02 p0266 N93-11442
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
High temperature rectifiers and MOS devices in 6H-silicon carbide
[AD-A254725] 02 p0295 N93-12340
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Linear and nonlinear finite element analysis of laminated composite structures at high temperatures 03 p0623 N93-13009

Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel
[NASA-TM-105968] 04 p0781 N93-14911
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
Nonlinear analysis of Ariane 5 engine frame
[LR-678] 05 p1074 N93-16284
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Control of in-service damage: Application to aircraft engines
[DS-2027] 06 p1448 N93-18151
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
Damped vibration of engine valve train by recent transfer matrix and matrix procedures 07 p1933 N93-20665
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Design and performance of nozzle-less volute casings for inward flow radial turbines 09 p2593 N93-25471
Advanced bristle seals for gas turbine engines
[AD-A261296] 09 p2720 N93-26564
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903
An analysis of the correlation between the J52 engine component improvement program and improved maintenance parameters
[AD-A262062] 11 p3251 N93-28984
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane 11 p3253 N93-29930
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569
Constitutive and damage material modeling in a high pressure hydrogen environment 12 p3696 N93-31577
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580

ENGINE STARTERS
Engine management during NTRE start up 10 p2980 N93-26953

ENGINE TESTING LABORATORIES
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679
The USAF Advanced Turbine Aerothermal Research Rig (ATARR) 11 p3255 N93-29945

ENGINE TESTS
NT COLD FLOW TESTS
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code 02 p0247 N93-11450
A summary of the JANNAF workshop on diagnostics 02 p0248 N93-11451
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Flight analysis of air intake/engine compatibility 03 p0502 N93-13212
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
SNECMA M88 engine development status
[ASME-90-GT-118] 06 p1448 N93-17849
Identification and interpretation of patterns in rocket engine data
[NASA-CR-192100] 06 p1473 N93-18401
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
The MPD thruster program at JPL 06 p1666 N93-18638
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763
Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Stationary plasma thruster evaluation in Russia
[NASA-CR-192823] 09 p2859 N93-25206
SRB environment evaluation and analysis. Volume 3: ASRB plume induced environments
[NASA-CR-192519] 09 p2631 N93-26054
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
Facilities 10 p2954 N93-26963
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets 10 p2954 N93-26966
Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane 11 p3253 N93-29930
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings 12 p3681 N93-31742
Low cycle fatigue behaviour of titanium disc alloys 12 p3682 N93-31745
Conclusions and recommendations 12 p3682 N93-31749
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860

ENGINEERING
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
Awards: 1991 undergraduate course and curriculum development program
[NSF-92-45] 03 p0731 N93-13699
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
Science and engineering degrees: 1966-1990
[NSF-92-326] 03 p0731 N93-13701
Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195
Reliability, Maintainability, and Supportability (RMS) education in engineering schools
[AD-A258260] 06 p1552 N93-18026
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797

Research in stochastic processes and their applications
[AD-A260174] 08 p2473 N93-24317
Mathematics as technology: Mathematical engineering
[CWI-AM-R9202] 10 p3113 N93-27296
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-001] 11 p3274 N93-29014
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-004] 11 p3354 N93-29090
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 31: The information-seeking behavior of engineers
[NASA-TM-109224] 11 p3616 N93-30037
National Educators' Workshop. Update 92: Standard Experiments in Engineering Materials Science and Technology
[NASA-CP-3201] 11 p3290 N93-30948
Materials education activities
11 p3291 N93-30958

ENGINEERING DEVELOPMENT
U PRODUCT DEVELOPMENT

ENGINEERING DRAWINGS
Magnetic bearings for a high-performance optical disk buffer, volume 2
[NASA-CR-190874] 03 p0615 N93-13608
A method of representating dimensions and tolerances in solid based freeform surfaces
[PNR-90998] 04 p0951 N93-15386
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220

ENGINEERING MANAGEMENT
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
Automated support for experience-based software management 05 p1244 N93-17164
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990)
09 p2665 N93-24679
Spacecraft systems engineering: An introduction to the process at GSFC 09 p2665 N93-24683
The importance of cost considerations in the systems engineering process 09 p2666 N93-24686
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056
Onboard system health assessment
10 p2965 N93-27716
NASA Engineering and Technology Advancement Office: A proposal to the administrator
[NASA-TM-109229] 12 p3685 N93-31312

ENGINEERING TEST REACTORS
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006

ENGINEERS
Science and engineering degrees, by race/ethnicity of recipients: 1977-1990
[NSF-92-327] 03 p0729 N93-12694
Air Force engineering research initiation grants (1990-1991)
[AD-A255004] 03 p0774 N93-12706
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
Blacks in undergraduate science and engineering education
[NSF-92-305] 03 p0730 N93-13015
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Characteristics of recent science and engineering graduates: 1990. Detailed statistical tables
[NSF-92-316] 03 p0731 N93-13454
Highlights 92/2 03 p0775 N93-13474
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Modeling software systems by domains
05 p1248 N93-17506
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
Underrepresented groups 08 p2517 N93-23146
Pipeline issues 08 p2517 N93-23148
Focusing educational initiatives
08 p2517 N93-23150
Learning to meet the science and technology challenge
[PB93-139996] 08 p2520 N93-23680
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
Advanced network technology: Background paper
[OTA-BP-TCT-101] 11 p3539 N93-29650
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 31: The information-seeking behavior of engineers
[NASA-TM-109224] 11 p3616 N93-30037

ENGINES
NT ADVANCED SOLID ROCKET MOTOR (STS)
NT AIR BREATHING ENGINES
NT ARC JET ENGINES
NT BOOSTER ROCKET ENGINES
NT DIESEL ENGINES
NT DUCTED FAN ENGINES
NT DUCTED ROCKET ENGINES
NT ELECTRIC ROCKET ENGINES
NT FREE-PISTON ENGINES
NT GAS TURBINE ENGINES
NT HELICOPTER ENGINES
NT HYBRID PROPELLANT ROCKET ENGINES
NT HYDRAZINE ENGINES
NT HYDROGEN OXYGEN ENGINES
NT INTEGRAL ROCKET RAMJETS
NT INTERNAL COMBUSTION ENGINES
NT ION ENGINES
NT J-52 ENGINE
NT JET ENGINES
NT LIQUID PROPELLANT ROCKET ENGINES
NT NUCLEAR ENGINE FOR ROCKET VEHICLES
NT NUCLEAR ROCKET ENGINES
NT ORBIT MANEUVERING ENGINE (SPACE SHUTTLE)
NT OXYGEN-HYDROCARBON ROCKET ENGINES
NT PISTON ENGINES
NT PLASMA ENGINES
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT RESISTOJET ENGINES
NT REUSABLE ROCKET ENGINES
NT ROCKET ENGINES
NT SOLID PROPELLANT ROCKET ENGINES
NT SPACE SHUTTLE BOOSTERS
NT SPACE SHUTTLE MAIN ENGINE
NT STIRLING ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBINE ENGINES
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
NT UPPER STAGE ROCKET ENGINES
NT VARIABLE CYCLE ENGINES

ENGLISH CHANNEL
HMS Speedy: Seakeeping trials, 25 February to 1 March 1982
[ARE-AMTE(H)-R84117] 10 p3021 N93-27853

ENGLISH LANGUAGE
Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
Improving the quality of machine translations by providing stylistic guidelines to authors and editors
[AD-A258786] 06 p1687 N93-18977
The development of a natural language interface to a geographical information system
08 p2530 N93-22153

ENHANCEMENT
U AUGMENTATION

ENLARGING
U EXPANSION

ENO SCHEMES
U ESSENTIALLY NON-OSCILLATORY SCHEMES

ENRICHMENT
NT ISOTOPIC ENRICHMENT
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Stable isotope enrichment: Current and future potential
[DE92-041258] 05 p1326 N93-17368
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 2
[NASA-CR-188242-VOL-2] 09 p2914 N93-26070

ENSTROPHY
U VORTICITY

ENTHALPY
NT GIBBS FREE ENERGY
NT HEAT OF FORMATION
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
Thermodynamic data for fifty reference elements
[NASA-TP-3287] 07 p2084 N93-19977
Computational fluid dynamics for nuclear thermal propulsion 10 p2979 N93-26930
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571

ENTIRE FUNCTIONS
Quantum wormholes and harmonic oscillators
10 p3144 N93-27338

ENTOMOLOGY
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941

ENTRAINMENT
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018

ENTRAPMENT
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129

ENTROPY
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436

Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
Thermodynamic data for fifty reference elements
[NASA-TP-3287] 07 p2084 N93-19977
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Time-reversible Maxwell's demon
[AD-A260170] 08 p2460 N93-23709
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer 10 p2937 N93-27462
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747

ENTROPY (STATISTICS)
NT MAXIMUM ENTROPY METHOD
Self-growing neural network architecture using crisp and fuzzy entropy
[NASA-TM-105677] 06 p1553 N93-18422

ENVIRONMENT EFFECTS
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
Studies of the role of clouds in CO2-induced climate change
[DE92-018648] 02 p0353 N93-11569
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Tenth International Symposium on Environmental Biogeochemistry
[DE92-016200] 02 p0355 N93-11864
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Plutonium pyrophoricity
[RFP-4517] 04 p0845 N93-14723
Workshop on noninvasive geophysical site characterization
[LA-12311-C] 04 p0914 N93-14724
Environmental assessment: OMEGA upgrade project at the Laboratory for Laser Energetics, University of Rochester
[DE92-040410] 04 p0886 N93-14907
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory
[DE92-040316] 04 p1013 N93-15425
World energy: Building a sustainable future
[DE93-001598] 04 p0909 N93-15467
The Seventeenth Space Simulation Conference. Terrestrial Test for Space Success
[NASA-CP-3181] 04 p0819 N93-15593
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
C&RE-SLC: Database for conservation and renewable energy activities
[DE93-001929] 05 p1196 N93-16653
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Effects of the Mount Pinatubo eruption on the chemistry, radiative, and transport processes in the stratosphere
[DE93-001508] 05 p1203 N93-17211
Space environmental effects on polymers and composites 05 p1128 N93-17302
Lunar base activities and the lunar environment 05 p1398 N93-17455
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
S/EV 92 (Solar and Electric Vehicles): Proceedings, volume 1
[DE93-001501] 05 p1180 N93-17577
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
Transportation alternatives 92: Alternative fueled vehicles, volume 2
[DE93-001500] 06 p1548 N93-18531
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
Space environment model construction technology 07 p1795 N93-20450
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Review on parts test data analyzing system 07 p1800 N93-20480
Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants 07 p1839 N93-21164
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Remote sensing: Environmental effects of surface films
[AD-A258571] 07 p1980 N93-21754
The Finnish research programme on climate change
[DE93-752870] 08 p2383 N93-22597
Atmospheric Sciences Program
[DE93-004891] 08 p2383 N93-22767
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
GeoEnvironment Carpathes project 08 p2368 N93-23816
Chlorotrifluoroethylene decay in the atmosphere: Controlled-environment chamber studies
[AD-A259902] 08 p2388 N93-23989
The 111th Meeting for Research of Safety Engineering
[DE93-753679] 08 p2388 N93-24046
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
Aircraft overflight study: Effect of aircraft altitude upon sound levels at the ground
[PB93-144194] 08 p2477 N93-24572
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
Application of remote sensing data for the investigation of environmental degradation sites in East Germany 09 p2739 N93-24785
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques 09 p2746 N93-24823
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
Incorporating biodiversity considerations into environmental impact analysis under the National Environmental Policy Act
[PB93-139806] 09 p2766 N93-25878
Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations
[RAND/N-3464-AF] 09 p2767 N93-26327
Response and feedbacks of forest ecosystems to global climate change
[PB93-167252] 09 p2767 N93-26510
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Chemical analyses of provided samples
[NASA-CR-193211] 10 p2993 N93-27077
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Bibliography of the Maryland Power Plant Research Program, fourteenth edition
[PB93-174241] 10 p3068 N93-27404
Southern global change program. Determining the relationships between air pollutants, climate change, and southern forests
[PB93-176246] 10 p3069 N93-27410
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
LDEF: 69 Months in Space. Part 3: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-3] 10 p3219 N93-28254
LDEF materials overview 10 p2997 N93-28255
Oxygen isotopes implanted in the LDEF spacecraft 10 p2997 N93-28256
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
A study of the UV and VUV degradation of FEP 10 p3007 N93-28261
Evaluation of seals, lubricants, and adhesives used on LDEF 10 p3007 N93-28275
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Selected results for LDEF thermal control coatings 10 p3008 N93-28279

Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
Low Earth orbital mission aboard the Space Test Experiments Platform (STEP-3)
11 p3267 N93-28732
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
State of the art: Ecological biomarkers
[DE93-006621] 11 p3469 N93-28992
Proposal to develop guides for high school teachers on global systems science
[DE93-008759] 11 p3624 N93-29100
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF
11 p3583 N93-29699
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
Simulation of landscape disturbances and the effect of climatic change
[DE93-011615] 11 p3472 N93-30131
VLF/LF propagation measurements
11 p3395 N93-30732
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 2
[PB93-174811] 12 p3748 N93-31105
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925
Effects of air traffic on nature and environment in the neighborhood of airports by example of the Munich 2 Airport (Germany) 12 p3753 N93-31932
Survey on global environmental effects of petroleum substitution energy utilization
[DE93-768475] 12 p3754 N93-32040
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

ENVIRONMENT MANAGEMENT

Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
The formal use of expert judgments in environmental management
[DE92-019481] 05 p1199 N93-15852
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
Environmental Review Guide for Operations (ERGO)
[AD-A256922] 05 p1202 N93-16502
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Bibliographic study of georadar principles, applications, advantages, and inconvenience
[CR-35/91] 06 p1509 N93-18993
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Enforcement in the 1990's project: Recommendations of the analytical workgroups
[PB92-224286] 07 p1991 N93-21466
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Investigation of the applicability of remote sensing techniques for ecological water quality evaluation
[BCRS-91-37] 08 p2342 N93-23106
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management
08 p2367 N93-23813
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166
Vegetation mapping for environment management and monitoring
[ETN-93-93466] 12 p3747 N93-32342
A new view of the sea
[ETN-93-93469] 12 p3747 N93-32345

ENVIRONMENT MODELS

Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
Spatial models of ecological systems and processes: The role of GIS
[DE92-016884] 01 p0175 N93-10788
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
Integration of vegetation indices and thermal measurements for ecosystem modeling
03 p0646 N93-13721
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas
04 p0909 N93-14118
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790
Interactive access and management for four-dimensional environmental data sets using McIDAS
07 p1965 N93-20070
Space environment model construction technology
07 p1795 N93-20450
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM
08 p2354 N93-23573
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
EnviroNET 09 p2886 N93-26398
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
GRAMI: A crop growth model that can use remotely sensed information
[PB93-162014] 10 p3062 N93-27053
Handbook for the USAF space environment standard (MIL-STD-1809)
[AD-A262799] 10 p3074 N93-28379
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets
11 p3638 N93-29358
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626

A measurement of the radiation dose to LDEF by passive dosimetry 11 p3572 N93-29634
Environmental studies: Mathematical, computational and statistical analyses
[AD-A264223] 11 p3473 N93-30360

ENVIRONMENT POLLUTION
NT AIR POLLUTION
NT GLOBAL AIR POLLUTION
NT INDOOR AIR POLLUTION
NT OIL POLLUTION
NT WATER POLLUTION

Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Field screening for environmental pollutants: Defining user instrumentation needs
[PB93-117885] 07 p1993 N93-21791
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 08 p2137 N93-22237
The Finnish research programme on climate change
[DE93-752870] 08 p2383 N93-22597
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Innovative treatment technologies
[PB93-133387] 08 p2386 N93-23277
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Proceedings of the 15th Annual EPA Conference on Analysis of Pollutants in the Environment
[PB93-152601] 08 p2388 N93-23681
The 111th Meeting for Research of Safety Engineering
[DE93-753679] 08 p2388 N93-24046
Use of high-energy radiation for degradation of environmental pollutants
[PB93-149995] 08 p2390 N93-24636
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods 09 p2741 N93-24798
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 1: Workshop objectives and summary
[NASA-RP-1292-VOL-1] 09 p2762 N93-25157
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 2: Comparisons with global atmospheric measurements
[NASA-RP-1292-VOL-2] 09 p2762 N93-25158
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 3: Special diagnostic studies
[NASA-RP-1292-VOL-3] 09 p2762 N93-25159
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Using a neural network to estimate solvent consumption
[PB93-173110] 11 p3467 N93-28873
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
State of the art: Ecological biomarkers
[DE93-006621] 11 p3469 N93-28992
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996
The ecological balance of Swissair: An example of waste management 12 p3753 N93-31930
Effects of air traffic on nature and environment in the neighborhood of airports by example of the Munich 2 Airport (Germany) 12 p3753 N93-31932
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils
[PB93-172948] 12 p3715 N93-32408

ENVIRONMENT PROTECTION
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Environmental Review Guide for Operations (ERGO)
[AD-A256922] 05 p1202 N93-16502
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
Global Change Research Program: A component of the US Global Change Research Program. 1993 research opportunities
[NSF-92-77] 06 p1572 N93-18319
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Intelligent processing equipment within the Environmental Protection Agency
[PB92-217330] 07 p1989 N93-21011
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
State air pollution control programs: A profile report
[PB93-122364] 07 p1990 N93-21216
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Preserving our future today: Your guide to the United States Environmental Protection Agency
[PB92-226190] 07 p1990 N93-21345
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Enforcement in the 1990's project: Recommendations of the analytical workgroups
[PB92-224286] 07 p1991 N93-21466
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Summary report for the National Atmospheric Deposition Program National Trends Network (NADP/NTN) site visitation program
[PB92-219823] 07 p1991 N93-21494
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Access EPA
[PB92-147438] 07 p1994 N93-21811
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
Summary of activities of the Life Cycle Costing Workshop conducted by the Environmental Restoration Program of Oak Ridge National Laboratory
[DE93-000823] 08 p2531 N93-22935
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Innovative treatment technologies
[PB93-133387] 08 p2386 N93-23277
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Review of EPA's Environmental Monitoring and Assessment Program (EMAP)
[PB93-146348] 08 p2387 N93-23441
Satellite navigation in agriculture 08 p2124 N93-23528
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
Proceedings of the 15th Annual EPA Conference on Analysis of Pollutants in the Environment
[PB93-152601] 08 p2388 N93-23681
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods 09 p2741 N93-24798
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765
Glossary of environmental terms and acronym list
[PB93-158004] 09 p2765 N93-25851
Development of a heuristic knowledge base for the selection of applicable or relevant and appropriate environmental requirements
[AD-A261038] 09 p2765 N93-25864
Incorporating biodiversity considerations into environmental impact analysis under the National Environmental Policy Act
[PB93-139806] 09 p2766 N93-25878
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315

Emissions and fuel economy of Federal alternatively fueled fleet vehicles
[PB93-167195] 10 p3067 N93-26622
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617
Future space activities: How can a baby having grown up too much in a cradle be dealt with?
10 p2948 N93-28015
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Pollution prevention: A regulatory update
[DE93-009727] 11 p3472 N93-30180
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Environmental studies: Mathematical, computational and statistical analyses
[AD-A264223] 11 p3473 N93-30360
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113
Environment and safety research
[PB93-188860] 12 p3751 N93-31142
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
Preliminary study on costs needed for solution of the global environmental problem
[DE93-768474] 12 p3754 N93-32039
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

ENVIRONMENT SIMULATION
NT ACOUSTIC SIMULATION
NT NEUTRAL BUOYANCY SIMULATION
NT SPACE ENVIRONMENT SIMULATION
NT THERMAL SIMULATION
NT WEIGHTLESSNESS SIMULATION
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Low Earth orbit atomic oxygen simulation for durability evaluation of solar reflector surfaces
04 p0819 N93-15594
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Virtual reality systems 05 p1232 N93-16775
Space environment model construction technology
07 p1795 N93-20450
Environmental assessment for the brilliant pebbles tether test at the Nevada test site
[DE93-003869] 07 p1952 N93-21839
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Chlorotrifluoroethylene decay in the atmosphere: Controlled-environment chamber studies
[AD-A259902] 08 p2388 N93-23989
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266

ENVIRONMENT SIMULATORS
NT SOLAR SIMULATORS
NT SPACE SIMULATORS
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements
[NASA-CR-192518] 09 p2631 N93-26057

ENVIRONMENTAL CHAMBERS
U TEST CHAMBERS

ENVIRONMENTAL CHEMISTRY
NT AEROTHERMOCHEMISTRY
NT ATMOSPHERIC CHEMISTRY
NT BIOGEOCHEMISTRY
NT GEOCHEMISTRY
NT MARINE CHEMISTRY
Measuring variation in ecosystem sensitivity to stress
[AD-A259521] 08 p2387 N93-23450
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 1: Workshop objectives and summary
[NASA-RP-1292-VOL-1] 09 p2762 N93-25157
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 2: Comparisons with global atmospheric measurements
[NASA-RP-1292-VOL-2] 09 p2762 N93-25158
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 3: Special diagnostic studies
[NASA-RP-1292-VOL-3] 09 p2762 N93-25159

ENVIRONMENTAL CONTROL
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Distributed environmental control
02 p0391 N93-11924
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
ECLSS evolution: Advanced instrumentation interface requirements. Volume 3: Appendix C
[NASA-CR-184367] 03 p0678 N93-12990
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
The environmental control and life-support system for a lunar base: What drives its design
03 p0680 N93-13991
Life systems for a lunar base
03 p0680 N93-13992
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
UPT scenarios: Implications for system reliability
05 p1182 N93-17332
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Space Station ECLSS integration analysis
[NASA-CR-192470] 07 p2027 N93-22002
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Zero-G life support for Space Station Freedom
08 p2189 N93-22640
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Environmental control and life support system
10 p2965 N93-27718
Environmental control and life support system evolution 10 p2965 N93-27719
Technologies for ECLSS evolution
10 p2965 N93-27720
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
JSC ECLSS R/T program overview
10 p2966 N93-27725
Space Station fluid resupply 10 p2967 N93-27797
Environmental control and life support systems
10 p2972 N93-27858
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Dust protection for environmental control and life support systems in the lunar environment
10 p3089 N93-27979
Manned lunar surface site 10 p2951 N93-28033
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
Atmospheric control systems
12 p3689 N93-31456
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Microbiological and corrosion analysis of three urine pretreatment regimes with titanium 6A1-4V
[NASA-CR-192575] 12 p3783 N93-32356

ENVIRONMENTAL ENGINEERING
A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications
09 p2693 N93-25052
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882

ENVIRONMENTAL INDEX
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301

ENVIRONMENTAL MONITORING
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Climate Monitoring and Diagnostics Laboratory
[PB92-162346] 01 p0105 N93-10772
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Technology development for lunar base water recycling 03 p0680 N93-13999
Earth environment space initiative
04 p0811 N93-14953
Data acquisition for low-temperature geothermal well tests and long-term monitoring
[DE93-000387] 05 p1193 N93-15669
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712

Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271
International Space Year in China
07 p1975 N93-21272
Status of remote sensing and Geographic Information System (GIS) applications in the Environment and Natural Resources (ENR) sector 07 p1976 N93-21279
Russian space system for the Earth remote sensing
07 p1977 N93-21280
Sun-synchronous and geo-synchronous satellite data utilization for environmental studies
07 p1977 N93-21281
Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286
The global climate system. Climate system monitoring
07 p2014 N93-21450
Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539
Principles and application tendency of remote sensing: Its principle, function, and utilization
07 p1978 N93-21540
Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541
Study for natural environment in Okinawa Islands by using remote sensing 07 p1978 N93-21542
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119
Laser disc for Earth environment data set
08 p2338 N93-22142
Environmental data sets in Canada
08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
Environmental data set in Thailand
08 p2338 N93-22145
Environmental data sets at the University of Alaska
08 p2338 N93-22146
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472
Gas-Grain Simulation Facility (GGSF)
08 p2186 N93-22626
Crew health 08 p2187 N93-22630
Dual use of distributed remote sensing satellites
[DE93-005442] 08 p2193 N93-22906
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Review of EPA's Environmental Monitoring and Assessment Program (EMAP)
[PB93-146348] 08 p2387 N93-23441
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept
08 p2344 N93-23512
System design for ARTEMIS environmental monitoring
08 p2349 N93-23545
Image treatment and geographical information systems at the service of the Common Agricultural Policy
08 p2351 N93-23555
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia
08 p2352 N93-23561
Integration of remote sensing and GIS data for a multiscale study of the Po river basin
08 p2353 N93-23570
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques
08 p2355 N93-23578
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques
08 p2355 N93-23581
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
A strategy for monitoring the tropical forest with ERS-1 SAR imagery 08 p2358 N93-23758
German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential
08 p2362 N93-23780
Usage of small-sized aerospace plane in the infrastructure of space research of the Earth
08 p2362 N93-23781
Priroda project: Optical sensors for environment research 08 p2362 N93-23782
Broadband imaging spectrometer technology and its use potential for environmental change mission
08 p2364 N93-23791
The International Space Year programme
08 p2366 N93-23803
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management
08 p2367 N93-23813
GeoEnvironment Carpathes project
08 p2368 N93-23816
Results of international meeting held in Tunis (Tunisia)
08 p2368 N93-23818
Study of the cultivated land losses around Tunis
08 p2368 N93-23819
GEOSCOPE: An interactive global change encyclopedia 08 p2370 N93-23833
Integrated global environmental (global change) data activities support researchers and educators
08 p2370 N93-23834
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061
Ocean governance: A new vision
[PB93-136299] 08 p2416 N93-24144
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
Final report on the first step in distributed remote sensing
[DE93-007936] 08 p2375 N93-24520
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Satellite remote sensing for environmental geology: The Bandung (West Java) experience
09 p2739 N93-24784
Application of remote sensing data for the investigation of environmental degradation sites in East Germany
09 p2739 N93-24785
Application of remote sensing to environmental monitoring in Poland 09 p2739 N93-24786
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus
09 p2741 N93-24793
Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods
09 p2741 N93-24798
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data
09 p2742 N93-24801
Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation
09 p2743 N93-24805
Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries 09 p2743 N93-24808
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
Remote sensing geology 09 p2744 N93-24815
NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824
SEOMAR: An Italian approach to the observation of the Mediterranean area 09 p2746 N93-24825
The extent and status of mangroves in Mombasa district, Kenya: A case study based on remote sensing
09 p2746 N93-24826
Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data
[ED-659-CP] 09 p2746 N93-24829
Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques 09 p2747 N93-24831
Hel's peninsula coastal zone changes in the last 40 years on a base of remote sensing methods
09 p2747 N93-24832
Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834
Coastal environmental mapping using Landsat data
[ED-658-CP] 09 p2747 N93-24835
World Forest Watch: A global forest monitoring test
09 p2748 N93-24836
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842
Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846
Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848
Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS
09 p2751 N93-24855
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Current trends in satellite data supply for environmental monitoring 09 p2754 N93-24874
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892
AQUIS: A PC-based air inventory and permit manager
[DE93-003006] 09 p2761 N93-25143
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Commercial applications multispectral sensor system
09 p2758 N93-25615
Glossary of environmental terms and acronym list
[PB93-158004] 09 p2765 N93-25851
Quality control: Variability in protocols
[PB93-157790] 09 p2766 N93-25876
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
Statistical inference procedures for probability selection functions in long-term monitoring programs
[PB93-163012] 10 p3123 N93-26631
EMAP monitor: February 1993 edition
[PB93-163020] 10 p3067 N93-26632
Midcourse Space Experiment (MSX) environmental assessment
[AD-A262460] 10 p3127 N93-27830
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185

GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
Orbital Debris Environment Monitor (ODEM) 11 p3267 N93-28735
Lightweight modular instrumentation for planetary applications 11 p3286 N93-28787
Environmental monitors in the Midcourse Space Experiments (MSX) 11 p3286 N93-28826
Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Advanced Earth Observing Satellite (ADEOS) 11 p3279 N93-29648
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
Case study of Frontal Boundary Study Mission 03
[DE93-007176] 11 p3473 N93-30183
Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823
Planning and progress of EPA's pollution prevention research program
[PB93-185767] 11 p3475 N93-30831
Office of Water Environmental and Program Information Systems Compendium, FY 1992
[PB93-186203] 11 p3462 N93-30833
Rapid instrumental and separation methods for monitoring radionuclides in food and environmental samples
[DE93-608744] 12 p3820 N93-31813
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators
[PB93-191393] 12 p3754 N93-32088

ENVIRONMENTAL QUALITY
NT AIR QUALITY
NT WATER QUALITY
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
Environmental Quality Information Analysis Center (EQIAC) operating procedures handbook
[DE92-041391] 05 p1201 N93-16271
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
Environmental Quality Information Analysis Center multi-year plan
[DE92-040850] 05 p1204 N93-17352
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Enabling document for regulations governing compliance extensions for early reductions of hazardous air pollutants
[PB93-147007] 08 p2390 N93-24584
Use of high-energy radiation for degradation of environmental pollutants
[PB93-149995] 08 p2390 N93-24636
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Trend survey on the elucidation of the global warming mechanism by the governments of major industrialized nations
[DE93-776427] 11 p3470 N93-29672

ENVIRONMENTAL SURVEYS
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Enforcement in the 1990's project: Recommendations of the analytical workgroups
[PB92-224286] 07 p1991 N93-21466
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Incorporating biodiversity considerations into environmental impact analysis under the National Environmental Policy Act
[PB93-139806] 09 p2766 N93-25878
Mars exploration planning 09 p2898 N93-26399
EMAP monitor: February 1993 edition
[PB93-163020] 10 p3067 N93-26632
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Trend survey of the global environment adaptation type industry technology
[DE93-781442] 10 p3066 N93-28435
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823
The ecological balance of Swissair: An example of waste management 12 p3753 N93-31930
Survey on global environmental effects of petroleum substitution energy utilization
[DE93-768475] 12 p3754 N93-32040

ENVIRONMENTAL TEMPERATURE
U AMBIENT TEMPERATURE

ENVIRONMENTAL TESTS
NT COLD WEATHER TESTS
NT CORROSION TESTS
NT HIGH TEMPERATURE TESTS
NT NEUTRAL BUOYANCY SIMULATION
NT SALT SPRAY TESTS
NT UNDERWATER TESTS
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Some results of the oxidation investigation of copper and silver samples flown on LDEF 01 p0034 N93-10580
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Effect of space exposure on pyroelectric infrared detectors 01 p0038 N93-10582
Long Duration Exposure Facility (LDEF) optical systems SIG summary and database 01 p0038 N93-10583
Polymer matrix composites on LDEF experiments M0003-9 and M0003-10 01 p0038 N93-10584
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF 02 p0270 N93-11994
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
LDEF materials: An overview of the interim findings 03 p0546 N93-12770
LDEF atomic oxygen fluence update 03 p0546 N93-12771
Surface contamination on LDEF exposed materials 03 p0547 N93-12776
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum 03 p0544 N93-12779
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment 03 p0548 N93-12782
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Recession of FEP specimens from trays D11 and B7 03 p0549 N93-12786
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
An environmental testing facility for Space Station Freedom power management and distribution hardware 04 p0820 N93-15601
Acoustic and thermal testing of the Titan/Centaur upper stage 04 p0814 N93-15621
Overview of environmental test plans for Space Station Freedom work package 4 04 p0824 N93-15623
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
HISPASAT DBS reflector: Mechanical analysis-environmental test correlation 05 p1081 N93-15751
Environmental tailoring: A major perspective for mechanical testing for future space projects 05 p1086 N93-15787
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
Improvement of LC feedthrough filters 07 p1797 N93-20458
Review on parts test data analyzing system 07 p1800 N93-20480
Industrial IC evaluation test: 256 kbit EEPROM 07 p1800 N93-20481
The LDEF experience. Materials 07 p1847 N93-20811
Protection of composite materials in space. The LDEF experience 07 p1847 N93-20812
Issues/considerations and performance prediction of LEO protective coatings 07 p1847 N93-20813
Recommended practices for in-space and ground laboratory. Atomic oxygen exposure and analysis 07 p1848 N93-20814
An overview of space qualification requirements for new materials 07 p1830 N93-20815
Space station protective coating development 07 p1848 N93-20816
Materials Exposure in Low Earth Orbit (MELEO) experiment 07 p1848 N93-20817
LEO resistant thermal control materials and dry lubricants for the mobile servicing system 07 p1848 N93-20818
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings 07 p1849 N93-20821
Multipurpose protective coatings for spacecraft applications 07 p1849 N93-20822
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Spacecraft materials and coatings experiments 08 p2189 N93-22637
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638

Star tracker operation in a high density proton field
09 p2600 N93-24699
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

ENVIRONMENTS
NT AEROSPACE ENVIRONMENTS
NT CHROMOSPHERE
NT CISLUNAR SPACE
NT DEEP SPACE
NT EARTH ENVIRONMENT
NT EARTH MAGNETOSPHERE
NT EARTH ORBITAL ENVIRONMENTS
NT EXTRATERRESTRIAL ENVIRONMENTS
NT FRICTIONLESS ENVIRONMENTS
NT GEOMAGNETIC TAIL
NT HIGH ALTITUDE ENVIRONMENTS
NT HIGH TEMPERATURE ENVIRONMENTS
NT ICE ENVIRONMENTS
NT INNER RADIATION BELT
NT INTERPLANETARY SPACE
NT INTERSTELLAR SPACE
NT JUPITER ATMOSPHERE
NT LOW TEMPERATURE ENVIRONMENTS
NT LUNAR ATMOSPHERE
NT LUNAR ENVIRONMENT
NT MAGNETOPAUSE
NT MAGNETOSHEATH
NT MARINE ENVIRONMENTS
NT MARS ATMOSPHERE
NT MARS ENVIRONMENT
NT MIDLATITUDE ATMOSPHERE
NT NEPTUNE ATMOSPHERE
NT PLANETARY ATMOSPHERES
NT PLANETARY ENVIRONMENTS
NT PLANETARY IONOSPHERES
NT PLANETARY MAGNETOSPHERES
NT PLANETARY MAGNETOTAILS
NT ROTATING ENVIRONMENTS
NT SATELLITE ATMOSPHERES
NT SATURN ATMOSPHERE
NT SOLAR ATMOSPHERE
NT SPACECRAFT ENVIRONMENTS
NT STELLAR ATMOSPHERES
NT THERMAL ENVIRONMENTS
NT URANUS ATMOSPHERE
NT VENUS ATMOSPHERE
NT VENUS CLOUDS
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089

ENZYME ACTIVITY
NT FERMENTATION
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651

ENZYMES
NT CARBONIC ANHYDRASE
NT CYTOCHROMES
NT LYSOZYME
NT OXIDASE
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768
Complement proteins and decompression sickness susceptibility
[AD-A254448] 03 p0674 N93-12905
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB] 08 p2216 N93-22036
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104
Measuring the metastatic potential of cancer cells 09 p2794 N93-25566
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Introductions to the Proceedings of the Fourteenth Symposium on Biotechnology for Fuels and Chemicals
[DE93-006235] 11 p3490 N93-28890
Center of Excellence in Biotechnology (Research)
[AD-A263598] 11 p3491 N93-29915

EOR (RENDEZVOUS)
U EARTH ORBITAL RENDEZVOUS

EOS
U LANDSAT SATELLITES

EOSINOPHILS
Allergic and nonallergic rhinitis in Greek pilots
02 p0383 N93-11317

EPHEMERIDES
NT PLANET EPHEMERIDES
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
The CRRES Microelectronics Package (MEP) data processing system
[AD-A256709] 05 p1145 N93-16168
A candidate for the parent body of the Taurid complex and its search ephemeris 06 p1721 N93-19271
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters 09 p2676 N93-26106
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801

EPHEMERIS TIME
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335

EPIDEMIOLOGY
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Viral hepatitis in the US Air Force, 1980 - 1989 02 p0377 N93-11287
Hepatitis A and Hepatitis B: Risks compared to other vaccine preventable diseases and immunization recommendations 02 p0377 N93-11288
Vaccination against Hepatitis B: The Italian strategy 02 p0377 N93-11289
HIV infection in the nineties 02 p0377 N93-11290
AIDS/HIV in the US Military 02 p0377 N93-11291
HIV variability and perspectives of a vaccine 02 p0378 N93-11294
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine 02 p0382 N93-11311
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Density equalizing map projections: A new algorithm
[DE92-017088] 02 p0413 N93-12110
Epidemiologic research in Antarctica 05 p1221 N93-16800
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Epidemiology of United States Air Force spatial disorientation accidents: 1990-1991 06 p1425 N93-19679
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214
The saturating contact rate in marriage- and epidemic models
[CWI-AM-R9203] 10 p3124 N93-27297
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
Cardiovascular risk factors in an Italian Air Force population: Preliminary report 12 p3775 N93-32252

EPILEPSY
Automatic detection of seizures with applications 09 p2796 N93-25592

EPINEPHRINE
NT NOREPINEPHRINE

EPITAXY
NT ELECTROEPITAXY
NT LIQUID PHASE EPITAXY
NT MOLECULAR BEAM EPITAXY
NT VAPOR PHASE EPITAXY
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Scanning tunneling microscopy of semiconductor surfaces
[AD-A246853] 01 p0168 N93-10726
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Silicon on insulator structures in selective epitaxial growth
[DE92-017118] 02 p0465 N93-11915
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184

Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition
03 p0726 N93-13904
Novel engineered compound semiconductor heterostructures for advanced electronics applications
[AD-A255363] 04 p0866 N93-14562
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU]
04 p0994 N93-15151
Growth, characterization and device development in monocrystalline diamond films
[AD-A256283] 04 p0994 N93-15244
Heteroepitaxial diamond growth
[AD-A257356] 05 p1317 N93-16175
ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling
[DE93-000607] 05 p1319 N93-16278
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Heteroepitaxial diamond growth
[AD-A257510] 06 p1671 N93-18079
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
Atomic and electronic structure of ultrathin films
07 p2078 N93-20287
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
Applications of TEM to interface in materials
[DE93-004776] 08 p2501 N93-22492
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
[AD-A259616] 08 p2510 N93-24126
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Diamond homoepitaxy by chemical vapor deposition
[AD-A260551] 08 p2512 N93-24281
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
Crystallization of nanocomposite glasses made by the SSG process
[AD-A262892] 11 p3333 N93-29511
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O
[DE93-010430] 11 p3596 N93-29868
Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
Progress toward atomic layer epitaxy of diamond using radical chemistry
[AD-A265409] 12 p3829 N93-32045
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

EPITHELIUM
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
Explosives search dogs 07 p1776 N93-21933

EPOCHS
U TIME MEASUREMENT

EPOXIDATION
Surface epoxidation of elastomers
[AD-D015457] 05 p1123 N93-16436

EPOXIDES
U EPOXY COMPOUNDS

EPOXY COMPOUNDS
Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183

EPOXY MATRIX COMPOSITES
NT BORON-EPOXY COMPOSITES
Additional results on space environmental effects on polymer matrix composites: Experiment A0180
01 p0038 N93-10586
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials
[NASA-TM-104222] 03 p0532 N93-13428
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
Vibration damping response of composite materials
03 p0533 N93-13748
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
04 p0819 N93-15597
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites
07 p1836 N93-21146
GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations
07 p1841 N93-21513
Buckling and post-buckling behavior of a delamination in a carbon-epoxy laminated structure: Experiments and modelling 07 p1841 N93-21514
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning
07 p1843 N93-21528
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate
[VTT-PUBS-105] 08 p2208 N93-22815
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181
The design of mechanically compatible fasteners for human mandible reconstruction
09 p2796 N93-25569
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
In-process cure monitoring of composites via fiber-optic fluorescence
[AD-A261712] 09 p2641 N93-26580
Cosmology with liquid mirror telescopes
10 p3171 N93-26708
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials
11 p3303 N93-30845
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines
[DLR-FB-92-17] 12 p3700 N93-31461

EPOXY RESINS
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745
Characteristics of the Nova laser disk edge cladding epoxy
[DE92-041046] 04 p0853 N93-15462
Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure 05 p1084 N93-15775
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Dielectric and dynamic mechanical properties of ATBN-containing thermosets
[DREA-CR-91-444] 08 p2239 N93-23725
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry
[AD-A260794] 09 p2639 N93-25918
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506
Comparison of impact results for several polymeric composites over a wide range of low impact velocities 11 p3304 N93-30848
Delaminations in composite plates under impact loads 11 p3304 N93-30849
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Sealed acoustical element using conductive epoxy
[AD-D015736] 12 p3730 N93-32208
Epoxy self-priming topcoats
[AD-D015737] 12 p3711 N93-32209

EQUATIONS
A consistent cracked bar vibration theory 02 p0339 N93-12000

EQUATIONS OF MOTION
NT EULER EQUATIONS OF MOTION
NT EULER-LAGRANGE EQUATION
NT HYDRODYNAMIC EQUATIONS
NT KINEMATIC EQUATIONS
NT KINETIC EQUATIONS
NT NAVIER-STOKES EQUATION
NT REYNOLDS EQUATION
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884
Position and vibration control of flexible space robots 04 p0892 N93-15102
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
Turbulent fluid motion IV-averages, Reynolds decomposition, and the closure problem
[NASA-TM-105822] 04 p0880 N93-15585
Equations of motion of multibody systems in the ESA-MIDAS software 05 p1084 N93-15772
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
Solitons on domain walls
[PREPRINT-876] 05 p1289 N93-16980
Stiffnesses by (TtN) ensemble molecular dynamics 05 p1274 N93-17331
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
On the information contained in the motion field of lines and the cooperation between motion and stereo
[INRIA-RR-1453] 06 p1537 N93-18647
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Flexible rotorcraft system dynamics with time-variant contact conditions 06 p1441 N93-19034
An approximate solution for the linearized spinup dynamics of a dual-spin spacecraft
[AD-A258903] 06 p1470 N93-19350
Dynamic analysis of a variable-mass multibody system 07 p1934 N93-20671
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Operator-assisted planning and execution of proximity operations subject to operational constraints 07 p1817 N93-21436
IMP: A performance code 08 p2139 N93-22245
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
Motion of charged particles in pulsar magnetospheres 08 p2550 N93-24161
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
The dynamics and control of large flexible asymmetric spacecraft 09 p2617 N93-25525
Kane's dynamics 10 p2926 N93-27211
Spinning particles in Schwarzschild space-time
[NIKHEF-H/92-09] 10 p3156 N93-27511
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
Visualization techniques for analyzing control of human movement: Affine mappings between multi-dimensional spaces 11 p3508 N93-30204
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
A closed-form formula for the manipulator regressor 11 p3355 N93-30218
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Electric magnetic duality in string theory
[DE93-606061] 11 p3606 N93-30807
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028
Radiation reaction for the classical relativistic spinning particle in scalar, tensor and linearized gravitational fields
[DE93-608191] 12 p3757 N93-31304
Evolution and oscillations of coronal loops 12 p3876 N93-31395
On the dynamics of aeroelastic oscillators with one degree of freedom
[REPT-92-96] 12 p3815 N93-31653
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335

EQUATIONS OF STATE
Calculation of elastic-plastic wave propagation on the connection machine
[AD-A252429] 01 p0095 N93-10427
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Model atmospheres for low temperature, helium-rich white dwarfs: Problems with the equation of state 08 p2546 N93-23065
Neutron stars, strange stars, and the nuclear equation of state
[DE93-004704] 08 p2550 N93-23952
Calibrating the BKW-EOS with a large product species data base and measured C-J properties
[DE93-007606] 10 p3008 N93-28151

Composition dependence of fluid thermophysical properties: Theory and modeling
[DE93-011119] 10 p2996 N93-28352
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747
Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768
SESAME equation of state number 8010: Boron loaded silicone potting material
[DE93-012083] 11 p3300 N93-30395
Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Covariant description of the delta in nuclear matter
[KVI-951] 12 p3817 N93-31149

EQUATORIAL ATMOSPHERE
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere
04 p1037 N93-14351
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
Global zones of particle precipitation as observed by EXOS-C
[AD-A256397] 04 p0917 N93-15466
The dependence of pulsating auroral events on energetic electrons and cold plasma near the equatorial plane
[DE93-000856] 05 p1376 N93-17384
On the hierarchy of processes contributing to equatorial spread F 08 p2395 N93-23595

EQUATORIAL REGIONS
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory
04 p0920 N93-14213
Modeling orbital changes on tectonic time scales
06 p1581 N93-18971
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
A comparison of trans-equatorial ionosphere propagation predictions from AMBCOM with measured data
[AD-A264006] 11 p3391 N93-29987

EQUATORS
NT MAGNETIC EQUATOR

EQUILIBRIUM
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864

EQUILIBRIUM DIAGRAMS
U PHASE DIAGRAMS

EQUILIBRIUM EQUATIONS
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures
03 p0770 N93-13476
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
The rate form of equilibrium equation for problems of steady-state, elastic, viscous flows
09 p2704 N93-25708
Analysing E(sub k)/E(sub r)/c queues
[MEMO-COSOR-92-27] 10 p3127 N93-27396
The compensation approach applied to a 2 by 2 switch
[MEMO-COSOR-92-28] 10 p3115 N93-27397
Quantum non-demolition measurements and generalized states at thermal equilibrium
[SSCL-PREPRINT-743] 10 p3158 N93-28386
A normally elliptic Hamiltonian bifurcation
[W-9201] 11 p3548 N93-28753
Thermal profiles of coronal loops: Gravitational considerations 12 p3873 N93-31381
Fast computation of magnetohydrostatic equilibria using Euler potentials and multigrid methods
12 p3877 N93-31401
A normally elliptic Hamiltonian bifurcation
[W-9214] 12 p3807 N93-31623

EQUILIBRIUM FLOW
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
Development of a second generation spray combustion code 09 p2626 N93-26016

EQUILIBRIUM METHODS
A reappraisal of compound equilibrium finite elements
01 p0063 N93-10561
Structural design using equilibrium programming
[NASA-TM-107593] 02 p0339 N93-12005

EQUIPARTITION THEOREM
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
Static galactic halo and galactic wind
10 p3198 N93-26662

EQUIPMENT
Conceptual design of a human piloted mining mission
03 p0514 N93-13552
Mining equipment and operations for mining the 1982HR (Orpheus) asteroid 03 p0515 N93-13557
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-001] 11 p3274 N93-29014
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-004] 11 p3354 N93-29090

EQUIPMENT SPECIFICATIONS
Magnetic bearings for a high-performance optical disk buffer, volume 2
[NASA-CR-190874] 03 p0615 N93-13608
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Military standardization handbook: Aircraft refueling handbook
[AD-A261755] 09 p2662 N93-26600
Space Station Freedom biomedical monitoring and countermeasures: Biomedical facility hardware catalog
[NASA-CR-193156] 10 p3081 N93-26700

EQUIPOTENTIALS
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923

EQUIVALENCE
Equivalence transformations of rational matrices
[MATHS-REPT-A-163] 02 p0423 N93-11121
Equivalence transformations of rational matrices and applications
[MATHS-REPT-A-169] 02 p0424 N93-11124
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
The low-energy structure of compactified superstring models 04 p0997 N93-14116
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
Sahlqvist's theorem for boolean algebras with operators
[ML-91-10] 05 p1274 N93-17794
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
On a fundamental notion of equivalence in linear systems theory
[MATHS-REPT-A-162] 07 p2053 N93-20890
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Condition for equivalence of q-deformed and anharmonic oscillators 10 p3143 N93-27323
Equivalent conditions for the solvability of the infinite-dimensional LQ-problem with unbounded input and output operators
[W-9209] 10 p3121 N93-28138
Equivalence of a number of deduction systems
[REPT-92-34] 10 p3104 N93-28316

EQUIVALENT CIRCUITS
Measurement of AC electrical characteristics of SSC superconducting dipole magnets
[DE92-018888] 02 p0431 N93-11625
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
Model for impedance of an ionic conductor sandwiched between blocking electrodes
[DE92-017812] 03 p0569 N93-12561
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Quasi-optical power combining of solid state millimeter-wave sources: A proposal for graduate fellowship
[AD-A256644] 05 p1143 N93-15909
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
Method for providing EMI/EMP hardening and breakdown protection in composite materials
[AD-D015638] 09 p2634 N93-25283
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317
Measurements and analysis of the equivalent circuit of the GEC RF Reference Cell
[DE93-013498] 12 p3718 N93-32425

ER FLUIDS
U ELECTRORHEOLOGICAL FLUIDS

ERBE
U EARTH RADIATION BUDGET EXPERIMENT

ERBIUM
NT ERBIUM ISOTOPES
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333

ERBIUM ISOTOPES
Tilted cranking classification of multiband spectra
[DE92-041187] 05 p1283 N93-15959
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333

ERBIUM 169
U ERBIUM ISOTOPES

ERBIUM 171
U ERBIUM ISOTOPES

ERECTION
U CONSTRUCTION

EREP
Earth observation photography: Looking back 20 years after Skylab 03 p0509 N93-13164

ERGODIC PROCESS
A proof of convergence of the Markov chain simulation method
[AD-A255456] 04 p0970 N93-14487
Ergodic properties of high dimensional symplectic maps
[PREPRINT-802] 05 p1276 N93-16422
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
Polling systems and multiple branching processes
[CWI-BS-R9128] 05 p1267 N93-16726
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Long range percolation in stationary point processes
[REPT-91-54] 07 p2058 N93-20864
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
A recurrence type characterization of mu-exponential ergodicity for Markov processes
[TW-92-03] 10 p3125 N93-27905
A Kolmogorov-Smirnov type test for ergodic diffusion processes
[INRIA-RR-1696] 10 p3122 N93-28447
Some qualitative properties in polling systems
[INRIA-RR-1596] 11 p3552 N93-28506
Most monothetic extensions are rank-1
[REPT-93-05] 12 p3813 N93-31546

ERGOMETERS
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970

Development and implementation of the MotoMir experiment on the Mir Space Station
08 p2159 N93-24363

ERGONOMICS
U HUMAN FACTORS ENGINEERING

EROSION
NT SOIL EROSION
NT WATER EROSION
NT WIND EROSION
The Zhamanshin impact feature: A new class of complex crater?
01 p0110 N93-10139
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF
02 p0270 N93-11994
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines
02 p0272 N93-12189
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Particle simulation of grid erosion in an ion thruster
03 p0527 N93-13927
Floor-fractured crater models for igneous crater modification on Venus
04 p1044 N93-14393
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
Present state-of-the-art of two-phase flow model calculations
[DE92-041124] 05 p1156 N93-16159
Corrosion and arc erosion in MHD channels
[DE93-001721] 05 p1313 N93-17782
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-192306] 07 p1847 N93-20756
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
Solid-particle erosion of in-situ reinforced Si3Ni4
[DE92-014868] 08 p2209 N93-22911
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques
08 p2355 N93-23581
Modeling and analysis tools 09 p2897 N93-26397
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215
Erosional and depositional history of central Chryse Planitia
[NASA-CR-193068] 10 p3210 N93-27497

EROSIVE BURNING
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215

ERROR ANALYSIS
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
A real-time diagnostic and performance monitor for UNIX
[NASA-CR-190975] 02 p0404 N93-11462
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
Dynamics of space debris 02 p0219 N93-11904
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry
02 p0373 N93-12002
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Curve fitting and error modeling for the digitization process near the Nyquist rate
[DE92-018189] 02 p0286 N93-12417
Two-fluid measurements on thin films
[PB92-205350] 02 p0308 N93-12475
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
Quality assessment of the A-posteriori error estimation in finite elements
[AD-A254767] 03 p0696 N93-12701
Radar signal processing for over resolved targets
[AD-A255256] 03 p0566 N93-13838
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
The spin vector of Venus determined from Magellan data
04 p1027 N93-14310
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574
Software reliability, measurement, and testing. Volume 2: Guidebook for software reliability measurement and testing
[AD-A256164] 04 p0944 N93-14581
A system approach to archival storage
04 p1006 N93-15040
Improved astigmatic focus error detection method
04 p0984 N93-15507
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Antenna analysis using neural networks
05 p1142 N93-16790
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Statistical error in a chord estimator of correlation dimension: The rule of five
[DE93-000687] 05 p1276 N93-17195
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373
Formulation and error analysis for a generalized image point correspondence algorithm
[NASA-CR-192005] 06 p1621 N93-18570
Tools of modeling, identification, and signal processing for fault diagnosis in continuous-time systems
[LAAS-92153] 06 p1649 N93-18625
P-adaptivity applied to plate in bending problems
06 p1557 N93-18756
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario
06 p1454 N93-18899
Minimizing noise-temperature measurement errors
06 p1507 N93-18919
Optimization of three dimensional meshes
[ETN-92-92554] 06 p1647 N93-19008
Asteroid orbital error analysis: Theory and application
06 p1454 N93-19214
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy
06 p1512 N93-19418
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites
06 p1454 N93-19419
Modeling the global positioning system signal propagation through the ionosphere
06 p1434 N93-19420
Multiple symbol partially coherent detection of MPSK
06 p1514 N93-19431
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Modeling human response errors in synthetic flight simulator domain 06 p1612 N93-19464
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
The development of the Navy's multivariate optimum interpolation analysis system
[AD-A258569] 07 p2058 N93-20358
Error control techniques for satellite and space communications
[NASA-CR-192368] 07 p1884 N93-20613
Modelling robot trajectory errors using time series
07 p1942 N93-20716
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Principles and applications of measurement and uncertainty analysis in research and calibration
[DE93-000034] 07 p1907 N93-21251
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU]
08 p2432 N93-22032
Constraint checking during error recovery
08 p2445 N93-22169
Generation of covariance data among values from a single set of experiments
[DE93-004192] 08 p2522 N93-22435
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems
[NASA-CR-4503] 08 p2466 N93-22672
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
The vertical profile of reflectivity and errors in radar estimates of rainfall 08 p2406 N93-23350
Recognizing 3D objects for 2D images: An error analysis
[AD-A260150] 08 p2469 N93-23707
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437

A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
Star tracker operation in a high density proton field 09 p2600 N93-24699
Resolution of the COBE Earth sensor anomaly 09 p2600 N93-24700
Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Practical aspects of transfer from GTO to lunar orbit 09 p2604 N93-24719
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode 09 p2605 N93-24724
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
The use of multiple models in case-based diagnosis 09 p2823 N93-25969
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution
[NASA-CR-192832] 09 p2775 N93-26084
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26269
Bit hit/solar activity correlation study
[AD-A261381] 09 p2896 N93-26340
Ways to improve your correlation functions 10 p3172 N93-26712
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178
A finite volume discretisation scheme with a-posteriori error estimates for the symmetrised continuity equation
[CWI-NM-R9203] 10 p3113 N93-27300
Error analysis and local refinement for a one-dimensional, scalar conservation law
[CWI-NM-R9210] 10 p3114 N93-27365
Error analysis for the one-dimensional convection-diffusion equation
[CWI-NM-R9209] 10 p3114 N93-27376
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587
Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650
A parallel divide and conquer algorithm for the generalized real symmetric definite tridiagonal eigenproblem
[AD-A262297] 10 p3099 N93-27678
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013
Stable numerical integration of dynamical systems subject to equality state-space constraints
[NLR-TP-91363-U] 12 p3802 N93-31128
Assuring type safety of object-oriented languages
[REPT-92-061] 12 p3787 N93-31252
Testability of artificial neural networks: A behavioral approach
[REPT-92-047] 12 p3797 N93-31254
Analysis of fault tolerance in artificial neural networks
[REPT-92-048] 12 p3797 N93-31255
RLS techniques with generalized forgetting devices for the identification of time-varying systems
[REPT-92-069] 12 p3810 N93-31463
On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233

ERROR BAND
U ACCURACY

ERROR CORRECTING CODES
NT REED-SOLOMON CODES

The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
Mappings between codewords of two distinct (N,K) Reed-Solomon codes over GF(2 sup J)
[NASA-CASE-NPO-18771-1-CU] 02 p0412 N93-11664
An investigation of error correcting techniques for OMV data
[NASA-CR-190942] 03 p0682 N93-12654
Error control techniques for satellite and space communications
[NASA-CR-191229] 03 p0565 N93-13411
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
Self-dual (48,24;12) codes 06 p1505 N93-18905
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
Detection and correction of morpho-syntactic errors in shift-reduce parsing 07 p2031 N93-20226
Modelling robot trajectory errors using time series 07 p1942 N93-20716
MSC/NASTRAN structure optimization test module version 67 (preliminary)
[REPT-5-191025] 07 p1945 N93-20907
Stellar lyman alpha emission and the local interstellar medium
[NASA-CR-192635] 08 p2541 N93-22381
Soft decoding a self-dual (48, 24; 12) code 09 p2671 N93-24662
A (72, 36; 15) box code 09 p2671 N93-24663
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Golay and other box codes 09 p2678 N93-26116
Accuracy enhancement in optical computing
[AD-A264872] 11 p3522 N93-30179
An error control protocol based on trellis coded modulations 11 p3358 N93-30237
A single chip high-speed CMOS Viterbi decoder 11 p3358 N93-30238

ERROR CORRECTING DEVICES

Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
The performance of cache-based error recovery in multiprocessors
[NASA-CR-192142] 07 p2029 N93-20006

ERROR DETECTION CODES

A fast pipelined inner product unit
[REPT-92-025] 02 p0411 N93-11594
Error control techniques for satellite and space communications
[NASA-CR-191229] 03 p0565 N93-13411
Generation of integrated circuit tests based on functional models
[ETN-92-92674] 05 p1151 N93-17628
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Wavelet features for failure detection and identification in vibration systems
[AD-A259427] 07 p1914 N93-20007
Detection and correction of morpho-syntactic errors in shift-reduce parsing 07 p2031 N93-20226
Periodic application of concurrent error detection in processor array architectures
[NASA-CR-193217] 10 p3106 N93-27238
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU] 11 p3449 N93-30413

ERROR FUNCTIONS

Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708

ERROR SIGNALS

Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
Improved astigmatic focus error detection method 04 p0984 N93-15507
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna 06 p1505 N93-18902
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU] 08 p2432 N93-22032
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
Computation and generalization in neural networks
[AD-A263752] 11 p3549 N93-29871

ERRORS
NT BORESIGHT ERROR
NT INSTRUMENT ERRORS
NT PHASE ERROR
NT PILOT ERROR
NT POSITION ERRORS
NT RANDOM ERRORS
NT RANGE ERRORS
NT ROOT-MEAN-SQUARE ERRORS
NT TRUNCATION ERRORS
NT VELOCITY ERRORS

The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Motion errors and compensation possibilities 03 p0563 N93-13052
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy 03 p0518 N93-13768
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300

The use of inverse frequency response functions for multi degree-of-freedom modal parameter identification with error bounds 05 p1077 N93-15720
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
Minimizing noise-temperature measurement errors 06 p1507 N93-18919
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Network problem threshold 06 p1516 N93-19397
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data 06 p1517 N93-19578
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups
[DE93-002942] 06 p1484 N93-19752
Development of a measurement of upper MID frequency errors on arbitrary grazing incidence optics
[NASA-CR-191333] 07 p2067 N93-20731
Fault detection and isolation 08 p2106 N93-22568
GPS multipath errors in the precision landing environment 08 p2106 N93-22569
Propagation effects on HF direction finding 08 p2265 N93-23602
Systematic bearing errors of HF signals observed over a North-South propagation path 08 p2268 N93-23614
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Synopsis of timing measurement techniques used in telecommunications 09 p2687 N93-25064
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Model-based reasoning for system and software engineering: The Knowledge From Pictures (KFP) environment 09 p2825 N93-25978
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field 11 p3266 N93-28725
Implementing error-valued semantics for dataflow languages on imperative machines
[DE93-009319] 11 p3615 N93-29310
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Inverse problems: Fuzzy representation of uncertainty generates a regularization 11 p3516 N93-29563
The effect of clock, media, and station location errors on Doppler measurement accuracy 11 p3246 N93-29588
Uncorrectable sequences and telecommand 11 p3385 N93-29596
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857
A neural network based approach for machine fault diagnosis
[VTT-TIED-1274] 11 p3543 N93-29998
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611
On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598
Velocities of Thwaites and Land glaciers 12 p3760 N93-31885

ERS-1 (ESA SATELLITE)
ERS-1 user handbook
[ESA-SP-1148] 02 p0344 N93-12280
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Use of ERS-1 SAR data in numerical sea ice modeling 07 p1957 N93-21592
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Satellite monitoring of giant tabular icebergs 07 p1957 N93-21595
Lake remote sensing for global climate research 07 p1958 N93-21602
The WAM model and ERS-1 07 p1960 N93-21609
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436
The first European remote sensing satellite, ERS-1. A summary of useful load, mission, ground segment, standard products and user service 08 p2339 N93-22437
ESA ERS 1 product specification
[ESA-SP-1149] 08 p2200 N93-23389
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
Feature detection using ERS-1 SAR data 08 p2356 N93-23586
ERS-1: The first European Earth observation system 08 p2358 N93-23757
A strategy for monitoring the tropical forest with ERS-1 SAR imagery 08 p2358 N93-23758
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters 08 p2359 N93-23762
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
Operational geocoding of ERS-1 SAR imagery 08 p2359 N93-23765
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
The Oden real time ice monitoring demonstration 08 p2371 N93-23837
Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789
Satellite borne remote sensing data: A tool for natural disaster reduction 09 p2743 N93-24806
Registration of the use of agricultural fields and soil erosion using satellite remote sensing 09 p2751 N93-24856
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
The German PAF (Processing and Archiving Facilities) for ERS-1 11 p3457 N93-28916
Processing of altimeter data by the German ERS-1 Processing and Archiving Facility (D-PAF) 11 p3457 N93-28917
Exact trajectory determinator for ERS-1 11 p3457 N93-28918
The interferometric SAR technology and its usability in the framework of ERS-1 11 p3457 N93-28919
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010
A new view of the sea
[ETN-93-93469] 12 p3747 N93-32345

ERTS
U LANDSAT SATELLITES

ERTS-D
U LANDSAT 4

ERYTHROCYTES
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900

ESA
U EUROPEAN SPACE AGENCY

ESA SATELLITES
NT ERS-1 (ESA SATELLITE)
NT EUROPEAN COMMUNICATIONS SATELLITE
NT EXOSAT SATELLITE
NT HIPPARCOS SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT METEOSAT SATELLITE
Olympus: The communications satellite and its uses. An introduction
[ESA-F-29] 06 p1461 N93-18369
ESA's report to the 29th COSPAR Meeting
[ESA-SP-1154] 07 p1811 N93-21360

ESA SPACECRAFT
NT COLUMBUS SPACE STATION
NT ERS-1 (ESA SATELLITE)
NT ESA SATELLITES
NT EUROPEAN COMMUNICATIONS SATELLITE
NT EXOSAT SATELLITE
NT GIOTTO MISSION
NT HIPPARCOS SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT METEOSAT SATELLITE
Derating requirements applicable to electronic, electrical, and electro-mechanical components for ESA space systems
[ESA-PSS-01-301-ISSUE-2] 07 p1893 N93-21194
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195

ESAKI DIODES
U TUNNEL DIODES

ESCALATORS
Platform stair lift
[NASA-CASE-MFS-28772-1] 11 p3507 N93-29845

ESCAPE SYSTEMS
Facilities and capabilities catalog for landing and escape systems
[NASA-RP-1282] 04 p0814 N93-14495
An epidemiological study in SAF's pilots ejections 06 p1429 N93-19699
SOYUZ escape trajectory analysis from Space Station Freedom
[NASA-CR-4508] 10 p2954 N93-27609

ESCAPE VELOCITY
Propagation of finite amplitude sound in a waveguide with a parabolic sound velocity profile
[ARL-TR-92-11] 09 p2846 N93-26179

ESCARPMENTS
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio 04 p1028 N93-14317
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801

ESCHERICHIA
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

ESKERS
U GLACIAL DRIFT

ESRO
U EUROPEAN SPACE AGENCY

ESRO SATELLITES
U ESA SATELLITES

ESSENTIALLY NON-OSCILLATORY SCHEMES
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Numerical study of the small scale structures in Boussinesq convection
[NASA-CR-189695] 01 p0145 N93-10758

Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341
On essentially non-oscillatory schemes on unstructured meshes: Analysis and implementation
[NASA-CR-191415] 08 p2471 N93-24492

ESTERS
NT ACRYLATES
NT CARBOXYLATES
NT CELLULOSE NITRATE
NT GLUTAMATES
NT ISOCYANATES
NT LACTATES
NT NITRATE ESTERS
NT NITROGLYCERIN
NT ORGANIC NITRATES
NT PETN
NT POLYCARBONATES
NT POLYESTERS
NT SULFONATES
NT URETHANES
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces
11 p3255 N93-29944

ESTIMATES
NT COST ESTIMATES
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
The spin vector of Venus determined from Magellan data
04 p1027 N93-14310
Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data
05 p1165 N93-16792
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Comparison of total body water estimates from O-18 and bioelectrical response prediction equations
[NASA-TP-3299] 08 p2421 N93-23734
Supply of geothermal power from hydrothermal sources: A study of the cost of power in 20 and 40 years
[DE93-004479] 08 p2382 N93-24036
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437
A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
On the estimation of risk associated with an attenuation prediction 09 p2683 N93-26469
A finite volume discretisation scheme with a-posteriori error estimates for the symmetrised continuity equation
[CWI-NM-R9203] 10 p3113 N93-27300
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845
Estimations of expectedness and potential surprise in possibility theory 11 p3510 N93-29518
A fuzzy set preference model for market share analysis 11 p3514 N93-29548

ESTIMATING
NT ORBITAL POSITION ESTIMATION
NT PARAMETER IDENTIFICATION
NT SYSTEM IDENTIFICATION
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
Computation and communication constraints for distributed estimation systems
[AD-A256287] 04 p0970 N93-14456
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
Two-stage target tracking system and method
[AD-D015412] 04 p0982 N93-14880
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
Automated Estimating System (AES), version 5.1. User's manual
[DE93-000380] 04 p0946 N93-15003
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Automated Estimated System (AES) standard value and guidelines programs user's manual
[DE92-041243] 04 p0951 N93-15450
Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Studies in estimation theory, applications, and implementation
[AD-A256964] 05 p1275 N93-16250
Quantifying parameters for Bayesian prior assumptions when estimating the probability of failure of software 05 p1254 N93-16777
Estimating the regional economic significance of airports
[AD-A257658] 05 p1073 N93-17793
Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Prediction of success from training 06 p1430 N93-19702
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
A comparative study of estimation of partiel cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626
Estimation of partial cloud cover within a pixel 08 p2335 N93-22127
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
A global approach to parameter estimation of chaotic dynamical systems
[AD-A259932] 08 p2463 N93-24130
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2369 N93-24163
Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
Estimating spares requirements for Space Station Freedom using the M-SPARE model
[AD-A260878] 09 p2617 N93-25630
Orbital parameter estimation using an extended Kalman filter
[AD-A260618] 09 p2608 N93-25636
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Ways to improve your correlation functions 10 p3172 N93-26712
Identification for the control of MIMO industrial processes
[EUT-91-E-256] 10 p3010 N93-27229
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Asymptotic estimates of Stirling numbers
[CWI-AM-R9204] 10 p3113 N93-27310
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Estimating test range capacity
[AD-A262493] 11 p3270 N93-28938
Theory and applications of random fields
[AD-A262829] 11 p3555 N93-29454
An analysis of possible applications of fuzzy set theory to the actuarial credibility theory 11 p3510 N93-29517
Performance analysis of subspace methods
[AD-A263984] 11 p3530 N93-29865
Gradient estimation for regenerative processes
[AD-A263766] 11 p3555 N93-29878
Digital processing for positioning with one satellite
[ETN-93-93732] 12 p3685 N93-31318
RLS techniques with generalized forgetting devices for the identification of time-varying systems
[REPT-92-069] 12 p3810 N93-31463
Efficient estimation of the mean for interval censoring, case 2
[REPT-92-83] 12 p3811 N93-31491
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

ESTIMATORS
The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407
Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081
An orthogonal estimation algorithm for complex number systems
[RR-405] 06 p1621 N93-18568
ESTUARIES
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data
[ED-659-CP] 09 p2746 N93-24829
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113
ETA-MESONS
Semi-leptonic decays of D-mesons in lattice QCD
[PREPRINT-808] 07 p2062 N93-20905
ETALONS
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU] 11 p3440 N93-30415
ETCHING
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692
RF vacuum microelectronics
[AD-A257320] 05 p1144 N93-15984
Nanorecording 06 p1539 N93-18467
Study on photochemical and photoelectrochemical etching of gallium arsenide
[ECL-91-25] 07 p1851 N93-21824
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
Anisotropic etching of silicon in KOH solutions 09 p2647 N93-25037
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
ETHANE
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Ethane ice haze in the upper atmosphere of Uranus 04 p1023 N93-14212
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768
ETHANE NITRILE
U ACETONITRILE
ETHANOL
U ETHYL ALCOHOL
ETHERS
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
Determination of the thermal stability of perfluoropolyalkyl ethers by tensimetry
[NASA-TM-106081] 09 p2654 N93-25093
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367
ETHICS
The lunar community church: Contributions to lunar living and to evolution of ethical and spiritual thinking 03 p0676 N93-14020
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
ETHYL ALCOHOL
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
Vapor to liquid ratio test as an indicator of volatility
[DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
Postmortem alcohol production in fatal aircraft accidents
[AD-A255766] 03 p0498 N93-14026
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429
ETHYL COMPOUNDS
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918
ETHYLENE
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
C-13 solid-state NMR study of ethylene oxidation over supported silver catalysts
[DE92-040584] 05 p1102 N93-16016
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures 09 p2583 N93-24886
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435
ETHYLENE COMPOUNDS
NT CHLOROETHYLENE
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
Recession of FEP specimens from trays D11 and B7 03 p0549 N93-12786
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
ETIOLOGY
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting 02 p0382 N93-11312
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Complement proteins and decompression sickness susceptibility
[AD-A254448] 03 p0674 N93-12905
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
ETR (REACTORS)
U ENGINEERING TEST REACTORS
ETTINGSHAUSEN COOLERS
U THERMOELECTRIC COOLING
EUCLIDEAN GEOMETRY
NT ANGLE OF ATTACK
NT ANGLES (GEOMETRY)
NT BRAGG ANGLE
NT CARTESIAN COORDINATES
NT CHORDS (GEOMETRY)
NT CIRCLES (GEOMETRY)
NT CIRCUMFERENCES
NT CUBES (MATHEMATICS)
NT DESCRIPTIVE GEOMETRY
NT DIHEDRAL ANGLE
NT ELEVATION ANGLE
NT ELLIPSES
NT GEODESIC LINES

NT GREAT CIRCLES
NT HEXAGONS
NT LEADING EDGE SWEEP
NT LINES (GEOMETRY)
NT LOOK ANGLES (TRACKING)
NT MERCATOR PROJECTION
NT OBLATE SPHEROIDS
NT PARABOLAS
NT PARALLELEPIPEDS
NT PARALLELOGRAMS
NT POINTS (MATHEMATICS)
NT POLYGONS
NT POLYHEDRONS
NT PROJECTIVE GEOMETRY
NT PROLATE SPHEROIDS
NT RADII
NT RECTANGLES
NT RHOMBOHEDRONS
NT SPHEROIDS
NT SWEEP ANGLE
NT TETRAHEDRONS
NT TORUSES
NT TRAPEZOIDS
NT TRIANGLES
NT ZERO ANGLE OF ATTACK

Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225

An object-oriented approach to spatial databases
[REPT-92-034] 02 p0476 N93-11690

Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738

Sojourns, extremes, and self-intersections of stochastic processes
[AD-A257251] 05 p1274 N93-15820

Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677

Interacting Euclidean three-dimensional quantum gravity
[PREPRINT-867] 05 p1330 N93-16965

Problems with the Euclidean formulation of heavy quark effective theories
[PREPRINT-884] 05 p1290 N93-17020

A contribution to the theory and practice of multivariate splines
[ISBN-90-9004534-1] 05 p1272 N93-17591

Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456

An analogue of Philon's line in n dimensions
[MEMO-1032] 07 p2054 N93-20957

Local and global properties of curve congruencies in Euclidean three dimensional space
[ETN-93-93411] 07 p2055 N93-21174

Distance metric between 3D models and 2D images for recognition and classification
[AD-A260069] 08 p2463 N93-24313

Attitude analysis in Flatland: The plane truth 09 p2603 N93-24712

Quantum wormholes and harmonic oscillators 10 p3144 N93-27338

On inducing finite dimensional physical field representations for massless particles in even dimensions 10 p3144 N93-27339

Extended pure Yang Mills gauge theories with scalar and tensor gauge fields
[SSCL-PREPRINT-769] 10 p3156 N93-27583

Gray-scale granulometries compatible with spatial scalings
[CWI-BS-R9212] 10 p3121 N93-28088

Final state interactions from Euclidean Correlation Functions
[SSCL-PREPRINT-742] 10 p3122 N93-28196

Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210

The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808

Isocliny, Souillart matrices, quaternions and four-dimensional rotations
[REPT-92-57] 12 p3813 N93-31502

Geometrical aspects of quaternions and complex numbers
[REPT-92-56] 12 p3807 N93-31612

EUCLIDEAN SPACE

U EUCLIDEAN GEOMETRY

EUKARYOTES

Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989

Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181

EULER EQUATIONS OF MOTION

Improved numerical simulation of Euler equations 01 p0080 N93-10309

Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808

Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339

Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607

A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686

Singularities of the Euler equation and hydrodynamic stability
[NASA-CR-189720] 02 p0306 N93-12173

Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333

Numeric simulation of the aerodynamic flows around nacelles 03 p0577 N93-13202

Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204

Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206

Two-phase flow modeling with discrete particles
[DE92-017850] 03 p0583 N93-13356

Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer 03 p0494 N93-13521

Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273

An investigation of genuinely multidimensional schemes for the Euler equations 04 p0876 N93-14694

Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341

Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations 05 p1154 N93-15802

Comparison of solution of various Euler solvers and one Navier-Stokes solver for the flow about a sharp-edged cropped delta wing
[NLR-TP-90340-U] 05 p1157 N93-16411

Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478

Numerical solutions of the Euler equations for steady flow problems
[MBB-FE-202-S-PUB-473-A] 05 p1164 N93-17546

Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122] 05 p1164 N93-17557

Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB] 05 p1057 N93-17568

Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683

Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522] 05 p1165 N93-17789

Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809

Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879

Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881

Lagrangian chaos: Transport, mixing, and diffusion in fluids
[NOTA-INTERNA-988] 06 p1651 N93-17939

Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541

Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563

Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564

Exact-gradient shape optimization of a 2D Euler flow
[INRIA-RR-1540] 06 p1530 N93-18623

Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769

Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770

A gridless Euler/Navier-Stokes solution algorithm for complex-aircraft applications
[NASA-TM-107727] 07 p1760 N93-19973

Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056

Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058

Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457

Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659

Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136

A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487

A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083

A compact high-order Euler solver for unstructured grids 09 p2699 N93-25341

Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2728 N93-25842

A brief description of a new numerical framework for solving conservation laws: The method of space-time conservation element and solution element
[NASA-TM-105757] 09 p2829 N93-26560

Grid adaption using Chimera composite overlapping meshes
[NASA-TM-106163] 10 p3111 N93-27065

Parallel computing strategies for block multigrid implicit solution of the Euler equation 10 p2922 N93-27190

On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299

Development of a 3-D Implicit Euler Code for Hypersonic and High Supersonic Flows
[ONERA-RSF-23/1123-AY-230A] 11 p3417 N93-28744

State vector splitting: A numerical scheme for the Euler equations 11 p3419 N93-29039

Contribution to the theoretical study and finite-element approximation of the multidimensional, multispecies, hyperbolic system of gas dynamics
[ESA-TT-1275] 12 p3724 N93-31429

EULER-CAUCHY EQUATIONS

Numerical modelling of the cold plasma with time-dependent, magnetohydrodynamic methods
[KFK-5053] 11 p3586 N93-29081

EULER-LAGRANGE EQUATION

Numerical simulation of unsteady flow in a nozzle 01 p0016 N93-10008

Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560

RHALE: A MMALE shock physics code written in C++
[DE92-018271] 03 p0684 N93-12795

Stabilization and projection methods for multibody dynamics
[PB92-133883] 03 p0698 N93-12890

Equations of motion of multibody systems in the ESA-MIDAS software 05 p1084 N93-15772

Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758

A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014

On the Lagrangian of the linearized MHD equations
[NIFS-154] 06 p1670 N93-19933

Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696

A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258

Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341

Transient radiation properties of strongly radiating turbulent flames 08 p2221 N93-23181

Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648

On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927

EURECA (ESA)

EURECA
[ESA-F-26] 03 p0522 N93-12964

Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691

The Eureca concept and missions
08 p2156 N93-24343
The Columbus Metrology Science Team: Report on activities
09 p2670 N93-24987
STS-46 Space Shuttle mission report
[NASA-CR-193058] 09 p2613 N93-25991
The Optical Properties Monitor (OPM): A multipurpose optical laboratory in space
11 p3266 N93-28729

EUROPA
Europa: Prospects for an ocean and exobiological implications
06 p1591 N93-18552

EUROPE
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Commission 10: Continental networks. Subcommission for the European Reference Frame (EUREF)
07 p1969 N93-20961
Commission 10: Continental networks. Subcommission United European Levelling Network (UELN)
07 p1969 N93-20962
The 8 years monthly vegetation index of central Europe
07 p1954 N93-21574
Vegetation index for Europe
08 p2340 N93-22443
Activities report of the European Southern Observatory
[ETN-93-93459] 08 p2542 N93-23118
European Telecommunications Standards Institute. Apreliminary analysis
[PB93-138824] 08 p2263 N93-23271
A European radionavigation plan?
08 p2124 N93-23513
EUTELTRACS: The European land mobile satellite service
08 p2276 N93-23526
A Digital Landscape Model for Europe (DLME)
08 p2351 N93-23554
Meteosat operational programme current missions and services
08 p2357 N93-23752
Earth observation programmes and plans of the Commission of the European Communities (CEC)
08 p2372 N93-23843
Eumetsat practice for protection of its satellite data
08 p2373 N93-23850
Conditions of access to Earth observation data: Legal aspects
08 p2373 N93-23853
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data
08 p2374 N93-23855
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
System of navigation by satellites with European coverage
11 p3284 N93-29897
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216
Automating multilingual communication
12 p3837 N93-31219
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

EUROPEAN AIRBUS
Monitoring of powerplants in advanced commercial aircraft
04 p0795 N93-15171
Airbus Industrie TCAS experience
04 p0789 N93-15186
Use of a triaxial laser velocimeter for anemometric calibration on an A340 airbus
06 p1446 N93-19926

EUROPEAN COMMUNICATIONS SATELLITE
Lessons drawn from 2 existing satellite networks: ARABSAT and EUTELSAT. Application to the Pacific basin projects
[REPT-921-440-101] 02 p0282 N93-11591
Regional satellites: The European experience with Eutelsat for TV, voice, data and mobile transmissions
[REPT-921-440-106] 04 p0818 N93-15071
ESA's planning and coordination of the OLYMPUS propagation experiment
09 p2684 N93-26477

EUROPEAN INCOHERENT SCATTER RADAR
U EISCAT RADAR SYSTEM (EUROPE)

EUROPEAN RETRIEVABLE CARRIER
U EURECA (ESA)

EUROPEAN SPACE AGENCY
Guide to the user requirements definition phase
[ESA-PSS-05-02-ISSUE-1] 01 p0136 N93-10315
Guide to the software requirements definition phase
[ESA-PSS-05-03-ISSUE-1] 01 p0136 N93-10316
Reliability assurance requirements for ESA space systems
[ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
Horizon 2000: Seven years on
[ESA-BR-37-B] 03 p0516 N93-13855
Taking a global view
[ESA-BR-37-C] 03 p0516 N93-13856
Messengers in space
[ESA-BR-37-D] 03 p0516 N93-13857
A home port in space
[ESA-BR-37-E] 03 p0516 N93-13858
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
Preparing for the future
[ESA-BR-37-H] 03 p0517 N93-13860
The next step forward
[ESA-BR-37-A] 03 p0517 N93-13861
A growing dimension in space
[ESA-BR-37-F] 03 p0517 N93-13902
Ever watchful
[ESA-BR-37-I] 03 p0517 N93-13903
The design concept of the 6-degree-of-freedom hydraulic shaker at ESTEC
04 p0820 N93-15600
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon
[ESA-SP-1150] 07 p2099 N93-21013
Experiments aboard the Caravelle for the 3 ESA campaigns in 1990
07 p1807 N93-21102
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
ESA's report to the 29th COSPAR Meeting
[ESA-SP-1154] 07 p1811 N93-21360
On-orbit demonstrations of automated closure and capture using ESA-developed proximity operations technologies and an existing serviceable NASA Explorer platform spacecraft
07 p1816 N93-21433
Activities report of the European Space Agency
[ETN-93-93509] 07 p2103 N93-21764
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community
08 p2360 N93-23770
Selection of astronauts for European space missions
08 p2156 N93-24345
European space programme
10 p2920 N93-27174
Report on the ESA Interferometry Study Team activities
12 p3848 N93-31762

EUROPEAN SPACE PROGRAMS
NT AUSTRIAN SPACE PROGRAM
NT FRENCH SPACE PROGRAM
NT GERMAN SPACE PROGRAM
NT ITALIAN SPACE PROGRAM
NT NETHERLANDS SPACE PROGRAM
NT NORWEGIAN SPACE PROGRAM
NT SWEDISH SPACE PROGRAM
NT U.S.S.R. SPACE PROGRAM
NT UK SPACE PROGRAM
The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned
02 p0472 N93-11163
Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691
Horizon 2000: Seven years on
[ESA-BR-37-B] 03 p0516 N93-13855
Taking a global view
[ESA-BR-37-C] 03 p0516 N93-13856
Messengers in space
[ESA-BR-37-D] 03 p0516 N93-13857
A home port in space
[ESA-BR-37-E] 03 p0516 N93-13858
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
Preparing for the future
[ESA-BR-37-H] 03 p0517 N93-13860
The next step forward
[ESA-BR-37-A] 03 p0517 N93-13861
A growing dimension in space
[ESA-BR-37-F] 03 p0517 N93-13902
Ever watchful
[ESA-BR-37-I] 03 p0517 N93-13903
Future space transportation systems. Part 1: Safety aspects. Part 2: Technical aspects
[MBB-UK-0180-90-PUB-PT-1-2]
07 p1821 N93-20847
Experiments aboard the Caravelle for the 3 ESA campaigns in 1990
07 p1807 N93-21102
ESA's report to the 29th COSPAR Meeting
[ESA-SP-1154] 07 p1811 N93-21360
Activities report of the European Space Agency
[ETN-93-93509] 07 p2103 N93-21764
European research plans
08 p2185 N93-22618
Meteosat second generation: A look to the future
08 p2357 N93-23753
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit
08 p2361 N93-23775
Observations of atmospheric chemistry on the first European polar platform
08 p2361 N93-23776
The first mission of the ESA Earth observation polar platform
08 p2362 N93-23783
The European polar platform and its Earth observation mission
08 p2363 N93-23784
An advanced scatterometer for the European polar platform
08 p2363 N93-23787
The radar altimeter instrument for POEM-1 mission
08 p2363 N93-23788
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1
08 p2363 N93-23789
IASI (Infrared Atmospheric Sounding Interferometer): Programme objectives and status
08 p2364 N93-23794
Ocean colour programmes for the European marine environment
08 p2366 N93-23808
United Kingdom Earth observation programme
08 p2373 N93-23848
The contribution of the Italian Space Agency to the establishment of space services for the changing Earth
08 p2373 N93-23849
Horizon 2000 and European national programmes
08 p2534 N93-23885
FIRST: Far Infrared and Submillimeter Space Telescope
08 p2540 N93-23924
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas
09 p2751 N93-24857
The Columbus Metrology Science Team: Report on activities
09 p2670 N93-24987
European space programme
10 p2920 N93-27174
The prehistory of ESRO, 1959 - 1960
[ESA-HSR-1] 11 p3660 N93-29500
Some European activities in support of the SOHO mission
12 p3880 N93-31425

EUROPEAN SPACE RESEARCH ORGANIZATION
U EUROPEAN SPACE AGENCY

EUROPEAN SPACE RESEARCH ORGANIZATION SAT
U ESA SATELLITES

EUROPIUM COMPOUNDS
Laser spectroscopy of rare earth ions
03 p0608 N93-13846

EUTECTIC ALLOYS
The influence of microgravity on the microstructure and properties of eutectics, phase 2
[CTN-93-60627] 05 p1131 N93-16427
The influence of microgravity on the microstructure and properties of eutectics, phase 4
[CTN-93-60629] 05 p1132 N93-16690
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022

EUTECTIC COMPOSITES
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
DARPA advanced high current density cathodes for defense applications: Development phase
[AD-A261949] 10 p3032 N93-27919

EUTECTIC DIAGRAMS
U PHASE DIAGRAMS

EUTECTICS
NT EUTECTIC ALLOYS
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391

The nature of scales grown on binary Cr-Nb alloys
[DE92-019283] 03 p0542 N93-13080
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576

EUVE
U EXTREME ULTRAVIOLET EXPLORER SATELLITE

EVA
U EXTRAVEHICULAR ACTIVITY

EVACUATING (TRANSPORTATION)
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277

EVALUATION
NT TRAINING EVALUATION
Research in the optical sciences
[AD-A253188] 01 p0158 N93-10446
Order statistics and nonparametric statistics
[AD-A253574] 01 p0146 N93-10699
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
Iterative software testing
[AD-A255953] 04 p0943 N93-14420
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
Testability design rating system: Testability handbook, volume 1
[RL-TR-92-12-VOL-1] 04 p0867 N93-14699
Experimental evaluation of candidate graphical microburst alert displays 04 p0785 N93-14853
Results of in-service evaluation of wind shear systems 04 p0785 N93-14856
In-service evaluation of wind shear systems 04 p0785 N93-14857
Proposed action plan to improve ADM effectiveness, part 3: Developing a new ADM paradigm on which to build advanced or expert decision making training 04 p0787 N93-15026
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
How scientific must technical editors be?
[DE92-040741] 04 p1010 N93-15655
The formal use of expert judgments in environmental management
[DE92-019481] 05 p1199 N93-15852
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography
[ETN-92-92818] 05 p1104 N93-16473
Investigation of III-V superlattices and heterostructures by convergent-beam electron diffraction
[ETN-92-92784] 05 p1321 N93-16581
Automated Weather Observing System (AWOS) Data Acquisition System (ADAS) Operational Test and Evaluation (OT/E) integration and OT/E operational test plan
[DOT/FAA/CT-TN90/65] 05 p1214 N93-16631
Evaluation and recommendations for work group integration within the Materials and Processes Lab 05 p1341 N93-17293
Reliability evaluation methodology for NASA applications 05 p1182 N93-17328
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Unit analysis and testing
[AD-A258435] 06 p1616 N93-17867
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
Design and evaluation of FDDI fiber optics networkfor Ethernets, VAX's and Ingraph work stations 06 p1664 N93-19408
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161
Test techniques for evaluating flight displays
[NASA-TM-103947] 07 p1783 N93-21810
A framework for the objective test and evaluation of explosive detection technology 07 p1769 N93-21890
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079
Evaluation of distributed computing tools
[DE93-007408] 08 p2446 N93-22531
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Polyreactions in microgravity environment 08 p2251 N93-22859
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate
[AD-A262594] 11 p3596 N93-29424
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix C: Nozzle PFORs
[NASA-CR-192565] 11 p3272 N93-30620

EVAPORATION
NT EVAPOTRANSPIRATION
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
Method and apparatus for controlling protein crystallization
[NASA-CASE-MFS-28688-1] 05 p1323 N93-17043
Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation
[AD-A257634] 05 p1141 N93-17721
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
Growth and properties of co-evaporated superconducting YBaCuO thin films
[ETN-92-92798] 06 p1673 N93-18441
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances 09 p2626 N93-26015
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
Mergers, cooling flows, and evaporation 10 p3194 N93-26842
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
Unexpected increase in the thermal generation rate of bulk GaAs due to electron-beam metallization
[DE93-009829] 11 p3598 N93-30511
The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C 12 p3862 N93-31940

EVAPORATION RATE
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances 09 p2626 N93-26015

EVAPORATIVE COOLING
NT FILM COOLING
NT SWEAT COOLING
A model for analytical performance prediction of hypervapotron
[DE92-018885] 02 p0305 N93-12010
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
Transient cooling of a hot surface by droplets evaporation
[PB93-189421] 12 p3722 N93-31114

EVAPORATORS
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
MHD seed recovery/regeneration
[DE93-000904] 05 p1312 N93-17347
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Advanced interface heat exchangers for the Space Station main thermal bus 10 p2971 N93-27844
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339

EVAPOTRANSPIRATION
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465

EVASIVE ACTIONS
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208

EVECTION
U LUNAR ORBITS
U ORBIT PERTURBATION
U SOLAR GRAVITATION

EVEN-EVEN NUCLEI
Low-spin identical bands in neighboring odd-A and even-even nuclei
[DE93-008569] 10 p3132 N93-27486

EVENTS
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
Flow models of distributed computations: Event structures and nets
[INRIA-RR-1482] 06 p1646 N93-18612
On the evaluation of coherent structures using computer programs 07 p1937 N93-20688

EVOKED RESPONSE (PSYCHOPHYSIOLOGY)
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432

Spatio-temporal masking: Hyperacuity and local adaptation
[AD-A257934] 06 p1595 N93-18006
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training
06 p1430 N93-19706
Comparative analytical study of evoked and event related potentials as correlates of cognitive processes
[AD-A261388] 09 p2799 N93-26446
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818

EVOLUTION
The formation of giant molecular clouds
04 p1021 N93-15086

EVOLUTION (DEVELOPMENT)
NT ABIOGENESIS
NT BIOLOGICAL EVOLUTION
NT CHEMICAL EVOLUTION
NT GALACTIC EVOLUTION
NT LUNAR EVOLUTION
NT PLANETARY EVOLUTION
NT SOLAR SYSTEM EVOLUTION
NT STAR FORMATION
NT STELLAR EVOLUTION
NT STELLAR MASS ACCRETION
Modeling of asteroidal dust production rates
06 p1705 N93-19150
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848
Life in and from space 08 p2161 N93-24373
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
Evolving information systems: Beyond temporal information systems
[TR-92-04] 10 p3167 N93-27886
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887
Man, technology, society and development: From the hunters and gatherers to the first industrial revolution 3.5 million years ago into AD1760
[ISBN-9-03-860102-6] 12 p3833 N93-31543

EVOLUTION (LIBERATION)
NT GAS EVOLUTION

EXACTNESS
U PRECISION

EXCAVATION
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Mining nonterrestrial resources: Information needs and research topics 05 p1381 N93-16885
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
Resource availability at Taurus-Littrow
06 p1736 N93-18792
Computer aided planning of laboratory tests of excavator attachments 07 p1924 N93-20352

EXCHANGING
NT CHARGE EXCHANGE
NT GAS EXCHANGE
NT ION EXCHANGING
NT RESONANCE CHARGE EXCHANGE
NT SPIN EXCHANGE

EXCIMER LASERS
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Excimer laser irradiation of metal surfaces
04 p0884 N93-14175
Laser-induced dissociation of HN3(DN3) on GaAs(100) K
[AD-A257426] 05 p1315 N93-15865
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Studies of tunable, high power excimer lasers
08 p2309 N93-23597
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Optical and kinetic processes in excimer lasers
[AD-A264210] 12 p3733 N93-32402

EXCITATION
NT ACOUSTIC EXCITATION
NT ATOMIC EXCITATIONS
NT HARMONIC EXCITATION
NT MOLECULAR EXCITATION
NT PHOTOEXCITATION
NT SELF EXCITATION
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Evolutionary spectra of time-dependent discretized systems to time-frequency modulated random excitations 01 p0055 N93-10524
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser
02 p0245 N93-11135
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Photoinduced electron transfer counter to the bias field in coupled quantum wells
[AD-A254719] 02 p0469 N93-12338
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis
03 p0699 N93-13907
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
Some theoretical and experimental aspects of the generation of guided elastic waves using finite sources
04 p0897 N93-14219
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
A mixed excitation vocoder with fuzzy logic classifier
[AD-A256834] 04 p0864 N93-15636
Modal identification of mechanical structures by means of tuned base-motion excitation
05 p1077 N93-15721
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Meteor fireball sounds identified
06 p1709 N93-19184
The contribution of electron collisions to rotational excitations of cometary water 06 p1721 N93-19268
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
Nonlinearization of nonlinear systems under external and parametric random excitations 07 p1945 N93-20730
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Monolithic quartz vibrating beam accelerometer
09 p2711 N93-25011
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
The interaction of swift electrons with surface excitations
[DE93-007245] 09 p2848 N93-25376
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
Femtosecond laser studies of excited state dynamics
[AD-A263708] 11 p3439 N93-29918
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983
Experimental and theoretical aspects of excited state electron transfer and related phenomena
[AD-A263457] 11 p3570 N93-30589
String-like excitations in quantum electrodynamics
[DE92-642593] 12 p3830 N93-31075
Distribution function of excitations in systems with fractional statistics
[DE93-608195] 12 p3810 N93-31307

EXCITED STATES
U EXCITATION

EXCITONS
Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983
Exciton solitary waves in molecular crystals
[DE93-608693] 12 p3827 N93-31100
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669

EXCLUSION
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389

EXECUTIVE AIRCRAFT
U GENERAL AVIATION AIRCRAFT
U PASSENGER AIRCRAFT

EXECUTIVE SYSTEMS (COMPUTERS)
U OPERATING SYSTEMS (COMPUTERS)

EXERCISE
U PHYSICAL EXERCISE

EXERCISE PHYSIOLOGY
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
AFTERRISE: Deep body temperature following exercise
[AD-A259887] 08 p2421 N93-23984
Combined strength and endurance training: Functional and morphological adaptations to ten weeks of training
[AD-A261059] 09 p2802 N93-26229

Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894

EXERTION
U PHYSICAL WORK

EXHAUST DIFFUSERS
Aero engine ceramics: The vision, the reality, and the progress
[PNR-90983] 02 p0264 N93-11066
Cooling predictions in turbofan engine components 11 p3259 N93-29964

EXHAUST EMISSION
Federal Alternative Fuel Program light duty vehicle operation
[DE92-018124] 02 p0274 N93-11794
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas 04 p0909 N93-14118
A low emission vehicle procurement approach for Washington state
[DE92-040561] 05 p1176 N93-16406
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
Technical comparison between Hythane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
Enabling document for regulations governing compliance extensions for early reductions of hazardous air pollutants
[PB93-147007] 08 p2390 N93-24584
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Magnitude and value of electric vehicle emissions reductions for six driving cycles in four US cities with varying air quality problems
[DE93-006417] 09 p2660 N93-25298
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
National air pollutant emission estimates
[PB93-157808] 09 p2765 N93-25850
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192937] 09 p2767 N93-26427
Emissions and fuel economy of Federal alternatively fueled fleet vehicles
[PB93-167195] 10 p3067 N93-26622
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192988] 10 p3068 N93-27163
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Climatic effects of turbofan emissions in the stratosphere and the higher troposphere 12 p3753 N93-31927
Effects of commercial flight pollution on human health 12 p3753 N93-31931
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

EXHAUST FLOW SIMULATION
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005
Numerical simulation of perfect fluid flows around complex 3D configurations by a multidomain solver using the MUSCL approach 11 p3417 N93-28745
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065

EXHAUST GASES
NT FLUE GASES
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Federal Alternative Fuel Program light duty vehicle operation
[DE92-018124] 02 p0274 N93-11794
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
A low emission vehicle procurement approach for Washington state
[DE92-040561] 05 p1176 N93-16406
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763
Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
An experimental study of under-expanded jets 09 p2577 N93-25467
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005
Shuttle PRCS plume contamination analysis for Astro-2 mission
[NASA-CR-193828] 10 p2986 N93-27240
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Biological treatment of porous off-gases
[VTT-JULK-766] 12 p3752 N93-31853
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

EXHAUST JETS
U EXHAUST GASES

EXHAUST NOZZLES
NT CONVERGENT-DIVERGENT NOZZLES
NT PLUG NOZZLES
Altitude compensating nozzle evaluation 01 p0022 N93-10037
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131

Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641

EXHAUST SYSTEMS
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065

EXHAUST VELOCITY
Engine exhaust characteristics evaluation in support of aircraft acoustic testing
[NASA-TM-104263] 12 p3682 N93-32220

EXHAUSTING
Flammability and explosion limits of H2 and H2/CO: A literature review
[AD-A264896] 12 p3702 N93-31064

EXISTENCE THEOREMS
On the time dependent hydrodynamic model for semiconductors
[ETN-93-93027] 06 p1518 N93-18098

EXITS (DOORS)
U DOORS

EXOBIOLOGY
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
EURECA
[ESA-F-26] 03 p0522 N93-12964
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
NASA/NSF Antarctic Science Working Group
05 p1222 N93-16802
A manned exobiology laboratory based on the Moon
05 p1074 N93-17457
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
Exobiology in Solar System Exploration
[NASA-SP-512] 06 p1590 N93-18545
Overview: Exobiology in solar system exploration
06 p1591 N93-18546
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Europa: Prospects for an ocean and exobiological implications 06 p1591 N93-18552
Titan 06 p1592 N93-18553
Cosmic dust 06 p1592 N93-18554
Comets: Role and importance to exobiology
06 p1592 N93-18556
CRAF Mission: An opportunity for exobiology
06 p1592 N93-18558
Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
Exobiology: The NASA program
06 p1593 N93-18561
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Long duration human exposure to microgravity
07 p1802 N93-21073
Space life sciences overview
07 p1802 N93-21074
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Life sciences utilization of Space Station Freedom
08 p2185 N93-22622
Life sciences recruitment objectives
08 p2186 N93-22623
Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625
Gas-Grain Simulation Facility (GGSF)
08 p2186 N93-22626
Research opportunities with the Centrifuge Facility
08 p2187 N93-22627
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828
Space Biology Initiative. Trade Studies, volume 1
[NASA-CR-190989] 08 p2417 N93-23068
Space biology initiative program definition review. Trade study 5: Modification of existing hardware (COTS) versus new hardware build cost analysis
08 p2417 N93-23069
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization
08 p2417 N93-23070
Space biology initiative program definition review. Trade study 4: Design modularity and commonality
08 p2418 N93-23071
Space Biology Initiative. Trade Studies, volume 2
[NASA-CR-190990] 08 p2418 N93-23079
Space biology initiative program definition review. Trade study 3: Hardware miniaturization versus cost
08 p2418 N93-23080
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
Space biology initiative program definition review. Trade study 2: Prototype utilization in the development of space biology hardware 08 p2418 N93-23082
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206
Mir 1992: Scientific program and payload
08 p2157 N93-24351
Life in and from space 08 p2161 N93-24373
Gravity and root morphogenesis
08 p2166 N93-24403
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
Exobiology and terrestrial life
08 p2166 N93-24405
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission
09 p2603 N93-24717
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
Space biology research development
[NASA-CR-192830] 09 p2792 N93-25242
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924

EXOSAT SATELLITE
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404

EXOSKELETONS
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107

EXOSPHERE
Data analysis and interpretation of lunar dust exosphere 09 p2898 N93-26059

EXOTHERMIC REACTIONS
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800

EXPANDABLE STRUCTURES
NT AIR BAG RESTRAINT DEVICES
NT BALLOONS
NT BEACON SATELLITES
NT BELLOWS
NT GAS BAGS
NT INFLATABLE STRUCTURES
NT TETHERED BALLOONS
A new deployable mast 01 p0014 N93-10511
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Research on large structure assembly technology: Research on deployable assembly structure
07 p1795 N93-20444
Advanced collapsible tank for liquid containment
[NASA-CR-188247] 11 p3353 N93-28698

EXPANSION
NT GAS EXPANSION
NT KARHUNEN-LOEVE EXPANSION
NT SERIES EXPANSION
NT THERMAL EXPANSION
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
Revision by expansion in logic programs
[REPT-93-02] 12 p3790 N93-31852

EXPANSION WAVES
U ELASTIC WAVES

EXPEDITIONS
JARE data reports no. 179 (meteorology 29). Meteorological data at Asuka Station, Antarctica in 1990
03 p0663 N93-13287
A lunar polar expedition 05 p1395 N93-17433
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory
[NASA-CR-192029] 06 p1695 N93-18163
Aerobraking technology studies
08 p2173 N93-22089
Field and laboratory investigations of Antarctic meteorites collected by United States expeditions, 1985-1987
[PB93-182723] 12 p3861 N93-32415

EXPENDABLE STAGES (SPACECRAFT)
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415

EXPERIENCE
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449

EXPERIMENT DESIGN
NT FACTORIAL DESIGN
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
High beta and confinement studies on TFTR
[DE92-018647] 02 p0452 N93-11568
A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494

Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
The 1992 Shuttle Small Payloads Symposium
[NASA-CP-3171] 03 p0508 N93-13158
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162
G254 undergraduate experiment 03 p0511 N93-13174
Proper battery system design for GAS experiments 03 p0511 N93-13176
CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity 03 p0511 N93-13178
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
The VTRE Program: An overview 03 p0512 N93-13182
The unique challenge of managing an undergraduate Get-Away-Special experiment 03 p0512 N93-13185
Preparing safety data packages for experimenters using the Get Away Special (GAS) carrier system 03 p0512 N93-13186
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
MATE: The multi-agent test environment
[NASA-TM-108114] 04 p0965 N93-15292
Space Station Freedom user's guide
[NASA-TM-108105] 04 p0825 N93-15650
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Advanced light source
[DE92-041181] 05 p1302 N93-16196
Representation of research paradigms as a function of familiarity with research domains
[AD-A256553] 05 p1263 N93-16266
Microwave processing of ceramics: Guidelines used at the Oak Ridge National Laboratory
[DE92-040862] 05 p1123 N93-16297
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
A general experiment definition system and its applications 06 p1517 N93-19576
The G2-system, a second generation experimental philosophy for EISCAT 06 p1517 N93-19577
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Growth, characterization and device development in monocrystalline diamond films
[AD-A259099] 07 p2079 N93-20407
Development of the Aquatic Research Facility 07 p1807 N93-21100
Integration and use of Microgravity Research Facility: Lessons learned by the crystals by vapor transport experiment and Space Experiments Facility programs 08 p2193 N93-22652
Software engineering: What do experiments need?
[DE93-004767] 08 p2436 N93-22740
Polyreactions in microgravity environment 08 p2251 N93-22859
Payload operations 08 p2163 N93-24384
Laser ignition application in a space experiment
[NASA-TM-106133] 09 p2664 N93-25337
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
Design and validation of optimal experiments for estimating thermal properties of composite materials 09 p2635 N93-25541
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs 09 p2670 N93-26063
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Full system engineering design and operation of an oxygen plant 10 p3021 N93-26696
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-28171
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
CSI-Star: A low-cost CSI orbital testbed 11 p3263 N93-28707
NASA in-step: Permeable membrane experiment 11 p3267 N93-28736
Experiments in corrosion for younger students by and for older students 11 p3291 N93-30955
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962
A 69 cent look at thermoplastic softening 11 p3292 N93-30963
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964
Walkway friction: Experiment and analysis 11 p3293 N93-30966
Thermoforming from a systems viewpoint 11 p3293 N93-30967
Fracture of glass 11 p3293 N93-30969
Experiments in materials science from household items 11 p3293 N93-30971
An automated data collection system for a Charpy impact tester 11 p3293 N93-30972
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Taguchi method of experimental design in materials education 11 p3294 N93-30975
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976
High thermal conductivity of diamond 11 p3294 N93-30977
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979

EXPERIMENTAL AIRCRAFT
U RESEARCH AIRCRAFT

EXPERIMENTATION
NT PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE
Numerical simulation of transient crack growth 01 p0048 N93-10488
Hydrodynamic efficiencies in implosion experiments 02 p0308 N93-12030
Scientific experimentation afforded by the International Asteroid Mission 03 p0515 N93-13561
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Stability and transition of hypersonic boundary layer 07 p1763 N93-20687
Canadian microgravity experiments flown in 1990-1991 07 p1807 N93-21101
Experiments aboard the Caravelle for the 3 ESA campaigns in 1990 07 p1807 N93-21102
Studies of dispersed phase systems: Ostwald ripening and metal matrix composites 07 p1808 N93-21106
Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080
Software engineering: What do experiments need?
[DE93-004767] 08 p2436 N93-22740
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Microwave interrogation frequency noise and clock frequency stability: Experimental results 09 p2842 N93-25056
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234

EXPERT SYSTEMS
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
PRODIGY4.0: The manual and tutorial
[AD-A253970] 01 p0137 N93-10422
Analysis of observation report databases/knowledge bases
[AD-A252636] 01 p0172 N93-10428
TAQL: A problem space tool for expert system development
[AD-A253820] 01 p0175 N93-10826
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
A knowledge-based blackboard system to interpret graphical data from vibration tests of gas turbines
[PNR-90993] 02 p0212 N93-11114
Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Hypertext functionality: A theoretical framework 02 p0478 N93-11858
A state-based approach to trend recognition and failure prediction for the Space Station Freedom 02 p0230 N93-11925
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11928
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
The development and technology transfer of software engineering technology at NASA. Johnson Space Center 02 p0396 N93-11943
Knowledge-based system V and V in the Space Station Freedom program 02 p0396 N93-11945
Design of an Ada expert system shell for the VHSIC avionic modular flight processor 02 p0397 N93-11947
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Manager's assistant systems for space system planning 02 p0398 N93-11952
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420
Formal specification of the VIPER microprocessor in HOL
[RSRE-90009] 02 p0405 N93-12430
Expert-system development in Soar: A tutorial
[AD-A254571] 03 p0682 N93-12645
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
An intelligent position-specific training system for mission operations
[NASA-TM-108381] 03 p0691 N93-13156
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Adding explanation capability to a knowledge-based system for interpretation of oceanographic images
[AD-A255887] 03 p0671 N93-13943
A study of traditional information access models applied in a hypertext information system 03 p0739 N93-14076
DESAID (the development of an expert system for aircraft initial design) 04 p0790 N93-14448
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
The evolution of artificial intelligence and expert computer systems in the Army
[AD-A255221] 04 p0962 N93-14525
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
A robotic planning system 04 p0810 N93-14949
PEX: A reactive procedure based decision maker
[REPT-921-440-105] 04 p0999 N93-15118
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Query optimization and planning in object-oriented knowledge bases
[AD-A256006] 04 p1008 N93-15254

Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
A single-station forecasting model
[AD-A256403] 04 p0924 N93-15331
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
ExperCAT case studies
[AD-A256177] 05 p1211 N93-15871
Extracting viewpoints from multifunctional knowledge bases
[AD-A256008] 05 p1351 N93-15886
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539
An expert system shell for inferring vegetation characteristics: Implementation of additional techniques (task E)
[NASA-CR-190999] 05 p1191 N93-16685
An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687
An expert system shell for inferring vegetation characteristics
[NASA-CR-191207] 05 p1191 N93-16691
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Study of port of FRAMES artificial intelligence system
[NASA-CR-192449] 05 p1261 N93-16740
An intelligent decomposition approach for efficient design of non-hierarchic systems
05 p1254 N93-16762
The software-cycle model for re-engineering and reuse 05 p1244 N93-17165
A second generation expert system for checking and diagnosing AXAF's electric power system
05 p1152 N93-17287
NADIR: A prototype system for detecting network and file system abuse
[DE93-000861] 05 p1256 N93-17385
Knowledge modeling for software design
05 p1251 N93-17525
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Study of an adaptive maintenance strategy for logic systems
[ETN-92-92673] 05 p1252 N93-17640
Program 6 technical interchange meeting proceedings
[AD-A257736] 05 p1356 N93-17665
The Schoenmaker's paradox: Its solution in a belief dependence framework
[LP-91-05] 05 p1273 N93-17725
Belief dependence, revision and persistence
[LP-91-06] 05 p1273 N93-17727
Methodologies of automatic control including fuzzy logic
[LAAS-92257] 06 p1631 N93-17814
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979
Automated documentation generator for advanced protein crystal growth
[NASA-CR-192452] 06 p1673 N93-18425
Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations
06 p1634 N93-18660
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
High temperature component analysis with expert systems 06 p1557 N93-18751
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Automatically calibrating admittances in KATE's autonomous launch operations model
06 p1456 N93-19401
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Patterns for knowledge discovery in databases
06 p1688 N93-19712
Extracting knowledge from data: SYS8688 approach
06 p1688 N93-19715
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Self-questioning and experimentation in an exploratory discovery system 06 p1689 N93-19717
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
Discovery of physical principles from design experiences 06 p1690 N93-19722
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Machine discovery by model driven analogy
06 p1629 N93-19724
Informal qualitative models in scientific discovery
06 p1690 N93-19725
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
The evaluation and reporting of discovery systems
06 p1691 N93-19734
Evaluating machine discovery systems
06 p1692 N93-19735
A knowledge-based system for satellite imagery segmentation
[INPE-5296-PRE/1701] 06 p1568 N93-19834
User interface of complex interactive computer systems
[ECL-92-05] 07 p2030 N93-20059
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Expert system verification and validation study
[NASA-CR-192175] 07 p2034 N93-20779
The design of bonded structural assemblies
[REPT-921-430-116] 07 p1824 N93-20934
An expert system to study bonded joints
[REPT-921-430-113] 07 p1833 N93-20937
Knowledge-based consulting system for dynamic network security control
[ETN-93-93420] 07 p2028 N93-21069
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Adaptive control with an expert system based supervisory level
[NASA-CR-192742] 07 p2048 N93-21372
Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
Expert system verification and validation study: Workshop and presentation material
[NASA-CR-192176] 07 p2041 N93-21661
The Galileo PPS expert monitoring and diagnostic prototype
[NASA-CR-191914] 07 p1828 N93-21823
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
An integrated information retrieval and document management system 08 p2530 N93-22156
A fault-tolerant intelligent robotic control system
08 p2465 N93-22159
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping
08 p2259 N93-22174
Knowledge From Pictures (KFP)
08 p2465 N93-22187
Onboard navigation rendezvous expert system
08 p2144 N93-22280
Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285
The role of smart systems in rendezvous, close proximity operations and docking maneuvers
08 p2150 N93-22310
Investigation of cognition acquisition using natural language conversational process
[MBB-FE-315-S-PUB-0498] 08 p2435 N93-22391
An expert system for the diagnostic and maintenance of various aircraft components
[MBB-FE-363-S-PUB-0499] 08 p2105 N93-22392
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Evaluating the potential of combining an expert system and simulation for LAN selection
08 p2524 N93-23127
AEROBA: A control blackboard approach for model formulation 08 p2524 N93-23183
Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge
[AD-A259491] 08 p2459 N93-23448
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Knowledge-based systems for computational control
[AD-A260409] 08 p2527 N93-24110
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
Activities of the Institute for Information Technology
[NRC-35023] 08 p2571 N93-24648
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information
09 p2741 N93-24796
How to combine probabilistic and fuzzy uncertainties in fuzzy control
[NASA-TM-108746] 09 p2818 N93-25138
How to control if even experts are not sure: Robust fuzzy control
[NASA-TM-108745] 09 p2818 N93-25142
An expert system shell for inferring vegetation characteristics: Interface for the addition of techniques (Task H)
[NASA-CR-192897] 09 p2754 N93-25154
How to help intelligent systems with different uncertainty representations cooperate with each other
[NASA-CR-192947] 09 p2818 N93-25196
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
Min and max are the only continuous ampersand-, V-operations for finite logics
[NASA-CR-192952] 09 p2820 N93-25452
What procedure to choose while designing a fuzzy control? Towards mathematical foundations of fuzzy control
[NASA-TM-108719] 09 p2820 N93-25459
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems
09 p2814 N93-25589
TARGET: Rapid capture of process knowledge
09 p2814 N93-25590
Tree classification software 09 p2814 N93-25591
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
Software lifecycle support environment (SLCSE) knowledge-based enhancements
[AD-A261042] 09 p2811 N93-25791
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800

Knowledge-based assistance for science visualization and analysis using large distributed databases
09 p2879 N93-25801
Development of an expert data reduction assistant
09 p2880 N93-25808
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
A methodology and software environment for testing process model's sequential predictions with protocols
[AD-A260980] 09 p2882 N93-25844
Development of a heuristic knowledge base for the selection of applicable or relevant and appropriate environmental requirements
[AD-A261036] 09 p2765 N93-25864
Using AI/expert system technology to automate planning and replanning for the HST servicing missions
09 p2822 N93-25962
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
The WorkPlace distributed processing environment
09 p2825 N93-25977
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
Multi-viewpoint clustering analysis
09 p2825 N93-25980
Expert systems for assembly sequence evaluation
09 p2669 N93-26411
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
An expert system shell for inferring vegetation characteristics: Changes to the historical cover type database (Task F)
[NASA-CR-193067] 10 p3063 N93-27072
Elicitation of expert knowledge and assessment of imprecise prior densities for lifetime distributions
[MEMO-COSOR-92-12] 10 p3123 N93-27231
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Advanced automation of a prototypic thermal control system for Space Station 10 p2972 N93-27846
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Constraints logic programming in knowledge-based planning domains
[AD-A262958] 10 p3104 N93-28291
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
Planning for air to air combat
11 p3501 N93-28852
Uncertainty reasoning in expert systems
[NASA-CR-193120] 11 p3548 N93-28973
Neural network technologies
[AD-A262576] 11 p3541 N93-28987
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Spurious symptom reduction in fault monitoring
[NASA-CR-191453] 11 p3542 N93-29192
Data reduction expert assistant
11 p3613 N93-29227
Overview of the System of Experts for Intelligent Data Management (SEIDAM) 11 p3613 N93-29228
DataHub knowledge based assistance for science visualization and analysis using large distributed databases 11 p3613 N93-29230
Collection-oriented match: Scaling up the data in production systems
[AD-A262755] 11 p3615 N93-29459
Parallel inferencing method and apparatus for rule-based expert systems
[NASA-CASE-NPO-18004-1-CU]
11 p3521 N93-29504
How to select combination operators for fuzzy expert systems using CRI 11 p3510 N93-29521
Approximate reasoning using terminological models
11 p3510 N93-29522
A neuro-fuzzy architecture for real-time applications
11 p3511 N93-29529
Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers
11 p3518 N93-29573
Life insurance risk assessment using a fuzzy logic expert system 11 p3520 N93-29585
Development of a concept formulation process aid for analyzing training requirements and developing training devices
[AD-A263579] 11 p3261 N93-29972
Systems description of MIVOS (mist forecast system), part 1
[KNMI-TR-141-PT-1] 11 p3483 N93-30013
STRATUS: A prototype expert advisory system for terminal weather forecasting 11 p3367 N93-30296
An expert system for identification of the task status from tactile sensor data 11 p3368 N93-30300
Airspace Design Expert System (ADES), a 2D/3D mapping and modelling tool incorporating an expert system for use in instrument approach design
11 p3247 N93-30357
Investigations into database management system support for expert system shells, volumes 1 and 2
12 p3835 N93-31108
Testability of artificial neural networks: A behavioral approach
[REPT-92-047] 12 p3797 N93-31254
Analysis of fault tolerance in artificial neural networks
[REPT-92-048] 12 p3797 N93-31255
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472
Expert system development for probabilistic load simulation 12 p3695 N93-31570
Quality support tool of simulation models: A comparison between methodology
[REPT-92-061/BIS] 12 p3839 N93-31605
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
Integration of domain and resource-based reasoning for real-time control in dynamic environments
12 p3794 N93-32141
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305
Investigation of advanced technology for airway facilities maintenance training
[DOT/FAA/CT-TN92/24] 12 p3678 N93-32336
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

EXPLODING CONDUCTOR CIRCUITS
U CIRCUITS
U EXPLODING WIRES

EXPLODING CONDUCTORS
U EXPLODING WIRES

EXPLODING WIRES
Improving the jitter of the 150 kJ experiments solid dielectric switches
[DE93-009459] 11 p3405 N93-28597
High-voltage pulse generator capable of 2000 J at 10 kV
[AD-A262034] 11 p3407 N93-28999

EXPLOITATION
Exploitation of cyclostationarity for signal-parameter estimation and system identification
[AD-A260833] 09 p2728 N93-25784

EXPLORATION
NT LUNAR EXPLORATION
NT MINERAL EXPLORATION
NT OIL EXPLORATION
NT SPACE EXPLORATION
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253] 08 p2195 N93-24057

EXPLORER SATELLITES
NT COSMIC BACKGROUND EXPLORER SATELLITE
NT DYNAMICS EXPLORER SATELLITES
NT EXPLORER 50 SATELLITE
NT EXTREME ULTRAVIOLET EXPLORER SATELLITE
NT INTERNATIONAL SUN EARTH EXPLORER 1
NT INTERNATIONAL SUN EARTH EXPLORER 2
NT INTERNATIONAL SUN EARTH EXPLORER 3
NT INTERNATIONAL SUN EARTH EXPLORERS
On-orbit demonstrations of automated closure and capture using ESA-developed proximity operations technologies and an existing serviceable NASA Explorer platform spacecraft 07 p1816 N93-21433
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290

EXPLORER 50 SATELLITE
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135

EXPLOSIONS
NT CHEMICAL EXPLOSIONS
NT GAS EXPLOSIONS
NT NUCLEAR EXPLOSIONS
NT THERMONUCLEAR EXPLOSIONS
NT UNDERGROUND EXPLOSIONS
NT UNDERWATER EXPLOSIONS
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Tool grinding and spark testing
11 p3291 N93-30954
Flammability and explosion limits of H2 and H2/CO: A literature review
[AD-A264896] 12 p3702 N93-31064
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

EXPLOSIVE DECOMPRESSION
Aircraft accident report: Explosive decompression-loss of cargo door in flight, United Airlines Flight 811, Boeing 747-122, N4713U, Honolulu, HI, 24 February 1989
[PB92-910402] 02 p0204 N93-12193

EXPLOSIVE DEVICES
NT BOMBS (ORDNANCE)
NT BOOSTERS (EXPLOSIVES)
NT DETONATORS
NT EXPLODING WIRES
NT INITIATORS (EXPLOSIVES)
NT NUCLEAR DEVICES
NT PRIMERS (EXPLOSIVES)
NT SHAPED CHARGES
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Determination of pyrotechnic functional margin
07 p1863 N93-20134
Pyrotechnically actuated systems database and applications catalog 07 p1864 N93-20136
A semiconductor bridge ignited hot gas piston ejector
07 p1864 N93-20137
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
Pyrotechnic modeling for the NSI and pin puller
07 p1866 N93-20153
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
The UK perspective on aviation security
07 p1764 N93-21858
A general protocol for operational testing and evaluation of bulk explosive detection systems
07 p1769 N93-21888
Performance testing of explosives and weapons detection systems 07 p1769 N93-21889
A framework for the objective test and evaluation of explosive detection technology
07 p1769 N93-21890

Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
EXPLOSIVE FORMING
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
EXPLOSIVE GASES
U FLAMMABLE GASES
EXPLOSIVES
NT CELLULOSE NITRATE
NT HMX
NT RDX
NT STYPHNATES
NT TATB
NT TRINITROTOLUENE
Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
High energy cast explosives based on dinitropropylacrylate
[AD-D015340] 02 p0273 N93-11045
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Detonation reactions frozen by free expansion and analyzed by mass spectrometry
[DE92-018605] 02 p0274 N93-11566
Characterization of deflagrating munitions by rotating prism high speed photography
[MRL-TR-91-43] 02 p0311 N93-11648
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
The 4th International Symposium on Analysis and Detection of Explosives: Programs and abstracts
[AD-A258029] 05 p1129 N93-17751
Flash radiographic studies of hypervelocity projectile interactions with explosives
[AD-A258387] 06 p1497 N93-18260
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
Insights into US domestic aviation
07 p1764 N93-21859
Role of advanced technology within a broad security approach 07 p1765 N93-21860
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
An approach to improving TNA EDS
07 p1765 N93-21864
PFNA technique for the detection of explosives
07 p1765 N93-21865
A pulsed fast-thermal neutron interrogation system
07 p1765 N93-21866
The nitrogen camera: A new explosive detector
07 p1766 N93-21867
Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
Associated particle imaging 07 p1766 N93-21871
The RFQ LINAC: A high-current compact ion accelerator for explosive detection 07 p1766 N93-21872
An H(-) ion source for resonant gamma production
07 p1766 N93-21874
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques
07 p1767 N93-21875
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Explosives detection limitations using dual-energy radiography and computed tomography
07 p1767 N93-21878
New x ray technology for the detection of explosives
07 p1767 N93-21880
Advanced dual energy x ray for explosives detection
07 p1767 N93-21881
Three-dimensional x ray imaging for the detection of contraband 07 p1768 N93-21882
The evolution of Computed Tomography (CT) as an explosives detection modality 07 p1768 N93-21883
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Explosive detection for checked luggage by DETEX, a combined x ray and positron-tomograph system
07 p1768 N93-21886
Selective gamma ray resonant absorption for explosives detection 07 p1769 N93-21887
A general protocol for operational testing and evaluation of bulk explosive detection systems
07 p1769 N93-21888
A framework for the objective test and evaluation of explosive detection technology
07 p1769 N93-21890
Validation of simulated explosives for testing TNA explosives detection systems 07 p1769 N93-21891
Airport testing of a new thermal neutron analysis explosives detection system 07 p1769 N93-21892
Radiological safety aspects of TNA deployment
07 p1770 N93-21893
Experience with explosive detection systems in airports 07 p1770 N93-21895
Sampling explosives on airline passengers
07 p1770 N93-21896
Explosives detection by pure N-14 NQR
07 p1770 N93-21897
Explosive detection using dielectrometry
07 p1770 N93-21898
Liquid explosives screening system
07 p1771 N93-21899
Improved NMR signatures of explosives
07 p1771 N93-21900
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
Explosive detection using microwave imaging
07 p1771 N93-21902
Consideration of untried magnetic resonance techniques for possible baggage analysis 07 p1771 N93-21903
Dichotomous key approach for high confidence level identification of selected explosive vapors
07 p1771 N93-21904
Explosive vapor emission 07 p1772 N93-21905
A thermodynamic study of the vapor pressures of C-4 and pure RDX 07 p1772 N93-21906
Extraction, transportation and processing of explosives vapor in detection systems 07 p1772 N93-21907
Vapor sampling using controlled heating
07 p1772 N93-21908
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Calibration methods for explosives detectors
07 p1773 N93-21911
Vapor detection using SAW sensors
07 p1773 N93-21912
Fourier-transform infrared spectroscopy applied to explosive vapor detection 07 p1773 N93-21913
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection
07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer
07 p1773 N93-21915
Detection of explosives material on single microparticles 07 p1774 N93-21916
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Modifications to the ionization process to enhance the detection of explosives by API/MS/MS
07 p1774 N93-21918
The role of mass spectrometry in the detection of explosives 07 p1774 N93-21919
Modification to the ionization process to enhance the detection of explosives by IMS
07 p1774 N93-21920
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives
07 p1774 N93-21921
Detection of trace explosive evidence by ion mobilty spectrometry 07 p1774 N93-21922
Analysis of explosives using high speed gas chromatography with chemiluminescent detection
07 p1775 N93-21923
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
Marking of German plastic explosive for the enhancement of vapor detection
07 p1775 N93-21925
Program to tag military plastic/sheet explosives
07 p1775 N93-21926
An improved vapor taggant detector
07 p1775 N93-21927
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929
The challenge of biodetection for screening persons carrying explosives 07 p1776 N93-21931
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Explosives search dogs 07 p1776 N93-21933
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
A systems approach to the explosive detection problem 07 p1778 N93-21942
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
DSD Technology: A detonation reactive Huygens code
[LA-12235-MS] 09 p2706 N93-25987
Molecular composition, structure, and sensitivity of explosives
[DE93-003850] 09 p2662 N93-26493
Calibrating the BKW-EOS with a large product species data base and measured C-J properties
[DE93-007606] 10 p3008 N93-28151
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562
Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
An explosively actuated electrical switch using Kapton insulation
[AD-A263835] 11 p3411 N93-30021
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
Propulsion and detonics research in France
11 p3344 N93-30070
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive
[LA-UR-92-1427] 11 p3345 N93-30074
Detonation mass spectrometry
11 p3319 N93-30076
Strategies for understanding the deflagration-to-detonation transition
11 p3319 N93-30077
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100

Automatic detection of explosives using x ray imaging
11 p3244 N93-30275
Explosives detection systems for airport security gas chromatographic based devices
11 p3244 N93-30276
Advanced signal processing requirement in an ion mobility explosives detector 11 p3320 N93-30277
The measurement of electrical conductivity in detonating condensed explosives
[AD-A264482] 11 p3352 N93-30424
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651
NTO polymorphs
[DE93-005451] 12 p3712 N93-31186
Commissioning and operating instructions of one pint (US) mixer
[MRL-TN-634] 12 p3713 N93-31639
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
Advances in Analysis and Detection of Explosives. Proceedings of the 4th International Symposium on Analysis and Detection of Explosives
[AD-A265002] 12 p3713 N93-32077

EXPONENTIAL FUNCTIONS
NT LOGARITHMS
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function
[AD-A256525] 04 p0862 N93-15397
Comparison of tests, and local families
[MEMO-1034] 05 p1266 N93-16594
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Extended Lyapunov exponents for second order systems
[AD-A258838] 06 p1647 N93-19066
Performance and state-space analyses of systems using Petri nets
[NASA-CR-193195] 08 p2443 N93-24604
A Petrov-Galerkin mixed finite element method with exponential fitting
[CWI-NM-R9204] 10 p3113 N93-27301
A recurrence type characterization of mu-exponential ergodicity for Markov processes
[TW-92-03] 10 p3125 N93-27905
Two counterexamples related to the Kreiss matrix theorem
[TW-92-08] 10 p3118 N93-27917
Dipolar orientational relaxation in guest/host amorphous polymer probed by second harmonic generation
[AD-A262006] 11 p3333 N93-29441

EXPONENTS
An application of exponential neural networks to event-train recognition
[AD-A254948] 03 p0690 N93-12548
Extended Lyapunov exponents for second order systems
[AD-A258838] 06 p1647 N93-19066

EXPORTS
U INTERNATIONAL TRADE

EXPOSURE
Dermal exposure assessment: Principles and applications
[PB92-205665] 01 p0131 N93-10438
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Effect of sonic boom asymmetry on subjective loudness
[NASA-TM-107708] 05 p1282 N93-16755
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Human exposure assessment for airborne pollutants: Advances and opportunities
[PB92-223247] 07 p1991 N93-21496
Improved inhalation technology for setting safe exposure levels for workplace chemicals
08 p2423 N93-22164
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendoctrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259
Variations of time-to-incapacitation and carboxyhemoglobin values in rats exposed to two carbon monoxide concentrations
[DOT/FAA/AM-93/7] 10 p3082 N93-27152
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818
Carbon monoxide exposure of subjects with documented cardiac arrhythmias
[PB93-179943] 11 p3497 N93-30890

EXTARS
U X RAY STARS

EXTENDED DURATION SPACE FLIGHT
U LONG DURATION SPACE FLIGHT

EXTENSIONS
Two extendability in two classes of claw-free graphs
[AD-A254639] 02 p0427 N93-12243
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079

EXTENSOMETERS
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488
Enhanced noncontacting laser extensometer for biaxial strain measurements
[AD-A263170] 11 p3430 N93-28989

EXTERNAL COMBUSTION ENGINES
NT STIRLING ENGINES

EXTERNAL STORE SEPARATION
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711

EXTERNAL STORES
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432

EXTERNAL SURFACE CURRENTS
Computer-aided modeling for analysis of arbitrary scatterers and feeds 11 p3367 N93-30293

EXTERNAL TANKS
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Heat flow in variable polarity plasma arc welds
05 p1181 N93-17280
Reliability analysis of External Tank Attack Ring (ETA)
05 p1182 N93-17322
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055
Investigation of separation in a strap-on Space Shuttle system
[AD-A262372] 10 p2956 N93-27693

EXTINCTION
NT INTERSTELLAR EXTINCTION
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
Aerosol and light extinction databases for North America and Europe
[AD-A256710] 05 p1213 N93-16169
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Studies of droplet burning and extinction
07 p1854 N93-20212
Combustion experiments in reduced gravity with two-component miscible droplets
07 p1854 N93-20214
Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
A comparison of extinction curves for dust in galaxies of different Hubble types 10 p3187 N93-26805
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884

EXTINGUISHERS
U FIRE EXTINGUISHERS

EXTINGUISHING
NT FLAMEOUT
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223

EXTRACTION
NT GEOTHERMAL ENERGY EXTRACTION
NT ION EXTRACTION
NT SOLVENT EXTRACTION
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612
RF voltage modulation at discrete frequencies with applications to crystal channeling extraction
[DE92-015567] 03 p0707 N93-13235
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
The evaluation of a concept for a Canadian-made automated multipurpose materials extraction facility
04 p0810 N93-14947
Removal of THD from painted test panels by liquid systems
[AD-A255624] 04 p0850 N93-15064
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Lunar beneficiation 05 p1381 N93-16887
Oxygen from the lunar soil by molten silicate electrolysis 05 p1382 N93-16890
Plasma separation 05 p1313 N93-16892
Processes for metal extraction
05 p1382 N93-16893
Bioprocessing of ores: Application to space resources
05 p1382 N93-16894
Processing of metal and oxygen from lunar deposits
05 p1382 N93-16895
Networking electrochemical membrane separation devices: Theory and application
[DE93-001381] 05 p1106 N93-17066
Towards automated support for extraction of reusable components 05 p1244 N93-17163
The software-cycle model for re-engineering and reuse 05 p1244 N93-17165
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
Polymer-based separations: Synthesis and application of polymers for ionic and molecular recognition
[DE93-001835] 05 p1127 N93-17529
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011

Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
Hydrophobic effects from cavity statistics [DE93-003698] 07 p1904 N93-21734
Novel materials synthesis using an intense pulsed ion beam [DE93-005470] 08 p2506 N93-23314
Biological production of ethanol from coal [DE93-008947] 09 p2660 N93-25496
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Extraction of volatiles and metals from extraterrestrial materials 10 p2997 N93-26682
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins [DE93-009113] 10 p3003 N93-27622
Separation tool for multipin electrical connectors [NASA-CASE-NPO-18786-1-CU] 10 p3052 N93-28131
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution [AD-A265729] 12 p3820 N93-31797
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950

EXTRAGALACTIC LIGHT
U EXTRATERRESTRIAL RADIATION

EXTRAGALACTIC MEDIA
U INTERGALACTIC MEDIA

EXTRAGALACTIC RADIO SOURCES
NT RADIO GALAXIES
NT RADIO JETS (ASTRONOMY)
Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909
Corrections to the luni-solar precession derived from a compilation catalogue of extragalactic radio sources [MITT-SER-A-233] 07 p2095 N93-21052
Analysis and synthesis of catalogues of extragalactic radio sources [MITT-SER-A-231] 07 p2102 N93-21053
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Observation of the extragalactic x ray background 08 p2535 N93-23892
Gamma ray bursts from extragalactic sources 08 p2535 N93-23893
IRAS galaxies in the ROSAT survey 08 p2536 N93-23897
Extragalactic radio sources in the ROSAT survey 08 p2536 N93-23899

EXTRAPOLATION
Scientific study of data analysis [NASA-CR-184435] 03 p0769 N93-12658
Parallel step-by-step methods [CWI-NM-R9116] 05 p1256 N93-17545
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1 [AD-A258462] 06 p1502 N93-18262
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory [DE93-003470] 07 p2098 N93-21775
The PNL high-transmission three-stage mass spectrometer [DE93-006143] 08 p2486 N93-22506
The numerical solution of low Mach number flow in confined regions by Richardson extrapolation [TRITA-NA-9207] 11 p3238 N93-29005
Infinite volume extrapolations of finite cluster calculations. How correct are these? [AD-A265648] 12 p3809 N93-32170

EXTRASOLAR PLANETS
Detection of other planetary systems using photometry 11 p3632 N93-28791
Searching for exoplanets 12 p3846 N93-31760
SISTERS: A space interferometer for the search for terrestrial exo-planets by rotation shearing 12 p3846 N93-31764

EXTRATERRESTRIAL ENVIRONMENTS
NT CHROMOSPHERE
NT CISLUNAR SPACE
NT DEEP SPACE
NT EARTH ORBITAL ENVIRONMENTS
NT INTERPLANETARY SPACE
NT INTERSTELLAR SPACE
NT JUPITER ATMOSPHERE
NT LUNAR ATMOSPHERE
NT LUNAR ENVIRONMENT
NT MARS ATMOSPHERE
NT MARS ENVIRONMENT
NT NEPTUNE ATMOSPHERE
NT PLANETARY ATMOSPHERES
NT PLANETARY ENVIRONMENTS
NT PLANETARY IONOSPHERES
NT PLANETARY MAGNETOSPHERES
NT PLANETARY MAGNETOTAILS
NT SATELLITE ATMOSPHERES
NT SATURN ATMOSPHERE
NT SOLAR ATMOSPHERE
NT STELLAR ATMOSPHERES
NT URANUS ATMOSPHERE
NT VENUS ATMOSPHERE
NT VENUS CLOUDS
Europa: Prospects for an ocean and exobiological implications 06 p1591 N93-18552
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
Review on aluminum electrolytic condensers development 07 p1797 N93-20457

EXTRATERRESTRIAL INTELLIGENCE
Wide-bandwidth high-resolution search for extraterrestrial intelligence [NASA-CR-191807] 05 p1230 N93-16709
SETI in Europe 08 p2429 N93-23908

EXTRATERRESTRIAL LIFE
Venus: A search for clues to early biological possibilities 06 p1591 N93-18549
Mars: A reassessment of its interest to biology 06 p1591 N93-18550
Europa: Prospects for an ocean and exobiological implications 06 p1591 N93-18552
SETI in Europe 08 p2429 N93-23908
Life in and from space 08 p2161 N93-24373
Exobiology and terrestrial life 08 p2166 N93-24405
Space biology research development [NASA-CR-192830] 09 p2792 N93-25242

EXTRATERRESTRIAL MATTER
NT COSMIC GASES
NT COSMIC PLASMA
NT DARK MATTER
NT INTERPLANETARY GAS
NT INTERSTELLAR GAS
NT INTERSTELLAR MATTER
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888
The search for cold dark matter using germanium detectors 10 p3205 N93-28250

EXTRATERRESTRIAL RADIATION
NT GALACTIC COSMIC RAYS
NT GALACTIC RADIATION
NT GAMMA RAY BURSTS
NT INTERSTELLAR RADIATION
NT LUNAR RADIATION
NT PLANETARY RADIATION
NT SOLAR CORPUSCULAR RADIATION
NT SOLAR COSMIC RAYS
NT SOLAR ELECTRONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
NT SOLAR RADIATION
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
NT SOLAR WIND
NT SOLAR X-RAYS
NT STELLAR RADIATION
NT STELLAR WINDS
NT SUNLIGHT
NT ZODIACAL LIGHT
Power spectrum of the extragalactic background light 01 p0177 N93-10364
Chemical release and radiation effects experiment advanced planning and coordination [NASA-CR-184439] 03 p0649 N93-12718
A study of the generation of linear energy transfer spectra for space radiations [NASA-TM-4410] 03 p0772 N93-13572
A search for anisotropy in the cosmic background radiation at millimeter wavelengths on angular scales from 0.3 to 3 degrees 04 p1050 N93-14244
Predictions of dose from electrons in space [NASA-CR-191617] 04 p1051 N93-15580
Investigation of ring current/storm dynamics: Preliminary results [AD-A256704] 05 p1207 N93-16155
LDEF solar cell radiation effects analysis [NASA-CR-192458] 05 p1195 N93-16374
Feasibility assessment and applications development of a radiobiological dosimeter for space applications, phase 2 [CTN-93-60609] 05 p1168 N93-16745
HI in galaxy outskirts and the extragalactic ionizing flux 05 p1372 N93-17139
Space radiation health program plan [NASA-TM-108036] 06 p1598 N93-18375
Shielding from space radiations [NASA-CR-191966] 06 p1655 N93-18567
Radiological assessment for Space Station Freedom [NASA-TM-104758] 07 p2022 N93-20303
Direct-reading dosimeters for space life science experiments 07 p1804 N93-21083
Bubble detectors for the measurement of space radiation 07 p1804 N93-21084
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
Effects of space radiation on humoral and cellular immunity in rhesus monkeys [AD-A261808] 09 p2793 N93-26259
The emulsion chamber technology experiment 11 p3268 N93-28743
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771
Future radiation measurements in low Earth orbit 11 p3654 N93-29708

EXTRATERRESTRIAL RADIO WAVES
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION

EXTRATERRESTRIAL RESOURCES
NT LUNAR RESOURCES
Space resources. Volume 4: Social concerns [NASA-SP-509-VOL-4] 05 p1377 N93-16857
Space law and space resources 05 p1358 N93-16860
Space resources. Overview [NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios [NASA-SP-509-VOL-1] 05 p1379 N93-16870
Alternative scenarios utilizing nonterrestrial resources 05 p1379 N93-16872
Issues for further study 05 p1379 N93-16874
Space resources. Volume 3: Materials [NASA-SP-509-VOL-3] 05 p1379 N93-16875
Ground-based observation of near-Earth asteroids 05 p1360 N93-16879
Asteroid resources 05 p1380 N93-16880
Asteroid mining 05 p1381 N93-16884
Mining nonterrestrial resources: Information needs and research topics 05 p1381 N93-16885
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
In situ propellant production: Alternatives for Mars exploration [NASA-CR-187192] 05 p1130 N93-17799
Asteroid exploration and utilization: The Hawking explorer [NASA-CR-192027] 06 p1699 N93-18164
Research on lunar and planet development and utilization 07 p1789 N93-20412
NASA Space Engineering Research Center for utilization of local planetary resources [NASA-CR-191991] 07 p2099 N93-21553
NASA Space Engineering Research Center for utilization of local planetary resources [NASA-CR-191992] 07 p2103 N93-21554
Near Earth object fuels (neo-fuels): Discovery, prospecting and use [DE93-005185] 09 p2892 N93-25164
Representative systems for space exploration 09 p2897 N93-26395
NASA Space Engineering Research Center for utilization of local planetary resources [NASA-CR-192883] 10 p3206 N93-26674
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-26675
Extraction of volatiles and metals from extraterrestrial materials 10 p2997 N93-26682
Oxygen production on Mars and the Moon 10 p3021 N93-26683
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-27969
Options for a lunar base surface architecture 10 p3214 N93-27974
Unmanned lunar surface exploration 10 p2951 N93-28035
Research on lunar resources development and their utilization 10 p2952 N93-28039

Science missions for lunar resources exploration
10 p2953 N93-28044

EXTRATERRESTRIAL ROVING VEHICLES
U ROVING VEHICLES

EXTRAVEHICULAR ACTIVITY
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
An EVACS simulation with nested transactions
[NASA-CR-190636] 02 p0412 N93-11717
Decision rules for spaceborne operations planning
02 p0403 N93-11978
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
Extra-vehicular activity translation tool
[NASA-CASE-MSC-21955-1] 04 p0891 N93-14842
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Mission and Safety Critical (MASC): An EVACS simulation with nested transactions
[NASA-CR-192295] 07 p2026 N93-20314
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
TALON and CRADLE: Systems for the rescue of tumbling spacecraft and astronauts
08 p2142 N93-22268
A navigation and control system for an autonomous rescue vehicle in the space station environment
08 p2146 N93-22289
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Investigation of the effects of Extra Vehicular Activity (EVA) and Launch and Entry (LES) gloves on performance 09 p2803 N93-26061
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
Extravehicular activity system
10 p2966 N93-27787
EVA/manned systems 10 p2966 N93-27789
Evolving EVA system capability for the evolving Space Station Freedom requirements 10 p2966 N93-27791
EVA and telerobot interaction
10 p2967 N93-27792
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors
10 p2971 N93-27841
Extravehicular activity technology discipline
10 p2972 N93-27859
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118

EXTRAVEHICULAR MOBILITY UNITS
The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790
Evolving EVA system capability for the evolving Space Station Freedom requirements 10 p2966 N93-27791
Simplified Aid For Crew Rescue (SAFR)
10 p2967 N93-27793
Extravehicular activity technology discipline
10 p2972 N93-27859

EXTREMA
U RANGE (EXTREMES)

EXTREME ULTRAVIOLET EXPLORER SATELLITE
Extreme Ultraviolet Explorer. Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
NASA Center update: Goddard Space Flight Center
07 p1983 N93-20491
EUV spectral features of active binaries
08 p2536 N93-23904
Real-time attitude determination and gyro calibration
09 p2602 N93-24708
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
Decision-theoretic control of EUVE telescope scheduling 12 p3835 N93-32134

EXTREME ULTRAVIOLET RADIATION
EUV complementary instrumentation for SIMURIS
01 p0014 N93-10938
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
The Orbiter Stability Experiment on STS-40
03 p0508 N93-13159
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Solar extreme ultraviolet sensor and advanced langmuir probe
[NASA-CR-191972] 06 p1744 N93-18880
Extreme Ultraviolet Explorer. Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
EUV spectral features of active binaries
08 p2536 N93-23904
ORFEUS: Scientific targets and optical performance
08 p2537 N93-23905
SUMER: Solar Ultraviolet Measurements of Emitted Radiation 08 p2541 N93-23931
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
Imaging the magnetosphere in the extreme ultraviolet
[NASA-CR-192218] 09 p2775 N93-26151
In orbit degradation of EUV optical components in the wavelength range 10-40 nm AO 138-3
11 p3582 N93-29691
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346
The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
Solar corona synoptic observations from SOHO with an extreme ultraviolet imaging telescope
12 p3868 N93-31348
Observations of the solar corona with a high resolution EUV imaging spectrograph 12 p3875 N93-31390
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406
Abundance determination in the quiet corona
12 p3877 N93-31407

EXTREMELY HIGH FREQUENCIES
The DSI small satellite launcher
03 p0511 N93-13180
An agile frequency synthesizer/RF generator for the SCAMP terminal
[AD-A256777] 05 p1137 N93-16052
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna
06 p1505 N93-18903
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview
09 p2680 N93-26128
L- and K-band LMSS propagation measurements using MARECS-B, OLYMPUS, and ACTS
09 p2683 N93-26467
High-power Ka-band amplifier
11 p3385 N93-29590
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications
11 p3389 N93-29902
Coarse synchronization in an EHF frequency-hopped satellite communications system
11 p3365 N93-30281
Adaptive jammer nulling in EHF communications satellites 11 p3365 N93-30284
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311

EXTREMELY LOW FREQUENCIES
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
ELF propagation highlights 11 p3395 N93-30730
ELF propagation in deep and shallow sea water
11 p3397 N93-30739
A long wave TE/TM noise prediction model
11 p3397 N93-30742
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme
11 p3397 N93-30743
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744
ELF/VLF spectrum measurements
11 p3398 N93-30745
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746
Pattern measurements of US Navy ELF antennas
11 p3399 N93-30752
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines
11 p3399 N93-30755

EXTREMELY LOW RADIO FREQUENCIES
The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378
Long-term averages of globally-measured ELF/VLF radio noise
[AD-A255518] 03 p0566 N93-13869
Radiolocation in the lower ELF frequency band
08 p2270 N93-23630
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme
11 p3397 N93-30743
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746
Pattern measurements of US Navy ELF antennas
11 p3399 N93-30752
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere
12 p3826 N93-31689
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion?
12 p3855 N93-31693
Mirror mode and other compressive ULF modes
12 p3719 N93-31711

EXTREMUM VALUES
NT LIMITS (MATHEMATICS)
NT MAXIMA
NT MINIMA
An analogue of Philon's line in n dimensions
[MEMO-1032] 07 p2054 N93-20957
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651

EXTRUDING
NT PULTRUSION
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Simulation of forward-backward extrusion with numerical and model material techniques
[DE92-016299] 03 p0558 N93-13298

Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236
Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932
Performance study of the rheometrics melt flow monitor for real-time rheological characterization
[NRC-34372] 08 p2241 N93-24290
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839

EYE (ANATOMY)
NT FOVEA
NT PUPILS
NT RETINA
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659

EYE DISEASES
NT ASTIGMATISM
NT CATARACTS

EYE DOMINANCE
The effects of superimposing symbology on a simulated night vision goggle display
[AD-A263458] 11 p3508 N93-30590

EYE MOVEMENTS
NT NYSTAGMUS
NT SACCADIC EYE MOVEMENTS
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Visual psychophysics of egomotion
[AD-A248349] 02 p0386 N93-11488
Ocular attention-sensing interface system
[NASA-CR-190884] 03 p0678 N93-13450
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Eye movements and visual information processing
[AD-A259955] 08 p2425 N93-24297
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation 08 p2160 N93-24366
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Coordinated action in 3-D space
[AD-A261418] 09 p2799 N93-26449
NASA supporting studies for microgravity research on eye movements
[NASA-CR-193233] 11 p3493 N93-29041
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
A simple computational model of center-surround receptive fields in the retina
[AD-A264723] 11 p3496 N93-30515
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897

EYE PROTECTION
Radical ion formation in polymers as a mechanism for laser eye protection
[AD-A255992] 04 p0850 N93-15111
Multi-function visor 06 p1609 N93-19770
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702

F

F CENTERS
U COLOR CENTERS

F DISPLAYS
U F REGION

F LAYER
U F REGION

F REGION
NT F 2 REGION
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results 02 p0360 N93-11267
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited 02 p0360 N93-11268
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
A study of mid-latitude 5577 A OI dayglow emissions 04 p0913 N93-14199
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
Measurements of F-region drift velocities at the dusk sector mid-latitude trough
[AD-A257766] 06 p1575 N93-17907
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
EISCAT observations of spectral components of atmospheric gravity waves in the F region 06 p1578 N93-18743
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced? 06 p1723 N93-19525
EISCAT measurements in the E and F regions during the 12-16 February 1990 LTCS campaign 06 p1726 N93-19546
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions 06 p1726 N93-19547
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region 06 p1727 N93-19552
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region 06 p1727 N93-19553
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
INDI 06 p1730 N93-19570
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events 06 p1732 N93-19583
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar 06 p1732 N93-19586
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Observation of ionospheric modification using high power oblique HF transmissions
[AD-A258706] 07 p1998 N93-20378
On the hierarchy of processes contributing to equatorial spread F 08 p2395 N93-23595
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A259943] 08 p2401 N93-24322
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562
Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564
Studies of global ionospheric electrodynamics
[AD-A265033] 12 p3764 N93-31997
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

F 2 REGION
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data 06 p1517 N93-19578

F-4 AIRCRAFT
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present 06 p1425 N93-19673

F-110 AIRCRAFT
U F-4 AIRCRAFT

F-14 AIRCRAFT
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004

F-15 AIRCRAFT
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
A neural based intelligent flight control system for the NASA F-15 flight research aircraft 08 p2132 N93-22368
F-15 composite engine access door 11 p3302 N93-30442

F-16 AIRCRAFT
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device
[NLR-TP-91116-U] 05 p1062 N93-17538
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present 06 p1425 N93-19673
F-16 accidents: The Norwegian experience 06 p1425 N93-19674
Category A F-16 accidents in the Belgian Air Force 06 p1425 N93-19675
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733

F-18 AIRCRAFT
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method
[NASA-CR-191216] 03 p0503 N93-12903
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
The F-18 systems research aircraft facility
[NASA-TM-4433] 05 p1072 N93-16753
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110

System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764

F-104 AIRCRAFT
Load experience variability of fighter aircraft
[NLR-TP-89172-U] 07 p1781 N93-20742
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123

F-117A AIRCRAFT
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889
The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168

FAB (PROGRAMMING LANGUAGE)
U FORTRAN

FABRICATION
NT SPACE MANUFACTURING
Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Methodology for the computer-aided design of silicon micromachined devices in a standard CMOS process
[PB92-191246] 01 p0136 N93-10248
Air cell --- model aircraft power supplies
[CA-PATENT-APPL-SN-2001346] 01 p0072 N93-10368
Conductive titanate fiber and its production method
[DE92-014738] 01 p0039 N93-10627
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121
A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
Ceramic TBS/porous metal compliant layer 02 p0228 N93-12453
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Development of large-area monolithically integrated silicon-film photovoltaic modules
[DE92-010600] 03 p0637 N93-12838
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report
[NASA-TM-108379] 03 p0551 N93-13115
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649
Fabrication of thin film heat flux sensors 03 p0599 N93-13667
Technology trends in high temperature pressure transducers: The impact of micromachining 03 p0601 N93-13676
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Direct optical to microwave conversion
[RL-TR-91-375] 04 p0859 N93-14728
An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745
Advanced stitching technology 04 p0832 N93-14746
Flow behavior in liquid molding 04 p0833 N93-14747
Advances in 3-dimensional braiding 04 p0833 N93-14748
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Mechanical response of composite materials with through-the-thickness reinforcement 04 p0834 N93-14753
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor 04 p0784 N93-14846
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Superstrength metal composite material and process for making the same
[AD-D015379] 04 p0836 N93-15246
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Development of low-expansion ceramics for diesel engine applications
[DE92-041380] 04 p0853 N93-15438
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692
Dynamic fabrication of diamond thermal management substrates
[AD-A257213] 05 p1118 N93-15814
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors
[DE92-040760] 05 p1318 N93-16202
Initial imperfection survey on a cylindrical shell at the Ultra-Centrifuge Nederland n.v.
[LR-682] 05 p1184 N93-16211
Method of making Tl-Sr-Ca-Cu-Oxide superconductors comprising heating at elevated pressures in sealed container
[AD-D015482] 05 p1321 N93-16489
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Manufacturing and fabrication, part 3 --- extraterrestrial resources 05 p1382 N93-16898
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16928
Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032
Heat flow in variable polarity plasma arc welds 05 p1181 N93-17280
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
A domain-specific design architecture for composite material design and aircraft part redesign 05 p1250 N93-17522
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003358] 05 p1198 N93-17574
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
Processing and fabrication of high temperature oxide superconductors
[AD-A258281] 06 p1671 N93-18125
Field-emitter arrays for RF vacuum microelectronics
[AD-A258211] 06 p1518 N93-18203
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
Electrically modifiable nonvolatile SONOS synapses for electronic neural networks
[AD-A258318] 06 p1596 N93-18252
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Device applications of layered structures 06 p1523 N93-18461
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Integrated design of the CSI evolutionary structure: A verification of the design methodology 06 p1463 N93-18830
Integrated modeling of advanced optical systems 06 p1463 N93-18832
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Numerical control fabrication technique for dynamic composite models
[NASA-CASE-LAR-14004-1] 06 p1640 N93-19024
Method and apparatus for three dimensional braiding
[NASA-CASE-LAR-14047-1] 06 p1500 N93-19038
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627

Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
Tube diode
[INPE-5438-NTC/304] 06 p1551 N93-19832
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A259441] 07 p1888 N93-20125
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components
07 p1865 N93-20149
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Laser scribing system for amorphous silicon solar cells
[AD-A259287] 07 p1910 N93-20608
Method of producing Bi-Sr-Ca-Cu-O superconducting materials in cast form
[AD-D015532] 07 p2080 N93-20777
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Near net shape knitting of fiber glass and carbon for composites 07 p1836 N93-21145
New special chemical fibres 07 p1836 N93-21147
The production of fibres from polypropylene and liquid crystal polymer blends 07 p1837 N93-21149
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
The total quality approach in the development of technical textiles 07 p1838 N93-21156
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Vacuum multilayer lamination of printed wiring boards
[DE93-004912] 07 p1894 N93-21727
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems
08 p2287 N93-22179
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware
08 p2141 N93-22260
Widebanding techniques for VHF antennas, 1
[AD-A259301] 08 p2260 N93-22399
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
Advanced reinforcement systems for intermetallic applications
[NASA-CR-4488] 08 p2209 N93-22875
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
Fabrication and properties of Si3N4 with rare earth apatite grain boundary phases
[DE93-005752] 08 p2505 N93-23037
Focal plane arrays for submillimeter waves using two-dimensional electron gas elements: A grant under the Innovative Research Program
[NASA-CR-192271] 08 p2263 N93-23062
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 08 p2210 N93-23719
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Atom wave interferometer
[AD-A260082] 08 p2484 N93-24410
Technology transfer from NASA to targeted industries, volume 2
[NASA-CR-192758] 08 p2533 N93-24484
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
INEL spray-forming research
09 p2658 N93-25562
Film fabrication technologies at NREL
09 p2658 N93-25563
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Composite nanostructured material fabrication by electrochemical scanning probe microscopy
[AD-A261017] 09 p2639 N93-25862
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit
09 p2794 N93-26073
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
Development of organic nonlinear optical materials
[AD-A261332] 09 p2856 N93-26309
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Sub micron area Nb/AlO(x)/Nb tunnel junctions for submillimeter mixer applications
10 p3016 N93-27761
Fabrication and characterization of high current-density, submicron, NbN/MgO/NbN tunnel junctions
10 p3017 N93-27763
Planar GaAs diodes for THz frequency mixing applications 10 p3019 N93-27776
Welding/brazing for Space Station repair
10 p2971 N93-27840
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules
10 p3066 N93-27962
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
Novel low temperature superconducting bolometers
[DE93-010433] 11 p3430 N93-28664
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Method and apparatus for weaving a woven angle ply fabric
[NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects
[PB93-181261] 11 p3410 N93-29671
Ferroelectric liquid crystal optical interconnect switching systems
[AD-A263751] 11 p3596 N93-29859
A unified approach for composite cost reporting and prediction in the ACT program 11 p3302 N93-30441
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Near net shape processing: A necessity for advanced materials applications 11 p3290 N93-30949
New materials: Fountainhead for new technologies and new science 11 p3291 N93-30952
Introduction to high performance composites
11 p3291 N93-30957
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962
The development of SiC whisker fabrication technology for nuclear applications
[DE93-605320] 12 p3710 N93-31828
Satellite Test Assistant Robot (STAR)
12 p3690 N93-32111

FABRICS

NT PARACHUTE FABRICS
NT WOOL

Experiments, theory, and simulation on the evolution of fabric in granular materials
[AD-A254820] 03 p0545 N93-12729
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
Advanced stitching technology
04 p0832 N93-14746
Industrial applications of multiaxial warp knit composites 04 p0833 N93-14750
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
Design for producing fiberglass fabric in a lunar environment
[NASA-CR-192068] 05 p1135 N93-17770

Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
What's a Parabeam 3D? 07 p1835 N93-21137
New types of textile fabrics for fibre composites 07 p1836 N93-21142
Relationships between layer linkage and mechanical properties of 3D woven textile structures 07 p1836 N93-21144
Twaron in composites and protective clothing 07 p1837 N93-21153
Developments in heat and flame resistant textiles for protective clothing and barrier fabrics 07 p1838 N93-21157
Silicone softeners: Today 07 p1838 N93-21159
Correlation of results of radiant heat test and convective heat test for three layered protective clothing 07 p1838 N93-21161
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Applications of fibrous substrates containing insolubilized phase change polymers 08 p2320 N93-22181
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
Power assist EVA glove development 10 p3086 N93-27850
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Method and apparatus for weaving a woven angle ply fabric
[NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636

FABRY-PEROT INTERFEROMETERS
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem 01 p0183 N93-10927
The VELOPT code for estimating performance of a Fabry-Perot velocimeter
[DE92-015566] 03 p0596 N93-12831
Parameter studies of helium-neon lasers at 543 nm 03 p0606 N93-13747
Acousto-optic devices and applications 03 p0712 N93-14100
Aeronomy of auroral and airglow emissions 06 p1584 N93-18496
Observations of comet Levy 1990c in the (OI) 6300-A line with an imaging Fabry-Perot 06 p1698 N93-19224
INDI 06 p1730 N93-19570
Fibre optic sensors for heat transfer studies 09 p2853 N93-25748
Two searches for primeval galaxies 10 p3172 N93-26714
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy 12 p3868 N93-31350
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375

FABRY-PEROT LASERS
U LASERS

FACE (ANATOMY)
NT NOSE (ANATOMY)
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Face recognition with neural networks
[AD-A259587] 08 p2462 N93-24066
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889

FACE CENTERED CUBIC LATTICES
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794

FACETS
U FLAT SURFACES

FACILITIES
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930

FACSIMILE COMMUNICATION
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Program Support Communications Network (PSCN) facsimile system directory
[NASA-TM-108051] 03 p0562 N93-12909
The protection of the Facsimile (FAX) machine against the insider threat
[DE92-019424] 03 p0565 N93-13506
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796

FACSIMILE TRANSMISSION
U FACSIMILE COMMUNICATION

FACTOR ANALYSIS
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
Dynamic factorization in large-scale optimization
[AD-A263993] 11 p3528 N93-29345
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability 12 p3776 N93-31237
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188

FACTORIAL DESIGN
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
Study on various problems in statistical planning and inference
[AD-A262484] 11 p3554 N93-29411
Building Hadamard matrices in steps of 4 to order 200
[PB93-189835] 12 p3786 N93-31200

FACTORIALS
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990

FACTORIES
U INDUSTRIAL PLANTS

FACTORIZATION
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
The class of the paths in the Feynman path integral on the phase space
[DE92-630205] 01 p0170 N93-10386
Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989
On the history of the function M(x)/(square root of x) since Stieltjes
[CWI-NM-R9120] 05 p1271 N93-17555
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-003365] 07 p2057 N93-21963
Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-004119] 08 p2468 N93-22938
Factorizations of a(sub n) +/- 1, 13 less than or equal to a less than 100
[CWI-NM-R9212] 10 p3114 N93-27366
Computing modified Newton directions using a partial Cholesky factorization
[DE93-009584] 10 p3128 N93-28454
Dynamic factorization in large-scale optimization
[AD-A263993] 11 p3528 N93-29345
Optimal solutions to a two-block H infinity problem
[MEMO-1080] 12 p3798 N93-31468
Necessary and sufficient conditions for J-spectral factorizations with a J-lossless property for infinite-dimensional systems in continuous and discrete time
[W-9217] 12 p3798 N93-31512
Analytic system problems and J-lossless factorization for infinite-dimensional linear systems
[W-9218] 12 p3798 N93-31513
Robust stabilization of infinite-dimensional systems with respect to coprime factor perturbations
[W-9220] 12 p3805 N93-31514

FACTORS
U VARIABLE

FACULAE
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029

FADDEEV EQUATIONS
Configuration space Faddeev calculations
[DE93-006080] 08 p2475 N93-23337
A modified Faddeev-Popov formula and the Gribov ambiguity
[SSCL-PREPRINT-750] 10 p3157 N93-28209
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915

FADING
NT SIGNAL FADING
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190

FAHRENHEIT TEMPERATURE SCALE
U TEMPERATURE SCALES

FAIL-SAFE SYSTEMS
Defect tolerance of hybrid pressure vessels: The total reliability versus total failure as an interpretation criterion
[ILR-MITT-272(1992)] 06 p1552 N93-18097

FAILURE
NT BURNTHROUGH (FAILURE)
NT ENGINE FAILURE
NT STRUCTURAL FAILURE
NT SYSTEM FAILURES
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
VLSI reliability research
[AD-A254883] 02 p0295 N93-12360
Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
Identifiability in the autopsy model of reliability theory 03 p0620 N93-13710
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures 05 p1080 N93-15744
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
Network problem threshold 06 p1516 N93-19397
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
US Army helicopter inertia reel locking failures 06 p1427 N93-19689
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
NiCd cell reliability in the mission environment 07 p1985 N93-20510
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Debonding/Delamination of Composites
[AGARD-CP-530] 07 p1840 N93-21507
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use 07 p1844 N93-21534
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
Failure monitoring in dynamic systems: Model construction without fault training data 09 p2672 N93-24666
Report of the Seasat Failure Review Board 09 p2619 N93-24693
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory 09 p2636 N93-25661
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135
European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193102] 10 p3090 N93-27239
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
Uncorrectable sequences and telecommand 11 p3385 N93-29596
Tutorial: Performance and reliability in redundant disk arrays 11 p3537 N93-30463
Delaminations in composite plates under impact loads 11 p3304 N93-30849
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Multi-parameter optimization tool for low-cost commercial fuselage crown designs 11 p3305 N93-30858
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Effects of scale in predicting global structural response 11 p3306 N93-30860
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125

FAILURE ANALYSIS
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Failure processes in elastomeric composites 01 p0046 N93-10475
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection 01 p0051 N93-10502
Failure analysis of laminated composites by using iterative three-dimensional finite element method 01 p0051 N93-10505
Analysis of failure modes in ceramic matrix composite 01 p0028 N93-10508
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011888] 01 p0091 N93-10622
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
The total time on test statistic and age-dependent censoring
[AD-A253622] 01 p0147 N93-10798
Linear and nonlinear analyses of thick composite circular plates using the finite element method 01 p0096 N93-10873
Ceramic component reliability with the restructured NASA/CARES computer program
[NASA-TM-105856] 02 p0334 N93-11004
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Fracture mechanics of model fiber composites 02 p0237 N93-11247
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation
[AD-A254941] 03 p0727 N93-12546
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
The use of degradation measures in assessing reliability 03 p0573 N93-13607
Effects of layer waviness on compression-loaded thermoplastic composite laminates 03 p0532 N93-13724
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Analysis of advanced thin-walled composite structures 04 p0895 N93-14158
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
Fracture/damage mechanics of composites: Static and fatigue properties
[DLR-MITT-92-03] 04 p0835 N93-15075
Reliability modeling for non-electronic systems
[REPT-921-440-103] 04 p0894 N93-15139
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
Neural network based condition monitoring 04 p0797 N93-15183
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Damage mechanics modelisation of composite structures: A physical approach of failure 05 p1079 N93-15741
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
The product and services design and development software aided tool RELIASEP
[ETN-93-93015] 06 p1617 N93-18076

Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Numerical analysis of surface cracks
06 p1556 N93-18750
High temperature component analysis with expert systems 06 p1557 N93-18751
Technology test bed engine real-time failure control
[NASA-CR-192414] 06 p1474 N93-18879
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
Impact response of laminated plates subjected to transverse loading
[NIAR-92-5] 06 p1560 N93-19360
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Wavelet features for failure detection and identification in vibration systems
[AD-A259427] 07 p1914 N93-20007
Determination of pyrotechnic functional margin
07 p1863 N93-20134
Pyrotechnic modeling for the NSI and pin puller
07 p1866 N93-20153
Special tests and destructive physical analyses as used by the Aerospace Corporation with nickel-hydrogen cells
[NASA-CR-192318] 07 p1888 N93-20162
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion
07 p1921 N93-20332
Probabilistic assessment of machine parts from Kymenite, austempered ductile iron
07 p1923 N93-20341
Reliability of failure envelopes for composite materials
07 p1929 N93-20642
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Failure environment analysis tool applications
08 p2322 N93-22170
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Sneak analysis applied to process systems
[DE93-752866] 08 p2257 N93-22970
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HIPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
High resolution computed tomography
[AD-A259728] 08 p2321 N93-23470
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
The consequence of joint failures
08 p2212 N93-23941
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Models and analysis for multivariate failure time data
08 p2322 N93-24198
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Tethered Satellite System Contingency Investigation Board
[NASA-TM-108704] 09 p2616 N93-25231
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Interactive reliability model for whisker-toughened ceramics
[NASA-CR-191048] 10 p3002 N93-27006
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring
11 p3289 N93-29570
Overview of the Systems Special Investigation Group investigation 11 p3318 N93-29683
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Evaluation of category 3 MLS designs
11 p3247 N93-30358
A ceramic fracture model for high velocity impact
[AD-A264728] 11 p3454 N93-30545
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
An overview of the crash dynamics failure behavior of metal and composite aircraft structures
11 p3308 N93-30875
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Cumulative fatigue damage behavior of MAR M-247
12 p3696 N93-31575
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

FAILURE MODES

System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
Failure analysis of laminated composites by using iterative three-dimensional finite element method
01 p0051 N93-10505
Analysis of failure modes in ceramic matrix composite
01 p0028 N93-10508
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics
[AD-A254385] 03 p0623 N93-12863
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Analysis of advanced thin-walled composite structures
04 p0895 N93-14158
Characterizing longitudinal splitting and delamination fracture toughness of composites
04 p0831 N93-14607
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
Mode interaction in stiffened composite shells under combined mechanical and thermal loadings
05 p1189 N93-16793
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Thermostructural responses of carbon phenolics in a restrained thermal growth test 05 p1128 N93-17333
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018

Proposed system safety design and test requirements for the microlaser ordnance system
07 p1864 N93-20144
Contact dynamics testing of automated three-point docking mechanism
07 p1812 N93-21411
Collision avoidance for CTV: Requirements and capabilities
07 p1817 N93-21437
Debonding/Delamination of Composites
[AGARD-CP-530] 07 p1840 N93-21507
Predicting failure by debonding/delamination
07 p1841 N93-21512
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
High-voltage failure mechanisms in liquid-filled, Fluorinert FC-40, capacitors
[DE93-006286] 08 p2282 N93-23677
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072
Analysis of matrix damage in unidirectional composites 09 p2634 N93-25338
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
NLS operations concepts: Failure modes scenario simulation model analysis
[MCR-92-5013] 09 p2609 N93-26175
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074
Advanced buckling analyses of beams with arbitrary cross sections
[ISBN-90-02808-0] 10 p3059 N93-27944
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression
11 p3307 N93-30872
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874

FAINT OBJECT CAMERA
Solar system observations with HST
08 p2534 N93-23889

FAINT OBJECTS
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Orbiting Space Interferometer (OSI): A first generation space interferometer 03 p0745 N93-13587
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
A faint spectroscopic quasar survey
04 p1012 N93-14629
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
HST/FOS spectra of PG 1351+64: An intrinsic absorber at low redshift 10 p3180 N93-26761

FAINTING
U SYNCOPE

FAIRCHILD MILITARY AIRCRAFT
U MILITARY AIRCRAFT

FAIRINGS
Acoustic fill factors for a 120 inch diameter fairing
[NASA-CR-189284] 02 p0434 N93-11634
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093

FALLING SPHERES
Boundary-layer control on a freely falling sphere
05 p1161 N93-16819
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751

FALLOUT
A model for the formation of the extended paraboloidal halos around some impact craters on Venus
04 p1037 N93-14352

FALSE ALARMS
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Constant false probability data fusion system
[AD-D015624] 08 p2304 N93-24219
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

FAN BLADES
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140] 06 p1404 N93-17880
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193

FANLIFT DEVICES
U LIFT FANS

FANS
Rotating stall inception in fans of low hub-tip ratio
04 p0779 N93-14479

FAR FIELDS
Far-zone field of a monopole element on a disk ground plane above flat earth
[AD-A253580] 01 p0070 N93-10091
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
Hexagonal ferrites for millimeter wave applications
[AD-A260483] 08 p2510 N93-24101
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
Application of the Fourier transform to short antennas
11 p3398 N93-30750
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

FAR INFRARED RADIATION
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
The interstellar medium of elliptical galaxies
03 p0757 N93-14071
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass 03 p0758 N93-14091
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469
Laser diagnostics 08 p2311 N93-23260
FIRST: Far Infrared and Submillimeter Space Telescope 08 p2540 N93-23924
Far-infrared emission, gas, and ultraluminous HII regions in M101
[NASA-CR-192791] 09 p2890 N93-25755
Far-infrared line images of dwarf galaxies
10 p3186 N93-26797
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers)
[NASA-RP-1295] 11 p3629 N93-29156
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419
A variable reflectivity output coupler for optically pumped far infrared lasers
[MPE-PREPRINT-225] 11 p3441 N93-30640
The 1st International Conference on Millimeter Wave and Far-Infrared Technology
[AD-A264268] 12 p3715 N93-31096

FAR ULTRAVIOLET RADIATION
NT LYMAN ALPHA RADIATION
NT LYMAN BETA RADIATION
UV/XUV FEL storage ring and linac
[AD-A253307] 01 p0089 N93-10697
Photoionization dynamics and cation spectroscopy with coherent VUV radiation
[DE92-015841] 01 p0154 N93-10730
A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet
02 p0482 N93-11373
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894

Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Method and apparatus for producing a thermal atomic oxygen beam
[NASA-CASE-LEW-15614-1] 06 p1656 N93-19026
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
ORFEUS: Scientific targets and optical performance 08 p2537 N93-23905
Surface characterization of selected LDEF tray clamps 10 p3001 N93-28271
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401
Some European activities in support of the SOHO mission 12 p3880 N93-31425

FARADAY EFFECT
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Neutrino oscillations and a new Faraday effect
[DE93-606111] 11 p3571 N93-30789

FARADAY ROTATION
U FARADAY EFFECT

FARM CROPS
NT COFFEE
NT CORN
NT OATS
NT POTATOES
NT RICE
NT SOYBEANS
NT SUNFLOWERS
NT TOMATOES
NT WHEAT
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
Techniques for optimal crop selection in a controlled ecological life support system
[NASA-TM-103950] 02 p0388 N93-12018
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646
A proposal to demonstrate production of salad crops in the Space Station Mockup Facility with particular attention to space, energy, and labor constraints
[NASA-CR-192815] 08 p2419 N93-23169
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS 09 p2751 N93-24855
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Combining spectral information with crop rotation knowledge for crop classifications 09 p2752 N93-24861
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy) 09 p2755 N93-25434
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069
GRAMI: A crop growth model that can use remotely sensed information
[PB93-162014] 10 p3062 N93-27053
Continued results of the seeds in space experiment 11 p3492 N93-29703

FARMLANDS
Registration of the use of agricultural fields and soil erosion using satellite remote sensing 09 p2751 N93-24856
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611

FAST FOURIER TRANSFORMATIONS
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
A pipelined, high-precision FFT architecture
[AD-A257235] 05 p1263 N93-15969
A general purpose subroutine for fast fourier transform on a distributed memory parallel machine
[NASA-CR-189724] 05 p1241 N93-16681
An FFT-based method for attenuation correction in fluorescence confocal microscopy
[CWI-AM-R9114] 05 p1174 N93-16848
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Digital signal processing using lapped transforms with variable parameter windows and orthonormal bases
[AD-A258853] 06 p1511 N93-19368
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
SSG 3.113: Spectral gravity field modelling methods 07 p1971 N93-20978
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
A multigrid extension of the FFT for the numerical inversion of Fourier and LaPlace transforms
[TRITA-NA-9204] 11 p3548 N93-29024
Enhanced resolution and de-aliasing techniques for fast Fourier transforms 11 p3358 N93-30240
The use of data turning in airborne radars 11 p3358 N93-30241
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179

FAST NEUTRONS
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
PFNA technique for the detection of explosives 07 p1765 N93-21865
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Associated particle imaging 07 p1766 N93-21871
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Fast neutron cross section measurements
[DE93-009053] 11 p3563 N93-28546
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-006285] 11 p3406 N93-28944

FAST NUCLEAR REACTORS
NT LIQUID METAL FAST BREEDER REACTORS
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022

FASTENERS
NT ANCHORS (FASTENERS)
NT BOLTS
NT NUTS (FASTENERS)
NT PINS
NT SCREWS
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Structural verification for GAS experiments 03 p0511 N93-13175
Work attachment mechanism/work attachment fixture
[NASA-CASE-GSC-13430-1] 04 p0890 N93-14712
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569
Quick connect fastener
[NASA-CASE-MFS-28833-1] 11 p3445 N93-29846

FATIGUE (BIOLOGY)
NT FLIGHT FATIGUE
NT MUSCULAR FATIGUE
Effects of dextromethamphetamine on subjective fatigue
[AD-A258252] 06 p1594 N93-17822
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Subjective mood and fatigue of C-141 crew during Desert Storm 12 p3782 N93-32264
Digital flight data as a measure of pilot performance associated with fatigue from continuous operations during the Persian Gulf conflict 12 p3782 N93-32268

FATIGUE (MATERIALS)
NT ACOUSTIC FATIGUE
NT BENDING FATIGUE
NT METAL FATIGUE
NT STRUCTURAL STRAIN
NT THERMAL FATIGUE
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction 01 p0054 N93-10516
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
Fatigue crack closure: A review
[RAE-TR-90046] 02 p0335 N93-11369
Elastic stresses, twin boundaries, and fatigue cracking 02 p0338 N93-11890
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191246] 03 p0624 N93-13029
The use of degradation measures in assessing reliability 03 p0573 N93-13607
Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
In-service considerations affecting component life 04 p0800 N93-14898
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
Fracture/damage mechanics of composites: Static and fatigue properties
[DLR-MITT-92-03] 04 p0835 N93-15075
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384
Fatigue characterization of Ni-base alloys 05 p1081 N93-15756
Testing and characterisation of metallic materials for structural analysis of high temperature components 05 p1082 N93-15757
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
Multiple-site-damage fatigue of riveted joints
[LR-679] 05 p1185 N93-16285
Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637
Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
Fatigue damage study in aluminum-2024 T3 alloys 05 p1118 N93-16767
Prediction of thermal cycling induced matrix cracking 05 p1100 N93-16780
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535
A literature survey on the fatigue behaviour of hybrid composites
[NLR-TP-91345-U] 05 p1099 N93-17541

Methods for improving damping. Part 3: Damping material data
[ESDU-92001] 06 p1554 N93-17997
Fatigue of turboengine discs
[DS-2136] 06 p1448 N93-18149
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
MB-339: The role of flight testing in the evolution phase of a proven aircraft 06 p1443 N93-19907
Fatigue Design 1992, volume 2
[VTT-SYMPOSIUM-131-VOL-2] 07 p1921 N93-20330
Discriminating experiments for multiaxial fatigue damage models 07 p1921 N93-20331
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion 07 p1921 N93-20332
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Design against high cycle multiaxial fatigue 07 p1922 N93-20335
Probabilistic chain fatigue model 07 p1922 N93-20338
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
Statistical analysis of fatigue tests 07 p1923 N93-20343
Probabilistic aspects of growth of the fatigue cracks in the railroad axles 07 p1924 N93-20348
Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349
Some factors influencing the fatigue properties of boron strengthened aluminum based composite materials 07 p1924 N93-20355
Aspects of good design practice for fatigue-loaded welded components 07 p1925 N93-20356
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Application of the BEM to the crack growth problem by the coupling of damage-deformation 07 p1940 N93-20702
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289
Delamination and fatigue of composite materials: A review 07 p1840 N93-21509
Delamination development under fatigue loading 07 p1842 N93-21521
Fatigue crack propagation of titanium alloys in salt water
[GKSS-91/E/46] 07 p1856 N93-21551
Fatigue of fiberglass wind turbine blade materials
[DE93-005381] 07 p1951 N93-21711
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
The role of passive surface films on corrosion fatigue crack initiation
[DE93-006512] 08 p2325 N93-22888
Fatigue and reliability analyses for wind turbines
[DE93-004497] 08 p2380 N93-23318
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989
[ETN-93-93702] 08 p2126 N93-23401
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Fatigue resistance of orthotropic plates with trapezoidal stiffeners
[TRL-TRANS-T3908] 09 p2726 N93-25419
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Improved fatigue life for moorings
[PB93-161198] 09 p2730 N93-26320
Considerations concerning fatigue life of metal matrix composites
[NASA-TM-106144] 10 p3056 N93-27009
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
The fatigue behaviour of T- and X-joints made of square hollow sections
[ETN-93-93598] 10 p3058 N93-27872
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
Near threshold fatigue testing
[DE93-009069] 10 p3061 N93-28432
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics
[AD-A262403] 11 p3329 N93-28495
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Ultrahigh temperature assessment study: Ceramic matrix composites
[AD-A262740] 11 p3295 N93-28592
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33 12 p3681 N93-31744
Fatigue crack growth results for Ti-6Al-4V, IMI 685, and Ti-17 12 p3682 N93-31746
Conclusions and recommendations 12 p3682 N93-31749

FATIGUE DIAGRAMS
U S-N DIAGRAMS

FATIGUE LIFE

Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Structural analysis: Fatigue life assessment 01 p0078 N93-10062
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
A finite element method for nonlinear panel flutter 01 p0045 N93-10472
An evaluation of the cumulative damage effect under creep loading 01 p0058 N93-10540
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189678] 02 p0239 N93-11611
Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614
A comparison of high cycle fatigue methodologies
[NASA-TM-103601] 02 p0233 N93-12148
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C
[NASA-TM-105765] 03 p0625 N93-13153
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue
[NASA-CR-190794] 03 p0626 N93-13290
Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690
Effects of layer waviness on compression-loaded thermoplastic composite laminates 03 p0532 N93-13724
An investigation into thermomechanical fatigue of metal matrix composites 03 p0534 N93-13810
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
A normal distribution or a Weibull distribution for fatigue lives
[LR-689] 05 p1275 N93-16216
Review of aeronautical fatigue investigation activities developed in Alenia-GAT during the period May 1990 - March 1991
[ETN-92-92884] 05 p1061 N93-16287
Federal Aviation Administration pavement modeling 05 p1071 N93-16315
Multiaxial fatigue analysis of metals 05 p1113 N93-16509
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660
Fatigue of turboengine discs
[DS-2136] 06 p1448 N93-18149
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Calculation of the fatigue life of a surface-hardened shaft by the finite-element method
[VTT-PUBS-92] 06 p1548 N93-18695
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
Fatigue Design 1992, volume 2
[VTT-SYMPOSIUM-131-VOL-2] 07 p1921 N93-20330
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion 07 p1921 N93-20332
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Prediction of the random load fatigue life distribution 07 p1922 N93-20337
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
A simulation of corrosion fatigue life distribution in low alloy steel 07 p1922 N93-20340
A simulation method of determination of construction parts fatigue life distribution 07 p1923 N93-20342
Discrete statistical model of fatigue crack growth in a Ni-base superalloy, capable of life prediction 07 p1923 N93-20344
Fatigue experiments of microconcrete beams under a running load 07 p1923 N93-20346
Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349
Fatigue design of earthmoving machines 07 p1924 N93-20350
Service loading of work attachments of hydraulic excavators 07 p1924 N93-20351

Computer aided planning of laboratory tests of excavator attachments 07 p1924 N93-20352
Fatigue assessment of a cast component for a timber crane 07 p1924 N93-20353
Thermal plastic strain fatigue life of the roll 07 p1924 N93-20354
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728
Load experience variability of fighter aircraft [NLR-TP-89172-U] 07 p1781 N93-20742
Analysis of Space Shuttle accelerometer data [NLR-TP-90141-U] 07 p1821 N93-20744
Smart Integrated Microsensor System (SIMS) [AD-A259430] 07 p1907 N93-21247
Fatigue Design 1992, volume 1 [VTT-SYMPOSIUM-130-VOL-1] 07 p1947 N93-21318
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
Microcomputer system for measurements and analysis of signals for fatigue life calculations under biaxial random stress state 07 p1948 N93-21320
The least and most damaging histories which can be constructed from a specific from-to matrix 07 p1948 N93-21321
Fatigue life of two steels under variable amplitude loading 07 p1948 N93-21323
Spectrum fatigue data in comparison to design curves in the long life regime 07 p1948 N93-21324
Modelling of fatigue crack growth in flat plate weldments and tubular welded joints 07 p1948 N93-21326
A local approach for fatigue strength evaluation on ship structures 07 p1948 N93-21327
Fatigue life prediction for 6261-T6 aluminium alloy I-beams with welded cover plates 07 p1949 N93-21328
Fracture-mechanical analysis of the residual service life of the welded main girders of the highway bridges of Ruedersdorf 07 p1949 N93-21329
Fatigue of old metallic railroad bridges 07 p1949 N93-21330
Fatigue life assessment of service damaged and corroded members of structural steel 07 p1949 N93-21331
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
A comment on the role of machining induced residual stresses on fatigue crack initiation 07 p1949 N93-21334
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO 07 p1950 N93-21337
Multi-axial fatigue damage analysis using the boundary element method 07 p1950 N93-21339
Debonding/Delamination of Composites [AGARD-CP-530] 07 p1840 N93-21507
The effects of surface treatment on torsional fatigue failure in recoil springs [AD-A259345] 07 p1952 N93-21987
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind [DE93-004480] 08 p2375 N93-22045
Microstructure and texture control of fatigue in hydrogen and marine environments [AD-A259808] 08 p2231 N93-23642
Improved fatigue life for moorings [PB93-161198] 09 p2730 N93-26320
An overview of elevated temperature damage mechanisms and fatigue behavior of a unidirectional SCS-6/Ti-15-3 composite [NASA-TM-106131] 10 p2989 N93-26702
Low cycle fatigue behavior of polycrystalline NiAl at 300 and 1000 K [NASA-TM-105987] 10 p2998 N93-26898
Considerations concerning fatigue life of metal matrix composites [NASA-TM-106144] 10 p3056 N93-27009
Modeling fatigue crack growth in cross ply titanium matrix composites [NASA-TM-108988] 10 p2990 N93-27062
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders [PB93-165835] 10 p3057 N93-27417
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics [AD-A262403] 11 p3329 N93-28495
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques [NASA-CR-190785] 11 p3288 N93-29068
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments [DE93-009202] 11 p3323 N93-29102
Probabilistic fracture finite elements 12 p3695 N93-31571
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center 12 p3696 N93-31574
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582
Damage severity of monitored fatigue load spectra [NLR-TP-92009-U] 12 p3679 N93-32205
Low cycle fatigue behaviour of titanium disc alloys [NLR-TP-91346-U] 12 p3683 N93-32372

FATIGUE TESTS

Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature [PNR-90892] 02 p0255 N93-11031
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading [NPL-DMM(A)-47] 02 p0266 N93-11397
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments [NASA-TM-105723] 02 p0238 N93-11399
Measured data for the Sandia 34-meter vertical axis wind turbine [DE92-019807] 02 p0348 N93-12075
Mechanical properties for advanced engine materials [AD-A252632] 02 p0242 N93-12181
Fatigue crack growth in AerMet 100 steel [AD-A249068] 02 p0261 N93-12248
Spectrum fatigue behaviour of powder metallurgy aluminum alloys [AD-A255060] 02 p0262 N93-12468
On bilinearity of Manson-Coffin low-cycle-fatigue relationship [NASA-TM-105840] 03 p0622 N93-12739
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys [ESDU-92017] 04 p0900 N93-14553
Testing and analysis of modified HMMWV front lift provisions [MTL-TR-92-31] 04 p0891 N93-14735
Multiple-site-damage in 2024-T3 alloy sheet [LR-660] 05 p1112 N93-16279
Review of aeronautical fatigue investigation activities developed in Alenia-GAT during the period May 1990 - March 1991 [ETN-92-92884] 05 p1061 N93-16287
A preliminary examination of Y 1 (a proprietary thin-film ferroelectric produced by Symetrix Corporation) [AD-A255692] 05 p1146 N93-16395
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991 [NLR-TP-91092-U] 05 p1062 N93-17535
Spacecraft sustained load fracture control [NLR-TP-91093-U] 05 p1088 N93-17537
Damage tolerance behaviour of aluminium-lithium sheet alloys [NLR-TP-91244-U] 05 p1117 N93-17540
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate [NLR-TP-91104-U] 05 p1063 N93-17562
Fatigue of continuous fiber reinforced metallic materials [NASA-TM-107700] 06 p1478 N93-18379
Creep fatigue life prediction for engine hot section materials (isotropic) [NASA-CR-189221] 06 p1448 N93-18578
Fatigue crack growth and coalescense in a notch region [ISBN-0-315-68910-2] 06 p1559 N93-19042
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading [AD-A258902] 06 p1481 N93-19443
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading [AD-A259209] 06 p1482 N93-19846
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
Creep fatigue life prediction for engine hot section materials (isotropic) [NASA-CR-189220] 07 p1784 N93-20252
Fatigue Design 1992, volume 2 [VTT-SYMPOSIUM-131-VOL-2] 07 p1921 N93-20330
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion 07 p1921 N93-20332
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Design against high cycle multiaxial fatigue 07 p1922 N93-20335
Probabilistic assessment of machine parts from Kymenite, austempered ductile iron 07 p1923 N93-20341
A simulation method of determination of construction parts fatigue life distribution 07 p1923 N93-20342
Statistical analysis of fatigue tests 07 p1923 N93-20343
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
Fatigue experiments of microconcrete beams under a running load 07 p1923 N93-20346
Mixed mode fatigue crack propagation in a crankshaft 07 p1923 N93-20347
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322
Fatigue life of two steels under variable amplitude loading 07 p1948 N93-21323
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations 07 p1841 N93-21513
Creep Laboratory manual [NPL-DMM(A)-37] 07 p1951 N93-21565
Fatigue of fiberglass wind turbine blade materials [DE93-005381] 07 p1951 N93-21711
The effects of surface treatment on torsional fatigue failure in recoil springs [AD-A259345] 07 p1952 N93-21987
Improved techniques for thermomechanical testing in support of deformation modeling [NASA-TM-105944] 08 p2323 N93-22555
Heat pipe fatigue test specimen: Metallurgical evaluation [NASA-CR-189120] 08 p2381 N93-23360
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989 [ETN-93-93702] 08 p2126 N93-23401
The role of fatigue testing in the design, development, and certification of the ATR 42/72 [ETN-93-93704] 08 p2127 N93-23969
General aviation aircraft: Normal acceleration data analysis and collection project [DOT/FAA/CT-91/20] 09 p2586 N93-24739
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures [NASA-TM-106103] 09 p2718 N93-25672
In-situ ultrasonic C-scanner [AD-A261113] 09 p2638 N93-25768
Micromechanics of fatigue [AD-A260577] 09 p2729 N93-25901
Improved fatigue life for moorings [PB93-161198] 09 p2730 N93-26320
Low cycle fatigue behavior of polycrystalline NiAl at 300 and 1000 K [NASA-TM-105987] 10 p2998 N93-26898
Brush seal low surface speed hard-rub characteristics [NASA-TM-106169] 10 p3039 N93-27132
Near threshold fatigue testing [DE93-009069] 10 p3061 N93-28432
A miniature fatigue test machine 11 p3291 N93-30956
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines [DLR-FB-92-17] 12 p3700 N93-31461
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575
AGARD Engine Disc Cooperative Test Programme [AGARD-R-766-ADD] 12 p3681 N93-31741
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings 12 p3681 N93-31742
Low cycle fatigue behaviour of titanium disc alloys 12 p3682 N93-31745
Crack growth prediction results 12 p3682 N93-31748
Efficient fault diagnosis of helicopter gearboxes [NASA-TM-106253] 12 p3735 N93-31846

FATTY ACIDS
NT ACETIC ACID
FAULT DETECTION
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
Fault detection and fault tolerance in robotics
02 p0330 N93-11961
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
Fault detection and isolation 08 p2106 N93-22568
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU]
11 p3449 N93-30413
FAULT MECHANICS
U FRACTURE MECHANICS
FAULT TOLERANCE
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Intelligent diagnostics systems
02 p0393 N93-11931
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
Fault detection and fault tolerance in robotics
02 p0330 N93-11961
Tradeoffs in implementing primary-backup protocols
[NASA-CR-190970] 02 p0472 N93-12212
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
Simulation and analysis of support hardware for multiple instruction rollback
[NASA-CR-190972] 02 p0406 N93-12541
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
Software reliability through fault-avoidance and fault-tolerance
[NASA-CR-189880] 03 p0686 N93-13293
Lazy checkpoint coordination for bounding rollback propagation
[NASA-CR-191281] 03 p0565 N93-13375
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
Fault tolerant systems practitioner's workshop
[AD-A255376] 04 p0944 N93-14563
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
Nonblocking and orphan free message logging protocols
[NASA-CR-191631] 04 p0862 N93-15339
Proceedings of the Eleventh Annual ACM Symposium on Principles of Distributed Computing
[AD-A257294] 05 p1233 N93-15893
Fault tolerant real-time systems
[AD-A257352] 05 p1235 N93-16174
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
The failure of failures in a paradigm for asynchronous communication
[CWI-CS-R9147] 05 p1237 N93-16410
Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
A conceptual framework for system fault tolerance
[AD-A258467] 06 p1619 N93-18269
Reconfiguration schemes for fault-tolerant processor arrays
[AD-A257833] 06 p1520 N93-18365
Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052
Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program
[NASA-CR-192405] 07 p2029 N93-19981
The performance of cache-based error recovery in multiprocessors
[NASA-CR-192142] 07 p2029 N93-20006
Multiversion software reliability through fault-avoidance and fault-tolerance
[NASA-CR-192191] 07 p2041 N93-21647
Use of neural networks in the analysis of complex systems
[DE93-003554] 07 p2049 N93-21847
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU]
08 p2432 N93-22032
A fault-tolerant intelligent robotic control system
08 p2465 N93-22159
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management
08 p2452 N93-22221
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
An hierarchic alliance of filters for fault tolerant navigation using two inertial systems with aiding sensors
08 p2121 N93-22793
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM)
[NASA-CR-192656] 08 p2152 N93-23033
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
The robustness of feed-forward neural networks: A preliminary investigation 08 p2461 N93-23717
Validation of distributed systems by fault injection
[LAAS-92180] 08 p2472 N93-23864
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
Failure monitoring in dynamic systems: Model construction without fault training data
09 p2672 N93-24666
Optimal message log reclamation for independent checkpointing
[NASA-CR-192886] 09 p2815 N93-24749
On the robustness of Herlihy's hierarchy
[NASA-CR-193002] 09 p2808 N93-25107
A control structure for fault-tolerant operation of robotic manipulators
[DE93-005783] 09 p2717 N93-25413
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
Machine learning techniques for fault isolation and sensor placement 09 p2823 N93-25966
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135
Fault-tolerant onboard digital information switching and routing for communications satellites
[NASA-TM-4471] 10 p2956 N93-26895
Periodic application of concurrent error detection in processor array architectures
[NASA-CR-193217] 10 p3106 N93-27238
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Validated fault tolerant architectures for Space Station
10 p2964 N93-27707
A fault-tolerant RISC microprocessor for spacecraft applications 10 p2964 N93-27708
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193175] 11 p3527 N93-29170
Spurious symptom reduction in fault monitoring
[NASA-CR-191453] 11 p3542 N93-29192
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Synthesis techniques and analysis tools for on-chip fault-tolerance
[AD-A263167] 11 p3409 N93-29654
A redesigned Isis and Meta system under Mach
[AD-A263576] 11 p3531 N93-29976
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
An artificial neural network model for periodic trajectory generation 11 p3356 N93-30225
Fault tolerance and testing for WSI systems
11 p3361 N93-30258
Testability of artificial neural networks: A behavioral approach
[REPT-92-047] 12 p3797 N93-31254
Analysis of fault tolerance in artificial neural networks
[REPT-92-048] 12 p3797 N93-31255
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
The implementation of the digital wave processor for the ESA/NASA Cluster mission
12 p3858 N93-31708
Automatic specification of reliability models for fault-tolerant computers
[NASA-TP-3301] 12 p3812 N93-31869
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233
FAULT TREES
Fault detection and fault tolerance in robotics
02 p0330 N93-11961
Constant false probability data fusion system
[AD-D015624] 08 p2304 N93-24219
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852
Users manual for fault tree analysis code: CUT-TD
[DE93-753272] 11 p3525 N93-28978
FAULTS
Providing an empirical basis for optimizing the verification and testing phases of software development
05 p1244 N93-17168
Fault detection and isolation 08 p2106 N93-22568
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems
09 p2814 N93-25589
Machine learning techniques for fault isolation and sensor placement 09 p2823 N93-25966
Qualitative model-based diagnostics for rocket systems
[NASA-TM-106234] 10 p2956 N93-28052
FAUNA
U ANIMALS

FAX
U FACSIMILE COMMUNICATION
FBL CONTROL
U FLY BY LIGHT CONTROL
FCC LATTICES
U FACE CENTERED CUBIC LATTICES
FDMA
U FREQUENCY DIVISION MULTIPLE ACCESS
FEASIBILITY
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
Feasibility study for an integrated data processing system
[PB92-214287] 04 p1009 N93-15644
Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Bioprocessing of ores: Application to space resources 05 p1382 N93-16894
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
Task sequence planning in a robot workcell using AND/OR nets
[NASA-CR-192735] 07 p2049 N93-21391
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
FEASIBILITY ANALYSIS
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Lunar concrete for construction 03 p0555 N93-13990
Solar water heating system for a lunar base 03 p0641 N93-14005
A feasibility study of space VLBI for geodesy and geodynamics 04 p0904 N93-14223
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters
[NASA-CR-189135] 04 p0891 N93-14916
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection
[NASA-CR-192019] 06 p1734 N93-18233
Fiberoptic characteristics for extreme operating environments
[NASA-CR-189189] 06 p1475 N93-19649
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
An analysis of power beaming for the Moon and Mars
[NASA-CR-191072] 08 p2182 N93-22554
Improved techniques for thermomechanical testing in support of deformation modeling
[NASA-TM-105944] 08 p2323 N93-22555
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
Feasibility study of a long duration balloon flight with NASA/GSFC and Soviet Space Agency Gamma Ray Spectrometers
[NASA-CR-192934] 09 p2573 N93-25077
Development of laser guide stars and adaptive optics for large astronomical telescopes
[DE93-007511] 09 p2888 N93-25320
NTRE extended life feasibility assessment 10 p2977 N93-26921
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging 10 p3086 N93-27848
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-27969
Optically tiled flat panel displays. A feasibility study
[AD-A262737] 11 p3592 N93-28590
Clustered Lance Booster (CLB) feasibility study
[AD-A262746] 11 p3286 N93-28593
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 1: Introduction, user requirements, and feasibility tests
[BCRS-90-40A-PT-1] 11 p3460 N93-29307
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
SAR sensors on TACSATS: A feasibility assessment 11 p3286 N93-29909
Prefeasibility study on compressed air energy storage systems
[VTT-TIED-1267] 11 p3465 N93-30111
System study of tether technology with particular consideration of transport utilization possibilities in space transportation
[ILR-MITT-270(1992)] 12 p3685 N93-31207
Fusion energy for space: Feasibility demonstration. A proposal to NASA
[NASA-TM-109227] 12 p3825 N93-31309
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592
Study survey on a high-efficiency environment harmony type energy cascade utilization system
[DE93-768469] 12 p3748 N93-31812
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057
Feasibility study on introduction of petroleum substituting energy for transportation
[DE93-768472] 12 p3750 N93-32058
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194
Constrained motion models for insertion/extraction operations applied to the Hermes robot arm: A feasibility study
[NLR-TP-91485-U] 12 p3736 N93-32204
FEATHERING
Numerical study of advanced rotor blades 02 p0199 N93-11899
FEATURE EXTRACTION
U PATTERN RECOGNITION
FECES
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
FEDERAL BUDGETS
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Selected data on Federal funds for research and development: Fiscal years 1990, 1991, and 1992
[NSF-92-319] 03 p0741 N93-13657
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
National Aeronautics and Space Administration Authorization Act, fiscal year 1993
[S-REPT-102-364] 03 p0741 N93-13798
NASA authorization, 1993, volume 2
[GPO-56-943-VOL-2] 03 p0741 N93-13799
NASA's fiscal year 1993 budget
[S-HRG-102-707] 03 p0742 N93-13800
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
Federal research: Small business innovation research shows success but can be strengthened
[AD-A256811] 05 p1350 N93-15680
Technology transfer: Federal efforts to enhance the competitiveness of small manufacturers
[AD-A256804] 05 p1358 N93-15704
NASA in the 21st century: A vision of greatness 05 p1073 N93-16858
National Aeronautics and Space Administration 05 p1358 N93-17091
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
By the year 2000: First in the world. FY 1993 budget summary
[PB93-108512] 07 p2086 N93-21231
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500
Federal plan for meteorological services and supporting research, FY 1993
[PB92-233188] 07 p2014 N93-21502
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc. 07 p2093 N93-21677
National Aeronautics and Space Administration: Statement of Joanne Padron, American Institute of Aeronautics and Astronautics 07 p2093 N93-21678
National Aeronautics and Space Administration: Statement of Ralph J. Strnad, Sr., Secretary, Washington Area Metal Trades Council/Chief Steward, Goddard Space Flight Center 07 p2093 N93-21679
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
National Aeronautics and Space Administration: Statement of Len Ricks, Council of Engineers and Scientists Organizations 07 p2094 N93-21681
National Aeronautics and Space Administration: Statement of the Space Science Working Group 07 p2094 N93-21682
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
Public Congressional forum on space 08 p2154 N93-23165
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Research, Development, Test and Evaluation (R, D, T, and E) programs (R-1), Department of Defense budget for fiscal year 1994
[PB93-169878] 11 p3611 N93-30936
FEDERAL REPUBLIC OF GERMANY
U WEST GERMANY
FEED SYSTEMS
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101

Method of moments analysis of symmetric dual reflector antennas with feeds
[AD-A255171] 02 p0286 N93-12407
Device for applying powder coatings
[AD-A256917] 05 p1124 N93-16501
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661

FEEDBACK
NT BIOFEEDBACK
NT NONLINEAR FEEDBACK
NT POSITIVE FEEDBACK
NT SENSORY FEEDBACK
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800
A new approach for designing self-organizing systems and application to adaptive control 08 p2451 N93-22215
A fuzzy logic controller system
[AD-A259723] 08 p2439 N93-23467
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
Coordinated action in 3-D space
[AD-A261418] 09 p2799 N93-26449
Influence of optical feedback on the pulse behavior of semiconductor lasers
[ETN-93-93798] 11 p3436 N93-28614
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010
Optimal filtering and LQR theory with constraints on system and control matrices 11 p3357 N93-30234
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373

FEEDBACK CIRCUITS
Robot learning of contact tasks
[F-3-2] 04 p0949 N93-15303

FEEDBACK CONTROL
Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Optimal sample policies for multirate digital control 01 p0141 N93-10346
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Phase-stepping fiber-optic projected fringe system for surface topography measurements
[NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
Automatic control laws for aircraft in parabolic flight
[DILC-EST-TR-211] 02 p0214 N93-11160
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU] 02 p0324 N93-11177
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
A PID auto-tuning algorithm based on relay feedback
[REPT-92-019] 02 p0421 N93-11667
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
A new scheme of force reflecting control 02 p0399 N93-11960
Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
An integrated optical sensor for GMAW feedback control
[DE92-018019] 03 p0610 N93-12793
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 03 p0614 N93-13452
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Control of a very flexible robot in gravity 03 p0615 N93-13541
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Enhanced accuracy for closed-loop robot 03 p0617 N93-13808
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Symposium proceedings on Quantitative Feedback Theory
[AD-A255527] 03 p0505 N93-13872
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
Model reduction, sensor/actuator selection and control system redesign for large flexible structures 03 p0523 N93-14040
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Dynamics and control of a rigid/flexible manipulator 04 p0890 N93-14684
Optimal and robust control of robot manipulators 04 p0890 N93-14685
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
MOVE: A neutral network paradigm for robotic control 04 p0805 N93-14925
Position and vibration control of flexible space robots 04 p0892 N93-15102
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
Development of an analog MIMO Quantitative Feedback Theory (QFT) CAD package
[AD-A256435] 04 p0950 N93-15313
Propulsion system performance resulting from an integrated flight/propulsion control design
[NASA-TM-105874] 04 p0801 N93-15525
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Redheffer's lemma and H(infinity)-control or infinite-dimensional systems
[W-9206] 05 p1259 N93-16355
Modeling and control study of the NASA 0.3-meter transonic cryogenic tunnel for use with sulfur hexafluoride medium
[NASA-CR-189737] 05 p1157 N93-16379
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191943] 05 p1237 N93-16383
Dynamic feedback in nonlinear synthesis problems
[ISBN-90-9004142-7] 05 p1259 N93-16474
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
JT-60 configuration parameters for feedback control determined by regression analysis
[DE92-556731] 05 p1310 N93-16650
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Improvement in the control aspect of laser frequency stabilization for SUNLITE project 05 p1175 N93-16798
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Robust multivariable feedback design for uncertain linear systems
[AD-A258257] 06 p1648 N93-17902
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
A proposal of an architecture for the coordination level of intelligent machines
[NASA-CR-191990] 06 p1613 N93-18516
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
Structural control sensors for the CASES GTF 06 p1464 N93-18837
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
Teleprogramming: Remote site robot task execution 06 p1641 N93-19046
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
Image stabilization performance optimization using an optical reference gyroscope
[AD-A258863] 06 p1538 N93-19371
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19647
Modulation behavior of semiconductor lasers with optical feedback
[ETN-93-92567] 07 p1911 N93-20881
Advanced booster guidance studies
[NASA-CR-192336] 07 p1829 N93-20896
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Neighboring suboptimal control for vehicle guidance 08 p2171 N93-22011
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Precursor SSF utilization: The MODE experiments 08 p2188 N93-22633

Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Identification for robust control: What is the best approach?
[MEMT-16] 08 p2458 N93-23060
A passivity approach to controller-observer design for robots
[MEMO-1050] 08 p2459 N93-23355
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Kinematics and dynamics of robotic systems with multiple closed loops 08 p2318 N93-24218
Sample positioning in microgravity
[NASA-CASE-NPO-18448-1-CU]
08 p2253 N93-24600
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop
09 p2716 N93-25068
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Aerospace vehicle model simplification for feedback control 09 p2596 N93-25292
Optimal control of large space structures
09 p2819 N93-25343
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333
Adaptive control of nonlinear flexible systems
[AD-A261676] 09 p2826 N93-26365
Interaction dynamics and control for orbital assembly
09 p2669 N93-26407
Robust controller design for flexible structures using normalized coprime factor plant descriptions
[NASA-TP-3325] 10 p2958 N93-27083
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
Minimum effort interception of multiple targets
10 p2925 N93-27205
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis
[AD-A262151] 10 p2946 N93-27546
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Approximate identification and control design with application to a mechanical system
[ISBN-90-370-0065-7] 10 p3109 N93-27934
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Robust control of robots using only position measurements
[MEMO-1073] 10 p3110 N93-28092
Extended task space control for robotic manipulators
[NASA-CASE-NPO-18902-1-CU]
10 p3052 N93-28129
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
Stabilization using low-gain PI control: SISO case
[OUEL-1947/92] 11 p3541 N93-28898
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080
An autonomous vision-based mobile robot
11 p3443 N93-29082
Three-parameter tunable Tilt-Integral-Derivative (TID) controller
[NASA-CASE-NPO-18492-1-CU]
11 p3542 N93-29176
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Robust control of intelligent rotor
[AD-A263707] 11 p3259 N93-29985
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3279 N93-29989
Attitude stabilization of a rigid spacecraft using two momentum wheel actuators 11 p3280 N93-29990
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode
11 p3280 N93-29992
Planar reorientation of a free-free beam in space using embedded electromechanical actuators
11 p3280 N93-29993
Some results on feedback stabilization of a one-link flexible arm
[INRIA-RR-1682] 11 p3543 N93-30116
Robust control via H-infinity optimization
11 p3354 N93-30216
Control system design and multiparameter variations
11 p3355 N93-30217
Robust boundary control of flexible structures governed by hybrid dynamics 11 p3285 N93-30249
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3544 N93-30893
Estimation and control in discrete-time nonlinear systems 12 p3797 N93-31071
Analysis of the compliant motion achievable with an industrial robot: Identification, feedback and design
[OUEL-1899/91] 12 p3733 N93-31150
Tethered systems control 12 p3689 N93-31453
The linear quadratic digital control of infinite-dimensional systems with unbounded input and output operators
[REPT-92-49] 12 p3798 N93-31483
Disturbance decoupling by measurement feedback for structured systems: A graph theoretical approach
[REPT-92-53] 12 p3805 N93-31487
Sampled-data and discrete-time H2 optimal control
[W-9222] 12 p3798 N93-31525
Graph theoretic methods for the computation of disturbance decoupling feedback matrices for structured systems
[REPT-92-54] 12 p3789 N93-31614
H infinity-control with measurement-feedback for Pritchard-Salamon system
[W-9211] 12 p3799 N93-31628
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373
Nonlinear disturbance decoupling and linearization: A partial interpretation of integral feedback
[MEMO-1093] 12 p3801 N93-32400

FEEDFORWARD CONTROL
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Adaptive neural network models for intelligent computations
[AD-A254689] 02 p0421 N93-12226
Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Position and vibration control of flexible space robots
04 p0892 N93-15102
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
Functional expansion representations of artificial neural networks 05 p1262 N93-16772
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
Inverse kinematics problem in robotics using neural networks
[NASA-TM-105869] 06 p1558 N93-18876
Feed-forward control upgrade of the deep space network antennas 06 p1514 N93-19434
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
Adaptive control of nonlinear flexible systems
[AD-A261676] 09 p2826 N93-26365
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592

FEELINGS
U SENSORY FEEDBACK

FEET (ANATOMY)
Anthropometry of the foot and lower leg of U.S. Army soldiers: Fort Jackson, SC
[AD-A261405] 09 p2802 N93-26404

FELDSPARS
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Refining the granulite suite 06 p1736 N93-18789
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805

FEMALES
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
Underrepresented groups 08 p2517 N93-23146
Focusing educational initiatives
08 p2517 N93-23150
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
Materials education activities
11 p3291 N93-30958
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917

FEMUR
Optimal design of composite hip implants using NASA technology
08 p2423 N93-22188
FERMENTATION
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496
FERMI LIQUIDS
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Microscopic origin of marginal Fermi-liquid in strongly correlated spin systems
[DE93-608697] 12 p3827 N93-31163
FERMI SURFACES
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption
04 p0989 N93-14172
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
FERMIONS
NT ANTINEUTRINOS
NT BARYONS
NT COLD NEUTRONS
NT CONDUCTION ELECTRONS
NT ETA-MESONS
NT FAST NEUTRONS
NT HYPERONS
NT LEPTONS
NT MUONS
NT NEUTRINOS
NT NEUTRONS
NT PROTONS
NT RECOIL PROTONS
NT RHO-MESONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
NT THERMAL NEUTRONS
Electronic structure of highly correlated structures
[DE92-017017] 01 p0155 N93-10863
Semi-classical quantization rules in supersymmetric quantum mechanics
04 p0998 N93-14590
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
Studies in theoretical particle physics
[DE93-000648] 05 p1284 N93-16161
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
Four-fermion operators with improved nearest-neighbour action
[PREPRINT-805] 05 p1287 N93-16443
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961
Low energy effects of heavy chiral fermions
[PREPRINT-872] 05 p1289 N93-16978
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Strongly interacting fermion systems
[DE93-002839] 05 p1295 N93-17656
Meson form-factors and wave-functions with Wilson fermions
[DE93-003859] 08 p2479 N93-22542
New ground states in unconventional superconductors
09 p2688 N93-25282
Fermion realization of exceptional Lie algebras from maximal unitary subalgebras
10 p3123 N93-27348
On the fermionic Heisenberg group and its Q-representations
[NIKHEF-H/92-11] 10 p3117 N93-27542
A lattice computation of the decay constant of the B-meson
[SSCL-PREPRINT-747] 10 p3135 N93-28198
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098
The Lipkin model second order phase transition in the deformed su(2) algebra description
[DE93-608201] 12 p3807 N93-31661
FERMIUM
Random walks and a simple chirally invariant lattice Hamiltonian without fermion doubling
[DE93-609920] 12 p3821 N93-31913
FERRITES
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Hexagonal ferrites for millimeter wave applications
[AD-A260483] 08 p2510 N93-24101
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
Cross-switched MICRAD seeker
[AD-D015676] 09 p2691 N93-26142
Development of novel ferrite antennas
[AD-A261690] 10 p3022 N93-26629
FERRITIC STAINLESS STEELS
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel
[DE93-001373] 05 p1116 N93-17479
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
FERROALLOYS
U IRON ALLOYS
FERROCENES
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
FERROELECTRICITY
Piezoelectric and electrostrictive materials for transducers applications, volume 1
[AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2
[AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3
[AD-A250891] 01 p0072 N93-10280
Piezoelectric and electrostrictive materials for transducers applications, volume 4
[AD-A250892] 01 p0072 N93-10282
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
Atomic structure of mixed ferroelectrics
[AD-A254369] 03 p0702 N93-12947
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Reliability of sol-gel derived ferroelectric memories
[AD-A255358] 04 p0991 N93-14560
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2]
04 p0992 N93-14795
Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446
Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447
A preliminary examination of Y 1 (a proprietary thin-film ferroelectric produced by Symetrix Corporation)
[AD-A255692] 05 p1146 N93-16395
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU]
05 p1150 N93-17277
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Oriented, single-phase thin films of potassium tantalate-niobate
[AD-D015543] 07 p2077 N93-20027
Calorimetric examination of the polarization cluster of the beginning ferroelectric material KTaO3
[ETN-93-93418] 07 p2084 N93-21067
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Charge trapping centers in ferroelectric ceramics
[DE93-005359] 08 p2238 N93-22954
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Electroelastic equations for electroded thin plates subject to large driving voltages
[AD-A261123] 09 p2675 N93-25772
Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Ferroelectric liquid crystal optical interconnect switching systems
[AD-A263751] 11 p3596 N93-29859
Materials for adaptive structural acoustic control, volume 1
[AD-A264619] 11 p3562 N93-30121
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805
FERROMAGNETIC FILMS
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704
Hexagonal ferrites for millimeter wave applications
[AD-A260483] 08 p2510 N93-24101
FERROMAGNETIC MATERIALS
NT FERROMAGNETIC FILMS
NT PERMALLOYS (TRADEMARK)
Method of characterizing residual stress in ferromagnetic materials using a pulse histogram of acoustic emission signals
[NASA-CASE-LAR-14239-1] 04 p0845 N93-14705
A Boltzmann-equation approach to the magnetoresistance of ferromagnetic-normal metallic multilayers
[DE92-041213] 05 p1270 N93-17361
Advanced electronic structures
[AD-A258401] 08 p1519 N93-18261
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22064

Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Micromagnetic surface studies of materials for nondestructive evaluation
[DE93-006303] 08 p2321 N93-22695
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141
Magnetic thin films and nanostructures: Anisotropy, microstructure, and their inter-relationship
[DE93-007714] 10 p3002 N93-26611

FERROMAGNETIC RESONANCE
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
Hexagonal ferrites for millimeter wave applications
[AD-A260483] 08 p2510 N93-24101

FERROMAGNETISM
The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling
[DE93-000607] 05 p1319 N93-16278
Phase diagram by frustrated vortices in Potts models
[ROM1F-92-860] 05 p1281 N93-17217
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Phase transitions in the dual lattice in Potts model
[ROM1F-90-752] 10 p3152 N93-27700

FERROUS METALS
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Extraction of volatiles and metals from extraterrestrial materials 10 p2997 N93-26682
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021

FERTILIZERS
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860
ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing 09 p2751 N93-24859

FET (TRANSISTORS)
U FIELD EFFECT TRANSISTORS

FETUSES
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015

FEVER
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306

FEYNMAN DIAGRAMS
The class of the paths in the Feynman path integral on the phase space
[DE92-630205] 01 p0170 N93-10386
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
Regularization of chiral gauge theories
[PREPRINT-888] 05 p1330 N93-17024
Probing the WWZ vertex at 500 GeV e(+)e(-) collider
[PREPRINT-831] 05 p1299 N93-17216
Leading non-logarithmic contribution to the electropenguin diagram and phenomenology of kaon decays
[SSCL-PREPRINT-745] 10 p3137 N93-28388
A simple formula for reducing Feynman diagrams to scalar integrals
[DE92-644717] 11 p3607 N93-30916
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
HELAS: HELicity amplitude subroutines for Feynman diagram evaluations
[DE93-715538] 12 p3813 N93-31166
Differential equations method: The calculation of N (N greater than 2)-points diagrams
[DE93-609887] 12 p3814 N93-32412

FFT
U FAST FOURIER TRANSFORMATIONS

FGM (MATERIALS)
U FUNCTIONALLY GRADIENT MATERIALS

FIBER COMPOSITES
NT ARAMID FIBER COMPOSITES
NT BRAIDED COMPOSITES
NT CARBON FIBER REINFORCED PLASTICS
NT CARBON-PHENOLIC COMPOSITES
NT GLASS FIBER REINFORCED PLASTICS
NT WOVEN COMPOSITES
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Ultrasonic characterization of highly attenuative thick composites
[AD-A253347] 01 p0027 N93-10272
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Integrated finite element model of composite materials 01 p0046 N93-10477
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
Analysis of failure modes in ceramic matrix composite 01 p0028 N93-10508
Inhibiting corrosion in Gr/Al and Gr/Mg metal matrix composites using nonequilibrium alloying techniques
[AD-A253923] 01 p0034 N93-10752
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Processing of ceramic matrix composites
[PNR-90914] 02 p0263 N93-11018
Materials: Toward the non-metallic engine
[PNR-90915] 02 p0209 N93-11019
Aero engine ceramics: The vision, the reality, and the progress
[PNR-90983] 02 p0264 N93-11066
Fracture mechanics of model fiber composites 02 p0237 N93-11247
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Study of the behavior of titanium and ceramic fiber matrix composite alloy
[ETN-92-92087] 02 p0240 N93-11708
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054
Thermostructural tailoring of fiber composite structures
[NASA-TM-105882] 02 p0242 N93-12078
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Micromechanical combined stress analysis: MICSTRAN, a user manual
[NASA-CR-189694] 02 p0243 N93-12306
Ceramic TBS/porous metal compliant layer 02 p0228 N93-12453
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center 02 p0228 N93-12455
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Ductile fracture process of discontinuous fiber reinforced composites
[DE92-016298] 03 p0531 N93-13264
Nonlinear mechanics of composite materials with periodic microstructure
[NASA-CR-190750] 03 p0531 N93-13309
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials
[NASA-TM-104222] 03 p0532 N93-13428
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
Experimental characterization of continuous alumina fiber/epoxy 03 p0533 N93-13775
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022
Analysis of advanced thin-walled composite structures 04 p0895 N93-14158
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites 04 p0864 N93-14190
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites 04 p0829 N93-14193
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224

The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Characterizing longitudinal splitting and delamination fracture toughness of composites
04 p0831 N93-14607
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745
Advanced stitching technology
04 p0832 N93-14746
Industrial applications of multiaxial warp knit composites 04 p0833 N93-14750
The optimal fiber volume fraction and fiber-matrix property compatibility in fiber reinforced composites
04 p0833 N93-14752
Mechanical response of composite materials with through-the-thickness reinforcement
04 p0834 N93-14753
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Preliminary design of composite joints
[DLR-MITT-92-05] 04 p0835 N93-15076
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Polymer infiltration studies
[NASA-CR-191652] 04 p0852 N93-15431
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus industry
[LR-677] 05 p1061 N93-16283
Recent developments of carbon fiber in Japan
[MTL-TR-92-48] 05 p1098 N93-16591
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
The thermoviscoelastic behavior of composite materials
[ITN-93-85185] 05 p1098 N93-16856
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Thermostructural responses of carbon phenolics in a restrained thermal growth test 05 p1128 N93-17333
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
Defect tolerance of hybrid pressure vessels: The total reliability versus total failure as an interpretation criterion
[ILR-MITT-272(1992)] 06 p1552 N93-18097
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
Fibre reinforced plastic structures
06 p1557 N93-18752
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
Method and apparatus for three dimensional braiding
[NASA-CASE-LAR-14047-1] 06 p1500 N93-19038
Circular dislocation loops and their application to the micromechanics of fibrous composites
06 p1480 N93-19043
Characterization and defect analysis of high temperature aluminum-based metal matrix composites
06 p1480 N93-19060
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Open and filled hole static tensile strength characterization of metal matrix composite SCS-9/Beta21s
[AD-A258829] 06 p1480 N93-19091
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
Interface fracture in composite materials
06 p1560 N93-19381
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Mass loaded composite rotor for vibro-acoustic application
[AD-D015604] 07 p1831 N93-20016
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
Material nonlinear analysis of composites
07 p1929 N93-20641
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
Continuous fiber reinforced thermoplastic composites
07 p1835 N93-21138
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials
07 p1836 N93-21141
New types of textile fabrics for fibre composites
07 p1836 N93-21142
Relationships between layer linkage and mechanical properties of 3D woven textile structures
07 p1836 N93-21144
Near net shape knitting of fiber glass and carbon for composites 07 p1836 N93-21145
Fatigue of fiberglass wind turbine blade materials
[DE93-005381] 07 p1951 N93-21711
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites
[DE93-004063] 07 p1844 N93-21842
La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Finite element analysis of a composite artificial ankle
08 p2423 N93-22189
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites
[DE93-004464] 08 p2209 N93-22973
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
Residual stress measurements in continuous fiber titanium matrix composites
[DE93-003733] 08 p2232 N93-23686
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 08 p2210 N93-23719
Fiber-metal laminates: A solution to weight, strength, and fatigue problems 08 p2211 N93-23938
Automated manufacturing of continuous fibre composite structures for aerospace applications
08 p2212 N93-23942
A process model for control of resin volume fraction in filament wound composite laminates
08 p2213 N93-23948
High temperature deformation characteristics of discontinuous fiber reinforced composites
[DE93-004466] 08 p2214 N93-24047
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
Zoning of aircraft by electric field modelling
09 p2583 N93-24894
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Fracture of an elliptical inclusion and its implications for the properties of short fiber composites
09 p2834 N93-25333
Analysis of matrix damage in unidirectional composites 09 p2634 N93-25338
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
Inelastic behavior of thermoplastic composites
09 p2636 N93-25674

Finite element micromechanics modeling of inelastic deformation of unidirectionally fiber-reinforced composites 09 p2637 N93-25680
Damage and failure analysis on continuous fiber-reinforced polymer composites 09 p2637 N93-25716
The corrosion of metal matrix composites 09 p2638 N93-25723
International Workshop on Advances in Inorganic Fibre Technology [AD-A260719] 09 p2639 N93-25908
Thermomechanical response of shape memory composites [AD-A260828] 09 p2639 N93-25919
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Electrostatic fiber spreader [AD-D015677] 09 p2640 N93-26143
Smart structural composites with piezoelectric micro-constituents [AD-A260970] 09 p2640 N93-26225
Effects of moisture and other contaminants in friction composites [AD-A261226] 09 p2640 N93-26301
Improved fatigue life for moorings [PB93-161198] 09 p2730 N93-26320
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites [AD-A261483] 09 p2641 N93-26355
Failure considerations in composite systems based on 3D micromechanical stress fields, part A [AD-A261698] 09 p2641 N93-26382
METal matrix composite ANalyzer (METCAN): Theoretical manual [NASA-TM-106025] 09 p2641 N93-26552
A photovoltaic catenary-tent array for the Martian surface [NASA-CR-191144] 10 p2976 N93-26703
Fiber shape effects on metal matrix composite behavior [NASA-TM-106067] 10 p2989 N93-26704
Structural tailoring of aircraft engine blade subject to ice impact constraints [NASA-TM-106033] 10 p3055 N93-26999
Modeling fatigue crack growth in cross ply titanium matrix composites [NASA-TM-106988] 10 p2990 N93-27062
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals [NASA-TM-106158] 10 p3055 N93-27080
Fracture micromechanics of ceramic composites 10 p2920 N93-27172
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite [AD-A262265] 10 p2991 N93-27676
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
LDEF fiber-composite materials characterization 10 p2992 N93-28264
Demonstration and fabrication of large area 1-3 PZT composite panels [AD-A262904] 10 p2992 N93-28305
The environmental and impact resistance of adhesively bonded thermoplastic fibre composites [AD-A263202] 10 p2992 N93-28383
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition [DE93-010762] 10 p2992 N93-28457
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics [AD-A262403] 11 p3329 N93-28495
Probabilistic simulation of multi-scale composite behavior [NASA-TM-106196] 11 p3451 N93-28633
Aligned, short-fiber composites by novel flow processing methods [DE93-008701] 11 p3296 N93-28904
Ceramic matrix composites properties/microstresses with complete and partial interphase bond [NASA-TM-106136] 11 p3297 N93-29071
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes [NASA-TM-106076] 11 p3297 N93-29074
Factors influencing the interlaminar fracture toughness and its evaluation in composites [FFA-TN-1991-34] 11 p3451 N93-29076
Axial impact of composites 11 p3297 N93-29078
Method and apparatus for weaving a woven angle ply fabric [NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites [AD-A263264] 11 p3299 N93-29802
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites [AD-A263646] 11 p3299 N93-29984
Mechanical properties of several magnesium and aluminum composites [AD-A262481] 11 p3299 N93-30137
Characterization of ceramic composite materials for gas turbine applications [DE93-009719] 11 p3259 N93-30168
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
First NASA Advanced Composites Technology Conference, part 2 [NASA-CP-3104-PT-2] 11 p3303 N93-30841
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates 11 p3304 N93-30847
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Tensile creep behavior of polycrystalline alumina fibers [NASA-TM-106269] 11 p3340 N93-30938
Mechanical properties of composite materials 11 p3290 N93-30951
Introduction to high performance composites 11 p3291 N93-30957
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
SiC fiber-reinforced Celsian glass-ceramic matrix composite [NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite [NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992 [PB93-188647] 12 p3700 N93-31334
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645
Design of multiple-ply laminated composite tapered beams [NASA-TM-108411] 12 p3700 N93-31650
Composites design handbook: Update [ESA-PSS-03-1101-ISSUE-1-REV-2] 12 p3701 N93-31740
A mechanics model for the compressive response of fiber reinforced composites [AD-A265556] 12 p3701 N93-32067
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels [ATN-9301] 12 p3742 N93-32331

FIBER OPTICS

Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers [AD-A253415] 01 p0087 N93-10218
Fiber optic polishing system [AD-D015353] 02 p0446 N93-11052
Phase-stepping fiber-optic projected fringe system for surface topography measurements [NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
In-plane strain measurement on high speed rotating components using pulsed laser ESPI [PNR-90975] 02 p0315 N93-11064
Photonics and other approaches to high speed communications [NASA-CR-190362] 02 p0279 N93-11116
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications [AD-A253573] 02 p0290 N93-11507
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Fiber optic delay line signal processors [AD-A254691] 02 p0448 N93-12227
Fibre-optic sensors using adiabatically tapered single-mode fibres [AD-A254555] 03 p0708 N93-12642
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting [AD-A254745] 03 p0596 N93-12844
Reviews of computing technology: Fiber distributed data interface [DE92-019927] 03 p0681 N93-12886
Fiber optic sensors for static fracture studies and dynamic wave propagation problems 03 p0709 N93-12984
HIPPI and Fibre Channel [DE92-040346] 03 p0689 N93-13046
Fiber optic sensors for environmental applications: A brief review [DE92-040170] 03 p0710 N93-13576
Developments on high temperature fiber optic microphone 03 p0601 N93-13680
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems [NASA-CR-182268] 03 p0504 N93-13735
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems [NASA-CR-182269] 03 p0711 N93-13762
OSA proceedings of the topical meeting on optical amplifiers and their applications, volume 13 [AD-A252974] 03 p0711 N93-13879
Fiber optic data bus radiation effects study [AD-A255821] 03 p0711 N93-14031
Optical fibers for long-haul transmission in severe-bending applications [AD-A255964] 04 p0981 N93-14407
Variable path length spectrophotometric probe [DE92-019834] 04 p0881 N93-14716
Development of a fiber optic high temperature strain sensor [NASA-CR-191316] 04 p0882 N93-14810
Layered parallel interface for an active antenna array [AD-D015411] 04 p0860 N93-14879
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems [NASA-CR-182270] 04 p0982 N93-15116
Development of advanced seal verification [NASA-CR-184502] 04 p0892 N93-15117
Smart materials for Army structures [AD-A254925] 04 p0836 N93-15218
Remote fiber optic sensor for gaseous and liquid environments, phase 2 [AD-A256224] 04 p0983 N93-15241
Proposal for massively parallel data storage system 04 p0960 N93-15510
Fiber-optic three axis magnetometer prototype development [NASA-CR-191882] 05 p1301 N93-15711
Communications: Fiber-coupled external-cavity semiconductor high-power laser [AD-A257386] 05 p1171 N93-15860
Heterodyne array for measurement of target velocity [AD-D015402] 05 p1302 N93-16127
Armored fiber optic cables statement of government interest [AD-D015459] 05 p1302 N93-16437
High-strength in-line fiber optic connector [AD-D015446] 05 p1303 N93-16456
Polarization independent narrow channel wavelength division multiplexing fiber coupler and method for producing same [AD-D015473] 05 p1303 N93-16480
Infrared fiber-optical temperature sensor [AD-D015495] 05 p1167 N93-16492
Materials surface contamination analysis [NASA-CR-192422] 05 p1105 N93-17000
A study of current world telecommunications and a projection of the future [AD-A257545] 06 p1501 N93-17962
Improving security in the Fiber Distributed Data Interface (FDDI) protocol [AD-A257546] 06 p1501 N93-17963
EHF fiber optic transmitter module [AD-A257586] 06 p1661 N93-18183
Proceedings for Optical Fiber Sensors [AD-A257801] 06 p1662 N93-18239
Variable wide band fiber optic delay line [AD-D015539] 06 p1662 N93-18318
Design and implementation of a fiber optic link for a token ring local area network [AD-A257868] 06 p1662 N93-18335
Fault-tolerant fiber optic backplane [NASA-CASE-LAR-14785-1] 06 p1663 N93-19052
Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal [AD-A258824] 06 p1675 N93-19088
Optical fiber strain sensor with improved linearity [NASA-CASE-LAR-14857-1-SB] 06 p1663 N93-19374
Design and evaluation of FDDI fiber optics networkfor Ethernets, VAX's and Ingraph work stations 06 p1664 N93-19408
Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources 06 p1664 N93-19409
DSS-13 beam waveguide antenna frequency stability 06 p1513 N93-19424
Laser beam diagnostics for kilowatt power pulsed YAG laser [DE93-002928] 06 p1542 N93-19515
Fiberoptic characteristics for extreme operating environments [NASA-CR-189189] 06 p1475 N93-19649
The First NASA Aerospace Pyrotechnic Systems Workshop [NASA-CP-3169] 07 p1863 N93-20132
Small ICBM Laser Firing Unit (LFU) 07 p1864 N93-20138

Laser-initiated ordnance for air-to-air missiles
07 p1864 N93-20139
Laser diode ordnance design
07 p1864 N93-20140
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
The semiconductor laser applied to fibre optic sensors
07 p1910 N93-20286
Smart materials 07 p1845 N93-20624
Interferometric optical fiber data link
[AD-D015581] 07 p2067 N93-20797
Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930
Nonlinear fiber optics
[AD-A259363] 07 p2068 N93-21245
Embedded fiber optic acoustic sensors
[AD-D015568] 07 p2060 N93-21249
Technical digest-symposium on optical fiber measurements, 1992
[PB93-102259] 07 p2068 N93-21505
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
System evaluation of a fiber optic guided missile with a simple guidance addition to improve system effectiveness 08 p2255 N93-22025
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
Fiber optic gyros and systems
08 p2120 N93-22785
Stimulated Brillouin scattering switching in mid fibers
[AD-A260456] 08 p2487 N93-22948
OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Fiber optic interferometer configuration with pump-induced phase carrier
[AD-D015617] 08 p2489 N93-24156
Radio frequency cable to optical fiber cable
[AD-D015620] 08 p2284 N93-24230
Intelligent, integrated fiber optic networks
[AD-A260282] 08 p2490 N93-24260
Fiber optic microphone having a pressure sensing reflective membrane and a voltage source for calibration purpose
[NASA-CASE-LAR-14402-2-CU]
08 p2478 N93-24602
Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater
[PB93-150001] 08 p2375 N93-24638
Interferometric fiber-optic radiation sensor
[DE93-003841] 09 p2852 N93-25127
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
A fiber optic probe for the detection of cataracts
09 p2796 N93-25593
Fibre optic sensors for heat transfer studies
09 p2853 N93-25748
Infrared fiber optic diagnostic for solid propellant combustion 09 p2628 N93-26031
Performance of a 12-GHz fiber-optic system for beam-waveguide antenna stability testing
09 p2677 N93-26113
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Optical fiber for acoustic sensor applications
[AD-A261580] 09 p2857 N93-26515
In-process cure monitoring of composites via fiber-optic fluorescence
[AD-A261712] 09 p2641 N93-26580
Survey of fiber-optic sensor for remote sensing in radiologically and chemically harsh environments
[DE93-004998] 10 p3062 N93-26624
Analog signal isolation techniques
[DE93-008059] 10 p3147 N93-27524
Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Gyroscope with excess noise subtraction
[AD-D015698] 11 p3431 N93-29046
Hybrid data link
[AD-D015714] 11 p3383 N93-29280
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF
11 p3583 N93-29699
Radiation and temperature effects on LDEF fiber optic samples 11 p3583 N93-29700
Wavelength-division multiplexed optical integrated circuit with vertical diffraction grating
[NASA-CASE-NPO-18357-1-CU]
11 p3579 N93-29848
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Fiber-optic polarimetric strain gauge
11 p3375 N93-30341
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
Integrated optics for an interferometric link
12 p3824 N93-31783
IR single-mode fiber optics for double Fourier interferometry 12 p3824 N93-31784
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915

FIBER ORIENTATION

Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites
04 p0864 N93-14190
Advanced stitching technology
04 p0832 N93-14746
The optimal fiber volume fraction and fiber-matrix property compatibility in fiber reinforced composites
04 p0833 N93-14752
Mechanical response of composite materials with through-the-thickness reinforcement
04 p0834 N93-14753
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133
Continuous fiber reinforced thermoplastic composites
07 p1835 N93-21138
Knitted carbon fiber reinforced thermoplastics: Structural characterization with image analysis
07 p1839 N93-21163
Methods of determining loads and fiber orientations in anisotropic non-crystalline materials using energy flux deviation
[NASA-CASE-LAR-14399-1] 09 p2729 N93-26102
Aligned, short-fiber composites by novel flow processing methods
[DE93-008701] 11 p3296 N93-28904
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067

FIBER STRENGTH

Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus industry
[LR-677] 05 p1061 N93-16283
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
Recent developments of carbon fiber in Japan
[MTL-TR-92-48] 05 p1098 N93-16591
Some factors influencing the fatigue properties of boron strengthened aluminum based composite materials
07 p1924 N93-20355
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846

FIBER VOLUME FRACTION

Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
The optimal fiber volume fraction and fiber-matrix property compatibility in fiber reinforced composites
04 p0833 N93-14752
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382

FIBERGLASS

U GLASS FIBERS

FIBERS

NT ARAMID FIBERS
NT CARBON FIBERS
NT CERAMIC FIBERS
NT GLASS FIBERS
NT KEVLAR (TRADEMARK)
NT METAL FIBERS
NT MICROFIBERS
NT NYLON (TRADEMARK)
NT OPTICAL FIBERS
NT REINFORCING FIBERS
NT SCINTILLATING FIBERS
NT SYNTHETIC FIBERS
NT WOOL

Conductive titanate fiber and its production method
[DE92-014738] 01 p0039 N93-10627
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490

Asphalt mixtures modified with tall oil pitches and cellulose fibres
[VTT-PUBS-99] 06 p1494 N93-18699
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Applications of fibrous substrates containing insolubilized phase change polymers 08 p2320 N93-22181
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035

FIBRILLATION
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879

FIBROUS MATERIALS
U FIBERS

FICKS EQUATION
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003

FIDELITY
U ACCURACY

FIELD ALIGNED CURRENTS
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
EISCAT observations of strong ion outflows from the F-region ionosphere during auroral activity: Preliminary results 02 p0360 N93-11267
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited 02 p0360 N93-11268
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere 02 p0360 N93-11270
Comment on 'EISCAT Radar Observations of Enhanced Incoherent Scatter Spectra and Their Relation to Auroral Luminosity and Field-Aligned Currents' by P. N. Collis et al. 02 p0360 N93-11271
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions 03 p0657 N93-13793
A numerical model of ionospheric convection derived from field-alignment currents and the corresponding conductivity
[TRITA-EPP-91-03-REV] 04 p0916 N93-15252
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
Experimental observations of anomalous potential drops over ion density cavities
[TRITA-EPP-91-04] 05 p1312 N93-17637
Simulation of ionosphere-magnetosphere mesoscale coupling: Letting ionospheric conductivities depend on upward field-aligned currents 06 p1578 N93-18742
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522
Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced? 06 p1723 N93-19525
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials
[NIFS-195] 07 p2073 N93-20764
A statistical study of field-aligned currents in the Earth's inner magnetosphere 09 p2773 N93-25709
Laboratory simulation of field-aligned currents
[NASA-CR-193091] 11 p3476 N93-28538
A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394

FIELD EFFECT TRANSISTORS
NT JFET
NT MODFETS
Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
Preparation of silicon oxynitride thin films by plasma chemical vapor deposition for chemical implantation. Application to a pH ISFET
[ECL-91-12] 02 p0291 N93-11574
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
High temperature rectifiers and MOS devices in 6H-silicon carbide
[AD-A254725] 02 p0295 N93-12340
Back-gate bias generator
[AD-A255126] 02 p0295 N93-12421
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Gate-all-around device
[AD-A255287] 04 p0866 N93-14534
A new device to aid in the conception and optimization of monolithic millimeter circuits: A distributed and nonliner model of a field effect transistor 04 p0807 N93-14932
Conceptualization of a GaAs field effect transistor frequency tripler (2.5-7.5 GHz) for load use in communication satellites 04 p0807 N93-14934
Simulation and nonlinear modelling of microwave transistors 04 p0807 N93-14936
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Remote hydrogen sensing techniques
[NASA-CR-192416] 05 p1169 N93-17203
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
VLSI microelectronics research 06 p1523 N93-18462
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893
Development of power MOSFET (150 W class) 07 p1797 N93-20461
Research on single event resistance evaluation technology: Research by heavy ion irradiation 07 p1801 N93-20483
Contribution to the development of an ISFET type integrated sensor using an ASIC thread in CMOS technology
[ECL-91-09] 07 p1892 N93-21006
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
Guided wave phenomena in millimeter wave integrated circuits and components
[AD-A260407] 08 p2262 N93-22946
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Study of the compatibility of PIN detector circuits and field effect transistors. Extension to high mobility and one dimensional electron gas transitors
[LAAS-92242] 08 p2283 N93-23863
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU] 08 p2464 N93-24599
Quantum conductance fluctuations in self-aligned, pinch-narrowed MOSFETs 09 p2863 N93-25265
Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
Quantum transport of electrons in nanostructured silicon MOSFET's
[ETN-93-93597] 10 p3031 N93-27871
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Acoustic charge transport technology investigation for advanced development transponder 11 p3386 N93-29602
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
Analog CMOS circuits for neural networks 11 p3355 N93-30223
Modelling of channel thickness modulation effect in SI GaAs MESFET's 11 p3356 N93-30229
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962
Synthesis and realization of a monolithic active bandpass filter for the Ku band
[LAAS-92365] 12 p3719 N93-31173
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

FIELD EMISSION
Field emission current-voltage curves as a diagnostic for scanning tunneling microscope tips
[AD-A251171] 01 p0165 N93-10245
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
A semiempirical formula for calculating the coefficients for field emission tip forms
[AD-A254109] 01 p0145 N93-10857
Design and test of a superconducting structure for high-velocity ions
[DE93-000513] 05 p1326 N93-17377
Preliminary investigation into the development of hardening devices using vacuum microelectronic technology
[AD-A258009] 05 p1152 N93-17750
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Method of making composite field-emitting arrays
[AD-D015541] 07 p1832 N93-20780
Thermionic emission current in a single barrier varactor 10 p3012 N93-27735
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A261954] 10 p3153 N93-27948

Improved field emitter current densities and stability through the application of a proprietary process
[AD-A263464] 11 p3411 N93-29833
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031

FIELD INTENSITY METERS
Progresses in measuring electrostatic DC fields
[OEFZS-4627] 08 p2280 N93-23112
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719

FIELD OF VIEW
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
Increasing the corrected field of view of an adaptive optical telescope
[AD-A258816] 06 p1663 N93-18995
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996
TREND field test report
[AD-A258568] 07 p2067 N93-20372
In-flight field-of-view with ANVIS
[AD-A259905] 08 p2427 N93-23992
Investigation of serendipitious WFC sources
[NASA-CR-192774] 08 p2544 N93-24458
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Interpupillary and vertex distance effects on field-of-view and acuity with ANVIS
[AD-A261259] 09 p2802 N93-26265
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays
10 p2920 N93-27177
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542

FIELD STRENGTH
NT ELECTRIC FIELD STRENGTH
NT MAGNETIC FLUX
JARE data reports no. 170 (ionosphere 45). HF field strength data measured at Syowa Station, Antarctica from January to December 1988 03 p0652 N93-13432
An infrared polarimetric study of sunspots
03 p0770 N93-13627
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
ELF propagation highlights 11 p3395 N93-30730
VLF/LF propagation measurements
11 p3395 N93-30732
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734

FIELD THEORY (ALGEBRA)
NT CUBIC EQUATIONS
NT QUADRATIC EQUATIONS
Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122
Versatile Reed-Solomon decoders
[ISBN-0-315-64738-8] 08 p2274 N93-24626

FIELD THEORY (PHYSICS)
NT CRYSTAL FIELD THEORY
NT GRAND UNIFIED THEORY
NT INSTANTONS
NT QUANTUM CHROMODYNAMICS
NT STRONG INTERACTIONS (FIELD THEORY)
NT UNIFIED FIELD THEORY
NT WEAK INTERACTIONS (FIELD THEORY)
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Research in particle physics beyond the standard model
[DE92-012240] 01 p0155 N93-10878
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Mathematics and string theory
[DE92-019292] 03 p0727 N93-12796
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
Cosmological models in higher-order gravity
04 p1018 N93-14592
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Research in particle theory
[DE93-002868] 05 p1284 N93-16147
BRST field theory of relativistic particles
[NIKHEF-H/92-04] 05 p1286 N93-16341
On lattice chiral gauge theories
[PREPRINT-794] 05 p1278 N93-16415
On a class of stochastic reaction-diffusion equations in two space dimensions
[PREPRINT-777] 05 p1265 N93-16442
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Renormalization group in different fields of theoretical physics
[DE92-556707] 05 p1329 N93-16648
Low energy effects of heavy chiral fermions
[PREPRINT-872] 05 p1289 N93-16978
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
SU(3) lattice gauge fixing with overrelaxation and Gribov copies
[PREPRINT-839] 05 p1322 N93-16993
Fluctuations and thermodynamic variables in mean field spin glass models
[PREPRINT-883] 05 p1330 N93-17019
On the black-hole conformal field theory coupled to the Polyakov's string theory. A non perturbative analysis
[PREPRINT-852] 05 p1365 N93-17072
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Dressed skeleton expansion and the coupling scale ambiguity problem
[DE93-002516] 05 p1331 N93-17185
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions
06 p1722 N93-19522
Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525
Non-topological solitons in astrophysics and cosmology 07 p2096 N93-20292
Two loop calculation of the anomalous dimension of the axial current with static heavy quarks
[PREPRINT-813] 07 p2062 N93-20924
Topics in CP violation
[DE93-007615] 09 p2847 N93-25323
Twistor diagrams and a quantum field theory
09 p2871 N93-25423
On the octonionic Nahm equations and self-dual membranes in 9 dimensions
[DE93-007974] 10 p3128 N93-26673
Operator algebra from fusion rules 2: Implementing apparent singularities
[NIKHEF-H/92-06] 10 p3155 N93-27307
On inducing finite dimensional physical field representations for massless particles in even dimensions 10 p3144 N93-27339
Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340
The Mathai-Quillen formalism and topological field theory
[NIKHEF-H/92-07] 10 p3155 N93-27496
Algebraic conformal field theory
[NIKHEF-H/91-26] 10 p3128 N93-27507
Convergence of compact lattice scalar field theory to its continuum limit
[SSCL-PREPRINT-771] 10 p3156 N93-27584
Large deviations theory and stochastic gauge fixing
[SSCL-PREPRINT-739] 10 p3128 N93-28193
The Gribov problem in the frame of stochastic quantization
[SSCL-PREPRINT-740] 10 p3157 N93-28194
Commutative diagrams and tensor calculus in Riemann spaces
[SSCL-PREPRINT-741] 10 p3122 N93-28195
Hadron structure on the lattice
[SSCL-PREPRINT-754] 10 p3157 N93-28211
Applications of unitarity in the standard model
11 p3416 N93-28613
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
Quantum field theory in spaces with closed time-like curves
[DE93-010564] 11 p3605 N93-30481
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781
Phase structure of three- and four-dimensional phi(exp 4) field theory
[DE93-606069] 11 p3605 N93-30782
A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
Modern approach to relativity theory (radar formulation)
[DE93-606032] 11 p3606 N93-30804
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
Superconformal structures and holomorphic 1/2-superdifferentials on N = 1 super Riemann surfaces
[DE93-604133] 11 p3558 N93-30989
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
Ashtekar variables, self-dual metrics, and w(infinity)
[DE92-642588] 12 p3802 N93-31074
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles
[DE93-608203] 12 p3818 N93-31240
Distribution function of excitations in systems with fractional statistics
[DE93-608195] 12 p3810 N93-31307

The constraint for the lowest Landau level and the effective field theory approach for the fractional quantum hall system
[DE93-608200] 12 p3831 N93-31509
Supersymmetric construction of W-algebras from super Toda and WZNW theories
[DE93-608244] 12 p3808 N93-31819
Hamiltonian moments and the Lanczos method in the Heisenberg model
[DE93-609845] 12 p3813 N93-31905
Plaquette expansion in lattice Hamiltonian models
[DE93-609846] 12 p3813 N93-31906

FIGHTER AIRCRAFT
NT F-4 AIRCRAFT
NT F-14 AIRCRAFT
NT F-15 AIRCRAFT
NT F-16 AIRCRAFT
NT F-18 AIRCRAFT
NT F-104 AIRCRAFT
NT F-117A AIRCRAFT
NT HARRIER AIRCRAFT
NT MIRAGE AIRCRAFT
NT YF-12 AIRCRAFT
NT YF-16 AIRCRAFT
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
Combat aircraft noise: The operator's perspective 01 p0148 N93-10669
Combat aircraft jet engine noise studies 01 p0150 N93-10679
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Combat aircraft noise reduction by technical measures 01 p0152 N93-10689
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft 01 p0152 N93-10690
Study results on combat aircraft source noise reduction 01 p0152 N93-10691
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
The future of carrier aviation
[AD-A254043] 02 p0430 N93-12260
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
CFD calibration for three-dimensional nozzle/afterbody configurations 03 p0582 N93-13226
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
The human-electronic crew: Is the team maturing? The 2nd Joint GAF/RAF/USAF Workshop on Human-Electronic Crew Teamwork
[AD-A256192] 04 p0939 N93-14520
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Standardization of precipitation static test methods and equipment for the Navy
[AD-A257025] 04 p0792 N93-15361
F/A-18 controls released departure recovery flight test evaluation
[AD-A256522] 04 p0803 N93-15396
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Aerodynamic engine/airframe integration for high performance aircraft and missiles 05 p1065 N93-17618
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
Air accidents in the French Air Force 06 p1425 N93-19676
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts? 06 p1607 N93-19759
Flight above a virtual world 06 p1609 N93-19766
Management of avionics data in the cockpit 06 p1611 N93-19777
The integration of advanced cockpit and systems design 06 p1611 N93-19779
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 06 p1443 N93-19906
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed
[MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
[MBB-FE-221-S-PUB-0483] 07 p1840 N93-21462
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test 07 p1844 N93-21531
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
ASTOVL combat aircraft design synthesis and optimization 09 p2589 N93-25704
An analysis of the reliability and maintainability of the Jian 6 and Jian 7 aircraft and ways to improve them
[AD-A261060] 09 p2574 N93-26238
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack 11 p3260 N93-28851
Planning for air to air combat 11 p3501 N93-28852
A new class of mission support for combat air-crew 11 p3501 N93-28854
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
The physiological limitations of man in the high G environment 11 p3503 N93-28861
Requirements for pilot assistance in a thrust-vectoring combat aircraft 11 p3504 N93-28870
Design considerations for a night, air-to-surface attack capability on a dual role fighter 11 p3251 N93-28871
Damage severity of monitored fatigue load spectra
[NLR-TP-92009-U] 12 p3679 N93-32205
Development of a method to predict transonic limit cycle oscillation characteristics of fighter aircraft
[NLR-TP-91359-U] 12 p3679 N93-32338

FIGURE OF MERIT
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
A figure of merit for Transit-Time-Limited time-derivative electromagnetic field sensors
[AD-A260016] 08 p2273 N93-24459
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
Sensor and actuator technology development 10 p3047 N93-27900

FILAMENT WINDING
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF)
[NASA-TM-108382] 03 p0526 N93-13429
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure 05 p1084 N93-15775
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
A process model for control of resin volume fraction in filament wound composite laminates 08 p2213 N93-23948
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859

FILAMENT WOUND CONSTRUCTION
U FILAMENT WINDING

FILAMENTS
Method to produce ceramic superconducting filaments bonded to metals
[AD-D015595] 07 p1859 N93-20786
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959

FILAMENTS (SOLAR PHYSICS)
U SOLAR PROMINENCES

FILE MAINTENANCE (COMPUTERS)
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
File servers, networking, and supercomputers 03 p0737 N93-13137
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
RAMA: A file system for massively parallel computers
[NASA-CR-192906] 09 p2815 N93-25297
Test, Control and Monitor System maintenance plan
[NASA-CR-193099] 09 p2873 N93-26420
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193102] 10 p3090 N93-27239

FILES
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663

FILLERS
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys
[ESDU-92017] 04 p0900 N93-14553
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Welding wire pressure sensor assembly
[NASA-CASE-MFS-26216-1] 11 p3442 N93-28951

FILLETS
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures 03 p0631 N93-13947
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys
[ESDU-92017] 04 p0900 N93-14553
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 08 p2108 N93-22487

FILLING
NT REFILLING

FILM BOILING
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
Boiling under microgravity conditions 08 p2249 N93-22847
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887

FILM CONDENSATION
Film condensation in a horizontal rectangular duct
[NASA-CR-191061] 07 p1898 N93-20063
FILM COOLING
Leading edge film cooking heat transfer including the effect of mainstream turbulence
02 p0199 N93-11886
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Analysis of film cooling in rocket nozzles
[NASA-CR-[illegible]003] 06 p1473 N93-18518
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Measurements and computations of external heat transfer and film cooking in turbines
[RAE-TM-P-1223] 09 p2592 N93-25455
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
The effect of main stream flow angle on flame tube film cooling 11 p3257 N93-29953
Impingement/effusion cooling
11 p3257 N93-29954
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade
11 p3258 N93-29958
On the development of a film cooling layer
11 p3258 N93-29959
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades
11 p3258 N93-29962
Cooling predictions in turbofan engine components
11 p3259 N93-29964
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
FILM THICKNESS
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Two-fluid measurements on thin films
[PB92-205350] 02 p0308 N93-12475
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon
[DE93-005767] 08 p2509 N93-24017
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si
[PB93-152098] 08 p2225 N93-24632
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372
FILTERING
U FILTRATION
FILTERS
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879
Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
FILTRATION
NT SPATIAL FILTERING
Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Evaluation and optimization of a flexible filtration system for respiratory protection system 21
[AD-A262467] 11 p3493 N93-28758
FINANCE
The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned
02 p0472 N93-11163
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Financial alternatives for global satellite navigation
08 p2124 N93-23519
Small business access to equity capital
[PB93-144582] 09 p2872 N93-25735
Gordon Conference on Point Defects, Line Defects and Interfaces in Semiconductors
[AD-A261485] 09 p2868 N93-26357
FINANCIAL MANAGEMENT
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
Executive summary of information systems plans: Fiscal years 1994 to 1998
[PB93-146330] 08 p2527 N93-23646
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
Information systems strategies for public financial management
[PB93-186948] 12 p3842 N93-32167
FINE STRUCTURE
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Chromospheric structure and dynamics
01 p0180 N93-10906
The fine structure of prominences
01 p0180 N93-10910
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope 01 p0181 N93-10915
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
Fine structure of auroral particle acceleration
04 p0912 N93-14121
The local structure of high-temperature superconductors
[DE93-000653] 05 p1324 N93-17177
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
Gas distribution and starbursts in shell galaxies
10 p3183 N93-26780
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
The ISM in the M82 starburst
10 p3202 N93-26887
Remarks about massive and massless particles in supersymmetry 10 p3138 N93-27335
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Multiple flows in the solar transition region
12 p3857 N93-31704
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719
FINGERS
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks
02 p0330 N93-11967
Dexterous grasp and manipulation
03 p0618 N93-14075
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging
10 p3086 N93-27848
Power assist EVA glove development
10 p3086 N93-27850
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138
FINGERS (ROBOTICS)
U END EFFECTORS
FINISHES
NT GLAZES
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites
07 p1836 N93-21146
FINITE DIFFERENCE THEORY
Finite difference methods for incompressible viscous flow in scientific computing
[AD-A253512] 01 p0079 N93-10220
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids
01 p0064 N93-10568
Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197

Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments
[DE92-014268] 02 p0367 N93-11236
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
Comparison of truncation error of finite-difference and finite-volume formulations of convection terms
[NASA-TM-105861] 02 p0426 N93-11531
Temporal scattering and response software users' manual, version 2 and 3
[DE92-040934] 02 p0282 N93-11632
Numerical study of advanced rotor blades
02 p0199 N93-11899
Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
A SINDA thermal model using CAD/CAE technologies
03 p0585 N93-13394
One-dimensional transient finite difference model of an operational salinity gradient solar pond
03 p0586 N93-13400
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Theory and applications of the 3-dimensional finite-difference time-domain method
[AD-A256559] 04 p0968 N93-14804
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
JSEP fellowship — Transient radiation from antenna structures
[AD-A257021] 04 p0863 N93-15470
Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations
05 p1154 N93-15802
Preconditioned time-difference methods for solving advective-diffusive systems
[DE92-014790] 05 p1262 N93-15879
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
Direct numerical simulation of turbulent flow in a square duct 05 p1158 N93-16513
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences
05 p1165 N93-17289
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Automating the design of scientific computing software 05 p1249 N93-17516
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881
Modelling of interfacial and thermocline waves
[AERO-REPT-9209] 06 p1525 N93-18103
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Finite difference time domain modeling of spiral antennas
[NASA-CR-192237] 06 p1503 N93-18586
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region
06 p1413 N93-19304
Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Basic studies of baroclinic flows
07 p2003 N93-20073
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
A finite-difference multigrid algorithm for the direct numerical simulation of transition and turbulence in incompressible flow 07 p1898 N93-20168
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Time-stable boundary conditions for finite-difference schemes solving hyperbolic systems: Methodology and application to high-order compact schemes
[NASA-CR-191436] 08 p2468 N93-23126
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations
08 p2294 N93-23402
Three dimensional transient analysis of microstrip circuits in multilayered anisotropic media
[AD-A259829] 08 p2281 N93-23433
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
A convergent finite difference scheme for the Navier-Stokes equations of nonisentropic compressible fluid flow 09 p2695 N93-24906
High-order cyclo-difference techniques: An alternative to finite differences
[NASA-TM-107745] 09 p2575 N93-25074
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078
Godunov-type schemes applied to detonation flows
[NASA-CR-191447] 10 p2929 N93-27090
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
The influence of bulges on boundary-layer instability
10 p2932 N93-27435
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Balanced approximation can be optimal
[OUEL-1950/92] 11 p3548 N93-28754
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
Filtering interpolators for image comparison algorithms
11 p3463 N93-28797
A simple parallel prefix algorithm for compact finite-difference schemes
[NASA-CR-191448] 11 p3525 N93-28976
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877
Difference methods for hyperbolic problems with emphasis on space-centered approximations
[ONERA-NT-1990-4] 11 p3550 N93-30136
Errors when shock waves interact due to numerical shock width
[DE93-010899] 11 p3426 N93-30484
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913
Numerical wave propagation and steady-state solutions 11 p3428 N93-30999
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

FINITE ELEMENT METHOD

Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
Numerical simulation of unsteady flow in a nozzle
01 p0016 N93-10008
LAM actuated propellant flow control device
01 p0018 N93-10017
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Effects of gravity in folding --- of geological layers
01 p0124 N93-10324
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407
A finite element method for nonlinear panel flutter
01 p0045 N93-10472
Vibration of laminated composite plates using various plate theories: Analytical and finite element results
01 p0045 N93-10473
Integrated finite element model of composite materials
01 p0048 N93-10477
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Evolution of hybrid-Trefftz FE model: State of the art and future trends 01 p0049 N93-10494
A multilayered shell finite element
01 p0049 N93-10495
Hexagonal and octagonal finite elements
01 p0050 N93-10500
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Failure analysis of laminated composites by using iterative three-dimensional finite element method
01 p0051 N93-10505
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512
Natural vibrations of multilayered doubly curved shells
01 p0057 N93-10532
On the vibration of axisymmetric shells
01 p0057 N93-10535
The vibrations of annular discs: A comparison of experimental and two analytical techniques
01 p0058 N93-10536
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538

Stream function-vorticity finite element formulations of unsteady incompressible Navier-Stokes equations
01 p0060 N93-10545
A least-squares finite element method for incompressible Navier-Stokes problem
01 p0060 N93-10548
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis
01 p0061 N93-10554
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560
A reappraisal of compound equilibrium finite elements
01 p0063 N93-10561
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
On the use of coupled finite element boundary element models in numerical design analysis
01 p0063 N93-10563
A boundary element super-element method for coupling with the finite element method of substructures
01 p0064 N93-10566
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
DYNA2D: A nonlinear, explicit, two-dimensional finite element code for solid mechanics: User manual
[DE92-017310] 01 p0095 N93-10646
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
Linear and nonlinear analyses of thick composite circular plates using the finite element method
01 p0096 N93-10873
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
Quality management of finite element analysis
[PNR-90951] 02 p0331 N93-11110
Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads
02 p0335 N93-11200
Fracture mechanics of model fiber composites
02 p0237 N93-11247
Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas
[AD-A249095] 02 p0451 N93-11275
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
Global-local finite element analysis of composite structures
[DE92-019138] 02 p0240 N93-11658
Numerical simulation for the coaxial electromagnetic launcher using hybrid potentials with FE-BE method
02 p0222 N93-11726
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Some remarks on shell element analysis with DYNA3D and NIKE3D
[DE92-018784] 02 p0337 N93-11775
Structural integrity of a confinement vessel for testing nuclear fuels for space propulsion
[DE92-016796] 02 p0232 N93-11824
Performance of the h-p version of the finite element method with various elements
[AD-A250689] 02 p0427 N93-11837
Elastic stresses, twin boundaries, and fatigue cracking
02 p0338 N93-11890
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Advanced modeling and optimization of piezoelectric composites
[AD-A253800] 02 p0242 N93-12296
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Fluid-structure interaction using retarded potential and ABAQUS
[AD-A254735] 02 p0307 N93-12355
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles
02 p0229 N93-12460
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532
Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth
03 p0621 N93-12628
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Quality assessment of the A-posteriori error estimation in finite elements
[AD-A254767] 03 p0696 N93-12701
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825
Identification of parametric finite element models using experimental modal data
[PB92-217819] 03 p0558 N93-12976
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties
03 p0530 N93-13007
Linear and nonlinear finite element analysis of laminated composite structures at high temperatures
03 p0623 N93-13009
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191246] 03 p0624 N93-13029
Finite element versus boundary element analysis of two-dimensional coupled thermoelasticity
03 p0625 N93-13142
Structural optimization of thin shells using finite element method
[NASA-TM-105903] 03 p0625 N93-13157
The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible?
[DE92-016184] 03 p0612 N93-13236
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
Simulation of forward-backward extrusion with numerical and model material techniques
[DE92-016299] 03 p0558 N93-13298
Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
A SINDA thermal model using CAD/CAE technologies
03 p0585 N93-13394
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189151] 03 p0627 N93-13444
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189152] 03 p0627 N93-13445
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
Finite element study of ultrasonic imaging
03 p0700 N93-13774
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
The free and forced vibrations of structures using the finite dynamic element method
03 p0630 N93-13935
Finite elements for free edge delaminations and delaminated anisotropic beams
03 p0535 N93-13967
Delamination initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Non-linear analysis of wave progagation using transform methods and plates and shells using integral equations
04 p0896 N93-14188
Finite element models of laser welding
04 p0888 N93-14226
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Viscoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism
04 p1027 N93-14313
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469
Large plastic deformations by sequential limit analysis: A finite element approach with applications in metal forming 04 p0899 N93-14471
Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472
Mechanics of composite materials for spacecraft
[AD-A255380] 04 p0831 N93-14550
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
Stability of elastically tailored rotor blades
04 p0791 N93-14828
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122
Calculation of mechanical vibration frequencies of stiffened superconducting cavities
[DE92-040228] 04 p0903 N93-15423
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods 05 p1077 N93-15722
Some aspects for the application of a hierarchic family of Herrmann mixed compressible and incompressible finite elements 05 p1077 N93-15723
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
CAD to FEM tool 05 p1079 N93-15737
Damage mechanics modelisation of composite structures: A physical approach of failure
05 p1079 N93-15741
Composite material damage and fracture models for numerical simulations in support of fracture control
05 p1080 N93-15743
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
The numerical simulation of the inflation process of space rigidized antenna structures
05 p1083 N93-15771

Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779

Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications
05 p1085 N93-15780

A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847

Radial basis functions: A class of grid-free, scattered data approximations
[DE92-012675] 05 p1263 N93-15921

Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958

Optimization of an internally finned rotating heat pipe
[AD-A256725] 05 p1329 N93-15980

Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035

Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207

Nonlinear analysis of Ariane 5 engine frame
[LR-678] 05 p1074 N93-16284

Development of user guidelines for a three-dimensional finite element pavement model
05 p1070 N93-16311

Thermoviscoelastic analysis of pavements
05 p1070 N93-16313

FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314

Development of a unified airport pavement analysis and design system 05 p1071 N93-16317

Unified airport pavement design procedure
05 p1071 N93-16318

Uniform convergence estimates for multigrid V-cycle algorithms with less than full elliptic regularity
[DE92-041275] 05 p1238 N93-16532

Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572

Beam, plate, and shell finite elements for CSI design code 05 p1189 N93-16782

A variational method for finite element stress recovery: Applications in one-dimension 05 p1189 N93-16785

SAFSIM input manual: A computer program for the engineering simulation of flow systems
[DE93-002738] 05 p1163 N93-16922

The use of cross-section warping functions in composite rotor blade analysis
[NASA-CR-191772] 05 p1186 N93-16946

Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362

Automating FEA programming
05 p1251 N93-17524

Multigrid for semiconductor device simulation: Cell-centered or vertex-centered multigrid?
[CWI-NM-R9118] 05 p1271 N93-17553

Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564

Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565

Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569

Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779

Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920

Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924

A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961

Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090

H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739] 06 p1525 N93-18093

Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114

Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364

Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540

Solution of the time-dependent incompressible Navier-Stokes equations by finite elements
06 p1528 N93-18542

Finite element modeling of fluids
06 p1529 N93-18543

Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576

A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648

Calculation of the fatigue life of a surface-hardened shaft by the finite-element method
[VTT-PUBS-92] 06 p1548 N93-18695

Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749

Numerical analysis of surface cracks
06 p1556 N93-18750

Fibre reinforced plastic structures
06 p1557 N93-18752

Analysis of structures under fire conditions
06 p1557 N93-18754

QA system for structural analysis
06 p1557 N93-18755

P-adaptivity applied to plate in bending problems
06 p1557 N93-18756

Finite element analysis of stiffened plate vibrations
06 p1557 N93-18757

Dynamics in condition monitoring, a case study
06 p1558 N93-18758

A comparison of refined models for flexible subassemblies 06 p1464 N93-18833

A comparison of viscoelastic damping models
06 p1464 N93-18836

Development of an hp-version finite element method for computational optimal control
[NASA-CR-192220] 06 p1639 N93-18882

An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors
06 p1467 N93-18932

CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944

The non-linear dynamics of composite cylindrical shells
[AD-A259026] 06 p1558 N93-18953

Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988

Flexible rotorcraft system dynamics with time-variant contact conditions 06 p1441 N93-19034

Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276

Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287

Structures research 06 p1447 N93-19453

Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458

A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures
06 p1561 N93-19459

Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971

Elevated temperature crack growth
[NASA-CR-189191] 07 p1920 N93-19992

The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018

Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232

Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256

Modal ring method for the scattering of electromagnetic waves
[NASA-TM-105966] 07 p1882 N93-20260

Optimal guidance law development for an advanced launch system
[NASA-CR-192189] 07 p1820 N93-20313

Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321

Mixed mode fatigue crack propagation in a crankshaft
07 p1923 N93-20347

Fatigue assessment of a cast component for a timber crane 07 p1924 N93-20353

Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373

Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618

Viscoelastic analysis of bonded connections
07 p1929 N93-20638

Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation
07 p1929 N93-20640

Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes
07 p1930 N93-20645

Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646

An efficient method for the reliability analysis of geometric nonlinear frame structures
07 p1931 N93-20651

A method of continuous coordinate condensation
07 p1932 N93-20657

Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659

Resonant response analysis of a high speed gear
07 p1917 N93-20662

Buckling and dynamic instability phenomena of tapered bar with localized flaw subjected to an intermediate periodic axial load 07 p1935 N93-20675

Performances of finite element solution for crack problem 07 p1936 N93-20682

Analysis of mixed mode cracks in a cylindrical shell
07 p1936 N93-20683

Spatial formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20690

Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691

Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696

Improvement to the higher order finite strip method
07 p1939 N93-20697

Nonlinear analysis of plates by the finite element method 07 p1939 N93-20698

Exact finite element method 07 p1939 N93-20699

Modelling of multi-link spatial flexible manipulators employing the finite element method
07 p1941 N93-20707

Structural shape optimization of robotic links
07 p1918 N93-20717

Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879

Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919

Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005

Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017

Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018

Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019

Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116

Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233

The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling
07 p1782 N93-21313

The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements
07 p1782 N93-21314

The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process 07 p1782 N93-21315

Fatigue Design 1992, volume 1
[VTT-SYMPOSIUM-130-VOL-1]
07 p1947 N93-21318

Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337

Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338

The use of finite element codes for cyclic stress-strain analysis 07 p1950 N93-21340

GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations
07 p1841 N93-21513

Buckling and post-buckling behavior of a delamination in a carbon-epoxy laminated structure: Experiments and modelling 07 p1841 N93-21514

Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515

Edge delamination of composite laminates
07 p1842 N93-21519

Numerical finite element analysis of damage using Monte Carlo techniques 07 p1842 N93-21522
Electromagnetic finite element analysis of a solenoid [DE93-004635] 07 p1894 N93-21724
Computational mechanics at Los Alamos National Laboratory [DE93-003725] 07 p2042 N93-21735
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April [ONERA-1989-2] 07 p1762 N93-21747
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics [DLR-FB-91-40] 07 p1763 N93-21760
Improving the selection of bolted joint parameters by using results from finite-element analysis [DE93-002243] 07 p1951 N93-21774
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual [NASA-CR-191017] 07 p1953 N93-22005
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Finite element analysis of a composite artificial ankle 08 p2423 N93-22189
Adaptive meshing in solids [DE93-003238] 08 p2287 N93-22331
A class of hybrid finite element methods for electromagnetics: A review [NASA-CR-192631] 08 p2260 N93-22467
Coupled multi-disciplinary composites behavior simulation [NASA-TM-106011] 08 p2322 N93-22481
GROPE: A GENESIS/EXODUS database examination program [DE93-006963] 08 p2523 N93-22514
Aprepro: An algebraic preprocessor for parameterizing finite element analyses [DE93-006989] 08 p2466 N93-22527
The h, p and h-p version of the finite element method basic theory and applications [AD-A260197] 08 p2323 N93-22550
Incremental, quasistatic, uniaxial finite element analysis in the linear viscoelasticity theory, exemplarily demonstrated by the Burger material [ETN-93-93422] 08 p2324 N93-22680
Multidisciplinary optimization of a controlled space structure using 150 design variables [NASA-CR-4502] 08 p2125 N93-22799
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea [DE93-000796] 08 p2392 N93-22807
Large-scale computation of incompressible viscous flow by least-squares finite element method [NASA-TM-105904] 08 p2467 N93-22825
Finite element methods in heat transfer [DE93-006451] 08 p2290 N93-22886
The p and h-p versions of the finite element method: Basic principles and properties [AD-A260237] 08 p2468 N93-22930
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors [NASA-TM-105978] 08 p2130 N93-23013
Probabilistic finite elements for fatigue and fracture analysis [NASA-CR-191098] 08 p2326 N93-23053
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0 [NASA-TM-106004] 08 p2326 N93-23056
Analysis of delamination related fracture processes in composites [NASA-CR-192632] 08 p2209 N93-23073
VASGEN: A finite element model generation program for VAST. User's manual, version 4.0 [DREA-CR-91-447] 08 p2437 N93-23089
Localized damage development in notched composite plates subjected to compressive loading [CTN-93-60663] 08 p2209 N93-23113
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6 [VTT-PUBS-103] 08 p2326 N93-23120
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade [NASA-CR-190782] 08 p2327 N93-23125
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method 08 p2291 N93-23180
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications [NASA-CR-192348] 08 p2263 N93-23215
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method [DE93-005246] 08 p2293 N93-23299
Consideration of history dependent damage in creep crack growth [DE93-004398] 08 p2328 N93-23317
SPRING2: Helical compression spring geometry generator program manual [DREA-TC-92-314] 08 p2438 N93-23345
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method [PB93-142438] 08 p2439 N93-23436
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3 [AD-A260107] 08 p2469 N93-23713
surf3d: A 3-D finite-element program for the analysis of surface and corner cracks in solids subjected to mode-1 loadings [NASA-TM-107710] 08 p2329 N93-23735
Mapping methods for computationally efficient and accurate structural reliability [NASA-TM-105892] 08 p2330 N93-23745
Bend ductility of tungsten heavy alloys [DE93-004839] 08 p2232 N93-23971
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1 [NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2 [NASA-CR-192698] 08 p2511 N93-24147
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
On the regularity of elasticity problems with piecewise analytic data [AD-A260346] 08 p2332 N93-24273
Studies in penetration mechanics [AD-A260436] 08 p2332 N93-24304
Multiobjective optimization of aerospace structures [AD-A260433] 08 p2127 N93-24430
A priori error estimates of finite element solutions of parametrized nonlinear equations [AD-A260013] 08 p2471 N93-24437
A posteriori error estimates of finite element solutions of parametrized nonlinear equations [AD-A260014] 08 p2471 N93-24438
New Micro- and macroscopic models of contact and friction [AD-A259925] 08 p2319 N93-24442
FESDIF: Finite Element Scalar Diffraction theory code [DE93-007222] 08 p2475 N93-24447
Use of system identification techniques for improving airframe finite element models using test data [NASA-CR-192699] 08 p2128 N93-24481
Inelastic nonuniform torsion of steel I-beams [PB93-118776] 08 p2333 N93-24589
Evaluation of MARC for the analysis of rotating composite blades [NASA-TM-4423] 09 p2723 N93-24909
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0 [NASA-TM-106001] 09 p2723 N93-24913
Rapid exploration of curvilinear grids using direct volume rendering [NASA-CR-192765] 09 p2808 N93-24944
Quartz crystal twinning under mechanical stress: Finite element analysis 09 p2839 N93-25032
High temperature composite analyzer (HITCAN) user's manual, version 1.0 [NASA-TM-106002] 09 p2724 N93-25070
Stress distribution in composite flatwise tension test specimens [NASA-TM-106074] 09 p2634 N93-25071
UARS in-flight jitter study for EOS [NASA-CR-191419] 09 p2615 N93-25133
Using a multifrontal sparse solver in a high performance, finite element code [NASA-CR-192718] 09 p2828 N93-25223
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis 09 p2724 N93-25273
Data parallel finite element techniques for large-scale computational fluid dynamics 09 p2699 N93-25334
Formulation and treatment of frictional contact problems using finite elements 09 p2717 N93-25412
Experimental modal survey of the probe mass mock-up [DE93-008846] 09 p2617 N93-25494
Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569
Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663
An in-depth probabilistic study of external tank attach ring [NASA-TM-108403] 09 p2624 N93-25671
Finite element micromechanics modeling of inelastic deformation of unidirectionally fiber-reinforced composites 09 p2637 N93-25680
An efficient technique for structural reliability with applications 09 p2727 N93-25681
Low-velocity impact of composite sandwich plate 09 p2637 N93-25695
The rate form of equilibrium equation for problems of steady-state, elastic, viscous flows 09 p2704 N93-25708
Active control of NiTiNOL-reinforced structural composites [AD-A261062] 09 p2638 N93-25780
Optimization techniques for contact stress analysis [AD-A260846] 09 p2729 N93-25911
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL [AD-A261608] 09 p2790 N93-26164
Finite element modeling of the hydroforming press [KCP-613-4999] 09 p2668 N93-26206
Advanced engineering analysis [KCP-613-4967] 09 p2669 N93-26212
Thermally induced stresses in a composite exposed to fire [AD-A261714] 09 p2641 N93-26371
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens [AD-A261679] 09 p2731 N93-26390
Configuration optimization of space structures 09 p2670 N93-26415
Approximate techniques for predicting size effects on cleavage fracture toughness (J(sub c)) [AD-A261591] 09 p2731 N93-26516
Use and analysis of finite element methods for problems of solid mechanics and fracture [AD-A261574] 09 p2731 N93-26522
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy [NASA-TM-106125] 09 p2731 N93-26550
SAFSIM overview 10 p2981 N93-26959
Contact stress analysis of spiral bevel gears using nonlinear finite element static analysis [NASA-TM-106176] 10 p3049 N93-27037
Shape optimization of tibial prosthesis components [NASA-CR-191123] 10 p3081 N93-27085
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites [NASA-CR-191142] 10 p2990 N93-27086
Stability of single layer composite cylinders subjected to lateral pressure: Numerical approach 10 p2922 N93-27184
An efficient solution procedure for the thermoelastic analysis of truss space structures 10 p2923 N93-27191
A Petrov-Galerkin mixed finite element method with exponential fitting [CWI-NM-R9204] 10 p3113 N93-27301
Moving-finite-element solution of time-dependent partial differential equations in two space dimensions [CWI-NM-R9206] 10 p3113 N93-27303
Error analysis for the one-dimensional convection-diffusion equation [CWI-NM-R9209] 10 p3114 N93-27376
Testing a wheeled landing gear system for the TH-57 helicopter [AD-A262152] 10 p2942 N93-27547
Evaluation of actuators for the SDOF and MDOF active microgravity isolation systems 10 p3057 N93-27595
Curvilinear geometry transport discretizations in the thick diffusion limit [DE93-007109] 10 p3117 N93-27615
Diffusion-accelerated solution of the 2-D S(sub n) equations with bilinear-discontinuous differencing [DE93-008793] 10 p3117 N93-27621
Finite element model and identification procedure 10 p3058 N93-27890
Finite element mesh generation from CSG models [ETN-93-93614] 10 p3119 N93-27932
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations [ISBN-90-370-0072-X] 10 p3041 N93-27939
Automatization of structural analysis calculation procedure: NASTRAN pre and post processors [ETN-93-93706] 10 p3100 N93-27947
Rectenna thermal model development 10 p3022 N93-27986

Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
Upwind finite element schemes for solving the Maxwell equations
[INRIA-RR-1601] 11 p3546 N93-28509
Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556
Design of an essentially non-oscillatory reconstruction procedure in finite-element type meshes
[INRIA-RR-1584] 11 p3547 N93-28615
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
Axial impact of composites 11 p3297 N93-29078
Design optimization of space structures 11 p3278 N93-29122
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Accuracy of least-squares methods for the Navier-Stokes equations
[NASA-TM-106209] 11 p3421 N93-29208
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843
Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019
On high resolution extensions of Lagrange-Galerkin finite-element schemes
[INRIA-RR-1703] 11 p3550 N93-30117
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525
Structural design, analysis, and code evaluation of an odd-shaped pressure vessel
[DE93-008182] 11 p3447 N93-30632
Nonlinear explicit transient finite element analysis on the Intel Delta
[DE93-009561] 11 p3535 N93-30647
Delaminations in composite plates under impact loads 11 p3304 N93-30849
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications 11 p3306 N93-30861
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes 11 p3306 N93-30863
Multiple methods integration for structural mechanics analysis and design 11 p3307 N93-30867
Structural design using neural networks 11 p3545 N93-31029
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428
Contribution to the theoretical study and finite-element approximation of the multidimensional, multispecies, hyperbolic system of gas dynamics
[ESA-TT-1275] 12 p3724 N93-31429
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Probabilistic fracture finite elements 12 p3695 N93-31571
Mapping methods for computationally efficient and accurate structural reliability 12 p3695 N93-31572
Modeling ice streams: Derived quantities 12 p3763 N93-31904
Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182
Civil tiltrotor transport point design: Model 940A
[NASA-CR-191446] 12 p3701 N93-32234
Basic structural dynamics 12 p3741 N93-32271
A p-version finite element method for steady incompressible fluid flow and convective heat transfer
[NASA-TM-106260] 12 p3727 N93-32370

FINITE IMPULSE RESPONSE FILTERS
U FIR FILTERS

FINITE VOLUME METHOD
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
Comparison of truncation error of finite-difference and finite-volume formulations of convection terms
[NASA-TM-105861] 02 p0426 N93-11531
Resolution of the pressure equation by the boundary element method. Application to multistage turbomachines
[ECL-91-16] 02 p0301 N93-11575
A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686
Numeric simulation of the aerodynamic flows around nacelles 03 p0577 N93-13202
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow 03 p0593 N93-14025
A numerical study of hypersonic flows using the full Navier-Stokes equations with different air models 03 p0594 N93-14061
Multigrid for semiconductor device simulation: Cell-centered or vertex-centered multigrid?
[CWI-NM-R9118] 05 p1271 N93-17553
Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122] 05 p1164 N93-17557
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed
[MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766
Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091
A finite volume discretisation scheme with a-posteriori error estimates for the symmetrised continuity equation
[CWI-NM-R9203] 10 p3113 N93-27300
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
Upwind finite element schemes for solving the Maxwell equations
[INRIA-RR-1601] 11 p3546 N93-28509
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
Ablation problems using a finite control volume technique
[DE93-009861] 11 p3549 N93-29187
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
On high resolution extensions of Lagrange-Galerkin finite-element schemes
[INRIA-RR-1703] 11 p3550 N93-30117
The ViB-code to simulate 3-D stator/rotor flow in axial turbines
[DLR-FB-92-19] 12 p3681 N93-31170
Finite volume methods constructed by mixed variational formulation. Part 2: Error estimates in discrete energetic norms
[REPT-92-86] 12 p3805 N93-31488
Finite volume methods constructed by mixed variational formulation. Part 1: Description of the discretization technique
[REPT-92-85] 12 p3805 N93-31489
Multigrid schemes for time-dependent incompressible Navier-Stokes equations
[REPT-92-102] 12 p3725 N93-31657

FINITE-STATE MACHINES
U TURING MACHINES

FINLAND
Impact cratering record of Fennoscandia 01 p0119 N93-10171
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
Report on the 7th Finnish EISCAT Workshop in 1991 06 p1578 N93-18737
EISCAT Svalbard radar 06 p1516 N93-18744
The Finnish research programme on climate change
[DE93-752870] 08 p2383 N93-22597
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360

FINNED BODIES
High performance titanium plate fin heat exchanger using a novel manufacturing process
[PNR-90933] 04 p0880 N93-15488
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Low-speed wind tunnel study of the direct side-force characteristics of a joined-wing airplane with an upper fin
[DE93-767966] 12 p3672 N93-31189
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028

FINS
NT COOLING FINS
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
Optimization of an internally finned rotating heat pipe
[AD-A256725] 05 p1329 N93-15980
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638
Two-dimensional fin analysis 09 p2705 N93-25737
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278

FIR FILTERS
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Realization of high speed adaptive FIR digital filters 11 p3355 N93-30222

FIRE CONTROL
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
Enhancement of multiple target track simulation
[AD-A257224] 05 p1278 N93-16236
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
Increased fire and toxic contaminant detection responsibility by use of distributed, aspirating sensors
10 p2965 N93-27722
Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing
11 p3501 N93-28853
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Design considerations for a night, air-to-surface attack capability on a dual role fighter
11 p3251 N93-28871

FIRE CONTROL CIRCUITS
Small ICBM Laser Firing Unit (LFU)
07 p1864 N93-20138
Laser diode ordnance design
07 p1864 N93-20140
Safety and arming system for tube launched projectile
[AD-D015557] 07 p1889 N93-20307

FIRE DAMAGE
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
A prototype system for forest fire prevention and control 09 p2749 N93-24844

FIRE EXTINGUISHERS
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
The effectiveness of hand-held fire extinguishers on cargo container fires
[DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629

FIRE FIGHTING
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Combustion of gaseous fuels under reduced-gravity conditions 03 p0557 N93-14012
The effectiveness of hand-held fire extinguishers on cargo container fires
[DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
Aircraft fire protection system
[CA-PATENT-1-296-970] 08 p2118 N93-24592
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
Transient cooling of a hot surface by droplets evaporation
[PB93-189421] 12 p3722 N93-31114

FIRE PREVENTION
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219
Flame-front kinetics 06 p1485 N93-18481
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
A prototype system for forest fire prevention and control 09 p2749 N93-24844
Risk-based spacecraft fire safety experiments
11 p3267 N93-28738
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

FIRE RESISTANCE
U FLAMMABILITY

FIRE RETARDANTS
U FLAME RETARDANTS

FIREBALLS
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records
06 p1703 N93-19137

FIRES
NT FOREST FIRES
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
CORRIDOR: A routine for estimating the initial wave front resulting from high temperature fire exposure to a corridor
[PB92-213347] 03 p0559 N93-13640
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Combustion of gaseous fuels under reduced-gravity conditions 03 p0557 N93-14012
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents
06 p1428 N93-19693
Fires on board aircraft: Toxicological risk in flight
06 p1428 N93-19694
Japan's microgravity combustion science program
07 p1868 N93-20182
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames
07 p1853 N93-20189
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Opposed-flow flame spreading in reduced gravity
07 p1854 N93-20206
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
A model study of the aircraft cabin environment resulting from in-flight fires
[DOT/FAA/CT-90/22] 07 p1764 N93-21557
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
The effectiveness of hand-held fire extinguishers on cargo container fires
[DOT/FAA/CT-TN92/42] 07 p1764 N93-21821
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
The generation of carbon monoxide in compartment fires 08 p2117 N93-23093
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2116 N93-23222
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model
[DOT/FAA/CT-89/25] 10 p2941 N93-28055
Risk-based spacecraft fire safety experiments
11 p3267 N93-28738
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

FIREWORKS
U PYROTECHNICS

FIRING (IGNITING)
NT TEST FIRING
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210

FIRING TIME
U BURNING TIME

FIRMWARE
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674
Firmware development improves system efficiency
09 p2807 N93-25606
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022

FISCHER-TROPSCH PROCESS
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Development of alternative fuels from coal-derived syngas
[DE93-011629] 11 p3341 N93-28668
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750

FISH
U FISHES

FISHERIES
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Finding fish way by using remote sensing
07 p1979 N93-21546
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR
08 p2337 N93-22141
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
Supporting the Portuguese fisheries with satellites
09 p2745 N93-24821
Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822
The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series
09 p2736 N93-24937
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

FISHES
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR
08 p2337 N93-22141
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868

FISHING
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series
09 p2736 N93-24937

FISHTAILING
U YAW

FISSILE MATERIALS
U FISSIONABLE MATERIALS

FISSION
Stability of differentially rotating stars
04 p1018 N93-14584
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054

FISSION PRODUCTS
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006

FISSIONABLE MATERIALS
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495

FITNESS
NT PHYSICAL FITNESS

FITTING
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640
The identification of analytical device models
[ISBN-90-6275-764-2/CIP] 10 p3100 N93-27874

FITTINGS
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model 09 p2678 N93-26119

FIXED WINGS
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11
[AGARD-AG-300-VOL-11] 07 p1781 N93-21305
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198

FIXED-WING AIRCRAFT
U AIRCRAFT CONFIGURATIONS
U FIXED WINGS

FIXTURES
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Work attachment mechanism/work attachment fixture
[NASA-CASE-GSC-13430-1] 04 p0890 N93-14712
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1
[DE93-005382] 08 p2325 N93-22975
End effectors and grapple fixtures
[CA-PATENT-1-294-917] 08 p2316 N93-23966
Grapple fixture
[CA-PATENT-1-297-519] 08 p2317 N93-23967
Large angle magnetic suspension test fixture
[NASA-CR-193123] * 12 p3684 N93-31836

FIZEAU EFFECT
Ground-based high angular resolution observation of the Sun by interferometry in the visible 01 p0177 N93-10941

FLAME FRONTS
U FLAME PROPAGATION

FLAME HOLDERS
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Influence of gravity on polyedric flames 08 p2226 N93-22840

FLAME INTERACTION
U CHEMICAL REACTIONS
U FLAME PROPAGATION

FLAME IONIZATION
Development of laser excited atomic fluorescence and ionization methods
[DE92-016199] 01 p0089 N93-10611

FLAME PROBES
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means 11 p3319 N93-30081

FLAME PROPAGATION
Combustion-wave ignition for rocket engines 01 p0017 N93-10016
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
Freely propagating open premixed turbulent flames stabilized by swirl
[DE92-017116] 02 p0251 N93-12112
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
Modeling of Combustion and Turbulence
[VKI-LS-1992-03] 04 p0839 N93-14617
Fundamentals of combustion of premixed gases 04 p0840 N93-14618
Chemical kinetics for combustion 04 p0840 N93-14619
Turbulence modeling for combustion flows 04 p0840 N93-14620
Radiative heat transfer in combustion systems 04 p0840 N93-14621
Direct simulation of turbulent combustion 04 p0840 N93-14622
Applications of PDF turbulent combustion models to real non premixed flame calculations 04 p0841 N93-14624
Introduction to spray combustion modelling 04 p0841 N93-14626
Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795
Contribution to the study of airbreathing burner combustion instabilities
[ONERA-NT-1992-2] 06 p1482 N93-18189
Flame-front kinetics 06 p1485 N93-18481
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Opposed-flow flame spreading in reduced gravity 07 p1854 N93-20206
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
Flame spread across liquid pools 07 p1854 N93-20209
Microgravity combustion of dust clouds 07 p1806 N93-21094
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Influence of gravity on polyedric flames 08 p2226 N93-22840
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors 09 p2630 N93-26039
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Studies in premixed combustion
[DE93-007955] 11 p3310 N93-29051
Numerical modeling of multidimensional flames with application to energetic materials 11 p3319 N93-30079
Studies of curvature, strain, and unsteady effects on premixed flames 11 p3316 N93-30646
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031

FLAME QUENCHING
U EXTINGUISHING
U QUENCHING (COOLING)

FLAME RETARDANTS
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Developments in heat and flame resistant textiles for protective clothing and barrier fabrics 07 p1838 N93-21157
Correlation of results of radiant heat test and convective heat test for three layered protective clothing 07 p1838 N93-21161
Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants 07 p1839 N93-21164

FLAME SPECTROSCOPY
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means 11 p3319 N93-30081

FLAME SPRAYING
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966

FLAME STABILITY
Freely propagating open premixed turbulent flames stabilized by swirl
[DE92-017116] 02 p0251 N93-12112
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Influence of gravity on polyedric flames 08 p2226 N93-22840
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602

FLAME TEMPERATURE
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405

FLAMEOUT
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946

FLAMES
NT DIFFUSION FLAMES
NT PREMIXED FLAMES
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Preliminary definition of experiments and procedures for terrestrial and space examination of flame structure
[APRL-X13-8] 05 p1105 N93-16728
Combustion Research Program: Flame studies, laser diagnostics, and chemical kinetics
[DE93-002758] 05 p1106 N93-17212
Radiation properties of high-temperature flames 06 p1485 N93-18477
Flame-front kinetics 06 p1485 N93-18481
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Fullerenes formation in flames 07 p1853 N93-20187
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames 07 p1853 N93-20189
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Modeling of microgravity combustion experiments 07 p1853 N93-20197
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
The effects of gravity on wrinkled laminar flames 07 p1853 N93-20200

Microgravity combustion of dust suspensions
07 p1853 N93-20201
The structure of particle cloud premixed flames
07 p1853 N93-20202
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Opposed-flow flame spreading in reduced gravity
07 p1854 N93-20206
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
Flame spread across liquid pools
07 p1854 N93-20209
Metals combustion in normal gravity and microgravity
07 p1854 N93-20211
Studies of droplet burning and extinction
07 p1854 N93-20212
Computational/experimental studies of isolated, single component droplet combustion
07 p1854 N93-20213
Combustion experiments in reduced gravity with two-component miscible droplets
07 p1854 N93-20214
High-pressure droplet combustion studies
07 p1854 N93-20216
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
Study of multi jet burner for gases
[INPE-5416-TDI/480] 07 p1846 N93-20320
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
Modelling of microgravity ignition phenomena
09 p2664 N93-25465
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry
09 p2627 N93-26025
Modeling of H2/N2O flames 09 p2627 N93-26026
Dark zone modeling of solid propellant flames
09 p2628 N93-26028
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
ADN propellant diffusion flame structure
09 p2629 N93-26036
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means
11 p3319 N93-30081
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875

FLAMMABILITY
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Analysis of structures under fire conditions
06 p1557 N93-18754
Metals combustion in normal gravity and microgravity
07 p1854 N93-20211
Review on safety validation test
07 p1802 N93-20488
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Practical problems related to flammability and combustion in space 08 p2226 N93-22839
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
Flammability and explosion limits of H2 and H2/CO: A literature review
[AD-A264896] 12 p3702 N93-31064

FLAMMABLE GASES
NT GASEOUS FUELS
NT LIQUEFIED NATURAL GAS
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073

FLANGES
Saddle clamp assembly
[NASA-CASE-MFS-28701-1] 05 p1178 N93-17057
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558

FLAP CONTROL
U AIRCRAFT CONTROL
U FLAPS (CONTROL SURFACES)

FLAPPING
Numerical study of advanced rotor blades
02 p0199 N93-11899
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds
[ESDU-92039] 05 p1055 N93-16634
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
An interactive boundary-layer approach to multielement airfoils at high lift 10 p2934 N93-27445

FLAPS (CONTROL SURFACES)
NT JET FLAPS
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT TRAILING EDGE FLAPS
NT WING FLAPS
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft
[NASA-TM-103872] 01 p0011 N93-10741
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787

FLARE STARS
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139

FLASH
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426

FLASH BLINDNESS
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703

FLASH LAMPS
High-voltage pulse generator capable of 2000 J at 10 kV
[AD-A262034] 11 p3407 N93-28999
ND laser with co-doped ion(s) pumped by visible laser diodes
[AD-D015711] 11 p3437 N93-29277

FLASH TUBES
U FLASH LAMPS

FLASHOVER
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024

FLASKS
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226

FLAT COAXIAL TRANSMISSION LINES
U MICROSTRIP TRANSMISSION LINES

FLAT CONDUCTORS
NT BEAM LEADS
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341

FLAT PLATES
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321
An experimental investigation into flow induced acoustic resonances in an annular cascade
[PNR-90959] 02 p0433 N93-11322
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow
03 p0495 N93-13746
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer
04 p0876 N93-14695
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Buckling of clamped angle-ply laminated plates under inplane loads 07 p1931 N93-20654
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations
08 p2294 N93-23402
Shock tube application to the study of compressible turbulent boundary layer with mass injection
09 p2697 N93-25252
Prediction of vortex breakdown on a delta wing
10 p2936 N93-27459
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications
11 p3306 N93-30861

FLAT SURFACES
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529

FLATS (LANDFORMS)
NT TIDAL FLATS

FLAVOR (PARTICLE PHYSICS)
Nucleon structure functions from deep inelastic muon scattering
[NIKHEF-H+K/92-01] 02 p0442 N93-11130
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668

Neutrino mass
[DE92-017411] 03 p0701 N93-12588
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
Two loop calculation of the anomalous dimension of the axial current with static heavy quarks
[PREPRINT-813] 07 p2062 N93-20924
Summary talk — particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
Massive neutrinos
[DE93-609989] 12 p3821 N93-32026

FLAW DETECTION
U NONDESTRUCTIVE TESTS

FLAWS
U DEFECTS

FLEXIBILITY
Numerical analysis of right-half plane zeros for a single-link manipulator
[NASA-CR-190966] 02 p0426 N93-11547
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Large-deflection analysis of cord composite plates 03 p0530 N93-13008
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
Process engineering with the evolutionary spiral process model, version 01.00.01
[AD-A258966] 06 p1625 N93-19085
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
System concept for an advanced stand-off weapon 08 p2256 N93-22029
The role of smart systems in rendezvous, close proximity operations and docking maneuvers 08 p2150 N93-22310
Motif, the basics: An overview of the widget set
[DE93-005273] 08 p2436 N93-22720
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Implementation of the block-Krylov boundary flexibility method of component synthesis
[NASA-TM-106065] 08 p2325 N93-23044
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE) 09 p2599 N93-25835
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660

FLEXIBLE BODIES
NT FLEXIBLE SPACECRAFT
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512
Dynamics of an orbiting flexible manipulator 01 p0054 N93-10519
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Modelling of flexible multibody dynamics and a computer method via the bond graph method 01 p0065 N93-10573
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
Decentralized control of large flexible structures by joint decoupling
[NASA-TM-107694] 02 p0339 N93-12020
Manipulation strategies for massive space payloads
[NASA-CR-190844] 03 p0611 N93-12952
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Unsymmetric Lanczos model reduction and linear state function observer for flexible structures
[NASA-CR-191231] 03 p0686 N93-13295
Application of Lanczos vectors to control design of flexible structures
[NASA-CR-191230] 03 p0686 N93-13296
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14083
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Dynamics and control of a rigid/flexible manipulator 04 p0890 N93-14684
Position and vibration control of flexible space robots 04 p0892 N93-15102
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
The damper placement problem for large flexible space structures 05 p1089 N93-16776
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 1
[NASA-CP-3177-PT-1] 06 p1461 N93-18818
The Mini-Mast CSI testbed: Lessons learned 06 p1461 N93-18819
Micro-precision control/structure interaction technology for large optical space systems 06 p1462 N93-18826
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
The JPL Phase B interferometer testbed 06 p1464 N93-18834
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
Structural control sensors for the CASES GTF 06 p1464 N93-18837
Optical pathlength control on the JPL Phase B interferometer testbed 06 p1465 N93-18842
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Design optimization of the JPL Phase B testbed 06 p1466 N93-18845
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
CSI related dynamics and control issues in space robotics 06 p1467 N93-18929
The Middeck Active Control Experiment (MACE) 06 p1457 N93-18936
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures 06 p1561 N93-19459
A non-linear phenomenon in the dynamic response of metallic and composite structures 07 p1926 N93-20620
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Modelling of multi-link spatial flexible manipulators employing the finite element method 07 p1941 N93-20707
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Flex-Gears
[NASA-CR-192364] 07 p1914 N93-20759
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity 09 p2697 N93-25259
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE) 09 p2599 N93-25835
Sequential design of a linear quadratic controller for the Deep Space Network antennas 09 p2679 N93-26123
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Robust controller design for flexible structures using normalized coprime factor plant descriptions
[NASA-TP-3325] 10 p2958 N93-27083
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Vibration localization in rotating shafts 11 p3454 N93-30626
Modified dynamics modelling for maneuvering flexible space manipulators
[NLR-TP-91280-U] 12 p3737 N93-32333

FLEXIBLE SPACECRAFT
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions 01 p0066 N93-10575
Rapid maneuvering of large flexible orbiting systems 02 p0225 N93-11885
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Comparative study of stability of flexible satellites with and without guy-wire constraints 04 p0817 N93-14585
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
Control law synthesis for large flexible spacecraft
[NLR-TP-91155-U] 05 p1088 N93-17539
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Physical insight into the simultaneous optimization of structure and control 06 p1461 N93-18821
Model reduction results for flexible space structures 06 p1462 N93-18824
Integrated design of the CSI evolutionary structure: A verification of the design methodology 06 p1463 N93-18830
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
The Middeck Active Control Experiment (MACE) 06 p1457 N93-18936
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484

Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Optimal control of large space structures
09 p2819 N93-25343
The dynamics and control of large flexible asymmetric spacecraft 09 p2617 N93-25525
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Model reduction for Space Station Freedom
09 p2620 N93-26081
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Implementation of input command shaping to reduce vibration in flexible space structures
10 p3059 N93-27901
Inhibiting multiple mode vibration in controlled flexible systems 10 p3061 N93-28172
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Efficient reorientation of a deformable body in space: A free-free beam example 11 p3280 N93-29994
Robust boundary control of flexible structures governed by hybrid dynamics 11 p3285 N93-30249
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32228

FLEXIBLE WINGS
Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756

FLEXING
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Cytherean crustal bending at Salme Dorsa
04 p1039 N93-14364
High-temperature flexure fixture for advanced ceramics
[PB92-222959] 07 p1860 N93-21030
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Vibrational power transmission in curved beams. Part 1: Theory
[ISVR-TR-208] 12 p3742 N93-32340

FLEXURE
U FLEXING

FLICKER
The x ray variability of NGC6814: Power spectra
06 p1562 N93-18712

FLIGHT
The NASA High-Speed Research Program
05 p1064 N93-16761

FLIGHT ALTITUDE
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations
[AD-A259903] 08 p2408 N93-23990
Aircraft overflight study: Effect of aircraft altitude upon sound levels at the ground
[PB93-144194] 08 p2477 N93-24572
A concluding study of the altitude determination deficiencies of the Service Aircraft Instrumentation Package (SAIP)
[AD-A263515] 11 p3250 N93-29971
Radiation exposure in aircraft
12 p3753 N93-31928

FLIGHT CHARACTERISTICS
NT FLIGHT ENVELOPES
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Neural network models of air combat maneuvering
[AD-A254653] 02 p0421 N93-12096
X-29 linear aerodynamic perturbation model
[AD-A254810] 03 p0500 N93-12752
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
Potential missile flight performance gains from improvements to the propulsion system
05 p1092 N93-17609
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
Identification of system dynamics of a high incidence research model
[RR-407] 06 p1440 N93-18507
Helicopters in action 06 p1403 N93-19005
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
Lessons learned from an historical look at flight testing 06 p1442 N93-19904
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft
09 p2617 N93-25527
A modified approach to controller partitioning
[NASA-TM-106167] 10 p3110 N93-28051
The flight performance of the Galileo orbiter USO
11 p3386 N93-29603
Project ARES 2: High-altitude battery-powered aircraft
11 p3227 N93-29715
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272

FLIGHT CLOTHING
Goggles emergency release apparatus
[AD-D015685] 11 p3507 N93-29607
CATS EYES adjustment procedures
[AD-A264069] 11 p3508 N93-29924

FLIGHT COMPUTERS
U AIRBORNE/SPACEBORNE COMPUTERS

FLIGHT CONDITIONS
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875
Preliminary evaluation of aviation-impact variables derived from numerical models
[PB93-190197] 12 p3767 N93-31202

FLIGHT CONTROL
NT ANNULAR SUSPENSION AND POINTING SYSTEM
NT AUTOMATIC FLIGHT CONTROL
NT AUTOMATIC LANDING CONTROL
NT FLY BY LIGHT CONTROL
NT FLY BY WIRE CONTROL
NT POINTING CONTROL SYSTEMS
NT THRUST VECTOR CONTROL
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Flight-determined stability analysis of multiple-input-multiple-output control systems
[NASA-TM-4416] 02 p0214 N93-11178
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle
[AD-A247261] 02 p0208 N93-12053
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
An optical fiber multi-terminal data bus system for aircraft
[NAL-TR-1125] 02 p0209 N93-12370
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Aircraft accident/incident summary report: Controlled flight into terrain, Bruno's Inc., Beechjet, N25BR, Rome, Georgia, December 11, 1991
[PB92-910404] 03 p0498 N93-13470
Formulation and validation of high-order mathematical models of helicopter flight dynamics
03 p0501 N93-13821
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
Taxonomy of flight variables 04 p0787 N93-15022
F/A-18 controls released departure recovery flight test evaluation
[AD-A256522] 04 p0803 N93-15396
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Developing a control system for ARES 2
05 p1069 N93-16769
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems
05 p1254 N93-17305
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408
CSI Flight Computer System and experimental test results 06 p1465 N93-18841
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Automated control of aircraft in formation flight
[AD-A259020] 06 p1450 N93-19102
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380

Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation
06 p1443 N93-19909
X-31A high angle of attack and initial post stall flight testing
06 p1443 N93-19911
Method for developing the RAFALE flight control system
06 p1444 N93-19912
In-flight structural mode excitation system for flutter testing
06 p1444 N93-19915
Fly-by voice, a technology demonstration
06 p1444 N93-19918
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
URV flight test of an Ada implemented self-repairing flight control system
[AD-A259205] 07 p1787 N93-20551
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
Proximity operations considerations affecting spacecraft design
08 p2149 N93-22308
Fuzzy control of an unmanned helicopter
08 p2455 N93-22366
Fuzzy logic mode switching in helicopters
08 p2455 N93-22367
A neural based intelligent flight control system for the NASA F-15 flight research aircraft
08 p2132 N93-22368
Investigation of air transportation technology at Princeton University, 1991-1992
08 p2106 N93-22570
Computer Aided Control System Design (CACSD)
08 p2107 N93-22572
Intelligent flight control systems
08 p2107 N93-22576
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
A simulation of the Boeing B-747 aircraft
[CRANFIELD-AERO-9202] 08 p2127 N93-24074
An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Variable control system limits on Black Hawk and Seahawk helicopters
[AD-A259624] 08 p2132 N93-24153
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Prediction of forces and moments for hypersonic flight vehicle control effectors
[NASA-CR-193033] 09 p2595 N93-24762
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control
09 p2576 N93-25274
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Low bandwidth robust controllers for flight
[NASA-CR-193085] 10 p2946 N93-27156
New adaptive controllers for aircraft
10 p2921 N93-27180
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description
[NASA-CR-191457] 11 p3250 N93-28621
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack
11 p3260 N93-28851
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Overview of cockpit technology research and development programs for improvement of the man/machine interface: Review of the AGARD AVP Symposium held in Madrid, May 1992
11 p3505 N93-28872
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
Handedness and motor programming effects of manual control and movement
[AD-A264022] 11 p3499 N93-30027
Virtual reality flight control display with six-degree-of-freedom controller and spherical orientation overlay
[NASA-CASE-NPO-18733-1-CU]
11 p3251 N93-30416
Analytical foundations of gain scheduling
[AD-A264682] 11 p3260 N93-30550
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance
12 p3676 N93-31276
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
Installations and methods for measurement of aircraft radio components and systems
12 p3677 N93-31284
Current projects in Fuzzy Control
12 p3688 N93-31442
Proximity operations in space station environment
12 p3689 N93-31449
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32228

FLIGHT CREWS
NT SPACECREWS
Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Possibilities and limitations of flying training in the German Air Force 01 p0011 N93-10668
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Thermal stress in US Air Force operations
[AD-A255785] 03 p0676 N93-14027
The human-electronic crew: Is the team maturing? The 2nd Joint GAF/RAF/USAF Workshop on Human-Electronic Crew Teamwork
[AD-A256192] 04 p0939 N93-14520
Development of measures of crew coordination
[AD-A255384] 04 p0939 N93-14651
Does cockpit management training reduce aircrew error? 04 p0785 N93-15014
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
A cognitive model for training decision making in aircrews 04 p0786 N93-15020
Taxonomy of flight variables 04 p0787 N93-15022
Shared mental models and crew decision making
04 p0787 N93-15023
Operational use of contact lenses by military aircrew
[AGARD-AG-334] 05 p1224 N93-15824
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
Cockpit resource management proficiency as a factor of primary flight training
[AD-A256995] 05 p1060 N93-16262
Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834
Effects of dextromethamphetamine on subjective fatigue
[AD-A258252] 06 p1594 N93-17822
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
An analysis of a sustained flight operation training mission in Navy attack aircraft
[AD-A258199] 06 p1602 N93-18205
A computer-based visual analog scale
[AD-A258152] 06 p1597 N93-18280
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703
Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface
[AGARD-CP-521] 06 p1607 N93-19757
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts?
06 p1607 N93-19759
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Predicting radiation induced performance decrements of AH-1 helicopter crews. Volume 2: Evaluation of modeling and simulation techniques for predicting radiation induced performance decrements
[AD-A262872] 11 p3506 N93-29484
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
Part 1: Executive summary 11 p3236 N93-30674
Helicopter simulation: An aircrew training and qualification perspective 11 p3236 N93-30676
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
Nutrition, Metabolic Disorders and Lifestyle of Aircrew
[AGARD-CP-533] 12 p3777 N93-32240
Nutrition for a typical MAC crew during Desert Storm
12 p3778 N93-32245
Changes in food and energy intake in military aircrew
12 p3778 N93-32246
Lipodystrophies in the French military flight crew
12 p3774 N93-32249
Blood lipids in aircrew recruits and in RAF aviators
12 p3774 N93-32251
The effects of an antijet lag diet
12 p3781 N93-32263
Subjective mood and fatigue of C-141 crew during Desert Storm 12 p3782 N93-32264
C-141 aircrew sleep and fatigue during the Persian Gulf conflict 12 p3782 N93-32265

Digital flight data as a measure of pilot performance associated with fatigue from continuous operations during the Persian Gulf conflict 12 p3782 N93-32268
Effects of caffeine on mental performance and mood: Implications for aircrew members 12 p3783 N93-32269
The X-15/HL-20 operations support comparison [NASA-TM-4453] 12 p3687 N93-32379

FLIGHT ENVELOPES
Icing effects on aircraft stability and control determined from flight data: Preliminary results [NASA-TM-105977] 04 p0803 N93-14831
Potential missile flight performance gains from improvements to the propulsion system 05 p1092 N93-17609
Natural laminar flow test in-flight visualization 06 p1417 N93-19921

FLIGHT FATIGUE
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm [AD-A259243] 07 p2023 N93-20580
C-141 aircrew sleep and fatigue during the Persian Gulf conflict 12 p3782 N93-32265

FLIGHT HAZARDS
NT METEOROID HAZARDS
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
Flight director information and pilot performance in instrument approaches [AD-A258186] 06 p1601 N93-17857
Adverse weather test site selection study [AD-A259012] 06 p1440 N93-18895
Debris about asteroids: Where and how much? 06 p1703 N93-19136
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Wind shear hazard determination 06 p1419 N93-19597
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Hazard evaluation and operational cockpit display of ground-measured windshear data [AIAA PAPER 90-0566] 08 p2105 N93-22564
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
Investigation of air transportation technology at Princeton University, 1991-1992 08 p2106 N93-22570
Optimal recovery from microburst wind shear 08 p2107 N93-22574
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum [DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation [AD-A261233] 09 p2583 N93-26263
A statistical characterization of Denver-area microbursts [AD-A262127] 10 p3078 N93-27675
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation [NASA-TM-108990] 12 p3680 N93-32223

FLIGHT INSTRUMENTS
NT APPROACH INDICATORS
NT ATTITUDE INDICATORS
NT AUTOMATIC PILOTS
NT FLIGHT TEST INSTRUMENTS
NT HORIZON SCANNERS
NT RADIO ALTIMETERS
Flight simulator evaluation of D-size liquid crystal flat panel displays [NAL-TR-1136] 02 p0209 N93-12367
Liquid crystal flat panel display evaluation tests using a flight simulator [NAL-TR-1122] 02 p0209 N93-12383
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems [DLR-MITT-92-01] 04 p0793 N93-15152
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP) [AD-A258059] 05 p1057 N93-17677
Flight director information and pilot performance in instrument approaches [AD-A258186] 06 p1601 N93-17857
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential 06 p1611 N93-19782
Hazard evaluation and operational cockpit display of ground-measured windshear data [AIAA PAPER 90-0566] 08 p2105 N93-22564
Flight project data book [NASA-TM-108657] 08 p2152 N93-22870
Development of a flight instrument package [AD-A260830] 09 p2591 N93-25783
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992 [PB93-910401] 09 p2583 N93-25827
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design) [AD-A260934] 09 p2845 N93-25915
SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation [NASA-CR-192517] 09 p2631 N93-26053
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855

FLIGHT MANAGEMENT SYSTEMS
Terminal area traffic management [LR-684] 05 p1058 N93-16213
Development of vendor evaluation criteria and post-implementation considerations for MSFC center-wide executive information system 05 p1345 N93-17316
NARSIM and EFMS: Tools for research on integrated ATM [NLR-TP-89336-U] 06 p1432 N93-17954
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems [NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment [NASA-TM-107748] 09 p2585 N93-26087
Avionics systems architectures 10 p2919 N93-27169
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description [NASA-CR-191457] 11 p3250 N93-28621
Instigation and processing of flight tests in DLR 12 p3675 N93-31275
Testing of an experimental FMS 12 p3676 N93-31277

FLIGHT MECHANICS
Methods of guidance flight dynamics [AD-A254248] 01 p0010 N93-10704
Automatic control laws for aircraft in parabolic flight [DILC-EST-TR-211] 02 p0214 N93-11160
Recommended approach to software development, revision 3 [NASA-TM-108630] 06 p1624 N93-18861
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover [NASA-TM-103968] 06 p1451 N93-19380
Flight Testing [AGARD-CP-519] 06 p1442 N93-19901
Test and evaluation challenges in the nineties 06 p1442 N93-19902
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11 [AGARD-AG-300-VOL-11] 07 p1781 N93-21305
Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center [NASA-CR-191885] 07 p1762 N93-21562
Annual progress report, 1990-1991 [CTN-93-60695] 08 p2570 N93-23115
Flight Mechanics/Estimation Theory Symposium, 1992 [NASA-CP-3186] 09 p2599 N93-24694
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit [ESA-TT-1267] 11 p3248 N93-29464

FLIGHT OPERATIONS
NT CREW PROCEDURES (INFLIGHT)
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations [NASA-CR-190811] 02 p0204 N93-11139
The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP) [NASA-CR-190995] 02 p0219 N93-11754
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
EURECA [ESA-F-26] 03 p0522 N93-12964
Post flight operation of a high peak power neodymium YAG laser aboard the G-449 payload flown on Space Shuttle Columbia mission 61-C 03 p0508 N93-13161
In-service evaluation of wind shear systems 04 p0785 N93-14857
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems [DLR-MITT-92-01] 04 p0793 N93-15152
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
Terminal area forecasts FY 1992 - 2005 [AD-A255797] 04 p0788 N93-15390
Terminal area traffic management [LR-684] 05 p1058 N93-16213
An analysis of a sustained flight operation training mission in Navy attack aircraft [AD-A258199] 06 p1602 N93-18205
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems 09 p2814 N93-25589
Expedient repair of structural facilities [AD-A260727] 09 p2598 N93-25656
Simulated sustained flight operations and performance. Part 1: Effects of fatigue [AD-A261012] 09 p2801 N93-25859
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations [NASA-CR-192920] 09 p2585 N93-26052

FLIGHT OPTIMIZATION
Minimum-time flight paths of supersonic aircraft 03 p0500 N93-13140
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
Practical input optimization for aircraft parameter estimation experiments [NASA-CR-191462] 10 p2946 N93-27264

FLIGHT PATHS
NT GLIDE PATHS
A simplified numerical procedure to compute the optimal trajectory of an aircraft 02 p0207 N93-11719
A genetic algorithm for search route planning [AD-A254894] 02 p0414 N93-12284
Accuracy improvement of linear estimated motion using differential type sensors [NAL-TR-1135] 02 p0314 N93-12365
Minimum-time flight paths of supersonic aircraft 03 p0500 N93-13140
En route air traffic controllers use of flight progress strips: A graph-theoretic analysis [AD-A259062] 06 p1433 N93-18927
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques [AD-A259293] 08 p2119 N93-22398
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display [NASA-TM-103883] 08 p2122 N93-23419
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability [DLR-MITT-92-07] 08 p2123 N93-24138
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey [PB93-144186] 08 p2478 N93-24649

Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
Control and optimization of aircraft trajectories 09 p2596 N93-25543
MASTRE trajectory code update to automate flight trajectory design, performance predictions, and vehicle sizing for support of shuttle and shuttle derived vehicles: Programmers manual
[NASA-CR-192558] 10 p2954 N93-28321
Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit
[ESA-TT-1267] 11 p3248 N93-29464
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
On-board derived flight-path measurement as demonstrated by an ILS measurement system 12 p3677 N93-31282
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225

FLIGHT PERFORMANCE
U FLIGHT CHARACTERISTICS

FLIGHT PLANS
Future FAA telecommunications plan
[AD-A249133] 02 p0283 N93-11760
Spectral analysis of the shuttle glow: AIS science support
[PL-TR-92-2172] 04 p0815 N93-14698
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
National Airspace System flight planning operational concept NAS-SR-131
[PB93-124659] 06 p1418 N93-18031
Design of a cooperative problem-solving system for enroute flight planning: An empirical study of its use by airline dispatchers
[NASA-CR-192709] 09 p2585 N93-25330
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
Application and integration of diverse technology in an aviation system: The National Aeronautical Information Processing System 11 p3247 N93-30339

FLIGHT RECORDERS
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
Discussion for the ideal AIMS 04 p0793 N93-15153
Flight data and flight safety in SAS 04 p0793 N93-15156
Detection of technical states with aircraft 04 p0794 N93-15159
Rewritable optical disk: Application to flight recording 04 p0794 N93-15160
Indian experience in flight data readout and analysis 04 p0794 N93-15161
Czechoslovak development and experience in flight data recorder readout and analysis 04 p0794 N93-15162
Software for flight recorder data evaluation developed by Lufthansa 04 p0794 N93-15163
The FAIR (Flight Animated and Interactive Reconstruction) tool 04 p0788 N93-15164
The SIROM flight data recorder and evaluation system 04 p0795 N93-15165
Solid state flight data recorder with rapid data access 04 p0795 N93-15167
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system 04 p0796 N93-15172
Helicopter flight data recorder and health and usage monitoring system 04 p0797 N93-15178
Helicopter health monitoring: Current practice and future trends 04 p0797 N93-15179
Digital flight data as a measure of pilot performance associated with fatigue from continuous operations during the Persian Gulf conflict 12 p3782 N93-32268

FLIGHT RULES
NT INSTRUMENT FLIGHT RULES
NT VISUAL FLIGHT RULES
Systems engineering and integration processes involved with manned mission operations 09 p2666 N93-24688

FLIGHT SAFETY
UK airmisses involving commercial air transport, May-August 1991
[ETN-92-92260] 02 p0203 N93-11357
UK airmisses involving commercial air transport, January-April 1991
[ETN-92-92261] 02 p0298 N93-11358
Activities report of the German Institute for Flight Safety
[ETN-92-92272] 02 p0203 N93-11375
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Structural verification for GAS experiments 03 p0511 N93-13175
Aircraft accident report: Britt Airways, Inc., d/b/a, Continental Express Flight 2574, in-flight structural breakup, EMB-120RT, N33701, Eagle Lake, Texas, September 11, 1991
[PB92-910405] 03 p0498 N93-13426
Aviation accidents, incidents, and violations: Psychological predictors among US pilots 04 p0783 N93-14693
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
Embedded ADM reduces helicopter human error accidents 04 p0787 N93-15024
Flight data and flight safety in SAS 04 p0793 N93-15156
The FAIR (Flight Animated and Interactive Reconstruction) tool 04 p0788 N93-15164
Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182
Neural network based condition monitoring 04 p0797 N93-15183
Airbus Industrie TCAS experience 04 p0789 N93-15186
Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
An investigation of a prototype OASYS effectiveness in maneuvering flight
[AD-A257901] 06 p1439 N93-18339
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
How do we investigate the human factor in aircraft accidents? 06 p1422 N93-19655
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
Can injury scoring techniques provide additional information for crash investigators? 06 p1423 N93-19663
Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665
Disorientation and flight safety: A survey of UK Army aircrew 06 p1426 N93-19680
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697
Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698
Towards an integrated approach to proactive monitoring and accident prevention 06 p1429 N93-19700
Prediction of success from training 06 p1430 N93-19702
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus 06 p1431 N93-19707
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
A pulsed fast-thermal neutron interrogation system 07 p1765 N93-21866
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
Terrain Referenced Information and Guidance Systems (TRIGS)
[MBB-FE-315-S-PUB-0494] 08 p2119 N93-22390
Advanced air traffic management 08 p2107 N93-22571
Optimal recovery from microburst wind shear 08 p2107 N93-22574
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988
[PB92-917008] 08 p2117 N93-23187
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
FAA international conference on airplane ground deicing
[AD-A263617] 11 p3244 N93-29286
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

FLIGHT SIMULATION
Possibilities and limitations of flying training in the German Air Force 01 p0011 N93-10668
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft
[NASA-TM-103872] 01 p0011 N93-10741
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-190811] 02 p0204 N93-11139
Neural network models of air combat maneuvering
[AD-A254653] 02 p0421 N93-12096
Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
Accuracy improvement of linear estimated motion using differential type sensors
[NAL-TR-1135] 02 p0314 N93-12365
Flight simulator evaluation of D-size liquid crystal flat panel displays
[NAL-TR-1136] 02 p0209 N93-12367
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
The modelling of turbulence and downbursts for flight simulators 03 p0507 N93-13542
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
Advantages of using a projected head-up display in a flight simulator
[AD-A255332] 04 p0804 N93-14559
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600

Flight testing: Past, present, and future
04 p0777 N93-14615
Flight simulation leaves the ground
04 p0778 N93-14616
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17562
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Flight simulation evaluation of the flyability of curved MLS approaches with wide-body aircraft
[NLR-TP-90238-U] 06 p1452 N93-17875
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
Modeling human response errors in synthetic flight simulator domain 06 p1612 N93-19464
Modeling the performance of the human (pilot) interaction in a synthetic flight domain: Information theoretic approach 06 p1612 N93-19465
Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case
06 p1426 N93-19681
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training
06 p1430 N93-19706
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation
06 p1443 N93-19909
Method for developing the RAFALE flight control system 06 p1444 N93-19912
On-line aircraft state and parameter estimation
06 p1446 N93-19929
The flight test and data analysis program for the development of a Boeing/De Havilland Dash 8 simulator model 06 p1446 N93-19930
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft
08 p2148 N93-22299
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
Mission requirements and applications of integrated and multi-function navigation systems
08 p2119 N93-22781
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1
[DE93-005382] 08 p2325 N93-22975
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Concepts for conformal and body-axis attitude information for spatial awareness presented in a helmet-mounted display
[NASA-TM-4438] 08 p2129 N93-23408
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment
[NASA-TM-107748] 09 p2585 N93-26087
Effect of image update rate on moving-target identification range
[AD-A261562] 09 p2591 N93-26462
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Requirements for pilot assistance in a thrust-vectoring combat aircraft 11 p3504 N93-28870
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420
Predicting radiation induced performance decrements of AH-1 helicopter crews. Volume 2: Evaluation of modeling and simulation techniques for predicting radiation induced performance decrements
[AD-A262872] 11 p3506 N93-29484
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
Three-dimensional graphical representation of objects according to movement data in realtime
[ESA-TT-1258] 11 p3521 N93-30104
Virtual reality flight control display with six-degree-of-freedom controller and spherical orientation overlay
[NASA-CASE-NPO-18733-1-CU]
11 p3251 N93-30416
Helicopter simulation: An aircrew training and qualification perspective 11 p3236 N93-30676
Simulators for corporate pilot training and evaluation
11 p3236 N93-30678
Training effectiveness assessment: Where are we?
11 p3236 N93-30679
Current training: Where are we?
11 p3236 N93-30680
Helicopter simulator qualification
11 p3237 N93-30681
Helicopter simulation: Making it work
11 p3237 N93-30682
Helicopter training simulators: Key market factors
11 p3237 N93-30683
Validation and upgrading of physically based mathematical models 11 p3237 N93-30688
Frequency-response techniques for documentation and improvement of rotorcraft simulators
11 p3237 N93-30689
Bandwidth and SIMDUCE as simulator fidelity criteria
11 p3238 N93-30690
Methodology development for evaluation of selective-fidelity rotorcraft simulation
11 p3238 N93-30691
Testing of an experimental FMS
12 p3676 N93-31277
Pallet for helicopter test instrumentation
12 p3676 N93-31279
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings
12 p3681 N93-31742
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

FLIGHT SIMULATORS
NT COCKPIT SIMULATORS
Neural network models of air combat maneuvering
[AD-A254653] 02 p0421 N93-12096
Flight simulator evaluation of D-size liquid crystal flat panel displays
[NAL-TR-1136] 02 p0209 N93-12367
Liquid crystal flat panel display evaluation tests using a flight simulator
[NAL-TR-1122] 02 p0209 N93-12383
Advantages of using a projected head-up display in a flight simulator
[AD-A255332] 04 p0804 N93-14559
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
Flight simulation leaves the ground
04 p0778 N93-14616
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41
06 p1426 N93-19683
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
Applicability of relative GPS to automated rendezvous between the space shuttle and space station
08 p2138 N93-22241
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft
08 p2148 N93-22299
Fuzzy logic mode switching in helicopters
08 p2455 N93-22367
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
International application of the DLR test-system: Continuation of the cooperation with Iberia in pilot selection
[DLR-FB-92-12] 08 p2425 N93-24104
A demonstration of motion base design alternatives for the National Advanced Driving Simulator
[NASA-TM-103881] 08 p2428 N93-24490
Autonomic physiological data associated with simulator discomfort
[NASA-CR-177609] 09 p2794 N93-24738
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756
Evaluation of advanced displays for engine monitoring and control
[NASA-CR-191418] 09 p2591 N93-24764
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Rendering the out-the-window view for the AFIT virtual cockpit
[AD-A262599] 11 p3260 N93-28467
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
Part 1: Executive summary 11 p3236 N93-30674
Helicopter simulator standards
11 p3236 N93-30675
Simulators for corporate pilot training and evaluation
11 p3236 N93-30678
Training effectiveness assessment: Where are we?
11 p3236 N93-30679
Current training: Where are we?
11 p3236 N93-30680
Helicopter simulator qualification
11 p3237 N93-30681
Helicopter simulation: Making it work
11 p3237 N93-30682
Training effectiveness assessment: Methodological problems and issues 11 p3237 N93-30684
Determining the transferability of flight simulator data
11 p3237 N93-30685
Progress through precedent: Going where no helicopter simulator has gone before 11 p3237 N93-30686
Transfer of training and simulator qualification or myth and folklore in helicopter simulation
11 p3237 N93-30687
Frequency-response techniques for documentation and improvement of rotorcraft simulators
11 p3237 N93-30689
Bandwidth and SIMDUCE as simulator fidelity criteria
11 p3238 N93-30690
Methodology development for evaluation of selective-fidelity rotorcraft simulation
11 p3238 N93-30691
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012

FLIGHT STABILITY TESTS
Flight-determined stability analysis of multiple-input-multiple-output control systems
[NASA-TM-4416] 02 p0214 N93-11178
FLIGHT STRESS (BIOLOGY)
NT SPACE FLIGHT STRESS
Subjective mood and fatigue of C-141 crew during Desert Storm 12 p3782 N93-32264
FLIGHT SURGEONS
Night vision manual for the flight surgeon
[AD-A257059] 05 p1227 N93-15710
FLIGHT TECHNICAL ERROR
U PILOT ERROR
FLIGHT TEST INSTRUMENTS
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113
Flight Testing
[AGARD-CP-519] 06 p1442 N93-19901
The application of phase tracking GPS for flight test trajectory determination
[NLR-TP-91349-U] 12 p3678 N93-32337
FLIGHT TEST VEHICLES
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
FLIGHT TESTS
NT FLIGHT STABILITY TESTS
NT SPACE TRANSPORTATION SYSTEM FLIGHTS
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Flight test progress of the STOL research aircraft ASKA
[NAL-TM-643] 02 p0208 N93-12354
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
Flight analysis of air intake/engine compatibility 03 p0502 N93-13212
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Flight termination systems commonality standard
[AD-A255349] 04 p0789 N93-14517
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
Flight testing: Past, present, and future 04 p0777 N93-14615
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans 04 p0784 N93-14847
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
The use of ultrasonics for oleo compression measurements on a S-70B-2 (Seahawk) helicopter
[AD-A256315] 04 p0792 N93-15328
F/A-18 controls released departure recovery flight test evaluation
[AD-A256522] 04 p0803 N93-15396
Pitch control margin at high angle of attack-quantitative requirements (flight test correlation with simulation predictions)
[AD-A257418] 05 p1068 N93-16009
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692
Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives 06 p1418 N93-19591
Flight test operations 06 p1418 N93-19592
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Flight test of an infrared wind shear detector 06 p1419 N93-19596
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Flight above a virtual world 06 p1609 N93-19766
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Flight Testing
[AGARD-CP-519] 06 p1442 N93-19901
Test and evaluation challenges in the nineties 06 p1442 N93-19902
Flight tests of the transport aircraft viewed from the industrial standpoint 06 p1442 N93-19903
Lessons learned from an historical look at flight testing 06 p1442 N93-19904
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 06 p1443 N93-19906
MB-339: The role of flight testing in the evolution phase of a proven aircraft 06 p1443 N93-19907
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation 06 p1443 N93-19909
AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910
X-31A high angle of attack and initial post stall flight testing 06 p1443 N93-19911
Method for developing the RAFALE flight control system 06 p1444 N93-19912
On automated analysis of flight test data 06 p1444 N93-19913
System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914
Overview of the NASA Dryden Flight Research Facility aeronautical flight projects testing 06 p1444 N93-19916
Flight testing of GPS and GPS-aided systems 06 p1445 N93-19919
High precision navigation for flight testing (AERONAV) 06 p1434 N93-19920
A technique for predicting aircraft flow-field effects upon an unguided bomb ballistic trajectory and comparison with flight test results 06 p1417 N93-19922
Development and flight testing of the multi-source integration algorithms in the F/A-18 mission computer software 06 p1445 N93-19923
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
RAMSES: Multi-spectral experimental radar station installed on board the Transall 06 p1446 N93-19925
Development and flight testing of a surface pressure measurement installation on the EAP demonstrator aircraft 06 p1446 N93-19927
The flight test and data analysis program for the development of a Boeing/De Havilland Dash 8 simulator model 06 p1446 N93-19930
URV flight test of an Ada implemented self-repairing flight control system
[AD-A259205] 07 p1787 N93-20551
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11
[AGARD-AG-300-VOL-11] 07 p1781 N93-21305
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center
[NASA-CR-191885] 07 p1762 N93-21562
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028
Radar seeker based autonomous navigation update system using topography feature matching techniques 08 p2256 N93-22030
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Mission requirements and applications of integrated and multi-function navigation systems 08 p2119 N93-22781
Optimization of the integration of inertia and GPS 08 p2120 N93-22787
Integrated precision navigation system 08 p2120 N93-22789
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
Visual autonomous automatic landing of airplanes 08 p2121 N93-22791
Scene correlation for INS aiding in flight-test systems: Runway-referenced flight-tests with on-board sensors only 08 p2121 N93-22792
Influence of gravity on polyedric flames 08 p2226 N93-22840
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Variable control system limits on Black Hawk and Seahawk helicopters
[AD-A259624] 08 p2132 N93-24153
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
Summary and recommendations on nuclear electric propulsion technology for the space exploration initiative
[NASA-TM-105707] 09 p2622 N93-24744
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation 09 p2574 N93-24756
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649

Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783
SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation
[NASA-CR-192517] 09 p2631 N93-26053
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview
10 p2920 N93-27173
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack
11 p3260 N93-28851
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
11 p3260 N93-28869
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936
Design study to simulate the development of a commercial transportation system
11 p3228 N93-29718
A concluding study of the altitude determination deficiencies of the Service Aircraft Instrumentation Package (SAIP)
[AD-A263515] 11 p3250 N93-29971
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388
Postflight hardware evaluation 360T025 (RSRM-25, STS-46)
[NASA-CR-192562] 11 p3272 N93-30617
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix C: Nozzle PFORs
[NASA-CR-192565] 11 p3272 N93-30620
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix D: Nozzle postfire data
[NASA-CR-192580] 11 p3289 N93-30648
Determining the transferability of flight simulator data
11 p3237 N93-30685
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274
Instigation and processing of flight tests in DLR
12 p3675 N93-31275
Testing of an experimental FMS
12 p3676 N93-31277
Pallet for helicopter test instrumentation
12 p3676 N93-31279
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
Installations and methods for measurement of aircraft radio components and systems
12 p3677 N93-31284
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855
Space Shuttle Orbiter thermal protection system design and flight experience
[NASA-TM-104773] 12 p3727 N93-32198
Engine exhaust characteristics evaluation in support of aircraft acoustic testing
[NASA-TM-104263] 12 p3682 N93-32220
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225
Instrumentation for in-flight acoustic measurements in an engine inlet duct of a Fokker 100 aircraft
[NLR-TP-91200-U] 12 p3680 N93-32332
Evaluation of the flyability of MLS curved approaches for wide-body aircraft
[NLR-TP-91396-U] 12 p3680 N93-32416

FLIGHT TIME

Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739

FLIGHT TRAINING

Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Possibilities and limitations of flying training in the German Air Force 01 p0011 N93-10668
Combat aircraft noise: The operator's perspective
01 p0148 N93-10669
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Development of measures of crew coordination
[AD-A255384] 04 p0939 N93-14651
F/A-18 controls released departure recovery flight test evaluation
[AD-A256522] 04 p0803 N93-15396
Cockpit resource management proficiency as a factor of primary flight training
[AD-A256995] 05 p1060 N93-16262
Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500
Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
An analysis of a sustained flight operation training mission in Navy attack aircraft
[AD-A258199] 06 p1602 N93-18205
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291
Prediction of success from training
06 p1430 N93-19702
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
Mandatory multi-engined training syllabus
[CAP-601] 12 p3776 N93-31729

FLIP-FLOPS

BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709

FLIR DETECTORS

Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays
10 p2920 N93-27177
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Head-steered sensor flight test results and implications 11 p3502 N93-28859
Design considerations for a night, air-to-surface attack capability on a dual role fighter
11 p3251 N93-28871

FLOAT ZONES

Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process
[NASA-CR-192695] 08 p2252 N93-23122

FLOATING

Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278

FLOATING POINT ARITHMETIC

Error feedback for reduction of quantization errors due to arithmetic operations in recursive digital filters
[EL-9] 05 p1272 N93-17633
The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372
On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598

FLOATS

Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278

FLOOD PLAINS

Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823

FLOODS

Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map
09 p2743 N93-24807
Spatial Analysis and Modeling Systems (SAMS)
11 p3614 N93-29239

FLOORS

A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171

FLOQUET THEOREM

Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
Canonical floquet perturbation theory
[AD-A256970] 06 p1721 N93-19358
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
On the instability of the flow in an oscillating tank of fluid
[NASA-CR-191424] 10 p3037 N93-26896

FLORA

U PLANTS (BOTANY)

FLORIDA

Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23266
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113

FLOTATION

Evaluation of flotation for purification of pyrite for use in thermal batteries
[DE92-019330] 02 p0290 N93-11553

FLOTATION SYSTEMS

U FLOATS

FLOW CHARACTERISTICS

NT BOUNDARY LAYER STABILITY
NT FLAME STABILITY
NT FLOW DISTRIBUTION
NT FLOW STABILITY
NT FLOW VELOCITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT WEIBEL INSTABILITY
Hypersonic inlet efficiency revisited
01 p0005 N93-10012
The structure and development of streamwise vortex arrays embedded in a turbulent boundary layer
01 p0081 N93-10371
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
Dynamical effects of suction/heating on turbulent boundary layers
[AD-A248459] 02 p0299 N93-11416
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Freely propagating open premixed turbulent flames stabilized by swirl
[DE92-017116] 02 p0251 N93-12112

The influence of the Prandtl number on the thermal performance of tubes with the separation and reattachment enhancement mechanism
[DE92-016601] 02 p0306 N93-12313
Numeric simulation of the aerodynamic flows around nacelles 03 p0577 N93-13202
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Chaotic vortical motion in the near region of a plane jet 03 p0493 N93-13493
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other 03 p0591 N93-13920
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions 03 p0496 N93-13929
Parametric study of air sampling cyclones 04 p0779 N93-14173
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475
Flow behavior in liquid molding 04 p0833 N93-14747
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data 05 p1165 N93-16792
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Natural laminar flow test in-flight visualization 06 p1417 N93-19921
Mean flow interactions of a counter-rotating propeller 07 p1899 N93-20289
On the evaluation of coherent structures using computer programs 07 p1937 N93-20688
The influence of the rotor test facilities ROTEST and ROTOS on the rotor inflow
[DLR-MITT-91-16] 07 p1785 N93-21173
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
The effect of lamination angle on polymer retention
[DE93-004304] 07 p1861 N93-21722
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
[NASA-CR-192356] 08 p2287 N93-22401
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
A numerical and experimental studies of flow characteristics in centrifugal fans 09 p2577 N93-25339
Combined forced and free convection in a curved duct 10 p2937 N93-27461
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Flow and heat transfer between gas-turbine discs 11 p3256 N93-29950
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588
The prediction of noise from co-axial jets
[ISVR-TR-215] 12 p3817 N93-32339

FLOW CHARTS
Diagnostic rhyme test statistical analysis programs
[RSRE-91026] 02 p0281 N93-11487
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220
Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337
Object oriented application flow graphs and their semantics
[CT-92-01] 12 p3788 N93-31528

FLOW COEFFICIENTS
NT DISCHARGE COEFFICIENT
Performance parameters and assessment 01 p0077 N93-10052
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field 06 p1531 N93-18732
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
Another look at the driven cavity problem
[AD-A261903] 09 p2708 N93-26543
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887

FLOW DISTORTION
The role of turbomachinery testing for stability in distorted flow
[PNR-90943] 02 p0210 N93-11040
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535
Moment approach to fast ion neoclassical transport and viscous forces
[DE93-753305] 11 p3585 N93-28979
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353

FLOW DISTRIBUTION
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields 01 p0016 N93-10010
Facility for cold flow testing of solid rocket motor models 01 p0011 N93-10021
Introduction to radial turbine technology 01 p0077 N93-10051
An inverse design method for radial turbomachines 01 p0078 N93-10057
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
LDV Measurements of unsteady flow fields in radial turbine
[AD-A253592] 01 p0004 N93-10648
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Turbulence measurements of high shear flow fields in a turbomachine seal configuration 01 p0093 N93-10893
An experimental technique for performing 3-D LDA measurements inside whirling annular seals 01 p0093 N93-10894
Flow field calculations around the Hermes spaceplane during reentry phase
[MBB-UK-0148-91-PUB] 02 p0195 N93-11008
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
Simulation of liquid drop breakup behavior in a flow field using discrete element techniques
[DE92-019435] 02 p0300 N93-11537
Interfacial area and two-phase flow structure development measured by a double-sensor probe
[DE92-019459] 02 p0300 N93-11538
Resolution of the pressure equation by the boundary element method. Application to multistage turbomachines
[ECL-91-16] 02 p0301 N93-11575
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
Calculation of nozzle/afbody flowfield interactions 02 p0302 N93-11722
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Numerical modeling of a vortex stabilized arcjet 02 p0232 N93-11889
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
Solution of nonlinear flow equations for complex aerodynamic shapes
[NASA-CR-190979] 02 p0307 N93-12329
Studies of a flat wake rotor theory
[NASA-CR-190936] 02 p0201 N93-12343
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539

Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247
Mathematical problems in inviscid hypersonic flow 03 p0493 N93-13451
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates 03 p0587 N93-13517
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide 03 p0595 N93-13685
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
An experimental investigation of the three-dimensional boundary layer on a rotating disk 03 p0589 N93-13806
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip 03 p0496 N93-13822
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers 03 p0590 N93-13826
Numerical investigation of non-spherical droplet dynamics in viscous convective flows 03 p0591 N93-13918
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
Organized turbulent structures and their induced wall pressure fluctuations 03 p0592 N93-13952
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods 03 p0592 N93-13953
Coherent structures in compressible convection 03 p0592 N93-13964
Instabilities and patterns in Taylor-Couette flow 03 p0593 N93-13965
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow 03 p0593 N93-14025
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover 03 p0497 N93-14035
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008] 04 p0780 N93-14516
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
An investigation of genuinely multidimensional schemes for the Euler equations 04 p0876 N93-14694
Comparison between irregularity motion and bulk plasma drifts at high latitudes
[PL-TR-91-2292] 04 p0914 N93-14727
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 2: Tests with the closed circuit
[NASA-CR-191672] 04 p0780 N93-14738
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14758
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model
[MPIS-9/1991] 04 p0781 N93-15131
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480] 04 p0880 N93-15643
Turbulence modeling and experiments 05 p1153 N93-15796
Modeling of turbulent shear flows 05 p1153 N93-15797
Two equation modelling and the pseudo compressibility technique 05 p1153 N93-15799
Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Experimental and numerical investigation of vortex flow over a 76/60-deg double-delta wing
[LR-680] 05 p1054 N93-16210
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885] 05 p1235 N93-16288
Comparison of solution of various Euler solvers and one Navier-Stokes solver for the flow about a sharp-edged cropped delta wing
[NLR-TP-90340-U] 05 p1157 N93-16411
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467
Passive scalar fluctuations in intermittent turbulence
[PREPRINT-779] 05 p1159 N93-16575
Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Improved shock-capturing of Jameson's scheme for the Navier-Stokes equations
[MEMO-1041] 05 p1163 N93-16842
Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts 05 p1095 N93-17297
Acceleration of FDNS flow simulations using initial flowfields generated with a parabolized Navier-Stokes method 05 p1165 N93-17329
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522] 05 p1165 N93-17789
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
Aerodynamic aspects of offshore structures
[NLR-TP-91188-U] 06 p1405 N93-17928
Analytical surface singularity distributions for flow about elliptical cylinders
[AERO-REPT-9202] 06 p1526 N93-18132
An experimental investigation of interacting wing-tip vortex pairs
[AD-A258471] 06 p1406 N93-18272
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234] 06 p1407 N93-18585
Axial Flow Compressors, volume 1
[VKI-LS-1992-02-VOL-1] 06 p1530 N93-18721
An investigation of the near and induced flow fields of an axially symmetric jet, issuing normal to a plane surface, into a quiescent medium 06 p1533 N93-19041
A numerical simulations of inner flow of scramjet 06 p1415 N93-19318
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
A technique for predicting aircraft flow-field effects upon an unguided bomb ballistic trajectory and comparison with flight test results 06 p1417 N93-19922
Assessment of higher order turbulence models for complex two- and three-dimensional flowfields
[NASA-TM-103944] 07 p1897 N93-20035
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
An experimental investigation of a round turbulent jet in a cross-flow 07 p1905 N93-20689
Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Heat transfer on accreting ice surfaces
[AIAA PAPER 90-0200] 08 p2106 N93-22565
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Electrically driven convection 08 p2247 N93-22837
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Experimental investigation of the influence of the temperature gradient on the thermocapillary convection in spherical drops under low-gravity 08 p2251 N93-22862
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203

A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet
[DE93-005251] 08 p2293 N93-23300
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
A study of the accuracy of neutrally buoyant bubbles used as flow tracers in air
[NASA-CR-191088] 08 p2111 N93-23399
Transient simulation of ram accelerator flowfields
[AD-A259767] 08 p2295 N93-23485
Tip-vortex/airframe interactions 08 p2111 N93-23489
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
Restoring monotonicity of slowly-moving shocks computed with Godunov-type schemes
[CRANFIELD-AERO-9207] 08 p2297 N93-24075
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Measurement and prediction of tip-clearance effects in a linear turbine cascade
[ISBN-0-315-68826-2] 08 p2130 N93-24176
The 12th Symposium on Turbulence
[AD-A260353] 08 p2298 N93-24274
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings 09 p2574 N93-24772
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
A numerical and experimental studies of flow characteristics in centrifugal fans 09 p2577 N93-25339
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480
The interaction of modulated vortex pairs with a free surface 09 p2701 N93-25485
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds 09 p2577 N93-25487
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface 09 p2705 N93-25746
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF) 09 p2598 N93-26006
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055
The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239
Another look at the driven cavity problem
[AD-A261903] 09 p2708 N93-26543
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123
The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator 10 p2985 N93-27138
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192988] 10 p3068 N93-27163
Towards an analytical treatment of the aeroelastic problem of a circular wing 10 p2926 N93-27214
Leading edge vortices in a chordwise periodic flow 10 p2927 N93-27218
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence 10 p2927 N93-27220
Stability investigations of airfoil flow by global analysis 10 p2932 N93-27436
Aerodynamics of a finite wing with simulated ice 10 p2932 N93-27437
A composite structured/unstructured-mesh Euler method for complex airfoil shapes 10 p2933 N93-27439
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
Navier-Stokes analysis of radial turbine rotor performance
[NASA-CR-191153] 11 p3251 N93-28609
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
Studies in premixed combustion
[DE93-007955] 11 p3310 N93-29051
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952
The effect of main stream flow angle on flame tube film cooling 11 p3257 N93-29953
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade 11 p3258 N93-29958
On the development of a film cooling layer 11 p3258 N93-29959
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Two-dimensional and three-dimensional time-dependent MHD model of extended corona 11 p3653 N93-30496
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171
Fluid flow visualization
[REPT-92-69] 12 p3724 N93-31494
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

FLOW EQUATIONS

NT BOUNDARY LAYER EQUATIONS
NT CHAPLYGIN EQUATION
NT NAVIER-STOKES EQUATION
NT REYNOLDS EQUATION
NT VORTICITY EQUATIONS
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Solution of nonlinear flow equations for complex aerodynamic shapes
[NASA-CR-190979] 02 p0307 N93-12329
An experimental and computational investigation of slender wings undergoing wing rock 03 p0505 N93-13915
Turbulence modeling for combustion flows 04 p0840 N93-14620
PDF transport modelling 04 p0840 N93-14623
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed
[MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Godunov-type schemes applied to detonation flows
[NASA-CR-191447] 10 p2929 N93-27090
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882

Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
Tidally averaged models for dispersion in shallow water
[REPT-92-66] 12 p3769 N93-31497

FLOW FIELDS
U FLOW DISTRIBUTION

FLOW GEOMETRY
A new energy transfer model for turbulent free shear flow
[NASA-TM-105854] 01 p0081 N93-10454
Structure of thermocapillary flow in narrow cavities
01 p0061 N93-10552
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer
04 p0876 N93-14695
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
On the disturbances development in the supersonic boundary layer 07 p1763 N93-20686
Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067
An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3418 N93-29009

FLOW MEASUREMENT
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Turbulence measurements of high shear flow fields in a turbomachine seal configuration
01 p0093 N93-10893
An experimental technique for performing 3-D LDA measurements inside whirling annular seals
01 p0093 N93-10894
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU]
02 p0216 N93-11057
Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359
Overview of recent diagnostic measurements at the USA MHD facilities
[DE92-015365] 02 p0454 N93-12087
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering
03 p0602 N93-13684
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster
03 p0602 N93-13686
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477
Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Hot film wall shear instrumentation for compressible boundary layer transition research
[NASA-CR-191360] 06 p1404 N93-17855
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB]
06 p1406 N93-18275
Electron beam probing of blow-down hypersonic flows
[ONERA-NT-1992-7] 06 p1408 N93-18701
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049
An assessment of laser velocimetry in hypersonic flow
[NASA-CR-190895] 07 p1762 N93-21556
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398
A thermal type probe for low velocity measurements
08 p2165 N93-24397
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
An investigation of laser velocimetry measurements within high speed, complex flows
09 p2697 N93-25237
An investigation on planar velocimetry by spatial cross-correlation 09 p2578 N93-25664
Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB]
09 p2706 N93-26000
Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535
Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566
Fuzzy logic particle tracking velocimetry
[NASA-TM-106194] 10 p3045 N93-27027
Analysis of fluctuating static pressure measurements in a large high Reynolds number transonic cryogenic wind tunnel
[NASA-TM-108722] 10 p2947 N93-27142
Limitations of the ideal phase-Doppler system: Extension to spatially and temporally inhomogeneous particle flows with an application to diesel sprays
[DE93-009447] 11 p3416 N93-28595
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839

FLOW NETS
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389

FLOW PATTERNS
U FLOW DISTRIBUTION

FLOW RATE
U FLOW VELOCITY

FLOW REGULATORS
NT FUEL FLOW REGULATORS
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Innovative instrument design and applications in super-critical fluid chromatography and extraction
12 p3704 N93-32327

FLOW RESISTANCE
NT AERODYNAMIC DRAG
NT FRICTION DRAG
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438

FLOW SEPARATION
U BOUNDARY LAYER SEPARATION
U SEPARATED FLOW

FLOW STABILITY
NT BOUNDARY LAYER STABILITY
NT FLAME STABILITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT WEIBEL INSTABILITY
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Turbulent mixing in compressible free shear layers
01 p0083 N93-10846
On the instability of hypersonic flow past a pointed cone: Comparison of theoretical and experimental results of Mach 18
[DLR-FB-92-02] 02 p0196 N93-11141
Quasigeostrophic vortices in zonal shear
02 p0358 N93-11226
Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633
Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874
Singularities of the Euler equation and hydrodynamic stability
[NASA-CR-189720] 02 p0306 N93-12173
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Investigation of hypersonic shock-induced combustion in a hydrogen-air system
[NASA-CR-191239] 03 p0538 N93-13456
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Variational characterizations of steady two-dimensional vortex motions 03 p0589 N93-13781
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
Stability of the compressible reacting mixing layer
03 p0592 N93-13948
Experiments on the statistical nature of stably stratified turbulence 03 p0594 N93-14069
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects
03 p0594 N93-14077
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves
[NASA-TM-105918] 04 p0860 N93-15499

A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3
[CTN-93-60611] 05 p1158 N93-16544
Stability of elliptical vortices
[ITN-93-85181] 05 p1159 N93-16733
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Fundamental studies of fluid mechanics and stability in porous media
[DE93-002519] 05 p1163 N93-17046
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742
Oscillatory internal flow fields studies — flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
The stability of a trailing-line vortex in compressible flow
[NASA-CR-189738] 06 p1408 N93-18771
Stability of nonequilibrium shear flows
06 p1534 N93-19056
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
On the stability of nonlinear viscous vortices in three-dimensional boundary layers
[NASA-CR-189637] 07 p1899 N93-20254
Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819
On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
Stability and heat transfer in time-modulated flows
[DE93-006423] 08 p2293 N93-23339
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865
Spatial development of chaos in an open flow system
08 p2515 N93-24293
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
Instability of flow in a streamwise corner
[NASA-CR-191410] 09 p2576 N93-25153
Vortex shedding in oscillatory flow
09 p2700 N93-25438
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness
09 p2701 N93-25483
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Flow between finite rotating disks and its linear stability 09 p2705 N93-25747
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335
On the instability of the flow in an oscillating tank of fluid
[NASA-CR-191424] 10 p3037 N93-26896
Flow instability in particle-bed nuclear reactors
10 p2979 N93-26934
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Godunov-type schemes applied to detonation flows
[NASA-CR-191447] 10 p2929 N93-27090
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091
Airfoil stability in turbulent flow
10 p2926 N93-27212
Stability investigations of airfoil flow by global analysis
10 p2932 N93-27436
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
A new direction in hydrodynamic stability: Beyond eigenvalues
[NASA-CR-191411] 10 p3040 N93-27688
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095

FLOW THEORY
NT MIXING LENGTH FLOW THEORY
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Interfacial melting in cracked explosives
11 p3349 N93-30089

FLOW VELOCITY
NT SOLAR WIND VELOCITY
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited
02 p0360 N93-11268
The measurement of the velocity field induced by a gust generator in a closed-circuit subsonic wind-tunnel
[RAE-TM-MAT/STR-1102] 02 p0217 N93-11435
Physical processes involved in injection and atomization of liquid propellants 02 p0248 N93-11453
The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464
Interfacial area and two-phase flow structure development measured by a double-sensor probe
[DE92-019459] 02 p0300 N93-11538
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers
02 p0304 N93-12003
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Studies of a flat wake rotor theory
[NASA-CR-190936] 02 p0201 N93-12343
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine
03 p0613 N93-13331
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
Dynamics of vortex rings in cross-flow
03 p0496 N93-13917
Parametric study of air sampling cyclones
04 p0779 N93-14173
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets
[NASA-TM-105935] 05 p1055 N93-16625
Wind tunnel seeding particles for laser velocimeter
05 p1057 N93-16770
Effect of Reynolds number on the standards of a simplified anemoclinometric probe
[IMFL-91-31] 05 p1056 N93-17542
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven
06 p1727 N93-19551
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data
06 p1517 N93-19578
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Visualization of turbulent flows with simultaneous velocity and vorticity measurements
07 p1900 N93-20290
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398

An investigation of particle turbulence quantities in a dense two-phase pipe flow, using laser Doppler velocimetry 08 p2295 N93-23496
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
The interaction of modulated vortex pairs with a free surface 09 p2701 N93-25485
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Fuzzy logic particle tracking velocimetry
[NASA-TM-106194] 10 p3045 N93-27027
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels 11 p3255 N93-29942
Modelling the dynamics of a large sea area
[DE93-778330] 11 p3488 N93-30040
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
The influence of variable flow velocity on unsteady airfoil behavior
[DLR-FB-92-22] 12 p3672 N93-31320
Simulated O VI Doppler dimming measurements of coronal outflow velocities 12 p3871 N93-31367

FLOW VISUALIZATION
NT NUMERICAL FLOW VISUALIZATION
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
The 13 ft by 9 ft low speed wind tunnel facility at DRA (Aerospace Division) Bedford (England)
[RAE-TM-AERO-2228] 02 p0199 N93-11883
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
In-flight flow visualization results from the X-29A aircraft at high angles of attack
[NASA-TM-4430] 03 p0493 N93-13322
Applications of CFD and visualization techniques 03 p0584 N93-13386
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster 03 p0602 N93-13686
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
A multiple-view visual study of the inner/outer region interactions of coherent motions in a turbulent boundary layer 03 p0591 N93-13937
Subsonic aerodynamic research laboratory
[AD-A256060] 04 p0780 N93-14661
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411
Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885] 05 p1235 N93-16288
Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transition
[NAL-SP-15] 05 p1160 N93-16809
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Drag reduction mechanism and coherent structure in near wall turbulence with riblets 05 p1162 N93-16827
Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829
Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts 05 p1095 N93-17297
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
An experimental investigation of interacting wing-tip vortex pairs
[AD-A258471] 06 p1406 N93-18272
Flow visualization and combustion diagnostic 06 p1485 N93-18480
Influence of the physical modelling of viscous terms on hypersonic flow computations
[INRIA-RR-1493] 06 p1408 N93-18652
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
Wind tunnel tests and CFD in Fuji Heavy Industries 06 p1416 N93-19323
Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows
[DE93-002794] 06 p1535 N93-19615
Natural laminar flow test in-flight visualization 06 p1417 N93-19921
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Visualization of turbulent flows with simultaneous velocity and vorticity measurements 07 p1900 N93-20290
Fluid/structure interactions. Internal flows 07 p1905 N93-20629
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
A visualization study of the diffusion process between two liquids of different densities under microgravity conditions 07 p1806 N93-21095
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
Off-surface infrared flow visualization
[NASA-CASE-LAR-14568-1] 08 p2486 N93-22037
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
A study of the accuracy of neutrally buoyant bubbles used as flow tracers in air
[NASA-CR-191088] 08 p2111 N93-23399
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
Flow visualizations of perpendicular blade vortex interactions
[NASA-CR-192725] 09 p2696 N93-25208
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
An investigation of photothermal velocimetry for application to transient, high-speed gas flows 09 p2579 N93-25720
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Neural networks for calibration tomography
[NASA-TM-106352] 10 p3045 N93-26906
Calibration of a shock wave position sensor using artificial neural networks
[NASA-TM-106138] 10 p3045 N93-27001
A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123
Aerodynamics of a finite wing with simulated ice 10 p2932 N93-27437
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
Flow visualization on helicopter blades using acenaphthen
[ESA-TT-1255] 11 p3422 N93-29273
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade 11 p3258 N93-29958
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Contribution to the study of the interaction between acoustic waves and coherent structures induced by a prismatic cylinder in a rectangular cavity
[ONERA-NT-1990-10] 11 p3314 N93-30203
A break-down of sting interference effects
[NLR-TP-91220-U] 12 p3684 N93-31042
Fluid flow visualization
[REPT-92-69] 12 p3724 N93-31494
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835

FLOWMETERS
NT GAS METERS
NT HOT-WIRE FLOWMETERS
NT RHEOMETERS
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535

FLUCTUATION
U VARIATIONS
FLUCTUATION THEORY
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
FLUE GASES
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Direct catalytic decomposition of nitric oxide
[DE93-008107] 08 p2389 N93-24515
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168
FLUENCE
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379
LDEF atomic oxygen fluence update
03 p0546 N93-12771
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
FLUID BOUNDARIES
NT JET BOUNDARIES
NT LIQUID-LIQUID INTERFACES
NT LIQUID-SOLID INTERFACES
NT LIQUID-VAPOR INTERFACES
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22630
FLUID DYNAMICS
NT AERODYNAMICS
NT AEROTHERMODYNAMICS
NT COMPUTATIONAL FLUID DYNAMICS
NT ELASTOHYDRODYNAMICS
NT ELECTROHYDRODYNAMICS
NT GAS DYNAMICS
NT HYDRODYNAMICS
NT HYPERSONICS
NT INTERACTIONAL AERODYNAMICS
NT MAGNETOHYDRODYNAMICS
NT RAREFIED GAS DYNAMICS
NT ROTOR AERODYNAMICS
NT SUPERSONICS
NT UNSTEADY AERODYNAMICS
NT VORTEX SHEDDING
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
The Third Potsdam-5 Kiev International Workshop on Nonlinear Processes in Physics
[AD-A249140] 02 p0430 N93-11420
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
Control of thermocapillary convection in a two-layer liquid system 04 p0809 N93-14945
Generalised damping in fluid structure interaction analyses using modal synthesis
05 p1082 N93-15763
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Perturbation problems in fluid dynamics
[AD-A258934] 06 p1535 N93-19450
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Microgravity science activities in Canada
07 p1803 N93-21075
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Selected OAST/OSSA space experiment activities in support of Space Station Freedom
08 p2189 N93-22636
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Microgravity fluid physics research in the Space Station Freedom era 08 p2191 N93-22644
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Microgravity science and applications: Program tasks and bibliography for FY 1992
[NASA-TM-4469] 08 p2253 N93-23428
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
On colliding plane gravitational waves coupled with fluid motions
[MATHS-REPT-A-161] 08 p2398 N93-24060
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
The 12th Symposium on Turbulence
[AD-A260353] 08 p2298 N93-24274
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
Combining particles and waves for fluid animation
09 p2699 N93-25348
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
SAFSIM overview 10 p2981 N93-26959
Middeck 0-gravity Dynamics Experiment (MODE)
10 p3010 N93-28171
The Middeck Active Control Experiment (MACE)
10 p3061 N93-28173
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
The MODE family of facility class experiments
11 p3263 N93-28705
Liquid Motion in a rotating tank Experiment (LME)
11 p3264 N93-28710
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-004] 11 p3354 N93-29090
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
FLUID FILLED SHELLS
NT LIQUID FILLED SHELLS
Marangoni-convection in a rotating liquid container
[LRT-WE-9-FB-14-1991] 05 p1164 N93-17552
Liquid oscillations under strong surface tension in a circular cylindrical container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
FLUID FILMS
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731
FLUID FILTERS
NT AIR FILTERS
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
Advanced lightweight ceramic candle filter module
[DE93-000211] 07 p1860 N93-21252
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1860 N93-21491
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294
High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
FLUID FLOW
NT ADIABATIC FLOW
NT AIR CURRENTS
NT AIR FLOW
NT AIR JETS
NT ANNULAR FLOW
NT AXIAL FLOW
NT AXISYMMETRIC FLOW
NT BAROTROPIC FLOW
NT BASE FLOW
NT BLASIUS FLOW
NT BLOOD FLOW
NT BOUNDARY LAYER FLOW
NT BOUNDARY LAYER SEPARATION
NT CAPILLARY FLOW
NT CASCADE FLOW
NT CAVITATION FLOW
NT CAVITY FLOW
NT CHANNEL FLOW
NT CHOKED FLOW
NT COMBUSTIBLE FLOW
NT COMPRESSIBLE FLOW
NT CONICAL FLOW
NT CONTINUUM FLOW
NT CONVECTIVE FLOW
NT COOLING FLOWS (ASTROPHYSICS)
NT CORE FLOW
NT CORNER FLOW
NT COUETTE FLOW

NT COUNTERFLOW
NT CRITICAL FLOW
NT CROSS FLOW
NT DUCTED FLOW
NT EQUILIBRIUM FLOW
NT EQUIPOTENTIALS
NT FREE FLOW
NT FREE MOLECULAR FLOW
NT FUEL FLOW
NT GAS FLOW
NT HELICAL FLOW
NT HYPERSONIC FLOW
NT HYPERVELOCITY FLOW
NT INCOMPRESSIBLE FLOW
NT INLET FLOW
NT INVISCID FLOW
NT ISOTHERMAL FLOW
NT JET FLOW
NT JET MIXING FLOW
NT JET STREAMS (METEOROLOGY)
NT KNUDSEN FLOW
NT LAMINAR FLOW
NT LIQUID FLOW
NT MAGNETOHYDRODYNAMIC FLOW
NT MASS FLOW
NT MERIDIONAL FLOW
NT MOLECULAR FLOW
NT MULTIPHASE FLOW
NT NONEQUILIBRIUM FLOW
NT NONNEWTONIAN FLOW
NT NONUNIFORM FLOW
NT NOZZLE FLOW
NT ONE DIMENSIONAL FLOW
NT ORIFICE FLOW
NT OSCILLATING FLOW
NT OUTLET FLOW
NT PARALLEL FLOW
NT PIPE FLOW
NT PLASTIC FLOW
NT POTENTIAL FLOW
NT PROPELLANT TRANSFER
NT RADIAL FLOW
NT RAYLEIGH-BENARD CONVECTION
NT REACTING FLOW
NT REATTACHED FLOW
NT RECIRCULATIVE FLUID FLOW
NT REVERSED FLOW
NT SECONDARY FLOW
NT SEPARATED FLOW
NT SHEAR FLOW
NT SINGLE-PHASE FLOW
NT SLIP FLOW
NT SMALL PERTURBATION FLOW
NT SOLIDS FLOW
NT STAGNATION FLOW
NT STEADY FLOW
NT STEAM FLOW
NT STOKES FLOW
NT STRATIFIED FLOW
NT SUBSONIC FLOW
NT SUPERCRITICAL FLOW
NT SUPERSONIC FLOW
NT SUPERSONIC JET FLOW
NT THREE DIMENSIONAL FLOW
NT TRANSITION FLOW
NT TRANSONIC FLOW
NT TRESCA FLOW
NT TURBULENT FLOW
NT TWO DIMENSIONAL FLOW
NT TWO PHASE FLOW
NT UNIFORM FLOW
NT UNSTEADY FLOW
NT VERTICAL AIR CURRENTS
NT VISCOUS FLOW
NT WALL FLOW
NT WATER FLOW

Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094

Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327

Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399

Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241

Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359

An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497

Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598

The effects of chemistry on weld profiles in partial and full penetration welds
[DE92-016865] 02 p0327 N93-11679

Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702

Calculation of nozzle/aftbody flowfield interactions
02 p0302 N93-11722

Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058

Regular and chaotic mixing of viscous fluids in eccentric rotating cylinders 02 p0305 N93-12157

A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162

Analysis of fluid/mechanical systems using EASY5
03 p0586 N93-13397

Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739

Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067

Finite element models of laser welding
04 p0888 N93-14226

Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478

Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793

Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885

Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411

Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419

Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407] 05 p1306 N93-15670

Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032

Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334

Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534

Numerical solutions of the Euler equations for steady flow problems
[MBB-FE-202-S-PUB-473-A] 05 p1164 N93-17546

Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604

Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743

Finite element modeling of fluids
06 p1529 N93-18543

Multi-fluid modeling of interpenetrating plasmas
[DE93-002893] 06 p1668 N93-19829

Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896

International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049

Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616

Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617

The practical application of computational fluid mechanics 07 p1905 N93-20622

Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771

Off-surface infrared flow visualization
[NASA-CASE-LAR-14568-1] 08 p2486 N93-22037

A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600

Heat and mass transfer in polyphase flows
08 p2248 N93-22844

Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848

On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178

Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954

Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117

Studies of the analyte-carrier interface in flow injection analysis
[DE93-008374] 09 p2644 N93-25311

Combining particles and waves for fluid animation
09 p2699 N93-25348

Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212

A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433

Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336

A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639

Studies of complexity in fluid systems
[DE93-010776] 11 p3418 N93-28878

A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126

Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253

Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284

Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335

Rotational fluid flow experiment
11 p3235 N93-29761

Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804

Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952

Siphon breaker design requirements
[DE93-011799] 11 p3425 N93-30132

Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489

Fluid flow visualization
[REPT-92-69] 12 p3724 N93-31494

Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732

Understanding heat and fluid flow in linear GTA welds
[DE93-012958] 12 p3727 N93-32303

The application of remotely sensed data to studies of volcanism within the Galapagos Islands
12 p3747 N93-32326

FLUID INJECTION
NT GAS INJECTION
NT LIQUID INJECTION

A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496

Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714

Optimization of flow-injection analysis for on-line in-process control
[ETN-92-92826] 06 p1499 N93-18444

Injection of drag-reducing additives into turbulent water flows. Investigation of laser-induced fluorescence for concentration measurements
[AD-A259459] 07 p1898 N93-20243

Shock tube application to the study of compressible turbulent boundary layer with mass injection
09 p2697 N93-25252

Studies of the analyte-carrier interface in flow injection analysis
[DE93-008374] 09 p2644 N93-25311

Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960

A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades
11 p3258 N93-29962

Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210

FLUID JETS
NT AIR JETS
NT FREE JETS
NT GAS JETS
NT HYDRAULIC JETS
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
Experimental study of cross flow mixing in cylindrical and rectangular ducts
[NASA-CR-187141] 10 p2945 N93-27680
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053

FLUID MANAGEMENT
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
The VTRE Program: An overview 03 p0512 N93-13182
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
Fluid Management System (FMS) fluid systems overview 10 p2967 N93-27796
Space Station fluid resupply 10 p2967 N93-27797
Space Station fluid management logistics 10 p2967 N93-27799
Orbital storage and supply of subcritical liquid nitrogen 10 p2968 N93-27801
Superfluid helium needs and resupply on Space Station 10 p2968 N93-27802
Fluid management system technology discipline 10 p2973 N93-27861
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP) 11 p3264 N93-28711
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712

FLUID MECHANICS
NT AERODYNAMICS
NT AEROTHERMODYNAMICS
NT COMPUTATIONAL FLUID DYNAMICS
NT ELASTOHYDRODYNAMICS
NT ELECTROHYDRODYNAMICS
NT FLUID DYNAMICS
NT GAS DYNAMICS
NT HYDRODYNAMICS
NT HYDROMECHANICS
NT HYDROSTATICS
NT HYPERSONICS
NT INTERACTIONAL AERODYNAMICS
NT MAGNETOHYDRODYNAMICS
NT MAGNETOHYDROSTATICS
NT PNEUMATICS
NT RAREFIED GAS DYNAMICS
NT ROTOR AERODYNAMICS
NT SUPERSONICS
NT UNSTEADY AERODYNAMICS
NT VORTEX SHEDDING
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Proceedings of the Tenth Symposium on Energy Engineering Sciences: Synergism of Analysis, Modeling, and Experiment
[DE92-018777] 03 p0638 N93-13069
A computer program for engineering simulations of space reactor system performance
[DE92-016400] 03 p0526 N93-13299
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150
Some aspects for the application of a hierarchic family of Herrmann mixed compressible and incompressible finite elements 05 p1077 N93-15723
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842
On canonical cylinder sections for accurate determination of contact angle in microgravity
[DE93-000635] 05 p1130 N93-16377
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
SAFSIM input manual: A computer program for the engineering simulation of flow systems
[DE93-002738] 05 p1163 N93-16922
Fundamental studies of fluid mechanics and stability in porous media
[DE93-002519] 05 p1163 N93-17046
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049
On the thermoelastohydrodynamic lubrication dimensionless problem formulations 07 p1917 N93-20693
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Fluid science users requirements 08 p2163 N93-24385
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Current research activities: Applied and numerical mathematics, fluid mechanics, experiments in transition and turbulence and aerodynamics, and computer science
[NASA-CR-191408] 09 p2803 N93-25084
Leonardian fluid mechanics in the manuscript F
[PB93-178853] 10 p3040 N93-27411
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353
ICASE
[NASA-CR-193257] 11 p3520 N93-29864
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

FLUID PRESSURE
NT WATER PRESSURE
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners 02 p0434 N93-11884
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2] 06 p1528 N93-18440
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1] 06 p1528 N93-18510
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275
Perturbation technique for identification of the lowest modes of rotors with fluid interaction 12 p3738 N93-32277

FLUID SWITCHING ELEMENTS
Design and characterization of the Pegasus 1 plasma flow switch
[DE93-003812] 08 p2276 N93-22322

FLUID TRANSMISSION LINES
Fluidic sampling
[DE92-017266] 03 p0575 N93-12761
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model 09 p2678 N93-26119

FLUID-SOLID INTERACTIONS
NT GAS-METAL INTERACTIONS
NT GAS-SOLID INTERACTIONS
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Fluid/structure interactions. Internal flows 07 p1905 N93-20629
Boundary element formulation for thermoelastohydrodynamic contact problems 07 p1918 N93-20705
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Modal synthesis technique used in shallow doublewall
[FFA-TN-1992-29] 12 p3722 N93-31053

FLUIDICS
Fluidic sampling
[DE92-017266] 03 p0575 N93-12761
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577

FLUIDIZED BED PROCESSORS
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641

FLUIDS
Fluid separator
[NASA-CASE-MFS-28658-1] 05 p1163 N93-17039
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066

FLUORESCENCE
NT LASER INDUCED FLUORESCENCE
NT PHOSPHORESCENCE
NT RESONANCE FLUORESCENCE
NT X RAY FLUORESCENCE
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
New approaches to the measurement of chlorophyll, related pigments and productivity in the sea
[NASA-CR-190879] 03 p0673 N93-13612
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel 03 p0602 N93-13681
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
Fluorescence detection for gel and capillary electrophoresis
[DE92-040585] 05 p1102 N93-16020
Microparticle-based fluorescence immunoassay
[DE92-040704] 05 p1103 N93-16195
The contribution of electronically excited states to the radiation chemistry of organic systems
[DE92-040465] 05 p1104 N93-16585

An FFT-based method for attenuation correction in fluorescence confocal microscopy
[CWI-AM-R9114] 05 p1174 N93-16848
The broad-band x ray spectral variability of Mkn 841
06 p1561 N93-18711
Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator
09 p2833 N93-24991
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
Experimental studies of stress management by optical fluorescence
[AD-A261539] 09 p2730 N93-26362
In-process cure monitoring of composites via fiber-optic fluorescence
[AD-A261712] 09 p2641 N93-26580
Fluorescence measurements of the thermal control experiments coatings on LDEF S0069 and A0114
10 p3008 N93-28280
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294
Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

FLUORESCENT EMISSION
U FLUORESCENCE

FLUORIDES
NT BARIUM FLUORIDES
NT BORON FLUORIDES
NT CALCIUM FLUORIDES
NT CESIUM FLUORIDES
NT COMPOUND A
NT CRYOLITE
NT HYDROFLUORIC ACID
NT METAL FLUORIDES
NT OXYFLUORIDES
NT STRONTIUM FLUORIDES
NT SULFUR FLUORIDES
NT URANIUM FLUORIDES
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
Polyimides prepared from 3,5-diamino benzo trifluoride
[NASA-CASE-LAR-14206-1] 11 p3331 N93-29083
Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047

FLUORINATION
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
The development of new, low-cost perfluoroalkylether fluids with excellent low and high-temperature properties
[NASA-CR-190865] 06 p1492 N93-18229

FLUORINE
NT FLUORINE ISOTOPES
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Lunar mining of oxygen using fluorine
10 p2997 N93-26680

FLUORINE COMPOUNDS
NT BARIUM FLUORIDES
NT BORON FLUORIDES
NT CALCIUM FLUORIDES
NT CARBON TETRAFLUORIDE
NT CESIUM FLUORIDES
NT COMPOUND A
NT CRYOLITE
NT FLUORIDES
NT FLUORINE ORGANIC COMPOUNDS
NT FLUORITE
NT FLUORO COMPOUNDS
NT FLUOROCARBONS
NT FLUOROHYDROCARBONS
NT FLUOROPOLYMERS
NT HYDROFLUORIC ACID
NT METAL FLUORIDES
NT OXYFLUORIDES
NT PERFLUOROALKANE
NT POLYTETRAFLUOROETHYLENE
NT STRONTIUM FLUORIDES
NT SULFUR FLUORIDES
NT TEFLON (TRADEMARK)
NT URANIUM FLUORIDES
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292

FLUORINE ISOTOPES
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748

FLUORINE ORGANIC COMPOUNDS
NT CARBON TETRAFLUORIDE
NT FLUOROCARBONS
NT FLUOROHYDROCARBONS
NT FLUOROPOLYMERS
NT PERFLUOROALKANE
NT TEFLON (TRADEMARK)
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU]
11 p3312 N93-29506

FLUORITE
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179

FLUORO COMPOUNDS
NT CARBON TETRAFLUORIDE
NT CRYOLITE
NT FLUORINE ORGANIC COMPOUNDS
NT FLUOROCARBONS
NT FLUOROHYDROCARBONS
NT FLUOROPOLYMERS
NT PERFLUOROALKANE
NT POLYTETRAFLUOROETHYLENE
NT TEFLON (TRADEMARK)
Optical fiber fluorosensor
[NASA-CASE-LAR-14525-1-CU]
07 p2069 N93-22008

FLUOROCARBONS
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748

FLUOROHYDROCARBONS
NT CARBON TETRAFLUORIDE
NT POLYTETRAFLUOROETHYLENE
NT TEFLON (TRADEMARK)
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629

FLUOROPLASTICS
U FLUOROPOLYMERS

FLUOROPOLYMERS
NT POLYTETRAFLUOROETHYLENE
NT TEFLON (TRADEMARK)
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Determination of the thermal stability of perfluoropolyalkyl ethers by tensimetry
[NASA-TM-106081] 09 p2654 N93-25093

FLUOROSCOPY
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101

FLUSHING
Variable-Volume Flushing (V-VF) device for water conservation in toilets 08 p2429 N93-22167

FLUTING
U GROOVING

FLUTTER
NT PANEL FLUTTER
NT TRANSONIC FLUTTER
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities
03 p0501 N93-13807
A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
Airfoil stability in turbulent flow
10 p2926 N93-27212
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171

FLUTTER ANALYSIS
A finite element method for nonlinear panel flutter
01 p0045 N93-10472
Control of panel flutter at high supersonic speed
01 p0009 N93-10900
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Beyond the frequency limits of time-linearized methods
[NLR-TP-91216-U] 06 p1405 N93-17929
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234] 06 p1407 N93-18585
Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings
06 p1450 N93-19019
Fluid/structures interactions. Aircraft considerations
07 p1787 N93-20628
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457

FLUX (RATE PER UNIT AREA)
U FLUX DENSITY

FLUX (RATE)
NT HEAT FLUX
NT MAGNETIC FLUX
NT SOLAR FLUX
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362

EISCAT observations of topside ionospheric ion outflows during auroral activity: Revisited
02 p0360 N93-11268
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Acoustically induced vibration of platform mounted equipment containing printed circuit boards
05 p1082 N93-15762
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Neutrino masses and solar neutrinos
[DE93-002416] 06 p1655 N93-18522
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland)
11 p3458 N93-28926
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641

FLUX DENSITY
NT CURRENT DENSITY
NT ELECTRON FLUX DENSITY
NT IRRADIANCE
NT LUMINANCE
NT LUMINOUS INTENSITY
NT NEUTRON FLUX DENSITY
NT PARTICLE FLUX DENSITY
NT PHOTON DENSITY
NT PROTON FLUX DENSITY
NT RADIANCE
NT RADIANT FLUX DENSITY
NT SOLAR CONSTANT
NT SOLAR FLUX DENSITY
NT SOUND INTENSITY

The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Battery selection for space experiments
03 p0512 N93-13184
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile
06 p1517 N93-19579
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Electromagnetic finite element analysis of a solenoid
[DE93-004635] 07 p1894 N93-21724
Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
Variable-speed generators with flux weakening
09 p2694 N93-25599
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers
11 p3257 N93-29955
Topics in inflationary universe models and cosmic string theories 11 p3637 N93-30579
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Gas arc constriction for plasma arc welding
[NASA-CASE-MFS-28844-1] 12 p3734 N93-31292
Microflares observed with UVSP and HXIS
12 p3877 N93-31405
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices
12 p3856 N93-31701

FLUX MAPPING
U FLUX DENSITY
U MAPPING

FLUX PINNING
Model for the reversible magnetization of high-(kappa) type-2 superconductors: Application to high-temperature superconductor
[DE92-016297] 01 p0167 N93-10609
Flux pinning in oxygen-depleted YBa2Cu3O(7-y) single crystals
[DE92-019548] 02 p0461 N93-11647
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
Dynamics in neutron stars and the early universe
04 p1014 N93-14112
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Properties of aligned YBa2Cu3O(7-delta) superconductor as a function of oxygen deficiency delta
[DE93-001707] 07 p2082 N93-21750
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Flux pinning structures in melt-processed YBa2Cu3O(7-x)
[DE93-005151] 08 p2501 N93-22497
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052
Magnetic anisotropy in the high transition temperature superconductor YBa2Cu3O(7-delta)
08 p2509 N93-23985
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804

FLUX QUANTIZATION
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355

FLUX TRANSFER EVENTS
Magnetic holes near the magnetopause
03 p0653 N93-13491
Distinct ion population in the polar cusp: Possible signature of transient reconnection
12 p3766 N93-31680
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696
An investigation of dayside FTE's observed by the AMPTE-UKS satellite 12 p3858 N93-31709

FLUX VECTOR SPLITTING
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564
Restoring monotonicity of slowly-moving shocks computed with Godunov-type schemes
[CRANFIELD-AERO-9207] 08 p2297 N93-24075
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions
11 p3421 N93-29177

FLUXMETERS
U MAGNETIC MEASUREMENT
U MEASURING INSTRUMENTS

FLY ASH
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605

FLY BY LIGHT CONTROL
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735

FLY BY WIRE CONTROL
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Robust crossfeed design for hovering rotorcraft
[NASA-CR-193107] 10 p2942 N93-27241
Project ARES 2: High-altitude battery-powered aircraft
11 p3227 N93-29715
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280

FLYBY MISSIONS
NT ASTEROID MISSIONS
NT COMET RENDEZVOUS ASTEROID FLYBY MISSION
NT GIOTTO MISSION

Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
Low cost missions to explore the diversity of near Earth objects 06 p1453 N93-19124
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781

Visible imaging on the Pluto fast flyby mission
11 p3646 N93-28799
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803
Pluto fast flyby mission and science overview
11 p3649 N93-28818
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582

FLYING
U FLIGHT

FLYING BEDSTEAD AIRCRAFT
U FLYING PLATFORMS

FLYING PERSONNEL
NT AIRCRAFT PILOTS
NT ASTRONAUTS
NT COSMONAUTS
NT FLIGHT CREWS
NT PILOTS (PERSONNEL)
NT SPACECREWS
NT TEST PILOTS
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces
12 p3781 N93-32260

FLYING PLATFORM STABILITY
U AERODYNAMIC STABILITY
U FLYING PLATFORMS

FLYING PLATFORMS
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Hybrid data link
[AD-D015714] 11 p3383 N93-29280

FLYING QUALITIES
U FLIGHT CHARACTERISTICS

FLYING WING AIRCRAFT
U TAILLESS AIRCRAFT

FLYWHEELS
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814

FM (MODULATION)
U FREQUENCY MODULATION

FOAMING
Polymer foam cell growth in microgravity
07 p1808 N93-21108

FOAMS
NT METAL FOAMS
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Energy and global warming impacts of CFC alternative technologies for foam building insulations
[DE92-019477] 05 p1200 N93-16085
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Measurement of the radiative transport properties of reticulated alumina foams
[DE93-000047] 08 p2231 N93-23672
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263

FOCAL PLANE ARRAYS
U FOCAL PLANE DEVICES

FOCAL PLANE DEVICES
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU]
02 p0458 N93-11056
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Focal plane arrays for submillimeter waves using two-dimensional electron gas elements: A grant under the Innovative Research Program
[NASA-CR-192271] 08 p2263 N93-23062
Fractional brownian motion, wavelets, and infrared detector noise
[AD-A262956] 10 p3129 N93-28290
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126
Development of ultra-low noise, high sensitivity planar metal grating coupled 3-5 multiquantum well infrared detectors for focal plane array staring IR sensor systems
[AD-A264465] 11 p3599 N93-30536

FOCI
NT PLASMA FOCUS
Umbilici, lines of curvature, focal surfaces and their metamorphosis
[ETN-93-93414] 07 p2055 N93-21207

FOCUSING
NT SELF FOCUSING
Simulation of electron beam transport in ion-focused regime conditioning cells
[AD-A253352] 01 p0070 N93-10215
Using the 16 viewscreens during commissioning of AmPS
[NIKHEF-K/AMPS/92-01] 02 p0442 N93-11131
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Divergence in intense ion beams caused by incomplete charge neutralization
[DE92-016891] 02 p0445 N93-12103
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
Feasibility experiment for sodium-layer laser guide stars at the Lawrence Livermore National Laboratory
[DE93-007115] 09 p2715 N93-26503
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

FOETUSES
U FETUSES

FOG
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925

FOILS (MATERIALS)
NT METAL FOILS
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils
[DE93-000792] 05 p1293 N93-17381
A solenoid with a low input power and a fast switching time
[DLR-FB-91-39] 08 p2278 N93-22661
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Micrometeoroids and debris on LDEF
11 p3638 N93-29356
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2
11 p3318 N93-29367

FOKKER AIRCRAFT
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Aircraft performance in practice
06 p1403 N93-19004
Instrumentation for in-flight acoustic measurements in an engine inlet duct of a Fokker 100 aircraft
[NLR-TP-91200-U] 12 p3680 N93-32332

FOKKER BOND TESTERS
U ADHESION TESTS

FOKKER-PLANCK EQUATION
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988
The dynamics of dense galactic nuclei
03 p0750 N93-13340
Transverse phase-space evolution in non-stationary charged particle beams
[DE93-000618] 05 p1296 N93-15673
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Current-drive and plasma-formation experiments on the Versator-2 tokamak using lower-hybrid and electron-cyclotron waves
[DE93-002333] 07 p2075 N93-21482
The kinematics of stars and gas in the galactic disk
08 p2550 N93-23991
A Fokker-Planck operator for the emission and absorption of electron plasma waves in a magnetized plasma
[DE93-009579] 11 p3584 N93-28598
An information theoretic approach to stochastic adaptive control application to manipulators with active inertia
11 p3359 N93-30247

FOLDING
Effects of gravity in folding --- of geological layers
01 p0124 N93-10324
Teaching polymers to fold
[DE93-002670] 06 p1494 N93-18437

FOLDING STRUCTURES
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Prefabricated foldable lunar base modular systems for habitats, offices, and laboratories
05 p1229 N93-17444
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Optimal geometric design of robots for environments with obstacles 11 p3445 N93-30149

FOLIAGE
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543

FOOD CHAIN
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810

FOOD INTAKE
Nutrition for a typical MAC crew during Desert Storm
12 p3778 N93-32245
Changes in food and energy intake in military aircrew
12 p3778 N93-32246

Idiopathic Reactive Hypoglycemia in a population of healthy trainees of an Italian Air Force military school
12 p3779 N93-32248
Objective improvements obtained by control of diet and physical training in Spanish Air Force fighter pilots
12 p3780 N93-32258
The effects of an antijet lag diet
12 p3781 N93-32263

FOOD PROCESSING
NT PRESERVING
Alternating current (AC) impedance testing of coated traycans
[AD-A261256] 10 p3030 N93-27099

FOOD PRODUCTION (IN SPACE)
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695

FOOTPRINTS
Problem footprints in Magellan altimetry data
04 p1039 N93-14362
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites
10 p2924 N93-27200
Evolution and oscillations of coronal loops
12 p3876 N93-31395

FORBIDDEN TRANSITIONS
Laser spectroscopy of rare earth ions
03 p0608 N93-13846
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525

FORBUSH DECREASES
Cosmic ray decreases and magnetic clouds
06 p1564 N93-18071
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982
06 p1565 N93-18072

FORBUSH EFFECT
U FORBUSH DECREASES

FORCE DISTRIBUTION
Harmonic analysis of the aerodynamic forces on a Darrieus rotor 01 p0006 N93-10551
EXOS research on master controllers for robotic devices 02 p0399 N93-11957
Hypersonic propulsion system force accounting
03 p0503 N93-13229
Experimental investigations of radial loads induced by partial cavitation with the LH2 Vulcain inducer
[ETN-93-93023] 06 p1525 N93-18094
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
An approximate method for estimating the lifting characteristics of thin bodies of non-circular cross-section
[CRANFIELD-AERO-9006] 08 p2108 N93-22395
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
Force distribution formulation and analysis for multiple-contact power grasp 08 p2461 N93-23718
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0
10 p2927 N93-27221

FORCE FIELDS
U FIELD THEORY (PHYSICS)

FORCE-FREE MAGNETIC FIELDS
Scientific study of data analysis
[NASA-CR-184435] 03 p0769 N93-12658
Determination of coronal magnetic fields from vector magnetograms
[NASA-CR-191386] 06 p1744 N93-18869
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935

FORCED CONVECTION
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Metal slurry droplet and spray combustion
02 p0245 N93-11138
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
[ETN-93-93362] 06 p1498 N93-17811
Electrically driven convection
08 p2247 N93-22837
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature
08 p2249 N93-22849
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
A thermal type probe for low velocity measurements
08 p2165 N93-24397
Combined forced and free convection in a curved duct
10 p2937 N93-27461
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210

FORCED OSCILLATION
U FORCED VIBRATION

FORCED VIBRATION
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
Vibration of a damped double-beam system
01 p0056 N93-10527
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
The free and forced vibrations of structures using the finite dynamic element method
03 p0630 N93-13935
Transformation of energy and momentum due to Landau damping in time
[IPPCZ-316] 04 p0988 N93-14813
Transient response of a viscous liquid bridge of finite length and anchored edges
[LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944
A method of continuous coordinate condensation
07 p1932 N93-20657
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Forced vibration of non-selfadjoint elastic systems
07 p1934 N93-20668
Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260

FORCED VIBRATORY MOTION EQUATIONS
U EQUATIONS
U FORCED VIBRATION

FOREARM
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Prosthetic elbow joint
[NASA-CASE-MFS-28707-1] 11 p3508 N93-30566

FOREBODIES
NT NOSE CONES
NT NOSES (FOREBODIES)
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Sensitivity calculations for a 2D, inviscid, supersonic forebody problem
[NASA-CR-191444] 10 p2928 N93-27004
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0
10 p2927 N93-27221
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862

FORECASTING
NT DELPHI METHOD (FORECASTING)
NT LONG RANGE WEATHER FORECASTING
NT NOWCASTING
NT NUMERICAL WEATHER FORECASTING
NT PATTERN METHOD (FORECASTING)
NT PERFORMANCE PREDICTION
NT PREDICTION ANALYSIS TECHNIQUES
NT STATISTICAL WEATHER FORECASTING
NT TECHNOLOGICAL FORECASTING
NT WEATHER FORECASTING
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16388
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
Nonlinear techniques for forecasting solar activity directly from its time series 09 p2603 N93-24716
Supporting the Portuguese fisheries with satellites
09 p2745 N93-24821
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991
09 p2753 N93-24873
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region
10 p3022 N93-26641
Including maximum sustained wind speed in a time series model to forecast hurricane movement
[AD-A262510] 10 p3078 N93-27663
Development of a system for accurate forecasting of solar activity
[AD-A262450] 10 p3218 N93-27827
Renewable resources in the US electricity supply
[DE93-009492] 10 p3066 N93-28370
Using a neural network to estimate solvent consumption
[PB93-173110] 11 p3467 N93-28873
Fuzzy forecasting and decision making in short dynamic time series 11 p3513 N93-29541
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305

FORECASTS
U FORECASTING

FOREIGN POLICY
NT INTERNATIONAL COOPERATION
NT INTERNATIONAL RELATIONS
NT OUTER SPACE TREATY
FOREIGN TRADE
U INTERNATIONAL TRADE
FORENSIC SCIENCES
U LAW (JURISPRUDENCE)
FOREST FIRES
The Tapanui region of New Zealand: Site of a Tunguska around 800 years ago? 06 p1718 N93-19246
A prototype system for forest fire prevention and control 09 p2749 N93-24844
FOREST MANAGEMENT
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
A method for estimating the phytomass of a tropical forest region through the use of orbital data
[INPE-5320-PRE/1717] 06 p1567 N93-19645
Remote sensing data application on forests in Okinawa Islands focusing on mangrove forests
07 p1978 N93-21543
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
The Swedish ISY projects: A joint national contribution
08 p2366 N93-23807
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and naturel environment
08 p2367 N93-23812
Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817
The national parks of Bavarian Forest and Sumava: A Landsat TM perspective on the structure and dynamics of the largest woodland of Central Europe
09 p2748 N93-24837
Application of photographic remote sensing data from space for information about forests
09 p2748 N93-24838
The ESA ISY initiatives for forest inventory in Europe
09 p2748 N93-24840
Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842
The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845
Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846
Swedish forest information atlas
09 p2749 N93-24847
Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862
Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agricultural fields and forests
[BCRS-92-06] 11 p3460 N93-29320
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166
FORESTS
NT RAIN FORESTS
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Radiative transfer theory for polarimetric remote sensing of pine forest 03 p0633 N93-13085
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 4: Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios
[DE93-001599] 05 p1204 N93-17344
Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431
Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data
07 p1955 N93-21583
Rate of heating of the forest interior
[INPE-5235-RPQ/647] 07 p1979 N93-21648
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Monitoring of growth environment of forest
08 p2336 N93-22135
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
On regional surface fluxes over partly forested areas
[MPIM-82] 08 p2397 N93-23858
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
The extent and status of mangroves in Mombasa district, Kenya: A case study based on remote sensing
09 p2746 N93-24826
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Scale dependence in the reflectance of deciduous woodland: Evidence from a helicopter-mounted spectroradiometer 09 p2752 N93-24865
Response and feedbacks of forest ecosystems to global climate change
[PB93-167252] 09 p2767 N93-26510
EMAP monitor: February 1993 edition
[PB93-163020] 10 p3067 N93-26632
Southern global change program. Determining the relationships between air pollutants, climate change, and southern forests
[PB93-176246] 10 p3069 N93-27410
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Recording of forest surface in SAR-images with statistical methods in areas of pronounced relief
11 p3457 N93-28920
Forest examination with polarimetric radar image data
11 p3457 N93-28921
Atmospheric correction of LANDSAT-TM-data for forest inventory 11 p3459 N93-28929
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
FORGING
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
FORKS
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
FORM
U SHAPES
FORM FACTORS
TRASYS form factor matrix normalization
03 p0585 N93-13391
Semi-leptonic decays of D-mesons in lattice QCD
[PREPRINT-808] 07 p2062 N93-20905
Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
Meson form-factors and wave-functions with Wilson fermions
[DE93-003859] 08 p2479 N93-22542
B(sub c) decays
[SSCL-PREPRINT-774] 10 p3132 N93-27638
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
FORM PERCEPTION
U SPACE PERCEPTION
FORMALDEHYDE
Theoretical characterization of the reaction CH3 +OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels
05 p1107 N93-17408
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475
FORMALISM
Local-equilibrium formalism applied to mechanics of solids
[DE92-016852] 01 p0170 N93-10787
Theory of the ion-channel laser
03 p0607 N93-13777
Formal aspects of human-computer interaction
03 p0679 N93-13909
Mission critical system development: Design views and their integration
[AD-A255498] 04 p0940 N93-14644
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
From data structure to process structure
[MEMO-INF-91-38] 04 p0946 N93-15077
Grammatical trigrams: A probabilistic model of link grammar
[AD-A256365] 04 p0947 N93-15206
Datatype laws without signatures
[CWI-CS-R9133] 05 p1268 N93-16851
Modal logic and attribute value structures
[LP-92-02] 05 p1273 N93-17716
Modal frame classes revisited
[ML-91-12] 06 p1643 N93-17869
Formal development of Ada programs using Z and Anna: A case study
[AD-A235698] 06 p1623 N93-18847
Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315
Formal specification and timing analysis of high-integrity real-time systems
[REPT-92-041] 07 p2028 N93-21185
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
How far we are from the complete knowledge: Complexity of knowledge acquisition in Dempster-Shafer approach
[NASA-CR-192944] 09 p2874 N93-25139
Monte-Carlo methods make Dempster-Shafer formalism feasible
[NASA-CR-192945] 09 p2828 N93-25140
Neural networks: What non-linearity to choose
[NASA-CR-192948] 09 p2819 N93-25197
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887

Description of an adder board
[TR-92-09] 10 p3027 N93-27904
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions
10 p3204 N93-28081
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565

FORMAT
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
Conversion of IRAMMP data to HDF format
[AD-A256515] 04 p1008 N93-15393
Output data formatter for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4432] 04 p0871 N93-15529
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
The df: A proposed data format standard
[NASA-TM-4467] 08 p2430 N93-22810

FORMATES
MHD seed recovery/regeneration
[DE93-000904] 05 p1312 N93-17347
MHD seed recovery/regeneration, phase 2
[DE93-006008] 08 p2493 N93-22769

FORMATION HEAT
U HEAT OF FORMATION

FORMIC ACID
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250668] 02 p0253 N93-12267

FORMING TECHNIQUES
NT CASTING
NT CENTRIFUGAL CASTING
NT COLD ROLLING
NT COLD WORKING
NT ELECTROFORMING
NT EXPLOSIVE FORMING
NT EXTRUDING
NT FORGING
NT HOT WORKING
NT INJECTION MOLDING
NT INVESTMENT CASTING
NT METAL SPINNING
NT PRESSING (FORMING)
NT PROPELLANT CASTING
NT PULTRUSION
NT RESIN TRANSFER MOLDING
NT ROLL FORMING
NT SAND CASTING
NT SLIP CASTING
NT STAMPING
Superplastic forming of ceramic insulation
02 p0228 N93-12452
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Large plastic deformations by sequential limit analysis: A finite element approach with applications in metal forming 04 p0899 N93-14471
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
INEL spray-forming research
09 p2658 N93-25562
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
Near net shape processing: A necessity for advanced materials applications 11 p3290 N93-30949
Thermoforming from a systems viewpoint
11 p3293 N93-30967

FORTRAN
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
Interfacing Matlab and software written in other languages
[NPL-DITC-200/92] 02 p0412 N93-11688
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
ADIFOR: A FORTRAN system for portable automatic differentiation
[DE92-040743] 05 p1239 N93-16588
An algebraic foundation for FORTRAN 90 communication intrinsics
[DE92-040393] 05 p1269 N93-16990
Automatic analysis and transformation of FORTRAN programs using a typed functional language
[INRIA-RR-1518] 06 p1615 N93-17838
Design of a laboratory computer interface
[AD-A259126] 07 p2023 N93-20594
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
Deterministic parallel FORTRAN
[DE93-008665] 09 p2816 N93-25522
EnviroNET 09 p2886 N93-26398
NSWC library of mathematics subroutines
[AD-A261511] 09 p2884 N93-26575
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
Software engineering 12 p3794 N93-32154
High performance FORTRAN without templates: An alternative model for distribution and alignment
[NASA-CR-191451] 12 p3792 N93-32323

FORWARD LOOKING INFRARED DETECTORS
U FLIR DETECTORS

FORWARD SCATTERING
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
Forward-scatter radiant mapping
06 p1697 N93-19178
New x ray technology for the detection of explosives
07 p1767 N93-21880
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887

FOSSIL FUELS
NT COAL
NT CRUDE OIL
NT NATURAL GAS
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
Trend survey of the global environment adaptation type industry technology
[DE93-781442] 10 p3066 N93-28435

FOSSIL METEORITE CRATERS
U FOSSILS
U METEORITE CRATERS

FOSSILS
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881

FOULING
NT ANTIFOULING
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000

FOUNDRIES
Application of hardness testing in foundry processing operations: A university and industry partnership
11 p3292 N93-30961

FOUR BODY PROBLEM
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915

FOUR-WAVE MIXING
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
High-resolution resonant degenerate 4-wave mixing spectroscopy
[DE92-012146] 03 p0538 N93-13234
Phase conjugation using CO2 lasers
03 p0607 N93-13812
Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Perturbative nearly-degenerate four-wave mixing lineshapes in gases
[DE93-002673] 07 p1850 N93-21490
Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing
[DE93-006411] 08 p2419 N93-24028

FOURIER ANALYSIS
NT FOURIER SERIES
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
Fixed points in spectral complexity
[AD-A256729] 05 p1263 N93-16068
Structure in gamma ray burst time profiles: Statistical Analysis 1 05 p1344 N93-17308
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
A frequency generating source: Frequency synthesizers 09 p2693 N93-25041
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586

FOURIER SERIES
A Fourier series method for polygonal domains: Large element computation for plates
03 p0627 N93-13484
Ocean wave detection using satellite altimetry
04 p0906 N93-14839

FOURIER TRANSFORMATION
NT FAST FOURIER TRANSFORMATIONS
IFTS: The Imaging Fourier Transform Spectrometer
01 p0014 N93-10933
Polarimetry with an imaging FTS
01 p0014 N93-10934
Fourier transform spectrometer processing: Data reduction and processor design
01 p0014 N93-10935
First results of an imaging FTS with a NICMOS camera 01 p0086 N93-10936
The imaging Fourier transform spectrometer optical design 01 p0159 N93-10951
The imaging Fourier transform spectrometer: Performance and tolerance analysis
01 p0086 N93-10952
Fringe analysis of in-plane displacements on high speed rotating components
[PNR-90920] 02 p0334 N93-11022
The tomographic formulation of spotlight mode synthetic aperture radar extended to three dimensional targets
[DE92-013666] 02 p0280 N93-11234
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
Phase conjugation using CO2 lasers
03 p0607 N93-13812
Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435
Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Radial basis functions: A class of grid-free, scattered data approximations
[DE92-012675] 05 p1263 N93-15921
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005

The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491
Microcomputer simulation of a fourier approach to optical wave propagation
[AD-A257598] 05 p1305 N93-17796
One and two dimensional discrete wavelet transforms
[AD-A257981] 06 p1502 N93-18241
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
Wavelet image analysis 06 p1628 N93-18506
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads
09 p2726 N93-25533
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Ultra-wideband radar transient detection using time-frequency and wavelet transforms
[AD-A262154] 10 p3026 N93-27549
Influence of stochastic contact resistance on coupling losses
[MEMO-1067] 10 p3028 N93-28076
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
An astrophysics data program investigation of spatial structure of supernova remnants
[NASA-CR-193104] 10 p3205 N93-28409
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Wavelet transform techniques and signal analysis
[DE93-007919] 11 p3382 N93-29244
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
Application of the Fourier transform to short antennas
11 p3398 N93-30750
IR single-mode fiber optics for double Fourier interferometry 12 p3824 N93-31784
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

FOVEA

Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163

FRACTALS

Box counting multifractal analysis
[AD-A253960] 01 p0144 N93-10419
Fractals and multifractals in fracture
01 p0050 N93-10497
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10496
Multifractal analysis at negative q
[AD-A254370] 02 p0413 N93-12159
Recursive construction of fractals
[ISBN-951-41-0689-X] 03 p0697 N93-13271
Features of vorticity in fully turbulent flows
03 p0583 N93-13334
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
The use of chaos metrics to analyze Lagrangian particle diffusion models
[AD-A256142] 04 p0967 N93-14255
Escape-time visualization method for language-restricted iterated function systems
04 p0956 N93-15558
The object instancing paradigm for linear fractal modeling 04 p0956 N93-15559
Study of precision accelerometers and fractal aggregates in microgravity, phase 2
[CTN-93-60616] 05 p1130 N93-16426
Study of precision accelerometers and fractal aggregates in microgravity
[CTN-93-60622] 05 p1168 N93-16935
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Peano-like dynamics as a model for strange nonchaotic behaviour 07 p1933 N93-20661
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Agglomeration of fractals in simulated reduced gravity
07 p1806 N93-21093
Fractal theory for large lacunar antenna arrays
08 p2269 N93-23624
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda
08 p2361 N93-23772
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Detecting the scale and resolution effects in remote sensing and GIS 09 p2756 N93-25707
From fractals to wormholes via string theory
09 p2871 N93-25742
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
Multifractal analysis of radio lobes
11 p3380 N93-28689
Biharmonic pattern selection
[DE93-608186] 12 p3803 N93-31303
Fractal image coding techniques and contraction operators
[REPT-92-93] 12 p3789 N93-31632
Fractal coding of monochrome images
[REPT-92-99] 12 p3790 N93-31656
Desktop chaotic systems: Intuition and visualization
[NASA-TM-106258] 12 p3808 N93-31647
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

FRACTIONATION

NT CHEMICAL FRACTIONATION
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud
01 p0109 N93-10135
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Acoustophoresis separation method
[NASA-CASE-LAR-13388-2] 07 p1846 N93-20570
First ionization potential fractionation
12 p3878 N93-31411

FRACTOGRAPHY

Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054
Multiple-site-damage fatigue of riveted joints
[LR-679] 05 p1185 N93-16285
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17562
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Fracture properties of 7010 and 7050 aluminium alloys under inert and aggressive environmental conditions
[DLR-FB-91-35] 08 p2228 N93-22658
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
AGARD Engine Disc Cooperative Test Programme
[AGARD-R-766-ADD] 12 p3681 N93-31741
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings
12 p3681 N93-31742
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33
12 p3681 N93-31744
Conclusions and recommendations
12 p3682 N93-31749

FRACTURE MECHANICS

A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure
01 p0106 N93-10115
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Enriched element anaiysis of bimaterial interface cracks 01 p0047 N93-10484
Dynamic crack division in brittle solids
01 p0048 N93-10489
Stress patterns in the dynamic tear test
01 p0049 N93-10491
Fractals and multifractals in fracture
01 p0050 N93-10497
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction
01 p0054 N93-10516
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
Fracture mechanics of model fiber composites
02 p0237 N93-11247
Fatigue crack closure: A review
[RAE-TR-90046] 02 p0335 N93-11369
A consistent cracked bar vibration theory
02 p0339 N93-12000
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser
02 p0319 N93-12037
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191246] 03 p0624 N93-13029
Proceedings of the Tenth Symposium on Energy Engineering Sciences: Synergism of Analysis, Modeling, and Experiment
[DE92-018777] 03 p0638 N93-13069
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Fatigue in single crystal nickel superalloys
[AD-A256095] 04 p0844 N93-14264
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372

Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625
Spacecraft sustained load fracture control
05 p1077 N93-15724
Composite material damage and fracture models for numerical simulations in support of fracture control
05 p1080 N93-15743
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures
05 p1080 N93-15744
Damage tolerance checking on Ni/H2 battery cells
05 p1081 N93-15754
Testing and characterisation of metallic materials for structural analysis of high temperature components
05 p1082 N93-15757
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Hermite interpolation algorithm for 2D fracture mechanics
[DE92-041266] 05 p1184 N93-16097
Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260
Multiple-site-damage fatigue of riveted joints
[LR-679] 05 p1185 N93-16285
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
A preliminary examination of Y 1 (a proprietary thin-film ferroelectric produced by Symetrix Corporation)
[AD-A255692] 05 p1146 N93-16395
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606
Fatigue in single crystal nickel superalloys
[AD-A258038] 05 p1117 N93-17704
A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
Some remarks upon fracture mechanics
[VTT-PUBS-100] 06 p1556 N93-18700
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Mathematical modelling of materials
06 p1557 N93-18753
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Elevated temperature crack growth
[NASA-CR-189191] 07 p1920 N93-19992
Fatigue Design 1992, volume 2
[VTT-SYMPOSIUM-131-VOL-2]
07 p1921 N93-20330
Fatigue design of earthmoving machines
07 p1924 N93-20350
Thermal plastic strain fatigue life of the roll
07 p1924 N93-20354
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684
Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700
Modeling the growth and interaction of fractures
[NASA-CR-192185] 07 p1945 N93-20733
Fracture-mechanical analysis of the residual service life of the welded main girders of the highway bridges of Ruedersdorf 07 p1949 N93-21329
Buckling and post-buckling behavior of a delamination in a carbon-epoxy laminated structure: Experiments and modelling 07 p1841 N93-21514
Edge delamination of composite laminates
07 p1842 N93-21519
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779
Experimental investigations of the fracture toughness enhancement associated with shailow flaws
[DE93-003100] 08 p2322 N93-22412
CREEPSIM-2: A software package for numerical integration of 1st order differential equations
[NPL-DMM(A)-35] 08 p2435 N93-22452
The collaborative program of research in engineering sciences
[DE93-005126] 08 p2257 N93-22768
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191098] 08 p2326 N93-23053
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Damage tolerance approach
[ETN-93-93700] 08 p2332 N93-24486
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Boundary element method
[ETN-93-93699] 08 p2333 N93-24593
Analysis of matrix damage in unidirectional composites 09 p2634 N93-25338
Numerical investigations on fracture behavior of ductile materials 09 p2725 N93-25411
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Low-velocity impact of composite sandwich plate
09 p2637 N93-25695
Development and application of an advanced ductile fracture mechanics methodology
09 p2727 N93-25718
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Interactive reliability model for whisker-toughened ceramics
[NASA-CR-191048] 10 p3002 N93-27006
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
The fatigue behaviour of T- and X-joints made of square hollow sections
[ETN-93-93598] 10 p3058 N93-27872
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
The environmental and impact resistance of adhesively bonded thermoplastic fibre composites
[AD-A263202] 10 p2992 N93-28383
Near threshold fatigue testing
[DE93-009069] 10 p3061 N93-28432
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Dislocation roles in energetic crystal responses
11 p3348 N93-30086
Damage growth in composite propellants
11 p3348 N93-30088
Interfacial melting in cracked explosives
11 p3349 N93-30089
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
A ceramic fracture model for high velocity impact
[AD-A264728] 11 p3454 N93-30545
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874
Fracture of glass 11 p3293 N93-30969
Probabilistic fracture finite elements
12 p3695 N93-31571
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center
12 p3696 N93-31574
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739
Fractographic and microstructural analysis of fatigue crack growth in Ti-6Al-4V fan disc forgings
12 p3681 N93-31742
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743
Crack growth prediction results
12 p3682 N93-31748
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

FRACTURE RESISTANCE
U FRACTURE STRENGTH

FRACTURE STRENGTH

Dynamic measurement of the J integral in ductile metals using the optical method of caustics
01 p0049 N93-10492
On the development of a new fracture toughness procedure 01 p0059 N93-10541
Strength-toughness requirements for thick-walled high pressure vessels
[AD-A253756] 01 p0095 N93-10750

Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy
[FFA-TN-1992-04] 02 p0237 N93-11128
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Slow crack growth in vacuum
02 p0338 N93-11909
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Results of ASTM round robin testing for mode 1 interlaminar fracture toughness of composite materials
[NASA-TM-104222] 03 p0532 N93-13428
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model
03 p0629 N93-13811
Fracture analyses of thin films, interfaces, and joints
04 p0897 N93-14215
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Characterizing longitudinal splitting and delamination fracture toughness of composites
04 p0831 N93-14607
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress
[DE92-041375] 05 p1185 N93-16270
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
Properties and uses of concrete, appendix B
05 p1128 N93-16904
Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002
Microstructure/mechanical-property relationships and R-curve behavior in Si3N4/Si3N4(w) composites
[DE92-041096] 05 p1098 N93-17004
Spacecraft sustained load fracture control
[NLR-TP-91093-U] 05 p1088 N93-17537
Damage tolerance behaviour of aluminium-lithium sheet alloys
[NLR-TP-91244-U] 05 p1117 N93-17540
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Ductility and fracture in L1(sub 2) intermetallic alloys
[DE93-001644] 06 p1487 N93-18534
Characterization and defect analysis of high temperature aluminum-based metal matrix composites
06 p1480 N93-19060
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
Interface fracture in composite materials
06 p1560 N93-19381
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
Predicting the failure load of adhesive joints
07 p1932 N93-20655
Fracture toughness using circular discs
07 p1935 N93-20677
Fatigue Design 1992, volume 1
[VTT-SYMPOSIUM-130-VOL-1] 07 p1947 N93-21318
Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322
For a better fatigue strength of welded steel structures
07 p1949 N93-21333
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel
07 p1950 N93-21335
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Mode 2 damage development in carbon fibre reinforced plastics 07 p1842 N93-21523
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate
[VTT-PUBS-105] 08 p2208 N93-22815
Synthesis, processing, and properties of Ti5Si3
[DE93-004465] 08 p2229 N93-22820
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009
08 p2231 N93-23588
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
Development and application of an advanced ductile fracture mechanics methodology
09 p2727 N93-25718
Models of crack growth along polymer interfaces
09 p2728 N93-25750
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
Improved fatigue life for moorings
[PB93-161198] 09 p2730 N93-26320
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390
Approximate techniques for predicting size effects on cleavage fracture toughness (J(sub c))
[AD-A261591] 09 p2731 N93-26516
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Considerations concerning fatigue life of metal matrix composites
[NASA-TM-106144] 10 p3056 N93-27009
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Factors influencing the interlaminar fracture toughness and its evaluation in composites
[FFA-TN-1991-34] 11 p3451 N93-29076
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3296 N93-29451
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials
11 p3303 N93-30845
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846
A miniature fatigue test machine
11 p3291 N93-30956
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089
Probabilistic fracture finite elements
12 p3695 N93-31571
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739
Evaluation of the chevron notch fracture toughness test for brittle materials
[NPL-DMM(A)-72] 12 p3742 N93-32384

FRACTURE TOUGHNESS
U FRACTURE STRENGTH

FRACTURES (MATERIALS)
NT CRACK TIPS
NT CRACKS
NT MICROCRACKS
NT SHORT CRACKS
NT SURFACE CRACKS
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203
Ductile fracture process of discontinuous fiber reinforced composites
[DE92-016298] 03 p0531 N93-13264

Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Characterizing longitudinal splitting and delamination fracture toughness of composites 04 p0831 N93-14607
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
Training, muscle fatigue and stress fractures [AD-A255277] 04 p0935 N93-15006
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission [AD-A257102] 05 p1111 N93-16114
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
The predicting crack growth for mixed mode fracture under biaxial loads 07 p1922 N93-20336
Modeling the growth and interaction of fractures [NASA-CR-192185] 07 p1945 N93-20733
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry [DE93-007971] 08 p2234 N93-24566
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites [AD-A261483] 09 p2641 N93-26355
Environmental embrittlement of binary and Zr-doped Ni3Al [DE93-008575] 11 p3321 N93-28679
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels [DE93-006206] 11 p3454 N93-30213

FRACTURING
NT CRACKING (FRACTURING)
NT CRUSTAL FRACTURES
NT STRESS CORROSION CRACKING
Fractals and multifractals in fracture 01 p0050 N93-10497
Strength-toughness requirements for thick-walled high pressure vessels [AD-A253756] 01 p0095 N93-10750
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite [NASA-TM-105780] 02 p0333 N93-10967
Ceramic component reliability with the restructured NASA/CARES computer program [NASA-TM-105856] 02 p0334 N93-11004
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects [AD-A253560] 02 p0259 N93-11850
Slow crack growth in vacuum 02 p0338 N93-11909
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics [DE92-016395] 02 p0271 N93-12123
Notch dimensions for three-point bend fracture specimens based on compliance analyses [AD-A254641] 03 p0620 N93-12580
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel [AD-A254617] 03 p0541 N93-12616
Fatigue in single crystal nickel superalloys [AD-A254704] 03 p0541 N93-12746
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics [AD-A254385] 03 p0623 N93-12863
Fiber optic sensors for static fracture studies and dynamic wave propagation problems 03 p0709 N93-12984
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Structural verification for GAS experiments 03 p0511 N93-13175
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
On grain boundary transport of hydrogen and mechanism of hydrogen-induced intergranular fracture 03 p0544 N93-14047
Fracture analyses of thin films, interfaces, and joints 04 p0897 N93-14215
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles [AD-A255790] 04 p0898 N93-14419
Finite element analysis of elastic fracture under unsteady translational and rotational loading 04 p0899 N93-14469
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder [AD-A257303] 05 p1184 N93-16082
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys [AD-A258121] 06 p1485 N93-18007
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys [NASA-CR-191932] 06 p1674 N93-18593
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems [AD-A258913] 06 p1481 N93-19357
Interface fracture in composite materials 06 p1560 N93-19381
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident? 06 p1423 N93-19664
Effect of microstructure on the strength and fracture energy of bimaterial interfaces [AD-A259181] 07 p1921 N93-20271
Fatigue in single crystal nickel superalloys [AD-A259191] 07 p1856 N93-20275
Modeling the growth and interaction of fractures [NASA-CR-192185] 07 p1945 N93-20733
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders [NASA-CR-192618] 07 p1945 N93-20915
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
The behavior of intermetallic compounds at large plastic strains [DE93-003820] 07 p1857 N93-21772
Fracture at Cu/sapphire interfaces [DE93-003816] 07 p1857 N93-21779
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites [DE93-004063] 07 p1844 N93-21842
A computational study of the time dependent crack growth process [DE93-004397] 08 p2324 N93-22751
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures [DE93-006745] 08 p2325 N93-22896
Role of interfaces on the ductile fracture process of discontinuous fiber reinforced composites [DE93-004464] 08 p2209 N93-22973
J-integral of circumferential crack in large diameter pipes [DE93-003708] 08 p2326 N93-23050
Analysis of delamination related fracture processes in composites [NASA-CR-192632] 08 p2209 N93-23073
An investigation into the multiaxial fatigue behavior of IMI 829 titanium alloy 08 p2327 N93-23182
Consideration of history dependent damage in creep crack growth [DE93-004398] 08 p2328 N93-23317
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009 08 p2231 N93-23588
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys [DE93-005039] 08 p2232 N93-23980
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials 08 p2214 N93-24181
Fracture of an elliptical inclusion and its implications for the properties of short fiber composites 09 p2634 N93-25333
Three-dimensional boundary element analysis of contact and fracture problems 09 p2725 N93-25335
Room temperature fracture of FeCo [DE93-008266] 09 p2650 N93-25519
Continuum and micromechanics treatment of constraint in fracture [AD-A260927] 09 p2727 N93-25647
Development and application of an advanced ductile fracture mechanics methodology 09 p2727 N93-25718
Crack tip fields in ductile crystals and bicrystals 09 p2866 N93-25749
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites 09 p2638 N93-25760
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites [AD-A261483] 09 p2641 N93-26355
Defect initiation/growth and energy dissipation induced by deformation and fracture [AD-A261703] 09 p2869 N93-26385
Kinetics and microscopic processes of long term fracture in polyethylene piping materials [PB93-167146] 10 p3057 N93-27418
Fatigue in single crystal nickel superalloys [AD-A262126] 10 p2999 N93-27674
Crack propagation in NiAl and FeAl [DE93-007244] 10 p3061 N93-28313
Effect of fracture surface roughness on shear crack growth [DE93-011047] 10 p3061 N93-28363
Transformation plasticity in ductile solids [DE93-008636] 11 p3321 N93-28902
Factors influencing the interlaminar fracture toughness and its evaluation in composites [FFA-TN-1991-34] 11 p3451 N93-29076
Mechanisms of fracture and creep of structural alloys [AD-A263108] 11 p3324 N93-29799
Three-dimensional elastic stress analysis in materials with many inhomogeneities [AD-A263736] 11 p3453 N93-29855
A ceramic fracture model for high velocity impact [AD-A264728] 11 p3454 N93-30545
Fracture of glass 11 p3293 N93-30969

FRAGMENTATION
Airblast damage from small asteroids [DE92-017834] 03 p0749 N93-12956
Data fragmentation for parallel transitive closure strategies [MEMO-INF-92-17] 04 p0959 N93-15142
Ecological implications of landscape fragmentation [DE92-019186] 04 p0911 N93-15273
Numerical and experimental studies of high-velocity impact fragmentation [DE92-041145] 05 p1183 N93-15972
A dynamic study of fragmentation and energy loss during high velocity impact [NASA-CR-184476] 05 p1186 N93-16696
Fragmentation and densities of meteoroids 06 p1700 N93-19118
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records 06 p1703 N93-19137
Velocity distribution of fragments of catastrophic impacts 06 p1719 N93-19252
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions [DE93-007725] 09 p2848 N93-25366
Photoexcitation of carbon fullerenes [AD-A260739] 09 p2849 N93-25644
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models [NASA-TM-4462] 10 p3138 N93-27110
Optical model calculations of 14.6A GeV silicon fragmentation cross sections [NASA-TM-4461] 10 p3138 N93-27111
Catastrophic collisions: Laboratory impact experiments, hydrocode simulations, and the scaling problem 11 p3635 N93-30411

FRAGMENTS
Numerical and experimental studies of high-velocity impact fragmentation [DE92-041145] 05 p1183 N93-15972
Injecting asteroid fragments into resonances 06 p1705 N93-19152
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions [DE93-007725] 09 p2848 N93-25366
Amino acid sequences for the binding regions in serum albumin proteins [NASA-CASE-MFS-28402-1] 11 p3491 N93-28952

FRAME PHOTOGRAPHY
Electro-optic frame photography with pulsed ruby illumination [DE93-005819] 08 p2306 N93-22327

FRAMES
NT AIRFRAMES
NT CHASSIS
NT UNDERCARRIAGES
Nonlinear analysis of Ariane 5 engine frame [LR-678] 05 p1074 N93-16284
An efficient method for the reliability analysis of geometric nonlinear frame structures 07 p1931 N93-20651
Multimodal optimization of vibrating space frames 07 p1931 N93-20652
Dynamic response and stability of semi-rigid frames 08 p2327 N93-23199
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357

FRAMES (DATA PROCESSING)
A framework for corporate implementation of object-oriented software development
[AD-A258717] 07 p2032 N93-20383
FRAMING CAMERAS
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
FRANCE
Post-war regional planning: The French silicon valley
[RSRE-MEMO-4282] 02 p0472 N93-10976
Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953
Propulsion and detonics research in France
11 p3344 N93-30070
French aerospace equipment
12 p3883 N93-31734
FRAUNHOFER LINES
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Advanced atomic filters 06 p1664 N93-18468
Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering
[AD-D015579] 07 p1910 N93-20770
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
FRAUNHOFER REGION
U FAR FIELDS
FREDHOLM EQUATIONS
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437
A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
FREDHOLM OPERATORS
U FREDHOLM EQUATIONS
U OPERATORS (MATHEMATICS)
FREE BOUNDARIES
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
Planar reorientation of a free-free beam in space using embedded electromechanical actuators
11 p3280 N93-29993
FREE CONVECTION
NT RAYLEIGH-BENARD CONVECTION
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
One-dimensional transient finite difference model of an operational salinity gradient solar pond
03 p0586 N93-13400
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere
03 p0666 N93-13786
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Fundamental studies of fluid mechanics and stability in porous media
[DE93-002519] 05 p1163 N93-17046
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating
08 p2247 N93-22835
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858
Thermal convection in rotating systems and the band structure of the major planets 08 p2164 N93-24393
A thermal type probe for low velocity measurements
08 p2165 N93-24397
Combined forced and free convection in a curved duct
10 p2937 N93-27461
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
FREE ELECTRON LASERS
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
UV/XUV FEL storage ring and linac
[AD-A253307] 01 p0089 N93-10697
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Theory for a high power free electron laser and tactical applications
[AD-A255161] 02 p0323 N93-12405
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
The sapphire Cerenkov laser
03 p0605 N93-13365
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Special MAFIA postprocessors for the analysis of RF structures
[DE92-040248] 03 p0565 N93-13510
Theory of the ion-channel laser
03 p0607 N93-13777
Three-dimensional guiding effects in a free-electron laser 04 p0883 N93-14125
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Condensed matter research using the UCSB FEL
[DE92-040560] 04 p0887 N93-15347
High-brightness linac for the Advanced Free-Electron Laser Initiative at Los Alamos
[DE92-040213] 04 p0887 N93-15417
Sensitivity studies of a standing-wave free-electron laser
[DE93-000575] 05 p1170 N93-15696
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
Design of a compact application-oriented free-electron laser
[DE92-040391] 05 p1172 N93-16183
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
Common analysis of the Relativistic Klystron and the Standing-Wave Free-Electron Laser two-beam accelerator
[DE92-041205] 05 p1173 N93-16529
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Use of the CEBAF accelerator for IR and UV free electron lasers
[CEBAF-PR-92-023] 06 p1660 N93-18768
An inverse free electron laser accelerator experiment
[DE93-003495] 06 p1542 N93-19506
Physically transparent formulation of a free-electron laser in the linear gain regime
[DE93-002577] 06 p1542 N93-19626
Suppression of mode-beating in a saturated hole-coupled FEL oscillator
[DE93-002554] 06 p1542 N93-19745
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
Configuration and construction of a free electron laser in near infrared at the superconducting electron accelerator in Darmstadt (Germany)
[ETN-93-93412] 07 p1911 N93-21175
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
An infrared free electron laser system for the proposed Chemical Dynamics Research Laboratory at LBL based on a 500 MHz superconducting linac
[DE93-004723] 08 p2307 N93-22346
Design and manufacture of optical system for use in UV lithography with the free electron laser
[DE93-005440] 08 p2307 N93-22539
Chaotic dynamics in accelerator physics
[DE93-004600] 08 p2515 N93-22766
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
High-resolution free-electron laser spectroscopy
08 p2309 N93-24191
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases
09 p2712 N93-25280
Electron-beam-pumped recombination lasers
09 p2712 N93-25344
Laser field assisted photoemission using femtosecond laser pulses
[DE93-007277] 09 p2712 N93-25378
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Further time-resolved electron-beam characterizations with optical transition radiation
[DE93-007891] 10 p3131 N93-26625
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory
[DE93-007274] 10 p3048 N93-28355
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Ultraviolet free electron laser facility preliminary design report
[DE93-009360] 11 p3435 N93-28594
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
Nonlinear mode coupling in free electron lasers
[AD-A263999] 11 p3439 N93-29883
Experimental test of hole-coupled FEL resonator designs using a CW-HeNe laser
[DE93-010439] 11 p3440 N93-30530
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

FREE ENERGY
NT GIBBS FREE ENERGY
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436
Magnetic properties of high-T(sub c) superconductors
03 p0726 N93-13905
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Transformation toughening
[DE93-011805] 11 p3321 N93-28631
A one-dimensional continuum model for shape-memory alloys
[AD-A262505] 11 p3321 N93-28656
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517
Effective interactions between concentration fluctuations and charge transfer in chemically ordering liquid alloys
[DE93-606724] 11 p3327 N93-30778
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093

FREE FALL
Boundary-layer control on a freely falling sphere
05 p1161 N93-16819
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat
06 p1424 N93-19671
Capabilities and constraints of NASA's ground-based reduced gravity facilities 07 p1819 N93-20184
High-pressure droplet combustion studies
07 p1854 N93-20216

FREE FLIGHT
Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649

FREE FLOW
Hypersonic inlet efficiency revisited
01 p0005 N93-10012
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow
03 p0495 N93-13746
Bypass transition in compressible boundary layers
05 p1154 N93-15801
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
Prediction of vortex breakdown on a delta wing
10 p2936 N93-27459
Heat transfer with moderate free stream turbulence
11 p3254 N93-29936
The influence of variable flow velocity on unsteady airfoil behavior
[DLR-FB-92-22] 12 p3672 N93-31320
A continuation method for computing non-linear 3-D free surface flows
[DE93-008704] 12 p3727 N93-32175

FREE JETS
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum
04 p0884 N93-14141
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648

FREE MOLECULAR FLOW
Using NEKTON to solve systems of discrete Boltzmann equations
[DE92-018272] 02 p0303 N93-11799
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Hypersonic panel flutter in a rarefied atmosphere
[NASA-CR-4514] 10 p2929 N93-27084

FREE OSCILLATIONS
U FREE VIBRATION

FREE RADICALS
NT HYDROXYL RADICALS
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
An investigation of transient atmospheric inorganic peroxides: A theoretical and experimental study
04 p0912 N93-14117
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

FREE STREAM EFFECTS
U FREE FLOW

FREE STREAMS
U FREE FLOW

FREE VIBRATION
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials
01 p0045 N93-10470
Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
The free and forced vibrations of structures using the finite dynamic element method
03 p0630 N93-13935
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Transformation of energy and momentum due to Landau damping in time
[IPPCZ-316] 04 p0988 N93-14813
Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
On oscillatory motion of a spring-mass system subjected to piecewise constant forces 07 p1934 N93-20670
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Identification of delamination by eigenfrequency degradation: An inverse problem
07 p1843 N93-21526
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765

FREE-PISTON ENGINES
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters
[NASA-CR-189135] 04 p0891 N93-14916
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686

FREEDOM SPACE STATION
U SPACE STATION FREEDOM

FREEZE DRYING
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
Processing and fabrication of high temperature oxide superconductors
[AD-A258281] 06 p1671 N93-18125
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality
[AD-A263240] 11 p3494 N93-29620

FREEZING
NT ZONE MELTING
Developments in icing test techniques for aerospace applications in the RAE Pyestock (England) altitude test facility
[RAE-TM-P-1214] 02 p0207 N93-11485
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite
[AD-A262980] 11 p3298 N93-29425
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103

FREEZING POINTS
U MELTING POINTS

FREIGHT
U CARGO

FRENCH SATELLITES
NT POSEIDON SATELLITE
NT SPOT (FRENCH SATELLITE)

FRENCH SPACE PROGRAM
The SPOT program 08 p2360 N93-23766
The SPOT 4 satellite and beyond
08 p2360 N93-23767
The SPOT system development program: SPOT AVAL
08 p2360 N93-23769
French Mir missions 08 p2156 N93-24348

FRENKEL DEFECTS
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977

FREON
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846

FREQUENCIES
NT ACOUSTIC FREQUENCIES
NT AUDIO FREQUENCIES
NT BEAT FREQUENCIES
NT BROADBAND
NT C BAND
NT CARRIER FREQUENCIES
NT CYCLOTRON FREQUENCY
NT EXTREMELY HIGH FREQUENCIES

NT EXTREMELY LOW FREQUENCIES
NT EXTREMELY LOW RADIO FREQUENCIES
NT HIGH FREQUENCIES
NT LOW FREQUENCIES
NT MAXIMUM USABLE FREQUENCY
NT MICROWAVE FREQUENCIES
NT NYQUIST FREQUENCIES
NT PLASMA FREQUENCIES
NT RADIO FREQUENCIES
NT RESONANT FREQUENCIES
NT SUPERHIGH FREQUENCIES
NT ULTRAHIGH FREQUENCIES
NT VERY HIGH FREQUENCIES
NT VERY LOW FREQUENCIES

Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380

Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712

An EVACS simulation with nested transactions
[NASA-CR-190636] 02 p0412 N93-11717

Impact of finite frequency deviation on the performance of dual-filter heterodyne FSK lightwave systems
[AD-A247611] 02 p0448 N93-11892

Transducer circuit
[AD-D015376] 03 p0572 N93-13472

Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882

The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491

Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936

Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400

Acousto-optic frequency excision 06 p1523 N93-18460

An analysis of the structure of gamma ray burst time histories
[NASA-CR-191997] 06 p1746 N93-18583

Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877

Advanced air traffic management 08 p2107 N93-22571

Irregular media effects on radiowave signals used in navigation and positioning systems 08 p2266 N93-23606

Occultation of a compact radio source by Venus 09 p2676 N93-26107

Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431

Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641

A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732

The flight performance of the Galileo orbiter USO 11 p3386 N93-29603

Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866

Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179

FREQUENCY ANALYZERS

The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378

An investigation of dayside FTE's observed by the AMPTE-UKS satellite 12 p3858 N93-31709

FREQUENCY ASSIGNMENT

A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922

Airborne system for detection and location of radio interference sources 08 p2269 N93-23622

FREQUENCY BANDS

U FREQUENCIES

FREQUENCY CONTROL

NT AUTOMATIC FREQUENCY CONTROL

Quartz crystal resonators and oscillators for frequency control and timing applications: A tutorial, revision 5.2
[AD-A254892] 02 p0469 N93-12283

Broadband vibroacoustic frequency control via piezoelectric films
[ONERA-RT-8/3654-RY-010-R] 04 p0974 N93-15129

Improvement in the control aspect of laser frequency stabilization for SUNLITE project 05 p1175 N93-16798

Experimental results of the performance of the new phase and frequency controller 09 p2839 N93-25035

Controlling an optical frequency by a single ion 09 p2841 N93-25051

Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU] 10 p3048 N93-28132

Two-stage Doppler phasor corrected TCM/DMPSK for shadowed mobile satellite channels 11 p3373 N93-30333

FREQUENCY CONVERSION

U FREQUENCY CONVERTERS

FREQUENCY CONVERTERS

NT DOWN-CONVERTERS
NT FREQUENCY DIVIDERS
NT FREQUENCY MULTIPLIERS
NT FREQUENCY SYNTHESIZERS

Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883

Direct optical to microwave conversion
[RL-TR-91-375] 04 p0859 N93-14728

Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016

Frequency generation and synthesis in the DRSS 09 p2693 N93-25054

Negative Differential Resistance (NDR) frequency conversion with gain 10 p3017 N93-27766

Charge to frequency converter for ionization chambers belonging to the radiation protection system of AmPS/MEA
[DIGEL-1991-6] 11 p3577 N93-30837

FREQUENCY DISCRIMINATORS

Unequal stub length diplexing microwave frequency discriminator circuit
[AD-D015352] 02 p0288 N93-11051

On the definition and calculation of effective impedances and averaged boundary conditions with application to the analysis of high complexity frequency selective surfaces
[RSRE-MEMO-4518] 02 p0281 N93-11387

Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise 09 p2693 N93-24982

A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065

FREQUENCY DISTRIBUTION

NT KURTOSIS

CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4528] 02 p0315 N93-11388

New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334

High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353

Fixed and data adaptive kernels in Cohen's class of time-frequency distributions
[AD-A257979] 06 p1649 N93-18195

Detecting change as it occurs
[NASA-CR-191939] 06 p1574 N93-19484

An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960

Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706

Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023

Inverse sequential procedures for the monitoring of time series
[NASA-CR-192959] 09 p2765 N93-25666

Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872

Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315

System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195

Radiative modeling of solar prominences, two-dimensional transfer plus partial frequency redistribution 12 p3875 N93-31389

Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179

FREQUENCY DIVIDERS

Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563

High-speed, CMOS dual modulus frequency divider for RF frequency synthesis 11 p3359 N93-30245

FREQUENCY DIVISION MULTIPLE ACCESS

All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems 02 p0285 N93-12207

Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519

Comparison of multiple access techniques for bandwidth limited land-mobile satellite communications 11 p3370 N93-30314

FREQUENCY HOPPING

Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181

Frequency stability characterization of hopping sources and microprocessor-controlled frequency synthesis
[ISBN-0-315-60447-6] 08 p2286 N93-24616

Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882

Comparison of diversity combining, interleaving, and decoding techniques of a scintillated channel 11 p3362 N93-30266

Coarse synchronization in an EHF frequency-hopped satellite communications system 11 p3365 N93-30281

Coding for frequency hopped spread spectrum satellite communications 11 p3365 N93-30283

Temporal synchronization of frequency hopped DPSK 11 p3365 N93-30285

Performance of frequency hopped M-ary FSK in Rayleigh fading and partial-band jamming 11 p3368 N93-30303

FREQUENCY MEASUREMENT

Auditory perception
[AD-A255061] 02 p0385 N93-12469

Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878

Measurements of the cosmic microwave background temperature at 1.47 GHz
[DE93-000587] 05 p1400 N93-17379

Development of a measurement of upper MID frequency errors on arbitrary grazing incidence optics
[NASA-CR-191333] 07 p2067 N93-20731

Hydrogen masers for space 09 p2716 N93-24980

The measurement of the resonant frequency of quartz crystal units: An ongoing saga 09 p2833 N93-24996

The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991 09 p2835 N93-25006

Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020

Time stability: An improvement of the multi-variance method for the oscillator noise analysis 09 p2839 N93-25036

Very wide bandwidth HF crystal filters 09 p2693 N93-25039

Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049

Designing for frequency and time metrology at the 10 to the minus 18 power level 09 p2842 N93-25059

Time generation and distribution system for a military national synchronization 09 p2842 N93-25060

Progress towards laboratory frequency standards for the optical communication band's 09 p2687 N93-25069

Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084

FREQUENCY MODULATION

NT FREQUENCY SHIFT KEYING

Short-range radar system
[AD-D015339] 02 p0278 N93-11044

A study of the CO2 laser near threshold 02 p0316 N93-11720

RF voltage modulation at discrete frequencies with applications to crystal channeling extraction
[DE92-015567] 03 p0707 N93-13235

EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183

Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048

An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592

Modulation behavior of semiconductor lasers with optical feedback
[ETN-93-92567] 07 p1911 N93-20881

A hybrid voice/data modulation for the VHF aeronautical channels 08 p2106 N93-22567

A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379

A current assessment of single site locating technology 08 p2267 N93-23608

High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
Laser radiation detection system
[AD-D015724] 11 p3438 N93-29287
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

FREQUENCY MULTIPLIERS
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Space-qualified submillimeter radiometer
[NASA-CR-190886] 03 p0603 N93-13709
Conceptualization of a GaAs field effect transistor frequency tripler (2.5-7.5 GHz) for load use in communication satellites 04 p0807 N93-14934
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves
10 p3012 N93-27737
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Monolithic millimeter-wave diode grid frequency multiplier arrays 10 p3019 N93-27775
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276

FREQUENCY RANGES
Inverse Synthetic Aperture Radar
03 p0564 N93-13058
Generalised damping in fluid structure interaction analyses using modal synthesis
05 p1082 N93-15763
Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
Discrete orthogonal wavelets
[REPT-91-45] 07 p2052 N93-20862
Propagation characteristics of the ionospheric transmission window relating to long wave radio location issues 08 p2265 N93-23600
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Microwave absorption measurements and interference: Effects for a liquid fuel between 2.5 and 18 GHz
[AD-A260607] 09 p2675 N93-25635
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753

FREQUENCY REGULATION
U FREQUENCY CONTROL

FREQUENCY RESPONSE
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Description of the structural responses in the medium-frequency range by an energetic formulation
[ECL-92-16] 02 p0336 N93-11582
Thermal effects on the frequency response of piezoelectric crystals
[DE92-019039] 03 p0720 N93-12819
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle
05 p1057 N93-16784
Hot film wall shear instrumentation for compressible boundary layer transition research
[NASA-CR-191360] 06 p1404 N93-17855
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Frequency-response techniques for documentation and improvement of rotorcraft simulators
11 p3237 N93-30689

FREQUENCY SCANNING
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321

FREQUENCY SHIFT
Impact of finite frequency deviation on the performance of dual-filter heterodyne FSK lightwave systems
[AD-A247611] 02 p0448 N93-11892
Low-frequency fluctuations of plasma magnetic fields
03 p0717 N93-13496
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
Laser diagnostics 08 p2311 N93-23260
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards
09 p2694 N93-25066
Frequency diversity sidelobe canceller
[AD-D015647] 09 p2674 N93-25332
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478

FREQUENCY SHIFT KEYING
A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
Simulation of a NC-FSK maximum likelihood receiver for fast Rayleigh fading
[ISBN-0-315-59024-6] 08 p2274 N93-24627
An introduction to Doppler effect and fading in mobile communications
[AD-A260976] 09 p2676 N93-25866
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014
Comparison of diversity combining, interleaving, and decoding techniques of a scintillated channel
11 p3362 N93-30266
Coding for frequency hopped spread spectrum satellite communications 11 p3365 N93-30283
Performance of frequency hopped M-ary FSK in Rayleigh fading and partial-band jamming
11 p3368 N93-30303
A dynamic bandwidth and phase linearity measurement technique for 4-channel MSK VLF antenna systems
11 p3398 N93-30748
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060

FREQUENCY STABILITY
Arm length matching in 10 m delay-line interferometer
[ISAS-TN-649] 03 p0596 N93-12639
Asymmetric natural damped frequencies of a rotating infinitely long viscous liquid column
[LRT-WE-9-FB-23-1991] 04 p0878 N93-15120
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
Introduction to quartz frequency standards, revision 1
[AD-A256373] 04 p0870 N93-15330
Vibration characterisation for low level disturbances induced in telecommunications spacecraft
05 p1078 N93-15733
Improvement in the control aspect of laser frequency stabilization for SUNLITE project
05 p1175 N93-16798
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
DSS-13 beam waveguide antenna frequency stability
06 p1513 N93-19424
Digital processing for positioning with one satellite
08 p2270 N93-23629
Frequency stability characterization of hopping sources and microprocessor-controlled frequency synthesis
[ISBN-0-315-60447-6] 08 p2286 N93-24616
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
Hydrogen masers for space 09 p2716 N93-24980
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Miniature optically-pumped cesium beam resonator
09 p2833 N93-24990
DORIS precise orbit determination and location system performances of ultra stable oscillators
09 p2608 N93-24997
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
OSCCAR: Oscillator-compensated with a capacitance array 09 p2693 N93-25002
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
Miniaturization and stability: A new generation of ovenised oscillators 09 p2693 N93-25004
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Dedicated oscillator for immersed crystal sensor
09 p2837 N93-25020
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Ultra stable oscillators for satellite applications
09 p2621 N93-25027
Preliminary results of a newly designed mini-OCXO oscillator especially dedicated to space applications
09 p2621 N93-25028
Experiments on a diode-laser-pumped Rb-87 maser
09 p2716 N93-25030
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
Time stability: An improvement of the multi-variance method for the oscillator noise analysis
09 p2839 N93-25036
Microwave synthesizers in space
09 p2693 N93-25038
Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
Oscillators for mobile GPS receivers
09 p2694 N93-25055
Microwave interrogation frequency noise and clock frequency stability: Experimental results
09 p2842 N93-25056
High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
Designing for frequency and time metrology at the 10 to the minus 18 power level 09 p2842 N93-25059
A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065
Performance of a 12-GHz fiber-optic system for beam-waveguide antenna stability testing
09 p2677 N93-26113
Improvements in X-band transmitter phase stability through Klystron body temperature regulation
09 p2678 N93-26114
The flight performance of the Galileo orbiter USO
11 p3386 N93-29603
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031

FREQUENCY STANDARDS
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting
[AD-A254745] 03 p0596 N93-12844

Determining optimum C-field settings that minimize output frequency variations in cesium atomic frequency standards
[AD-A255902] 04 p0971 N93-14108
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
Introduction to quartz frequency standards, revision 1
[AD-A256373] 04 p0870 N93-15330
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Hydrogen masers for space 09 p2716 N93-24980
A simple and compact source of cold atoms for cesium fountains and microgravity clocks
09 p2831 N93-24981
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Ultra stable oscillators for satellite applications
09 p2621 N93-25027
Preliminary results of a newly designed mini-OCXO oscillator especially dedicated to space applications
09 p2621 N93-25028
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
Microwave synthesizers in space
09 p2693 N93-25038
Phase differences of the fields in a Ramsey resonator for submillimetric frequency standards
09 p2840 N93-25042
Ion trap frequency standard research at PTB
09 p2841 N93-25050
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications
09 p2693 N93-25052
Microwave interrogation frequency noise and clock frequency stability: Experimental results
09 p2842 N93-25056
High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard
09 p2842 N93-25058
Designing for frequency and time metrology at the 10 to the minus 18 power level 09 p2842 N93-25059
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards
09 p2694 N93-25066
Progress towards laboratory frequency standards for the optical communication bands 09 p2687 N93-25069
An improved linear ion trap physics package
11 p3384 N93-29587
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888

FREQUENCY SYNCHRONIZATION
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver
06 p1506 N93-18913
Hydrogen masers for space 09 p2716 N93-24980

FREQUENCY SYNTHESIZERS
An agile frequency synthesizer/RF generator for the SCAMP terminal
[AD-A256777] 05 p1137 N93-16052
Frequency stability characterization of hopping sources and microprocessor-controlled frequency synthesis
[ISBN-0-315-60447-6] 08 p2286 N93-24616
Selected results from LLNL-Hughes RAR for West Coast Scotland Experiment 1991
[DE93-006972] 09 p2788 N93-24960
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
Microwave synthesizers in space
09 p2693 N93-25038
A frequency generating source: Frequency synthesizers 09 p2693 N93-25041
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications
09 p2693 N93-25052
Frequency generation and synthesis in the DRSS
09 p2693 N93-25054
High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard
09 p2842 N93-25058
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900
High-speed, CMOS dual modulus frequency divider for RF frequency synthesis 11 p3359 N93-30245

FREQUENCY TRANSLATION
U FREQUENCY CONVERTERS

FRESH WATER
Spatial models of ecological systems and processes: The role of GIS
[DE92-016884] 01 p0175 N93-10788
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

FRESNEL LENSES
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
Zone plate lens antennas for millimeter and submillimeter wavelengths 10 p3016 N93-27757

FRESNEL REFLECTORS
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722

FRESNEL REGION
Extension of fresnel near-field region by single-cycle sinusoidal pulses
[AD-A254736] 02 p0285 N93-12356

FRICTION
NT AERODYNAMIC DRAG
NT FLOW RESISTANCE
NT FRICTION DRAG
NT INTERNAL FRICTION
NT SKIN FRICTION
NT SLIDING FRICTION
NT STATIC FRICTION
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Dexterous grasp and manipulation
03 p0618 N93-14075
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Tribology of magnetic storage systems
04 p1002 N93-14772
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
SSG 5.99: Tidal friction and the Earth's rotation
07 p1974 N93-20992
Energy dissipator
[NASA-CASE-MSC-21555-1] 08 p2314 N93-23075
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
New Micro- and macroscopic models of contact and friction
[AD-A259925] 08 p2319 N93-24442
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Fundamental studies of friction, lubrication, and wear by atomic force microscopy
[AD-A264647] 11 p3446 N93-30524
Tribology: Friction, lubrication, and wear technology
11 p3292 N93-30965
Walkway friction: Experiment and analysis
11 p3293 N93-30966
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179

FRICTION COEFFICIENT
U COEFFICIENT OF FRICTION

FRICTION DRAG
NT AERODYNAMIC DRAG
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268

FRICTION FACTOR
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe
06 p1413 N93-19306
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Formulation and treatment of frictional contact problems using finite elements 09 p2717 N93-25412
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352

FRICTION LOSS COEFFICIENT
U FRICTION FACTOR

FRICTION MEASUREMENT
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB]
06 p1406 N93-18275

FRICTION PRESSURE DROP
U SKIN FRICTION

FRICTION REDUCTION
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438

FRICTION WELDING
The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274

FRICTIONLESS ENVIRONMENTS
Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569

FRINGE PATTERNS
U DIFFRACTION PATTERNS

FROGS
Studying the effects of microgravity on lower vertebrate development and behavior 07 p1807 N93-21099

Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402

FRONTAL AREAS (METEOROLOGY)
U FRONTS (METEOROLOGY)

FRONTAL WAVES
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760

FRONTS (METEOROLOGY)
NT COLD FRONTS
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Structure of the nocturnal boundary layer over a complex terrain
[DE92-018141] 02 p0362 N93-11669
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
Frontogenesis processes in the troposphere 03 p0667 N93-13890
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Structure and propagation of fronts east of the Rocky Mountains and their relationship to precipitation 04 p0921 N93-14827
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Dynamic and thermodynamic characteristics of a pre-frontal convective rainband in northern Taiwan determined form Tamex data 08 p2409 N93-24162
Turbulent microfronts
[AD-A260300] 08 p2409 N93-24265
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182

FROST
Martian water frost: Control of global distribution by small-scale processes 04 p1047 N93-14868
Condensation phase of the Martian south polar cap 06 p1740 N93-19804
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103

FROSTBITE
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900

FROUDE NUMBER
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782

FROZEN SOILS
U PERMAFROST

FUEL CELL CATALYSTS
U ELECTROCATALYSTS

FUEL CELL POWER PLANTS
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
An update of ERC's carbonate fuel cell development program
[DE92-019971] 03 p0640 N93-13621
Gas cooled fuel cell systems technology development
[DE92-001298] 05 p1194 N93-16084
Advanced water-cooled phosphoric acid fuel cell development
[DE93-000215] 05 p1197 N93-17008
Eleventh Annual Conference on Energy Conservation and Storage Technologies
[DE93-768429] 12 p3748 N93-32038

FUEL CELLS
NT HYDROGEN OXYGEN FUEL CELLS
NT PHOSPHORIC ACID FUEL CELLS
NT REGENERATIVE FUEL CELLS
Advanced materials development for fossil energy conversion applications
[DE92-015762] 01 p0104 N93-10729
Sealant research for solid oxide fuel cells
[DE92-019044] 02 p0345 N93-11513
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
Gas cooled fuel cell systems technology development
[DE92-0012983-3103] 03 p0636 N93-12683
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
Understanding of carbonate fuel cell resistance issues for performance improvement
[DE92-019976] 03 p0638 N93-13039
Perovskite solid electrolytes for SOFC
[DE92-019981] 03 p0638 N93-13041
Alternative materials for solid oxide fuel cells: Factors affecting air-sintering of chromite interconnections
[DE92-019356] 03 p0638 N93-13082
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
Effects of coal-derived trace species on performance of molten carbonate fuel cells
[DE93-000203] 03 p0639 N93-13427
An update of ERC's carbonate fuel cell development program
[DE92-019971] 03 p0640 N93-13621
Considerations for the transition from fuel cell R/D to manufacturing
[DE92-019977] 03 p0640 N93-13622
Components and materials issues in polymer electrolyte fuel cells for transportation applications
[DE92-013384] 04 p0907 N93-15061
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
Jet vapor deposition of thin films for solid oxide and other fuel cell applications
[DE92-019980] 04 p0851 N93-15222
S/EV 1991: Solar and Electric Vehicle Symposium, Car and Trade Show
[DE92-019890] 04 p0869 N93-15226
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Contaminant effects in solid oxide fuel cells
[DE92-040255] 04 p0908 N93-15323
Exploratory technology research program for electrochemical energy storage
[DE93-001595] 04 p0909 N93-15484
Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919
DOE Headquarters MHD/fuel cell support contract
[DE92-040257] 05 p1194 N93-15935
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
Gas cooled fuel cell systems technology development
[DE92-001298] 05 p1194 N93-16084
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
Networking electrochemical membrane separation devices: Theory and application
[DE93-001381] 05 p1106 N93-17066
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Integration of carbonate fuel cells with advanced coal gasification systems
[DE93-003485] 06 p1572 N93-19622
NASA Center update: Jet Propulsion Laboratory 07 p1983 N93-20492
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
DC-DC power converter research for Orbiter/Station power exchange
[NASA-CR-192939] 09 p2633 N93-26425
Strategic planning for molten carbonate fuel cell development and commercialization
[DE93-009156] 10 p3064 N93-27107
Effects of composition on sintering of current interconnects in SOFC
[DE93-004837] 10 p3065 N93-27613
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Metals production 10 p3214 N93-27970
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Benchmark eigenvalue spectrum calculations with anisotropic effects
[DE93-006387] 11 p3548 N93-28891
Polymer electrolyte fuel cells for transportation applications
[DE93-008721] 11 p3464 N93-29147
Electrical relaxation in acid-form nafion
[AD-A263558] 11 p3410 N93-29826
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663
New alternative for electricity production. Part 3: Electricity production from biomass and natural gas by a solid oxide fuel cell
[VTT-TIED-1397] 12 p3720 N93-31862
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

FUEL COMBUSTION
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
Computational fluid dynamics combustion analysis evaluation
[NASA-CR-184326] 03 p0575 N93-12688
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Measurements of cellular structure in spray detonation
[DE92-019580] 03 p0555 N93-12933
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936

Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step
03 p0494 N93-13632
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment
07 p1855 N93-20219
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Droplet combustion characteristics under microgravity and normal-gravity conditions
08 p2252 N93-23179
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures
09 p2583 N93-24886
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Solid fuel supersonic combustion
09 p2625 N93-26010
Hybrid rocket fuel combustion study
09 p2626 N93-26019
Military standardization handbook: Aircraft refueling handbook
[AD-A261755] 09 p2662 N93-26600
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
Aerospace applications of metal combustion
10 p2920 N93-27175
Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase
10 p2922 N93-27186
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
Trend survey of the global environment adaptation type industry technology
[DE93-781442] 10 p3066 N93-28435
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction
11 p3347 N93-30084

FUEL CONSERVATION
U FUEL CONSUMPTION

FUEL CONSUMPTION
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Federal Alternative Fuel Program light duty vehicle operation
[DE92-018124] 02 p0274 N93-11794
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system
04 p0796 N93-15173
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Emissions and fuel economy of Federal alternatively fueled fleet vehicles
[PB93-167195] 10 p3067 N93-26622
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
Regression rate mechanism in a solid fuel ramjet
10 p2922 N93-27185
Interactive method for planning constrained fuel optimal proximity operations
10 p2925 N93-27204
Survey on global environmental effects of petroleum substitution energy utilization
[DE93-768475] 12 p3754 N93-32040
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319

FUEL CONTAMINATION
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762

FUEL CONTROL
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089

FUEL CORROSION
Laser diagnostics for NTP fuel corrosion studies
10 p2979 N93-26936

FUEL ELEMENTS (NUCLEAR REACTORS)
U NUCLEAR FUEL ELEMENTS

FUEL FLOW
NT PROPELLANT TRANSFER
Solution of two-phase reacting flow in liquid thrust chambers
02 p0235 N93-11449
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging
03 p0602 N93-13683
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows
03 p0603 N93-13687
Propulsion system performance resulting from an integrated flight/propulsion control design
[NASA-TM-105874] 04 p0801 N93-15525
Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941
Combustion of solid fuel in very low speed oxygen streams
07 p1854 N93-20207
Particle bed reactor modeling
10 p2980 N93-26954

FUEL FLOW REGULATORS
Space Station propulsion integrated propulsion test article
10 p2970 N93-27818

FUEL INJECTION
Pulsed jet plume combustion: An exothermic process under fluid mechanical control
01 p0032 N93-10553
Coaxial injector spray characterization using water/air as simulants
02 p0248 N93-11452
Physical processes involved in injection and atomization of liquid propellants
02 p0248 N93-11453
Experimental investigation of rocket injector atomization
02 p0248 N93-11454
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine
03 p0613 N93-13331
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging
03 p0602 N93-13683
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows
03 p0603 N93-13687
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
Application of railgun principle to high-velocity hydrogen pellet injection for magnetic fusion reactor fueling
[DE93-004563] 06 p1456 N93-19496
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Shock tunnel studies of scramjet phenomena, supplement 6
[NASA-CR-191428] 08 p2289 N93-22817
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
A summary of the JANNAF workshop on liquid rocket atomization
09 p2625 N93-26014
Space transportation booster engine thrust chamber technology, large scale injector
[NASA-CR-192531] 09 p2633 N93-26557
Liquid fuel injection elements for rocket engines
[NASA-CASE-MFS-28547-1] 11 p3289 N93-29847
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

FUEL PRODUCTION
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Near Earth object fuels (neo-fuels): Discovery, prospecting and use
[DE93-005185] 09 p2892 N93-25164
Biological conversion of synthesis gas
[DE93-008552] 10 p3064 N93-26628
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-27969
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435

FUEL PUMPS
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine
12 p3697 N93-31584

FUEL SPRAYS
Measurements of cellular structure in spray detonation
[DE92-019580] 03 p0555 N93-12933
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine
03 p0613 N93-13331
Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
Dynamic behavior of a dense spray diffusion flame in a potential vortex
04 p0839 N93-14463
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191

The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566
Limitations of the ideal phase-Doppler system: Extension to spatially and temporally inhomogeneous particle flows with an application to diesel sprays
[DE93-009447] 11 p3416 N93-28595
Modeling the effects of drop drag and breakup on fuel sprays
[AD-A263650] 11 p3445 N93-29388
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069

FUEL SYSTEMS
NT AIRCRAFT FUEL SYSTEMS
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system
04 p0796 N93-15173
Field demonstration of aviation turbine fuel MIL-T-83133C, grade JP-8 (NATO code F-34), at Fort Bliss, TX
[AD-A256945] 05 p1129 N93-16431
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219
Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021

FUEL TANK PRESSURIZATION
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715

FUEL TANKS
NT WING TANKS
Acoustic modes in fluid networks 03 p0586 N93-13398
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501

FUEL TESTS
NT REACTOR STARTUP TESTS
Vapor to liquid ratio test as an indicator of volatility
[DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Development of alternative fuels from coal-derived syngas
[DE93-011629] 11 p3341 N93-28668

FUEL VALVES
High-temperature, high-pressure oxygen metering valve
[NASA-CASE-MSC-21823-1] 04 p0891 N93-14843
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112

FUEL-AIR RATIO
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag
02 p0235 N93-12537
Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373

FUELING
U REFUELING

FUELS
NT AIRCRAFT FUELS
NT AUTOMOBILE FUELS
NT CERAMIC NUCLEAR FUELS
NT CLEAN FUELS
NT COAL
NT CRUDE OIL
NT DIESEL FUELS
NT FOSSIL FUELS
NT GASEOUS FUELS
NT GASOLINE
NT HIGH ENERGY FUELS
NT HYDROCARBON FUELS
NT HYDROGEN FUELS
NT JET ENGINE FUELS
NT JP-4 JET FUEL
NT JP-5 JET FUEL
NT JP-8 JET FUEL
NT LIQUEFIED NATURAL GAS
NT LIQUID FUELS
NT METAL FUELS
NT MONOPROPELLANTS
NT NATURAL GAS
NT NUCLEAR FUELS
NT SPENT FUELS
NT SYNTHETIC FUELS
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Japan's microgravity combustion science program
07 p1868 N93-20182
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033

FULL SCALE TESTS
Flight test progress of the STOL research aircraft ASKA
[NAL-TM-643] 02 p0208 N93-12354
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Space based radar: Test of large space structures
04 p0808 N93-14941
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410

FULLERENES
NT BUCKMINSTERFULLERENE
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
An experiment to study fullerene formation under reduced gravity 05 p1134 N93-17335
Fullerenes formation in flames
07 p1853 N93-20187
Structure and dynamics in low dimensional guest-host solids
[DE93-006498] 08 p2504 N93-22887
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995

FUMES
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956

FUNCTION GENERATORS
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618

FUNCTION SPACE
NT BANACH SPACE
NT HILBERT SPACE
NT SOBOLEV SPACE
Finite group actions and elliptic genera
[DE92-630207] 01 p0170 N93-10388
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
Equivariant elliptic homology
[DE92-641338] 11 p3557 N93-30981
Approximation orders of and approximation maps from local principal shift-invariant spaces
[AD-A265038] 12 p3808 N93-31999

FUNCTIONAL ANALYSIS
NT BANACH SPACE
NT CONVOLUTION INTEGRALS
NT FOURIER TRANSFORMATION
NT FREDHOLM EQUATIONS
NT HARMONIC ANALYSIS
NT HILBERT SPACE
NT HILBERT TRANSFORMATION
NT INTEGRAL EQUATIONS
NT INTEGRAL TRANSFORMATIONS
NT J INTEGRAL
NT LAPLACE TRANSFORMATION
NT SINGULAR INTEGRAL EQUATIONS
NT SOBOLEV SPACE
NT VOLTERRA EQUATIONS
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800

Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
Change PP plot and continuous sample quantile function
[AD-A259833] 08 p2472 N93-23460
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
Functional Economic Analysis Guidebook, version 1.1
[AD-A261390] 09 p2886 N93-26305
A representation result for nonlinear filter maps on a white noise framework
[MEMO-1062] 10 p3129 N93-28013

FUNCTIONAL DESIGN SPECIFICATIONS
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Functional system design document for the Intelligent Inspection System (IIS)
[DE92-018240] 03 p0619 N93-12794
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
Designing video annotation and analysis systems
04 p0955 N93-15552
Experiment module/support module interface specification for the reusable reentry satellite
[NASA-CR-187885] 05 p1086 N93-15805
An initial model of requirements traceability: An empirical study
[AD-A256720] 05 p1275 N93-15978
Functional requirements of an advanced instructional design advisor. Volume 1: Epitomizing functions
[AD-A256752] 05 p1234 N93-16049
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
Automating software design system DESTA
05 p1250 N93-17519
US Army helicopter inertia reel locking failures
06 p1427 N93-19689
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
National Launch System: Structures and materials
08 p2172 N93-22083
Advanced Manned Launch System
08 p2172 N93-22084
Automated real-time software development
08 p2445 N93-22168
Space Biology Initiative. Trade Studies, volume 1
[NASA-CR-190989] 08 p2417 N93-23068
Space Biology Initiative. Trade Studies, volume 2
[NASA-CR-190990] 08 p2418 N93-23079
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Determination of burn rate requirements from ASRM performance specifications 09 p2627 N93-26023
Human computer interface style guide, version 2.0
[AD-A261280] 09 p2807 N93-26291
Extravehicular activity system
10 p2966 N93-27787
Structures for Space Station Freedom: Overview of current concept 10 p2970 N93-27836
Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337
ARIES: Acquisition of Requirements and Incremental Evolution of Specifications 12 p3794 N93-32157
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

FUNCTIONAL INTEGRATION
The quest for an integrated flying helmet
11 p3502 N93-28860

FUNCTIONALLY GRADIENT MATERIALS
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248

FUNCTIONALS
Finite type structures within combinatory algebras
[ML-91-06] 05 p1273 N93-17781
Hierarchical model of matching
11 p3519 N93-29580
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781

FUNCTIONS (MATHEMATICS)
NT ABEL FUNCTION
NT ANALYTIC FUNCTIONS
NT ASYMPTOTES
NT BOOLEAN FUNCTIONS
NT CONFORMAL MAPPING
NT COORDINATE TRANSFORMATIONS
NT DELTA FUNCTION
NT DISCRETE FUNCTIONS
NT DISCRIMINANT ANALYSIS (STATISTICS)
NT DISTRIBUTION FUNCTIONS
NT ELLIPTIC FUNCTIONS
NT ENTIRE FUNCTIONS
NT ERROR FUNCTIONS
NT EXPONENTIAL FUNCTIONS
NT FAST FOURIER TRANSFORMATIONS
NT FOURIER TRANSFORMATION
NT GREEN'S FUNCTIONS
NT HAMILTONIAN FUNCTIONS
NT HANKEL FUNCTIONS
NT HYPERBOLIC FUNCTIONS
NT HYPERGEOMETRIC FUNCTIONS
NT KERNEL FUNCTIONS
NT LAGRANGIAN FUNCTION
NT LAPLACE TRANSFORMATION
NT LEGENDRE FUNCTIONS
NT LIAPUNOV FUNCTIONS
NT LINEAR TRANSFORMATIONS
NT LOGARITHMS
NT LORENTZ TRANSFORMATIONS
NT MAXWELL-BOLTZMANN DENSITY FUNCTION
NT MODULATION TRANSFER FUNCTION
NT MONOTONE FUNCTIONS
NT NORMAL DENSITY FUNCTIONS
NT OPTICAL TRANSFER FUNCTION
NT ORTHOGONAL FUNCTIONS
NT ORTHONORMAL FUNCTIONS
NT PERIODIC FUNCTIONS
NT POINT SPREAD FUNCTIONS
NT POISSON DENSITY FUNCTIONS
NT PROBABILITY DENSITY FUNCTIONS
NT PROBABILITY DISTRIBUTION FUNCTIONS
NT RATIONAL FUNCTIONS
NT RECURSIVE FUNCTIONS
NT SCHWARZ-CHRISTOFFEL TRANSFORMATION
NT SHAPE FUNCTIONS
NT SPACE-TIME FUNCTIONS
NT SPHERICAL HARMONICS
NT SPLINE FUNCTIONS
NT STEP FUNCTIONS
NT STRESS FUNCTIONS
NT TIME FUNCTIONS
NT TRANSCENDENTAL FUNCTIONS
NT TRANSFER FUNCTIONS
NT TRIGONOMETRIC FUNCTIONS
NT WALSH FUNCTION
NT WEIBULL DENSITY FUNCTIONS
NT WEIGHTING FUNCTIONS
Hexagonal and octagonal finite elements
01 p0050 N93-10500
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
The covariance matrix of derived quantities and their combination
[DE92-019066] 04 p0969 N93-15212
Multiresolution analysis by infinitely differentiable compactly supported functions
[AD-A256526] 04 p0969 N93-15398
Characterizations of linear independence and stability of the shifts of a univariate refinable function in terms of its refinement mask
[AD-A256527] 04 p0969 N93-15399
Escape-time visualization method for language-restricted iterated function systems
04 p0956 N93-15558
The object instancing paradigm for linear fractal modeling 04 p0956 N93-15559
The spatial correlation function approach to response surface emission
[DE92-040875] 04 p0969 N93-15656
The use of inverse frequency response functions for multi degree-of-freedom modal parameter identification with error bounds 05 p1077 N93-15720
Proof elimination in type theory
[CS-9202] 05 p1278 N93-16351
Measurability of operator fields
[W-9204] 05 p1264 N93-16353
Normal forms in real time process algebra
[CWI-CS-R9149] 05 p1265 N93-16367
Polling systems and multiple branching processes
[CWI-BS-R9128] 05 p1267 N93-16726
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
Calculate categorically
[CWI-CS-R9132] 05 p1268 N93-16850
Datatype laws without signatures
[CWI-CS-R9133] 05 p1268 N93-16851
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
Combinatorial and topological phase structure of non-perturbative n-dimensional quantum gravity
[PREPRINT-861] 05 p1331 N93-17224
On the history of the function M(x)/(square root of x) since Stieltjes
[CWI-NM-R9120] 05 p1271 N93-17555
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
Conformal length of graphs
[ETN-93-93419] 07 p2054 N93-21068
Efficient implementation of a functional language for the definition of practicable, denotational semantics
[ETN-93-93413] 07 p2055 N93-21176
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399
Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
NSWC library of mathematics subroutines
[AD-A261511] 09 p2884 N93-26575
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Ways to improve your correlation functions
10 p3172 N93-26712
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
Mixed H2/H infinity control in a stochastic framework
[MEMO-COSOR-92-13] 10 p3109 N93-27232
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
Extensions of choice behaviour
[MEMO-COSOR-92-23] 10 p3163 N93-27280
One-third-integrality in the metric polytope
[CWI-BS-R9209] 10 p3112 N93-27293
Finding k disjoint paths in a directed planar graph
[CWI-BS-R9206] 10 p3095 N93-27379
Analysing E(sub k)/E(sub r)/c queues
[MEMO-COSOR-92-27] 10 p3127 N93-27396
Integrable symplectic maps
[SSCL-PREPRINT-744] 10 p3122 N93-28387
Standard families of algorithms
[REPT-92-20] 10 p3104 N93-28389

FUNGI
NT YEAST
A trainable image pattern classification system for detection of damaged soybean seeds
02 p0201 N93-12208
The production and use of aeroponically grown inocula of VAM fungi in the native plant nursery
[PB92-204973] 04 p0933 N93-15208

FUNGICIDES
NT CAFFEINE

FUNNELS
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720

FURAN RESINS
NT KEVLAR (TRADEMARK)
NT POLYAMIDE RESINS
FURANS
NT TETRAHYDROFURAN
FURLABLE ANTENNAS
Dynamic deployment analysis of a mesh antenna reflector 05 p1083 N93-15770
The numerical simulation of the inflation process of space rigidized antenna structures 05 p1083 N93-15771
Dynamic of large reflectors 05 p1084 N93-15773
FURNACES
NT ELECTRIC FURNACES
NT IMAGE FURNACES
NT SOLAR FURNACES
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
EURECA
[ESA-F-26] 03 p0522 N93-12964
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311
Summary on comparison of radiative heat transfer solutions for a specified problem
[DE92-040098] 03 p0588 N93-13575
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces 04 p0995 N93-15311
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique 04 p0995 N93-15312
ROMPS critical design review. Volume 3: Furnace module design documentation
[NASA-CR-191615] 05 p1237 N93-16440
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2
[NASA-CR-192474] 08 p2302 N93-22347
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports
[NASA-CR-192477] 08 p2302 N93-22349
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715
Space Station Furnace Facility. Volume 2: Appendix 1: Contract End Item specification (CEI), part 1
[NASA-CR-192473] 08 p2303 N93-23083
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Space Station Furnace Facility. Volume 1: Requirements definition and conceptual design study, executive summary
[NASA-CR-192471] 08 p2199 N93-23225
Space Station Furnace Facility. Volume 3: Program cost estimate
[NASA-CR-192478] 08 p2200 N93-23237
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study
[NASA-CR-192472] 08 p2200 N93-23238
Space Station Furnace Facility. Experiment/Facility Requirements Document (E/FRD), volume 2, appendix 5
[NASA-CR-192476] 08 p2200 N93-23241
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
Experiment/facility requirements document for the Space Station Furnace Facility. Section 1: Integrated configuration
[NASA-CR-192533] 10 p2958 N93-27147
Space Station Furnace Facility. Volume 2: Summary of technical reports
[NASA-CR-192534] 10 p2973 N93-28323
FUSELAGE MOUNTING
U AIRCRAFT PRODUCTION
FUSELAGES
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
Evaluation of alternatives for increasing A-7D rearward visibility
[AD-A255071] 02 p0208 N93-12488
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Damage tolerance assessment of boron/epoxy repairs to fuselage lap joints
[AD-A258383] 06 p1439 N93-18257
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 08 p2108 N93-22487
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Designing for damage tolerant composite repairs
[AD-A260094] 08 p2214 N93-24053
Alternative equipment test procedures for simultaneous current injection on multiple cable bundles 09 p2693 N93-24903
Tangential fuselage blowing on an ogive cylinder 09 p2578 N93-25545
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
Advanced technology commercial fuselage structure 11 p3300 N93-30432
Design and manufacturing concepts for thermoplastic structures 11 p3301 N93-30434
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process 11 p3301 N93-30435
Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436
Cost studies for commercial fuselage crown designs 11 p3302 N93-30440
Fabrication of the V-22 composite AFT fuselage using automated fiber placement 11 p3302 N93-30443
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials 11 p3303 N93-30845
Mechanical and analytical screening of braided composites for transport fuselage applications 11 p3305 N93-30855
Developments in impact damage modeling for laminated composite structures 11 p3305 N93-30857
Multi-parameter optimization tool for low-cost commercial fuselage crown designs 11 p3305 N93-30858
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications 11 p3306 N93-30861
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
FUSES (ORDNANCE)
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812
FUSIFORM SHAPES
U CONES
FUSION HEAT
U HEAT OF FUSION
FUSION REACTORS
NT HELIOTRONS
NT SPHEROMAKS
NT STELLARATORS
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534
Plasma properties
[DE92-018635] 02 p0455 N93-12188
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044
Advanced materials: The key to attractive magnetic fusion power reactors
[DE92-040637] 05 p1307 N93-16103
Small steady-state tokamak (TST) for divertor testing
[DE93-001213] 05 p1309 N93-16274
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
Oxidation and volatilization of a niobium alloy
[DE93-001927] 05 p1116 N93-17392
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Application of railgun principle to high-velocity hydrogen pellet injection for magnetic fusion reactor fueling
[DE93-004563] 06 p1456 N93-19496
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
TFTR experimental data analysis collaboration
[DE93-002365] 07 p2075 N93-21483
Plasma edge diagnostics 08 p2495 N93-23261
Recent D3-D results --- tokamak reactor
[DE93-004468] 08 p2496 N93-23690
Tritium permeation model for plasma facing components
[DE93-007044] 08 p2499 N93-24465
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421
Fast neutron cross section measurements
[DE93-009053] 11 p3563 N93-28546
A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053
SIRIUS-P: An inertially confined direct drive laser fusion power reactor
[DE93-012433] 11 p3439 N93-30186
Preliminary design study of a steady state tokamak device
[DE93-764162] 11 p3589 N93-30397
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310
FUSION WELDING
NT ARC WELDING
NT BRAZING
NT ELECTRIC WELDING
NT ELECTRON BEAM WELDING
NT GAS TUNGSTEN ARC WELDING
NT GAS WELDING
NT LASER WELDING
NT PLASMA ARC WELDING
Some consistency requirements on hardening-recovery evolution equations for welding, part 1
[DE92-015992] 02 p0329 N93-12220
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Principles of weld solidification and microstructures
[DE93-003012] 06 p1490 N93-19629
FUZZY SETS
Fuzzy logic control for camera tracking system 02 p0314 N93-11935
System diagnostic builder 02 p0396 N93-11944
Fuzzy logic control of telerobot manipulators 02 p0399 N93-11959
Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Fuzzy set approach to quality function deployment: An investigation 05 p1274 N93-16779
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision 06 p1618 N93-18225
Possibility expectation and its decision making algorithm 06 p1618 N93-18226

Membership generation using multilayer neural network 06 p1618 N93-18227
Possibilistic clustering for shape recognition 06 p1618 N93-18228
Fuzzy connectivity and mathematical morphology [TELECOM-PARIS-92-D-001] 07 p2053 N93-20940
Fuzzy set methods for object recognition in space applications [NASA-CR-191986] 07 p2041 N93-21563
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 2 [NASA-CP-10111-VOL-2] 08 p2449 N93-22206
Two generalizations of Kohonen clustering 08 p2449 N93-22207
The 3-D image recognition based on fuzzy neural network technology 08 p2450 N93-22210
A proposal of fuzzy connective with learning function and its application to fuzzy retrieval system 08 p2450 N93-22211
Application of fuzzy set and Dempster-Shafer theory to organic geochemistry interpretation 08 p2450 N93-22212
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
Certain and possible rules for decision making using rough set theory extended to fuzzy sets 08 p2454 N93-22359
Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Multi-layered reasoning by means of conceptual fuzzy sets 08 p2455 N93-22365
How to control if even experts are not sure: Robust fuzzy control [NASA-TM-108745] 09 p2818 N93-25142
Fuzzy sets predict flexural strength and density of silicon nitride ceramics [NASA-TM-106049] 10 p2991 N93-27270
Soft computing in design and manufacturing of advanced materials [NASA-TM-106032] 11 p3295 N93-28624
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 1 [NASA-CP-10112-VOL-1] 11 p3509 N93-29516
An analysis of possible applications of fuzzy set theory to the actuarial credibility theory 11 p3510 N93-29517
Estimations of expectedness and potential surprise in possibility theory 11 p3510 N93-29518
Comparison of specificity and information for fuzzy domains 11 p3510 N93-29519
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications 11 p3510 N93-29520
Approximate reasoning using terminological models 11 p3510 N93-29522
A fuzzy clustering algorithm to detect planar and quadric shapes 11 p3511 N93-29524
A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525
Automatic rule generation for high-level vision 11 p3511 N93-29526
Encoding spatial images: A fuzzy set theory approach 11 p3511 N93-29527
Fuzzy forecasting and decision making in short dynamic time series 11 p3513 N93-29541
Intelligent virtual reality in the setting of fuzzy sets 11 p3513 N93-29544
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A fuzzy set preference model for market share analysis 11 p3514 N93-29548
Information compression in the context model 11 p3514 N93-29549
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2 [NASA-CP-10112-VOL-2] 11 p3515 N93-29556
Adding dynamic rules to self-organizing fuzzy systems 11 p3515 N93-29557
Fuzzy learning under and about an unfamiliar fuzzy teacher 11 p3516 N93-29558
Some problems with the design of self-learning management systems 11 p3516 N93-29559
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Determining rules for closing customer service centers: A public utility company's fuzzy decision 11 p3516 N93-29561
The fusion of information via fuzzy integration 11 p3517 N93-29568
On the evaluation of fuzzy quantified queries in a database management system 11 p3517 N93-29569
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring 11 p3289 N93-29570
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
Fuzzy multiple linear regression: A computational approach 11 p3518 N93-29574
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576
Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577
Hierarchical model of matching 11 p3519 N93-29580
On probability-possibility transformations 11 p3519 N93-29582
Inference in fuzzy rule bases with conflicting evidence 11 p3519 N93-29583
Gaussian membership functions are most adequate in representing uncertainty in measurements 11 p3520 N93-29584
A new way to use fuzzy sets in image sharpening 11 p3363 N93-30273
Introduction to Fuzzy Set Theory 12 p3689 N93-31446
Modeling users' behavior and threats for security [REPT-92-071] 12 p3811 N93-31476
Design and implementation of fuzzy logic controllers [NASA-CR-193268] 12 p3784 N93-31649
Real-time qualitative reasoning for telerobotic systems 12 p3737 N93-32116

FUZZY SYSTEMS

Mesoscale severe weather development under orographic influences [AD-A253630] 01 p0125 N93-10204
Stability and adaptation of neural networks [AD-A256227] 04 p0962 N93-14598
Sensor-based driving of a car with fuzzy inferencing VLSI chips and boards [DE92-017819] 04 p0963 N93-14818
A mixed excitation vocoder with fuzzy logic classifier [AD-A256834] 04 p0864 N93-15636
Telerobotic control of a mobile coordinated robotic server [NASA-CR-191650] 05 p1259 N93-16387
Methodologies of automatic control including fuzzy logic [LAAS-92257] 06 p1631 N93-17814
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter [NASA-TM-105994] 06 p1540 N93-18091
Fuzzy Set Methods for Object Recognition in Space Applications [NASA-CR-191975] 06 p1618 N93-18224
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Fuzzy logic: Artificial neural networks integration for transient identification [DE93-002232] 06 p1632 N93-18389
Self-growing neural network architecture using crisp and fuzzy entropy [NASA-TM-105677] 06 p1553 N93-18422
Full design of fuzzy controllers using genetic algorithms 06 p1629 N93-19461
Adaptive autonomous target cuer 06 p1612 N93-19784
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 2 [NASA-CP-10111-VOL-2] 08 p2449 N93-22206
A proposal of fuzzy connective with learning function and its application to fuzzy retrieval system 08 p2450 N93-22211
Towards autonomous fuzzy control 08 p2450 N93-22213
A new approach for designing self-organizing systems and application to adaptive control 08 p2451 N93-22215
Adaptive fuzzy system for 3-D vision 08 p2451 N93-22216
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle 08 p2451 N93-22217
Driving a car with custom-designed fuzzy inferencing VLSI chips and boards 08 p2451 N93-22218
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
Synthesis of nonlinear control strategies from fuzzy logic control algorithms 08 p2452 N93-22222
Truth-Valued-Flow Inference (TVFI) and its applications in approximate reasoning 08 p2452 N93-22223
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
Autonomous rendezvous and capture system design 08 p2138 N93-22244
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 1 [NASA-CP-10111-VOL-1] 08 p2452 N93-22351
Fuzzy logic controllers: A knowledge-based system perspective 08 p2453 N93-22352
A fuzzy controller with nonlinear control rules is the sum of a global nonlinear controller and a local nonlinear PI-like controller 08 p2453 N93-22356
Fuzzy control of small servo motors 08 p2453 N93-22357
A hierarchical structure for representing and learning fuzzy rules 08 p2454 N93-22358
On structuring the rules of a fuzzy controller 08 p2454 N93-22360
Design issues for a reinforcement-based self-learning fuzzy controller 08 p2454 N93-22362
Fuzzy efficiency optimization of AC induction motors 08 p2454 N93-22363
Fuzzy control of an unmanned helicopter 08 p2455 N93-22366
Fuzzy logic mode switching in helicopters 08 p2455 N93-22367
Structure identification in fuzzy inference using reinforcement learning 08 p2456 N93-22371
Approximation paper, part 1 --- neural networks, fuzzy systems 08 p2456 N93-22372
Nonlinear rescaling of control values simplifies fuzzy control 08 p2456 N93-22373
Genetic learning in rule-based and neural systems 08 p2456 N93-22374
Evolving fuzzy rules in a learning classifier system 08 p2457 N93-22375
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
Design of fuzzy system by NNs and realization of adaptability 08 p2457 N93-22377
Improvement on fuzzy controller design techniques 08 p2457 N93-22378
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Translational controller results [NASA-CR-192320] 08 p2457 N93-22398
A fuzzy logic controller system [AD-A259723] 08 p2439 N93-23467
Probabilistic analysis of manipulation tasks: A research agenda [DE93-000713] 09 p2827 N93-25103
Using fuzzy behaviors for the outdoor navigation of a car with low-resolution sensors [DE93-002428] 09 p2584 N93-25120
How to combine probabilistic and fuzzy uncertainties in fuzzy control [NASA-TM-108746] 09 p2818 N93-25138
Maximum entropy approach to fuzzy control [NASA-CR-192949] 09 p2818 N93-25141
Fast parallel algorithms that compute transitive closure of a fuzzy relation [NASA-CR-192950] 09 p2818 N93-25190
Use of fuzzy relational information retrieval technique for generating control strategies in resolution-based automated reasoning 09 p2874 N93-25258
Strongly transitive fuzzy relations: A more adequate way to describe similarity [NASA-CR-192951] 09 p2820 N93-25425
What procedure to choose while designing a fuzzy control? Towards mathematical foundations of fuzzy control [NASA-TM-108719] 09 p2820 N93-25459
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Fuzzy logic particle tracking velocimetry [NASA-TM-106194] 10 p3045 N93-27027
Mobile robot navigation using qualitative reasoning [DE93-008277] 10 p3109 N93-27104
New classification methods 11 p3459 N93-28932
A fuzzy logic optimal control law solution to the CMMCA tracking problem [AD-A262555] 11 p3542 N93-29420
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 1 [NASA-CP-10112-VOL-1] 11 p3509 N93-29516
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications 11 p3510 N93-29520
How to select combination operators for fuzzy expert systems using CRI 11 p3510 N93-29521
Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523

A fuzzy clustering algorithm to detect planar and quadric shapes 11 p3511 N93-29524
A neuro-fuzzy architecture for real-time applications 11 p3511 N93-29529
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Adaptive defuzzification for fuzzy systems modeling 11 p3512 N93-29532
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control 11 p3512 N93-29533
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
WARP: Weight Associative Rule Processor. A dedicated VLSI fuzzy logic megacell 11 p3513 N93-29538
Evaluation of fuzzy inference systems using fuzzy least squares 11 p3513 N93-29539
A model for amalgamation in group decision making 11 p3513 N93-29540
Distributed traffic signal control using fuzzy logic 11 p3513 N93-29543
Intelligent virtual reality in the setting of fuzzy sets 11 p3513 N93-29544
Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
Fuzzy knowledge base construction through belief networks based on Lukasiewicz logic 11 p3515 N93-29550
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
Fuzzy coordinator in control problems 11 p3515 N93-29552
Tuning a fuzzy controller using quadratic response surfaces 11 p3515 N93-29553
The cognitive bases for the design of a new class of fuzzy logic controllers: The clearness transformation fuzzy logic controller 11 p3515 N93-29554
A fuzzy control design case: The fuzzy PLL 11 p3515 N93-29555
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2 [NASA-CP-10112-VOL-2] 11 p3515 N93-29556
Adding dynamic rules to self-organizing fuzzy systems 11 p3515 N93-29557
Fuzzy learning under and about an unfamiliar fuzzy teacher 11 p3516 N93-29558
Fuzzy simulation in concurrent engineering 11 p3516 N93-29562
Inverse problems: Fuzzy representation of uncertainty generates a regularization 11 p3516 N93-29563
Quantification of human responses 11 p3500 N93-29564
A high performance, ad-hoc, fuzzy query processing system for relational databases 11 p3518 N93-29571
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers 11 p3518 N93-29573
Fuzzy multiple linear regression: A computational approach 11 p3518 N93-29574
Incomplete fuzzy data processing systems using artificial neural network 11 p3519 N93-29578
Inference in fuzzy rule bases with conflicting evidence 11 p3519 N93-29583
Gaussian membership functions are most adequate in representing uncertainty in measurements 11 p3520 N93-29584
Life insurance risk assessment using a fuzzy logic expert system 11 p3520 N93-29585
Workshop on Fuzzy Control Systems and Space Station Applications [NASA-CR-193202] 12 p3688 N93-31439
Fuzzy Control/Space Station automation 12 p3688 N93-31440
Commercial applications 12 p3688 N93-31441
Current projects in Fuzzy Control 12 p3688 N93-31442
Terminology and concepts of control and Fuzzy Logic 12 p3688 N93-31443
NASA/ARC proposed training in intelligent control 12 p3688 N93-31444
Overview of Fuzzy Logic 12 p3688 N93-31445
Introduction to Fuzzy Set Theory 12 p3689 N93-31446
Blowdown thrust profile prediction 12 p3689 N93-31448
Rendezvous guidance 12 p3689 N93-31450
Path planning control 12 p3685 N93-31451
Active damping in a flexible manipulator 12 p3689 N93-31452
Hyperbaric treatment 12 p3689 N93-31454
Daily exercise routines 12 p3689 N93-31455
Atmospheric control systems 12 p3689 N93-31456
Rotational speed control 12 p3689 N93-31457
Vibration isolation 12 p3690 N93-31458
Design and implementation of fuzzy logic controllers [NASA-CR-193268] 12 p3784 N93-31649
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters [NASA-CR-188250] 12 p3690 N93-32228

F4H AIRCRAFT
U F-4 AIRCRAFT

G

G FORCE
U ACCELERATION (PHYSICS)
G STARS
NT SUN
GABBRO
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
GADOLINIUM
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x) [DE92-016302] 02 p0462 N93-11706
Electron temperature of Gd plasma produced by laser resonance ionization [DE91-017785] 03 p0718 N93-13732
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry [DE93-000510] 05 p1293 N93-17375
Ion-beam modification of Gd2Ti2O7 [DE93-001514] 05 p1328 N93-17652
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals [DE93-004432] 08 p2228 N93-22724
GADOLINIUM-GALLIUM GARNET
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet [DE93-000448] 05 p1134 N93-15896
GAGES
U MEASURING INSTRUMENTS
GAIA HYPOTHESIS
Chaos theory and its application in the atmosphere 08 p2398 N93-24082
GAIN (AMPLIFICATION)
U AMPLIFICATION
GALACTIC BULGE
A study of the abundance distributions along the minor axis of the Galactic bulge 04 p1015 N93-14136
GALACTIC CLUSTERS
NT VIRGO GALACTIC CLUSTER
Non-self-similar clustering of galaxies [MPE-PREPRINT-212] 02 p0484 N93-11338
X ray morphology of clusters of galaxies 02 p0482 N93-11475
Magnetic fields in the clusters of galaxies with extreme cooling flows 02 p0486 N93-12164
A catalog of moderately distant galaxy clusters 03 p0749 N93-13011
The dynamical evolution of clusters of galaxies 03 p0750 N93-13122
Evolution of galaxies in compact groups 03 p0750 N93-13148
The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496 [NASA-CR-191240] 03 p0743 N93-13352
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
Contribution of clusters of galaxies to the XRB 05 p1374 N93-17148
Clustering properties of x ray sources from the analysis of the Ginga P(D) distribution 05 p1374 N93-17150
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
The stellar populations of early-type galaxies in groups and clusters 08 p2549 N93-23491
X ray morphology and the mass of clusters of galaxies 08 p2534 N93-23887
A2163: An exceptionally hot cluster of galaxies 08 p2538 N93-23913
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726
Environmental influences on galaxy evolution 10 p3175 N93-26727
Globular cluster systems as clues to galaxy evolution 10 p3175 N93-26728
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
Galaxy tracers in N-body simulations 10 p3176 N93-26732
Subclustering in the hierarchical model of galaxy formation 10 p3176 N93-26734
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
Do galactic potential wells depend on their environment? 10 p3177 N93-26739
Near-IR imaging of moderate redshift galaxy clusters 10 p3177 N93-26741
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
Low surface brightness galaxies and tidally triggered star formation 10 p3178 N93-26745
A faint field-galaxy redshift survey in quasar fields 10 p3179 N93-26751
Searching for Lyman alpha emission from a possible Zel'dovich pancake 10 p3179 N93-26755
Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758
CO deficiency in galaxies of the Fornax cluster? 10 p3185 N93-26791
HI observations of dwarf galaxies out to a distance of 50 Mpc 10 p3186 N93-26794
Molecular gas content of galaxies in the Hydra-Centaurus supercluster 10 p3188 N93-26807
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
Cluster tidal fields: Effects on disk galaxies 10 p3191 N93-26824
A numerical simulation of galaxy subcluster mergers 10 p3192 N93-26833
Luminosity segregation in galaxy clusters as an indication of dynamical evolution 10 p3192 N93-26834
Kinematics of compact groups and morphologies of the member galaxies 10 p3193 N93-26835
The dynamics of Abell 2634 10 p3193 N93-26836
X ray opacity in cluster cooling flows 10 p3193 N93-26837
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838
Jet induced star formation in centrally dominant galaxies? 10 p3193 N93-26840
The detection of large amounts of cool, x ray absorbing gas in distant clusters of galaxies. What does this mean? 10 p3194 N93-26841
Mergers, cooling flows, and evaporation 10 p3194 N93-26842
A neutral hydrogen survey of the Hydra 1 cluster 10 p3194 N93-26843
Using x ray images to detect substructure in a sample of 40 Abell clusters 10 p3194 N93-26844
A study of the x ray environment of radio galaxies 10 p3194 N93-26845
Multicolor photometry of x ray selected Abell clusters 10 p3195 N93-26846
Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
Deep, wide-field, multi-band imaging of z approximately equal to 0.4 clusters and their environs 10 p3195 N93-26848
The environment of x ray selected BL Lacs: Host galaxies and galaxy clustering 10 p3196 N93-26851
Reduction and analysis of VLA maps for 281 radio-loud quasars using the UNLV Cray Y-MP supercomputer 10 p3197 N93-26855
Quasars in rich galaxy clusters 10 p3197 N93-26856
Removing Malmquist bias from linear regressions 10 p3122 N93-26872
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880
Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888

The galactic center stellar population in the near infrared 10 p3204 N93-28080

GALACTIC COSMIC RAYS

Fully energy-dependent HZETRN (a galactic cosmic-ray transport code)
[NASA-TP-3243] 03 p0771 N93-13020

Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126

Isotopic composition of galactic cosmic ray boron, carbon, nitrogen, and oxygen 04 p1020 N93-14866

Study of high energy particles and protective layers for materials
[CTN-93-60613] 05 p1124 N93-16545

Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy 05 p1128 N93-16794

North-south anisotropy during the quasi-stationary modulation of galactic cosmic rays
[NOTA-INTERNA-975] 05 p1400 N93-17647

The SVIRCO station: Measurement and study of the intensity of cosmic rays in Rome (Italy) from 1954
[NOTA-INTERNA-977] 05 p1401 N93-17648

Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014

Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109

Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196

Green's function methods in heavy ion shielding
[NASA-TP-3311] 08 p2485 N93-22488

Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396

Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717

Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905

Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111

Radioactivities induced in some LDEF samples 11 p3572 N93-29628

Revised prediction of LDEF exposure to trapped protons 11 p3572 N93-29633

LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637

Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF 11 p3573 N93-29639

Progress report on the Heavy Ions in Space (HIIS) experiment 11 p3573 N93-29645

GALACTIC EVOLUTION

Non-self-similar clustering of galaxies
[MPE-PREPRINT-212] 02 p0484 N93-11338

Mechanism for ejecting stars from the Galactic plane
[DE92-018375] 02 p0485 N93-11697

The dynamical evolution of clusters of galaxies 03 p0750 N93-13122

Evolution of galaxies in compact groups 03 p0750 N93-13148

Anisotropy measurements of the cosmic background radiation at 3 mm wavelength and an angular scale of 30 arcminutes 03 p0772 N93-13689

Study of tidal interactions in M81-M82-NGC3077 system 04 p1010 N93-14195

A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228

The central engine of AGN's and its cosmological evolution 05 p1372 N93-17138

The evolution of AGN's at x ray wavelengths 05 p1372 N93-17141

The hard x ray luminosity function and evolution of AGN 05 p1373 N93-17142

The stellar populations of early-type galaxies in groups and clusters 08 p2549 N93-23491

Optical and infrared studies of distant galaxies 09 p2890 N93-25712

The physical properties of low surface brightness galaxies 09 p2895 N93-25832

The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706

The nature of faint emission-line galaxies 10 p3173 N93-26716

Two protogalaxy candidates in one night 10 p3173 N93-26717

A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718

A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721

Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723

The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724

What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726

Environmental influences on galaxy evolution 10 p3175 N93-26727

Globular cluster systems as clues to galaxy evolution 10 p3175 N93-26728

Galaxy tracers in N-body simulations 10 p3176 N93-26732

The large-scale morphology of IRAS galaxies 10 p3176 N93-26733

Subclustering in the hierarchical model of galaxy formation 10 p3176 N93-26734

Gas dynamic simulations of galaxy formation 10 p3176 N93-26736

The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738

Do galactic potential wells depend on their environment? 10 p3177 N93-26739

Distant radio galaxies in the near IR 10 p3177 N93-26742

Massive low surface brightness galaxies 10 p3178 N93-26746

Oxygen abundances in low surface-brightness galaxies 10 p3178 N93-26747

Analysis of the Einstein sample of early-type galaxies 10 p3179 N93-26754

Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758

The evolution of the intergalactic medium and the origin of the galaxy luminosity function 10 p3180 N93-26759

Constraints on chemical evolution models from QSOALS abundances 10 p3182 N93-26769

The reionization of the universe: The feedback of galaxy formation on the intergalactic medium 10 p3182 N93-26771

Absorption spectra of Q 0000-263 and Q 1442+101 10 p3182 N93-26773

Gas distribution and starbursts in shell galaxies 10 p3183 N93-26780

Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781

Evolution of luminous IRAS galaxies: Radio imaging 10 p3184 N93-26786

The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793

The multicomponent structure of bulges 10 p3187 N93-26800

Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802

The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem 10 p3188 N93-26810

Tidal interactions and the formation of Magellanic spiral galaxies 10 p3190 N93-26821

Cluster tidal fields: Effects on disk galaxies 10 p3191 N93-26824

Dissipative merging of galaxies 10 p3191 N93-26827

Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828

Declining rotation curves in interacting galaxies 10 p3192 N93-26829

A new observational and numerical study of tidal interactions in M81-M82-NGC3077 system 10 p3192 N93-26830

The nature of the evolution of galaxies by mergers 10 p3192 N93-26831

A numerical simulation of galaxy subcluster mergers 10 p3192 N93-26833

Luminosity segregation in galaxy clusters as an indication of dynamical evolution 10 p3192 N93-26834

Multicolor photometry of x ray selected Abell clusters 10 p3195 N93-26846

Searching for emission-line galaxies: The UCM survey 10 p3195 N93-26849

The ring around SN1987A 10 p3199 N93-26868

Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876

Automata network models of galaxy evolution 10 p3201 N93-26879

Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880

Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888

Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473

GALACTIC HALOS

Dark matter axions
[DE92-040501] 04 p1022 N93-15346

The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180

The evolution of the intergalactic medium and the origin of the galaxy luminosity function 10 p3180 N93-26759

Low redshift Lyman alpha absorption lines and the dark matter halos of disk galaxies 10 p3180 N93-26762

Ages, chemistry, and type 1A supernovae: Clues to the formation of the galactic stellar halo 10 p3187 N93-26803

A halo and a blow-out in NGC 253 10 p3199 N93-26869

The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871

Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880

Spokes in ring galaxies 10 p3202 N93-26885

The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889

GALACTIC MAGNETIC FIELDS

U INTERSTELLAR MAGNETIC FIELDS

GALACTIC MASS

The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496
[NASA-CR-191240] 03 p0743 N93-13352

A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228

X ray morphology and the mass of clusters of galaxies 08 p2534 N93-23887

GALACTIC NUCLEI

NT ACTIVE GALACTIC NUCLEI

A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347

The dynamics of dense galactic nuclei 03 p0750 N93-13340

The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137

Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095

Nuclear activity and the environments of nearby radio galaxies 10 p3196 N93-26852

The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867

GALACTIC RADIATION

NT GALACTIC COSMIC RAYS

Power spectrum of the extragalactic background light 01 p0177 N93-10364

Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473

Physical properties of extended emission-line regions in active and cooling-flow galaxies 04 p1018 N93-14461

X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094

Soft x ray segregation of Seyfert galaxies 05 p1362 N93-17135

A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469

A bolometric radiometer for investigations in cosmology 08 p2303 N93-22684

The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180

The case of missing CO-13 in mergers 10 p3189 N93-26819

The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419

GALACTIC ROTATION

Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660 09 p2607 N93-25396

Evolution of molecular clouds 10 p3203 N93-26892

GALACTIC STRUCTURE

Prospects in stellar and galactic observations with SIMURIS 01 p0182 N93-10921

Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272

Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959

Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660
09 p2607 N93-25396

Numerical modeling of barred spiral galaxies
09 p2893 N93-25537

The physical properties of low surface brightness galaxies 09 p2895 N93-25832

The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706

Ways to improve your correlation functions
10 p3172 N93-26712

Environmental influences on galaxy evolution
10 p3175 N93-26727

Do galactic potential wells depend on their environment? 10 p3177 N93-26739

The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740

Chemical abundances in low surface brightness galaxies: Implications for their evolution
10 p3178 N93-26748

The hot interstellar medium in NGC 1399
10 p3179 N93-26753

A new method to simulate vertical and horizontal structure in galactic disks 10 p3188 N93-26809

The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem
10 p3188 N93-26810

Numerical simulations of galactic wakes
10 p3189 N93-26818

Density wave triggered star formation in grand design spirals 10 p3190 N93-26820

Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828

Mergers at $z = 1$ 10 p3192 N93-26832

Kinematics of compact groups and morphologies of the member galaxies 10 p3193 N93-26835

Using x ray images to detect substructure in a sample of 40 Abell clusters 10 p3194 N93-26844

Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414

Multiwavelength studies of classical nova shells
11 p3636 N93-30412

GALAXIES
NT ACTIVE GALAXIES
NT ANDROMEDA GALAXY
NT BARRED GALAXIES
NT COMPACT GALAXIES
NT DISK GALAXIES
NT DWARF GALAXIES
NT ELLIPTICAL GALAXIES
NT GALACTIC CLUSTERS
NT INTERACTING GALAXIES
NT IRREGULAR GALAXIES
NT MAFFEI GALAXIES
NT MAGELLANIC CLOUDS
NT MARKARIAN GALAXIES
NT MILKY WAY GALAXY
NT PECULIAR GALAXIES
NT RADIO GALAXIES
NT RING GALAXIES
NT SEYFERT GALAXIES
NT SHELL GALAXIES
NT SPIRAL GALAXIES
NT STARBURST GALAXIES
NT VIRGO GALACTIC CLUSTER

Imaging of BL Lac objects 01 p0177 N93-10884

Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959

Optical signatures of cooling flows in isolated early-type galaxies 04 p1017 N93-14243

Faint high-latitude carbon stars
04 p1019 N93-14638

Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686

Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284

IUE-ULDA access guide no. 3: International Ultraviolet Explorer-Uniform Low Dispersion Archive: Normal galaxies
[ESA-SP-1152] 07 p2094 N93-20541

ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462

Mapping the Universe: Statistical measures of the galaxy distribution
[ETN-93-93456] 08 p2542 N93-23116

A study of properties of dark galaxy halos in a CDM universe using N-body computer simulations
08 p2546 N93-23132

IRAS galaxies in the ROSAT survey
08 p2536 N93-23897

The structure of the nearby universe traced by theIRAS galaxies
[NASA-CR-192809] 09 p2889 N93-25331

Tully-Fisher distances and motions in the northern sky
09 p2889 N93-25621

Optical and infrared studies of distant galaxies
09 p2890 N93-25712

The physical properties of low surface brightness galaxies 09 p2895 N93-25832

The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706

Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711

Globular cluster formation in merging galaxies?
10 p3175 N93-26729

The large-scale morphology of IRAS galaxies
10 p3176 N93-26733

The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735

Gas dynamic simulations of galaxy formation
10 p3176 N93-26736

The galaxy velocity field and CDM models
10 p3176 N93-26737

Do galactic potential wells depend on their environment? 10 p3177 N93-26739

Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788

CO deficiency in galaxies of the Fornax cluster?
10 p3185 N93-26791

The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793

The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796

Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802

High velocity clouds in nearby disk galaxies
10 p3187 N93-26804

A comparison of extinction curves for dust in galaxies of different Hubble types 10 p3187 N93-26805

Molecular clouds in the centers of galaxies: Constraints from HCN and CO-13 line emission
10 p3188 N93-26806

Galactic oscillations 10 p3188 N93-26808

Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814

Atomic hydrogen in the disturbed edge-on galaxy NGC 4631 10 p3189 N93-26815

Numerical simulations of galactic wakes
10 p3189 N93-26818

Star formation in cooling flow galaxies
10 p3193 N93-26839

Jet induced star formation in centrally dominant galaxies? 10 p3193 N93-26840

Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847

Deep, wide-field, multi-band imaging of z approximately equal to 0.4 clusters and their environs
10 p3195 N93-26848

Searching for emission-line galaxies: The UCM survey
10 p3195 N93-26849

The environment of x ray selected BL Lacs: Host galaxies and galaxy clustering 10 p3196 N93-26851

Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877

Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883

On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962

Atomic and molecular line observations of galaxies
12 p3847 N93-31771

Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143

GALAXY GROUPS
U GALACTIC CLUSTERS

GALAXY INTERACTION
U INTERACTING GALAXIES

GALERKIN METHOD

Large-amplitude piate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606

Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280

The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412

Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122

Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035

Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362

Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-35] 06 p1524 N93-17847

An efficient algorithm for the computation of Galerkin coarse grid approximation for the incompressible Navier-Stokes equations
[REPT-92-40] 06 p1616 N93-17872

Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581

The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018

Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180

A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet
[DE93-005251] 08 p2293 N93-23300

Solution of a class of Sturm-Liouville problems using the Galerkin method with global basis functions
[DE93-005156] 08 p2474 N93-23692

Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663

A Petrov-Galerkin mixed finite element method with exponential fitting
[CWI-NM-R9204] 10 p3113 N93-27301

A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214

On high resolution extensions of Lagrange-Galerkin finite-element schemes
[INRIA-RR-1703] 11 p3550 N93-30117

Vibration localization in rotating shafts
11 p3454 N93-30626

Multiple methods integration for structural mechanics analysis and design 11 p3307 N93-30867

Galerkin coarse grid approximation in multigrid for the incompressible Navier-Stokes equations
[REPT-92-103] 12 p3726 N93-31658

GALILEAN SATELLITES
NT EUROPA
NT IO

Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304

GALILEO MISSION
U GALILEO PROJECT

GALILEO PROJECT

Cassini: Mission to Saturn and Titan
06 p1592 N93-18559

Proposed data compression schemes for the Galileo S-band contingency mission 08 p2431 N93-24554

GALILEO SPACECRAFT

Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909

The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception
06 p1458 N93-18910

Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers 06 p1506 N93-18912

A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924

Minor satellites and the Gaspra encounter
06 p1719 N93-19255

Application of high-precision two-way ranging to Galileo Earth-1 encounter navigation 06 p1454 N93-19415

Cascaded convolutional codes
06 p1458 N93-19429

The Galileo PPS expert monitoring and diagnostic prototype
[NASA-CR-191914] 07 p1828 N93-21823

Proposed data compression schemes for the Galileo S-band contingency mission 08 p2431 N93-24554

Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125

Science missions for lunar resources exploration
10 p2953 N93-28044

Galileo post-Gaspra cruise and Earth-2 encounter
11 p3385 N93-29597

The flight performance of the Galileo orbiter USO
11 p3386 N93-29603

GALLIUM
NT GALLIUM ISOTOPES

Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150

GALLIUM ALLOYS
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
GALLIUM ANTIMONIDES
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules
10 p3066 N93-27962
GALLIUM ARSENIDE LASERS
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
GALLIUM ARSENIDES
NT ALUMINUM GALLIUM ARSENIDES
NT INDIUM GALLIUM ARSENIDES
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
GaAs heterojunction device based A/D converter development
[AD-A252644] 02 p0468 N93-12183
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition
03 p0726 N93-13904
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
SETA support for the DARPA microelectronics technology insertion program of the Microelectronics Technology Office
[AD-A255551] 04 p0866 N93-14555
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Direct optical to microwave conversion
[RL-TR-91-375] 04 p0859 N93-14728
Dual active layer photoconductor
[AD-D015423] 04 p0993 N93-14820
Conceptualization of a GaAs field effect transistor frequency tripler (2.5-7.5 GHz) for load use in communication satellites 04 p0807 N93-14934
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Study of the mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions
[CTN-93-60619] 04 p0855 N93-15201
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Laser-induced dissociation of HN3(DN3) on GaAs(100) K
[AD-A257426] 05 p1315 N93-15865
Characterization of semi-insulating gallium arsenide
[AD-A257295] 05 p1316 N93-16081
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Investigation of III-V superlattices and heterostructures by convergent-beam electron diffraction
[ETN-92-92784] 05 p1321 N93-16581
Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
Acousto-optic frequency excision
06 p1523 N93-18460
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Defect characterization by means of positron annihilation 07 p1804 N93-21081
Development of a Knudsen cell for molecular beam epitaxial growth of GaAs films in the microgravity environment 07 p1804 N93-21082
GaAs computer technology
[AD-A259259] 07 p2080 N93-21241
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
Study on photochemical and photoelectrochemical etching of gallium arsenide
[ECL-91-25] 07 p1851 N93-21824
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
Process toward a comprehensive control system for molecular beam epitaxy
[AD-A259724] 08 p2507 N93-23468
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
Study of the compatibility of PIN detector circuits and field effect transistors. Extension to high mobility and one dimensional electron gas transitors
[LAAS-92242] 08 p2283 N93-23863
Basic studies of 3-5 high efficiency cell components
[DE92-010563] 08 p2382 N93-24432
Observation of a charge limit for photocathode electron guns
[DE93-006948] 08 p2485 N93-24464
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU]
08 p2464 N93-24599
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors
09 p2865 N93-25715
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
Analysis of transient photoluminescence measurements on GaAs and AlGaAs double heterostructures
[AD-A261154] 09 p2867 N93-25947
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Investigation of misfit dislocation configurations in MBE-grown InGaAs layers on misaligned GaAs (001) substrates
[DE93-007578] 10 p3151 N93-27522
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
A study of subterahertz HEMT monolithic oscillators
10 p3011 N93-27732
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Superlattice barrier varactors
10 p3012 N93-27738
A 200 GHz tripler using single barrier varactor
10 p3013 N93-27740
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765
New approach to the design of Schottky barrier diodes for THz mixers 10 p3019 N93-27778
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
A single-transistor memory cell and sense amplifier for a gallium arsenide dynamic random access memory
[AD-A261975] 10 p3153 N93-27953
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules
10 p3066 N93-27962
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Fundamental studies of the morphology, chemistry, and electrical properties of metals on GaAs and other III-V semiconductor compounds
[AD-A264417] 11 p3597 N93-30120
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
Modelling of channel thickness modulation effect in SI GaAs MESFET's 11 p3356 N93-30229

Unexpected increase in the thermal generation rate of bulk GaAs due to electron-beam metallization
[DE93-009829] 11 p3598 N93-30511
Development of ultra-low noise, high sensitivity planar metal grating coupled 3-5 multiquantum well infrared detectors for focal plane array staring IR sensor systems
[AD-A264465] 11 p3599 N93-30536
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619
Carrier capture in 3-5 semiconductor quantum wells
[ETN-93-94054] 12 p3828 N93-31620
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

GALLIUM COMPOUNDS
NT ALUMINUM GALLIUM ARSENIDES
NT GADOLINIUM-GALLIUM GARNET
NT GALLIUM ANTIMONIDES
NT GALLIUM ARSENIDES
NT GALLIUM NITRIDES
NT GALLIUM OXIDES
NT GALLIUM PHOSPHIDES
NT GALLIUM SELENIDES
NT INDIUM GALLIUM ARSENIDES
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013

GALLIUM ISOTOPES
Status of the Soviet-American gallium experiment
[DE93-009067] 10 p3218 N93-28157

GALLIUM NITRIDES
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Heteroepitaxial growth of gallium nitride and native defect formation in III-V nitrides
08 p2512 N93-24216
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

GALLIUM OXIDES
Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829

GALLIUM PHOSPHIDES
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors
09 p2865 N93-25715
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407

GALLIUM SELENIDES
CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4526] 02 p0315 N93-11388

GALVANIC CELLS
U ELECTROLYTIC CELLS

GALVANIZING
U ZINC COATINGS

GAME THEORY
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
Robust approximate optimal guidance strategies for aeroassisted orbital transfer missions
05 p1074 N93-16518
The Shapley value for cooperative games under precedence constraints
[MEMO-1025] 07 p2056 N93-21398
Relationships between bankruptcy games and minimum cost spanning tree games
[MEMO-1058] 08 p2469 N93-23356
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208
Graphs and games
[MEMO-1065] 10 p3120 N93-28074
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498

GAMETOCYTES
NT SPERMATOZOA

GAMMA RADIATION
U GAMMA RAYS

GAMMA RAY ABSORPTION
Design of a high current proton accelerator
07 p1766 N93-21873
An H(-) ion source for resonant gamma production
07 p1766 N93-21874
Selective gamma ray resonant absorption for explosives detection 07 p1769 N93-21887

GAMMA RAY ASTRONOMY
Gamma ray astrophysics to the year 2000. Report of the NASA Gamma Ray Program Working Group
[NASA-TM-107995] 01 p0178 N93-10067
Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
Gamma ray astronomy
[NASA-CR-184447] 02 p0483 N93-12348
Search for pulsed gamma ray emission from SN1987A and the Vela pulsar 04 p1050 N93-14634
The gamma ray spectrum resulting from pp interactions in quasars 04 p1051 N93-14917
Very high energy gamma ray extension of GRO observations
[NASA-CR-192407] 07 p2094 N93-20746
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics
[ESA-ISY-3] 08 p2533 N93-23878
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Spectral evolution during a complex gamma ray burst observed with BATSE 08 p2537 N93-23906
Ground-based optical support for gamma ray satellite activities 08 p2170 N93-23909
Very high energy gamma ray astrophysics
[DE93-007625] 08 p2551 N93-24453
Interferometric fiber-optic radiation sensor
[DE93-003841] 09 p2852 N93-25127
Correlative studies of astrophysical sources of very high and ultra high energy gamma-rays
[NASA-CR-192781] 09 p2888 N93-25172
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Rejection of archival photographic objects as optical counterparts of gamma ray bursters
[MPE-PREPRINT-228] 11 p3631 N93-30642
The application of two-dimensional imaging to very high energy gamma ray astronomy
[DE93-012326] 12 p3851 N93-32160

GAMMA RAY BURSTS
Gamma ray astronomy
[NASA-CR-184447] 02 p0483 N93-12348
GAMCIT: A gamma ray burst detector
03 p0510 N93-13173
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
Structure in gamma ray burst time profiles: Statistical Analysis 1 05 p1344 N93-17308
The ionosphere as a gamma ray burst detector
05 p1211 N93-17312
An analysis of the structure of gamma ray burst time histories
[NASA-CR-191997] 06 p1746 N93-18583
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584
Gamma ray burst results from DMSP satellites
[DE93-003823] 08 p2559 N93-23687
Gamma ray bursts from extragalactic sources
08 p2535 N93-23893
Spectral evolution during a complex gamma ray burst observed with BATSE 08 p2537 N93-23906
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO
08 p2540 N93-23929
Gravitational lensing and gamma ray bursts
09 p2900 N93-25828
Photoerosion in astrophysical environments
10 p3205 N93-28450

GAMMA RAY LASERS
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions
[AD-A259476] 07 p1909 N93-20246
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
Proof of the feasibility of coherent and incoherent schemes for pumping a gamma ray laser
[AD-A262421] 10 p3048 N93-27656

GAMMA RAY OBSERVATORY
Gamma ray astrophysics to the year 2000. Report of the NASA Gamma Ray Program Working Group
[NASA-TM-107995] 01 p0178 N93-10067
Gamma ray astronomy
[NASA-CR-184447] 02 p0483 N93-12348
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources
04 p1050 N93-14639
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
First results from the Compton Observatory
05 p1366 N93-17102
NASA Center update: Goddard Space Flight Center
07 p1983 N93-20491
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
Very high energy gamma ray extension of GRO observations
[NASA-CR-192407] 07 p2094 N93-20746
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
Spectral evolution during a complex gamma ray burst observed with BATSE 08 p2537 N93-23906
Ground-based optical support for gamma ray satellite activities 08 p2170 N93-23909
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory
09 p2600 N93-24697
Real-time attitude determination and gyro calibration
09 p2602 N93-24708
STS-37 Space Shuttle mission report
[NASA-CR-193062] 09 p2612 N93-25956

GAMMA RAY SPECTRA
Operator's guide for VAXGAP, a gamma-ray spectrum analysis package
[DE92-019096] 02 p0407 N93-11356
The gamma ray spectrum resulting from pp interactions in quasars 04 p1051 N93-14917
First results from the Compton Observatory
05 p1366 N93-17102
An introduction to the pair-reflection model of X-ray spectra in AGN's 05 p1367 N93-17110
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
Soft x ray properties of the Geminga pulsar
05 p1360 N93-17403
A review of the associated particle imaging technique
[DE93-002238] 07 p2061 N93-20023

Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
Collection, analysis, and archival of LDEF activation data 11 p3624 N93-29631

GAMMA RAY SPECTROMETERS
Operator's guide for VAXGAP, a gamma-ray spectrum analysis package
[DE92-019096] 02 p0407 N93-11356
Wide range, permanent magnet Compton spectrometer
[DE92-017312] 03 p0596 N93-12762
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
GAMCIT: A gamma ray burst detector 03 p0510 N93-13173
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234
Lunar prospector: A preliminary surface remote sensing resource assessment for the Moon 05 p1389 N93-17256
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
Experimental evaluation of software-driven digital gain-drift compensation in scintillator gamma ray spectroscopy
[DE93-002623] 06 p1657 N93-19616
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
PFNA technique for the detection of explosives 07 p1765 N93-21865
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
A sparse architecture low power gated integrator for use with germanium gamma ray spectrometers in remote geochemistry measurements
[DE93-004769] 08 p2303 N93-22491
Feasibility study of a long duration balloon flight with NASA/GSFC and Soviet Space Agency Gamma Ray Spectrometers
[NASA-CR-192934] 09 p2573 N93-25077
Neutron energy determination with a high-purity germanium detector
[NASA-CR-192773] 09 p2900 N93-25890
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
Instrumental neutron activation analysis developed for silicon integrated circuit technology
[ETN-93-93581] 11 p3408 N93-29271
Sensitivity of LDEF foil analyses using ultra-low background germanium vs. large NaI(Tl) multidimensional spectrometers 11 p3318 N93-29627
A photon phreak digs the LDEF happening 11 p3572 N93-29629

GAMMA RAY TELESCOPES
Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
The effects of mis-alignment and background noise in a low energy gamma ray telescope 04 p1011 N93-14231
Gamma-ray imaging observations of Supernova 1987A 04 p1012 N93-14628
Search for pulsed gamma ray emission from SN1987A and the Vela pulsar 04 p1050 N93-14634
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources 04 p1050 N93-14639
Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics
[NASA-CR-191781] 04 p1013 N93-15589
A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590
A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance 04 p1014 N93-15591
Very high energy gamma ray extension of GRO observations
[NASA-CR-192407] 07 p2094 N93-20746
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Very high energy gamma ray astrophysics
[DE93-007625] 08 p2551 N93-24453
The application of two-dimensional imaging to very high energy gamma ray astronomy
[DE93-012326] 12 p3851 N93-32160

GAMMA RAYS
NT GAMMA RAY BURSTS
Gamma ray astrophysics to the year 2000. Report of the NASA Gamma Ray Program Working Group
[NASA-TM-107995] 01 p0178 N93-10067
Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
GAMCIT: A gamma ray burst detector 03 p0510 N93-13173
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars 04 p1050 N93-14242
Gamma-ray imaging observations of Supernova 1987A 04 p1012 N93-14628
Search for pulsed gamma ray emission from SN1987A and the Vela pulsar 04 p1050 N93-14634
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources 04 p1050 N93-14639
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Liquid xenon time projection chamber for gamma rays in the MeV region: Development status 04 p1014 N93-15592
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
Milagro: A low energy threshold extensive air shower array
[DE93-000852] 05 p1400 N93-17383
Imaging the Nearby Seyfert 2 Galaxy NGC 1068, and Spectrum and Variability of Geminga
[NASA-CR-191905] 05 p1360 N93-17401
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
An analysis of the structure of gamma ray burst time histories
[NASA-CR-191997] 06 p1746 N93-18583
Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons?
[NASA-CR-192255] 07 p2102 N93-20601
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
A pulsed fast-thermal neutron interrogation system 07 p1765 N93-21866
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Associated particle imaging 07 p1766 N93-21871
Design of a high current proton accelerator 07 p1766 N93-21873
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques 07 p1767 N93-21875
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Correlative studies of astrophysical sources of very high and ultra high energy gamma-rays
[NASA-CR-192781] 09 p2888 N93-25172
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Limits on neutrino radiative decay from SN1987A
[NASA-CR-193262] 11 p3653 N93-29164
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053
A high resolution 14-bit ADC for Gammasphere Project
[DE93-010446] 11 p3598 N93-30393
Mathematical simulation of the induced (gamma)-radiation in structural materials of spaceships. Time dependence
[DE93-605312] 11 p3281 N93-31024
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335

GANTRIES
U GANTRY CRANES

GANTRY CRANES
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596

GAP (PROPELLANTS)
U GLYCIDYL AZIDE POLYMER

GAPS
NT ENERGY GAPS (SOLID STATE)
NT SPARK GAPS

GAPS (GEOLOGY)
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710

GARMENTS
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471

GARNETS
NT GADOLINIUM-GALLIUM GARNET
NT YTTRIUM-IRON GARNET
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335

GARP
U GLOBAL ATMOSPHERIC RESEARCH PROGRAM

GAS ANALYSIS
NT OZONOMETRY
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
Infrared spectroscopy of size resolved fine aerosol 03 p0647 N93-13758
Parametric study of air sampling cyclones 04 p0779 N93-14173
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Low level measurements of atmospheric DMS, H2S, and SO2 for GTE/CITE-3
[NASA-CR-191635] 06 p1573 N93-18863
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Dichotomous key approach for high confidence level identification of selected explosive vapors 07 p1771 N93-21904
Explosive vapor emission 07 p1772 N93-21905

Extraction, transportation and processing of explosives vapor in detection systems 07 p1772 N93-21907
Vapor sampling using controlled heating 07 p1772 N93-21908
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Calibration methods for explosives detectors 07 p1773 N93-21911
Vapor detection using SAW sensors 07 p1773 N93-21912
Fourier-transform infrared spectroscopy applied to explosive vapor detection 07 p1773 N93-21913
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Modifications to the ionization process to enhance the detection of explosives by API/MS/MS 07 p1774 N93-21918
The role of mass spectrometry in the detection of explosives 07 p1774 N93-21919
Modification to the ionization process to enhance the detection of explosives by IMS 07 p1774 N93-21920
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives 07 p1774 N93-21921
Analysis of explosives using high speed gas chromatography with chemiluminescent detection 07 p1775 N93-21923
Explosives search dogs 07 p1776 N93-21933
Redistribution of trace chemical species by a small convective cloud [PB93-156164] 09 p2765 N93-25873
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6 [PB93-174886] 10 p3077 N93-27407
Wide range H2 sensor using catalytic alloys [DE93-007591] 10 p3046 N93-28009
Analysis of protocol gases: An on-going quality assurance audit [PB93-168839] 11 p3311 N93-29204
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky [PB93-182244] 11 p3474 N93-30825
Two-stage gas measurement system [NASA-CASE-LAR-14791-1] 12 p3729 N93-31297

GAS ATOMIZATION
Microstructure of rapidly-solidified lithium powders [DE93-004765] 08 p2229 N93-22880
Atomizing-gas temperature effect on cryogenic spray dropsize [NASA-TM-106106] 09 p2709 N93-25191

GAS BAGS
Inflatable device for excluding sea water from a rocket motor [AD-D015365] 02 p0232 N93-11424

GAS BEARINGS
A test facility for the thermofluid-dynamics of gas bearing lubrication films [PNR-90897] 02 p0263 N93-11032
Digital active material processing platform effort (DAMPER), SBIR phase 2 [NASA-CR-190798] 04 p0856 N93-15353
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307

GAS CHROMATOGRAPHY
A cryogenic enrichment technique for gas chromatographic detection of S2F10 in SF6 discharges [DE92-011045] 02 p0252 N93-12219
Analysis of IMS spectra using neural networks [DE92-017511] 03 p0691 N93-12791
Methods development for total organic carbon accountability [NASA-CR-184438] 03 p0672 N93-12949
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis [AD-A255582] 05 p1224 N93-16041
Chemical and thermal stability of refrigerant-lubricant mixtures with metals [DE93-000537] 05 p1121 N93-16192
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography [ETN-92-92618] 05 p1104 N93-16473
Modification and evaluation of a microwave plasma/atomic emission detector system [PB92-217959] 07 p2074 N93-21203
Analysis of explosives using high speed gas chromatography with chemiluminescent detection 07 p1775 N93-21923
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
An improved vapor taggant detector 07 p1775 N93-21927
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy [DE93-004585] 08 p2217 N93-22339
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures [AD-A263611] 11 p3311 N93-29283
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory [AD-A262024] 11 p3608 N93-29396
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate [AD-A262594] 11 p3596 N93-29424
An investigation of resolution as encountered in various chromatographic operational modes [AD-A262883] 11 p3312 N93-29510
Explosives detection systems for airport security gas chromatographic based devices 11 p3244 N93-30276
Carbon monoxide exposure of subjects with documented cardiac arrhythmias [PB93-179943] 11 p3497 N93-30890

GAS COMPOSITION
NT CARBON DIOXIDE CONCENTRATION
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions [PB92-192202] 01 p0105 N93-10432
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft [AD-A253648] 02 p0387 N93-11279
Silicon on insulator structures in selective epitaxial growth [DE92-017118] 02 p0465 N93-11915
Nonideal thermoequilibrium calculations using a large product species data base [DE92-040839] 03 p0735 N93-12813
Effects of gas composition on engine performance and emissions [PB92-217561] 03 p0611 N93-12936
Analysis of CCD images of the coma of comet P/Halley [NASA-CR-191384] 04 p1020 N93-14814
C60 interactions with surfaces, gaseous species and photons: An overview [DE92-040738] 04 p0978 N93-15654
The pyro-metallurgical, physical, and mechanical behavior of weldments [AD-A256998] 05 p1112 N93-16234
Ozone as a sink for atmospheric carbon aerosols [PB93-118594] 07 p1993 N93-21790
Two-stage gas measurement system [NASA-CASE-LAR-14791-1] 12 p3729 N93-31297

GAS COOLED REACTORS
NT HIGH TEMPERATURE GAS COOLED REACTORS
NT HIGH TEMPERATURE NUCLEAR REACTORS
A gas-cooled cermet reactor system for planetary base power [DE92-018017] 02 p0443 N93-11433
Space power reactor ground test in the Experimental Gas Cooled Reactor (EGCR) at Oak Ridge [DE92-016788] 05 p1299 N93-17202

GAS COOLING
Gas cooled fuel cell systems technology development [DE92-0012983-3103] 03 p0636 N93-12683
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961

GAS DENSITY
Potassium D-line fitting for investigation of MHD boundary layers [DE92-019020] 02 p0454 N93-11826
Hypersonic flow diagnostic development [AD-A255045] 02 p0202 N93-12466
Acoustic device and method for measuring gas densities [NASA-CASE-NPO-18155-1-CU] 03 p0700 N93-13421
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures 03 p0770 N93-13476
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel 03 p0602 N93-13681
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering 03 p0602 N93-13684
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
Molecular clouds in the distant outer galaxy 03 p0758 N93-14095
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere [AD-A257341] 05 p1206 N93-15994
Infrared studies of star-forming regions 06 p1696 N93-18497
H(-) beam neutralization measurements in a solenoidal beam transport system [DE93-005460] 08 p2481 N93-22908
Experimental and theoretical studies of reverse micelles in dense gases [PB93-141901] 08 p2222 N93-24143
Low surface brightness galaxies 10 p3178 N93-26750
Neutral hydrogen at the present epoch: A constraint on the evolution of high redshift systems 10 p3181 N93-26763
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
An assessment of twilight airglow inversion procedures using atmosphere explorer observations [NASA-CR-193205] 10 p3072 N93-27483
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles [BONN-IR-92-31] 11 p3632 N93-28473
Dense gas in the monoceros OB1 dark cloud and its relationship to star formation 11 p3636 N93-30502
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer [DE93-606271] 11 p3590 N93-30768

GAS DETECTORS
Correlation for non-linear infrared calibration curves [AD-A255098] 03 p0596 N93-12653
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer 04 p1027 N93-14312
A survey and analysis of commercially available hydrogen sensors [NASA-TM-105878] 05 p1170 N93-17777
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment [NOTA-INTERNA-994] 06 p1536 N93-17810
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips [NOTA-INTERNA-990] 06 p1659 N93-17940
Instruction manual for UTEP weld gas hydrogen detector [NASA-CR-184477] 06 p1537 N93-18034
Hydrogen leak detection in the Space Shuttle 06 p1457 N93-19392
Sensor technology for internal inspection systems [PB93-101020] 07 p1907 N93-21652
Role of advanced technology within a broad security approach 07 p1765 N93-21860
Calibration methods for explosives detectors 07 p1773 N93-21911
Vapor detection using SAW sensors 07 p1773 N93-21912
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Modification to the ionization process to enhance the detection of explosives by IMS 07 p1774 N93-21920

Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives
07 p1774 N93-21921
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
Marking of German plastic explosive for the enhancement of vapor detection
07 p1775 N93-21925
Program to tag military plastic/sheet explosives
07 p1775 N93-21926
An improved vapor taggant detector
07 p1775 N93-21927
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929
Dry immunochemical sensor for the detection of PETN vapor 07 p1776 N93-21930
The challenge of biodetection for screening persons carrying explosives 07 p1776 N93-21931
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Predictive sensor method and apparatus
08 p2305 N93-22202
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Explosives detection systems for airport security gas chromatographic based devices
11 p3244 N93-30276
Advanced signal processing requirement in an ion mobility explosives detector 11 p3320 N93-30277
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882

GAS DIFFUSION
U GASEOUS DIFFUSION

GAS DISCHARGE COUNTERS
U COUNTERS
U GAS DISCHARGE TUBES

GAS DISCHARGE TUBES
NT THYRATRONS
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158

GAS DISCHARGES
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
Potential distributions at gas evolving electrodes
[DLR-FB-92-20] 12 p3702 N93-31319

GAS DISSOCIATION
Vibration dissociation coupling in nonequilibrium flows
[NASA-CR-191775] 05 p1157 N93-16439
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487

GAS DYNAMICS
NT AERODYNAMICS
NT AEROTHERMODYNAMICS
NT HYPERSONICS
NT INTERACTIONAL AERODYNAMICS
NT RAREFIED GAS DYNAMICS
NT ROTOR AERODYNAMICS
NT SUPERSONICS
NT UNSTEADY AERODYNAMICS
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
Investigation of a possible galactic chimney
[AD-A257133] 05 p1364 N93-16077
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems
05 p1165 N93-16786
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
Understanding curved detonation waves
[DE93-000799] 06 p1528 N93-18529
Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859
Fundamental processes in partially ionized plasmas
[AD-A259272] 07 p2072 N93-20600
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
The radiation gasdynamics of planetary nebulae
08 p2547 N93-23133
Restoring monotonicity of slowly-moving shocks computed with Godunov-type schemes
[CRANFIELD-AERO-9207] 08 p2297 N93-24075
Mathematical analysis of gasdynamic wave initiation
[AD-A260382] 08 p2297 N93-24174
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
Gas dynamic simulations of galaxy formation
10 p3176 N93-26736
The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
Godunov-type schemes applied to detonation flows
[NASA-CR-191447] 10 p2929 N93-27090
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319
Experimental MHD stability limit in the gas-dynamic trap
[DE93-606218] 11 p3591 N93-30780
Knot invariants and cellular automata
[AD-A264199] 11 p3607 N93-30884
Contribution to the theoretical study and finite-element approximation of the multidimensional, multispecies, hyperbolic system of gas dynamics
[ESA-TT-1275] 12 p3724 N93-31429

GAS EVOLUTION
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
Evolution of molecular clouds
10 p3203 N93-26892
Status and integration of the gas generation studies performed for the hydrogen safety program
[DE93-008518] 10 p2994 N93-27105

GAS EXCHANGE
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
A preliminary review of global CO2 exchange between ocean and atmosphere
[AD-A264019] 11 p3472 N93-30015

GAS EXPANSION
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124

GAS EXPLOSIONS
Mathematical analysis of gasdynamic wave initiation
[AD-A260382] 08 p2297 N93-24174
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836

GAS FLOW
NT AIR CURRENTS
NT AIR FLOW
NT CONTINUUM FLOW
NT COOLING FLOWS (ASTROPHYSICS)
NT EQUILIBRIUM FLOW
NT FREE MOLECULAR FLOW
NT JET STREAMS (METEOROLOGY)
NT KNUDSEN FLOW
NT MERIDIONAL FLOW
NT MOLECULAR FLOW
NT NONEQUILIBRIUM FLOW
NT PIPE FLOW
NT SLIP FLOW
NT TRANSITION FLOW
NT VERTICAL AIR CURRENTS
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Space Station Freedom seal leakage rate analysis and testing summary: Air leaks in ambient versus vacuum exit conditions
[NASA-TM-103604] 02 p0328 N93-12149
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Mathematical problems in inviscid hypersonic flow
03 p0493 N93-13451
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102] 06 p1526 N93-18129
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
Rarefied gas numerical wind tunnel. Part 7: OREX
06 p1410 N93-19280
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering
[NASA-TM-105784] 06 p1539 N93-19651
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Pyroelectric anemometers and kinetic calorimeters
[PB93-141919] 08 p2303 N93-23230
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
Development of a laser-induced fluorescence system for application to rocket plumes
[AD-A259760] 08 p2205 N93-24025
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634

A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Predictive modeling of particle-laden, turbulent flows
[DE93-008208] 09 p2698 N93-25309
Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Instrumentation for measurement of gas permeability of polymeric membranes 09 p2720 N93-25609
An investigation of photothermal velocimetry for application to transient, high-speed gas flows 09 p2579 N93-25720
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements
[NASA-CR-192518] 09 p2631 N93-26057
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535
NTR plume modeling 10 p2978 N93-26929
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339
Modeling the effects of drop drag and breakup on fuel sprays
[AD-A263650] 11 p3445 N93-29388
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Heat transfer with moderate free stream turbulence 11 p3254 N93-29936
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992

GAS GENERATOR ENGINES
U GAS GENERATORS

GAS GENERATORS
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Propellant grain assembly for a gas generator
[AD-D015439] 04 p0854 N93-14801
NASA pyrotechnically actuated systems program 07 p1863 N93-20133
Development of a NASA standard gas generator 07 p1863 N93-20135
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028

GAS GIANT PLANETS
NT JUPITER (PLANET)
NT NEPTUNE (PLANET)
NT SATURN (PLANET)
NT URANUS (PLANET)
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
Accretion rates of protoplanets 03 p0759 N93-13958
Giant planets: Clues on current and past organic chemistry in the outer solar system 06 p1591 N93-18551
Planetary astronomy research
[NASA-CR-192134] 07 p2099 N93-21643
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000

GAS GUNS
NT LIGHT GAS GUNS
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123

GAS HEATING
Inert gas electric heater for elevated temperature testing of small propulsion components
[DE92-017434] 02 p0221 N93-12317

GAS INJECTION
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Gas bubble generation in low gravity 07 p1805 N93-21090
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds 09 p2577 N93-25487
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow 09 p2624 N93-26008
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089
The PIT MkV pulsed inductive thruster
[NASA-CR-191155] 12 p3698 N93-32353

GAS IONIZATION
NT ATMOSPHERIC IONIZATION
NT AURORAL IONIZATION
NT FLAME IONIZATION
Dispersion of seed vapor and gas ionization in an MHD second stage combustor and channel
[DE92-016699] 01 p0163 N93-10645
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Conditioning electron beams in the ion-focused regime
[AD-A255635] 04 p0978 N93-14127
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880

GAS JETS
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217
Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds 09 p2577 N93-25487
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode 11 p3280 N93-29992
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

GAS LASERS
NT CARBON DIOXIDE LASERS
NT EXCIMER LASERS
NT HELIUM-NEON LASERS
NT HF LASERS
NT KRYPTON FLUORIDE LASERS
NT TEA LASERS
NT ULTRAVIOLET LASERS
NT XENON CHLORIDE LASERS
NT XENON FLUORIDE LASERS
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
FALCON remote laser alignment system
[DE93-006448] 08 p2309 N93-23693
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Low-pump-rate multi-millisecond atomic xenon laser
[DE93-011484] 11 p3437 N93-29180

GAS LIQUEFACTION
U CONDENSING

GAS LUBRICATED BEARINGS
U GAS BEARINGS

GAS MASERS
NT HYDROGEN MASERS

GAS METERS
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253

GAS MIXTURES
NT AIR
NT COMPRESSED AIR
NT DETONABLE GAS MIXTURES
NT HIGH TEMPERATURE AIR
Loads from the detonation of hydrogen-air-steam mixtures
[DE92-019318] 02 p0249 N93-11551
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Fundamentals of combustion of premixed gases 04 p0840 N93-14618
Adsorption of a binary gas mixture which laterally interacts on a random heterogeneous surface
[DE93-000706] 05 p1103 N93-16227
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683
Microgravity combustion of dust suspensions 07 p1853 N93-20201
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274

The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Thermodynamic properties of natural gas mixtures
[PB93-167112] 09 p2872 N93-26509
Thermodynamic properties of natural gas mixtures
[PB93-156818] 09 p2872 N93-26558
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Thermodynamic properties of natural gas mixtures
[PB93-162816] 11 p3604 N93-29428
Thermodynamic properties of natural gas mixtures
[PB93-176162] 11 p3604 N93-29794
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882
Methods for preparation of mixtures of gases in air at the parts-per-billion to parts-per-million concentration range for calibration of monitors
[DE92-642433] 11 p3317 N93-30982
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177
Simple and accurate method for calculating viscosity of gaseous mixtures
[PB93-189751] 12 p3702 N93-31198
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
Two new gas standards programs at the National Institute of Standards and Technology
[PB93-191427] 12 p3751 N93-31816

GAS PATH ANALYSIS

Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
A philosophy for integrated monitoring system design 04 p0796 N93-15174
Some experiments and ideas on GPA before reaching steady state of engine 04 p0796 N93-15175

GAS PHASES

U VAPOR PHASES

GAS PIPES

Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
GRI proceedings on the Workshop on Plastic Pipe Research Results
[PB93-190460] 12 p3708 N93-31211
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992
[PB93-188647] 12 p3700 N93-31334

GAS PRESSURE

Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
Energy storage in supercritical solvents 06 p1498 N93-18492
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985
Densification of ceramics by gas overpressure sintering
[MTL-TR-92-45] 09 p2657 N93-26432
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556

GAS RECOVERY

Gas storage and recovery system
[NASA-CASE-MSC-22091-1] 10 p3021 N93-28136

GAS SPECTROSCOPY

Advanced signal processing requirement in an ion mobility explosives detector 11 p3320 N93-30277

GAS STREAMS

Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface 10 p2928 N93-27222
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365

GAS TEMPERATURE

Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
Gas temperature measurements using the dual-line detection Rayleigh scattering technique 03 p0599 N93-13668
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering 03 p0602 N93-13684
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering
[NASA-TM-105784] 06 p1539 N93-19651
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching 09 p2642 N93-24771
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Molecular gas temperature and density in spiral galaxies 10 p3185 N93-26792
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875

GAS TRANSPORT

Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836
Gas permeability of E/EP semicrystalline diblock copolymers
[AD-A263241] 11 p3329 N93-28560
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112

GAS TUNGSTEN ARC WELDING

Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys
[ESDU-92017] 04 p0900 N93-14553
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
The pyro-metallurgical, physical, and mechanical behavior of weldments
[AD-A256998] 05 p1112 N93-16234
Weld pool oscillation during gas tungsten arc welding
[ETN-92-92796] 05 p1177 N93-16568
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
GTAW penetration based on electrode tip location versus weld joint center line
[DE93-004910] 08 p2311 N93-22494
A system for measurement and control of weld pool geometry in automatic arc welding
[ETN-93-93154] 10 p3050 N93-27380
Understanding heat and fluid flow in linear GTA welds
[DE93-012958] 12 p3727 N93-32303

GAS TURBINE ENGINES

NT DUCTED FAN ENGINES
NT INTEGRAL ROCKET RAMJETS
NT J-52 ENGINE
NT JET ENGINES
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Materials: Toward the non-metallic engine
[PNR-90915] 02 p0209 N93-11019
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
Maintainability of large gas turbine aero engines
[PNR-90987] 02 p0211 N93-11069
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Alternative systems for fuel gas boosters for small gas turbine engines
[PB92-223049] 03 p0612 N93-12977
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890

Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
F100 second stage fan disk boithole crack propagation ferris wheel test 04 p0800 N93-14897
In-service considerations affecting component life 04 p0800 N93-14898
Some experiments and ideas on GPA before reaching steady state of engine 04 p0796 N93-15175
Experimental analysis of steady-state and dynamic monitoring of power shaft turbines 04 p0796 N93-15176
Bypass transition in compressible boundary layers 05 p1154 N93-15801
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Gas turbine system simulation: An object-oriented approach
[NASA-TM-106044] 09 p2593 N93-25673
Simulation of aircraft gas turbine engine 09 p2594 N93-25751
Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Advanced bristle seals for gas turbine engines
[AD-A261296] 09 p2720 N93-26564
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
Spurious symptom reduction in fault monitoring
[NASA-CR-191453] 11 p3542 N93-29192
Microwave processing of silicon nitride for advanced gas turbine applications
[DE93-007910] 11 p3334 N93-29767
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane 11 p3253 N93-29930
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Heat transfer with moderate free stream turbulence 11 p3254 N93-29936
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases 11 p3255 N93-29943
The USAF Advanced Turbine Aerothermal Research Rig (ATARR) 11 p3255 N93-29945
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
Flow and heat transfer between gas-turbine discs 11 p3256 N93-29950
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951
The effect of main stream flow angle on flame tube film cooling 11 p3257 N93-29953
Impingement/effusion cooling 11 p3257 N93-29954
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351

GAS TURBINES
A knowledge-based blackboard system to interpret graphical data from vibration tests of gas turbines
[PNR-90993] 02 p0212 N93-11114
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
Advanced coal-fueled gas turbine systems
[DE92-018939] 02 p0327 N93-11832
Development of advanced turbine systems: Meeting tomorrow's needs
[DE92-017339] 03 p0612 N93-13103
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Multi-heat addition turbine engine
[NASA-CASE-LEW-15094-1] 08 p2129 N93-22034
Overview of Advanced Turbine Systems Program
[DE93-003193] 08 p2311 N93-22413
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296
Heavy duty gas turbine combustion tests with simulated low BTU coal gas
[DE93-005078] 08 p2315 N93-23297
Problems on numerical analysis relating to gas turbines
[DE93-753796] 08 p2130 N93-24002
Advanced Turbine Design Program
[DE93-005077] 08 p2317 N93-24007
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion studies
[AD-A260253] 08 p2224 N93-24333
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Flow and heat transfer experiments in the turbine airfoil/endwall region 09 p2704 N93-25725
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
By-passing of heat exchangers in gas turbines 10 p2922 N93-27189
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039

GAS VALVES
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061

GAS VISCOSITY
Simple and accurate method for calculating viscosity of gaseous mixtures
[PB93-189751] 12 p3702 N93-31198

GAS WELDING
NT BRAZING
An integrated optical sensor for GMAW feedback control
[DE92-018019] 03 p0610 N93-12793

GAS-GAS INTERACTIONS
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319

GAS-ION INTERACTIONS
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467

GAS-LIQUID INTERACTIONS
NT AIR SEA ICE INTERACTIONS
NT AIR WATER INTERACTIONS
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
Gas bubbles in liquid metals 07 p1808 N93-21110
NASA in-step: Permeable membrane experiment 11 p3267 N93-28736

GAS-METAL INTERACTIONS
Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484

GAS-SOLID INTERACTIONS
NT GAS-METAL INTERACTIONS
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Gas-surface interactions
[AD-A255390] 04 p0841 N93-14652
Infrared sensor technology and applications 06 p1664 N93-18474
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface 10 p2928 N93-27222
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

GASDYNAMIC LASERS
Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778

GASEOUS CAVITATION
U CAVITATION FLOW
U GAS FLOW
GASEOUS DIFFUSION
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
On the structure of gaseous confined laminar diffusion flames: Numerical investigation
[NASA-TM-106039] 07 p1902 N93-21198
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056
GASEOUS FUELS
NT NATURAL GAS
Effects of coal-derived trace species on performance of molten carbonate fuel cells
[DE93-000203] 03 p0639 N93-13427
Combustion of gaseous fuels under reduced-gravity conditions 03 p0557 N93-14012
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209
GASEOUS ROCKET PROPELLANTS
Combustion-wave ignition for rocket engines 01 p0017 N93-10016
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
A new facility for advanced rocket propulsion research
[NASA-TM-106193] 11 p3270 N93-28696
GASES
NT AIR
NT AMMONIA
NT ARGON
NT ARGON ISOTOPES
NT CARBON DIOXIDE
NT CARBON MONOXIDE
NT COLD GAS
NT COMPRESSED AIR
NT COMPRESSED GAS
NT COSMIC GASES
NT DETONABLE GAS MIXTURES
NT DEUTERIUM
NT DIATOMIC GASES
NT DISSOLVED GASES
NT EXHAUST GASES
NT FLAMMABLE GASES
NT FLUE GASES
NT GAS MIXTURES
NT GAS STREAMS
NT GASEOUS FUELS
NT GRAY GAS
NT HELIUM
NT HELIUM ISOTOPES
NT HIGH PRESSURE OXYGEN
NT HIGH TEMPERATURE AIR
NT HIGH TEMPERATURE GASES
NT HYDROGEN
NT HYDROGEN ISOTOPES
NT IDEAL GAS
NT INTERPLANETARY GAS
NT INTERSTELLAR GAS
NT IONIZED GASES
NT KRYPTON
NT KRYPTON ISOTOPES
NT KRYPTON 85
NT LIQUEFIED GASES
NT LIQUEFIED NATURAL GAS
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT LIQUID HYDROGEN
NT LIQUID NITROGEN
NT LIQUID OXYGEN
NT METALLIC HYDROGEN
NT MOLECULAR GASES
NT MONATOMIC GASES
NT NATURAL GAS
NT NEON
NT NEUTRAL GASES
NT NITROGEN
NT NITROGEN ISOTOPES
NT NONCONDENSABLE GASES
NT NONGRAY GAS
NT OXYGEN
NT OXYGEN ISOTOPES
NT OXYGEN 18
NT OZONE
NT POLYATOMIC GASES
NT RADON
NT RADON ISOTOPES
NT RARE GASES
NT RAREFIED GASES
NT REAL GASES
NT SOLID CRYOGENS
NT SOLIDIFIED GASES
NT TRITIUM
NT XENON
NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135
Variational transition state theory
[DE92-040498] 04 p0842 N93-14908
C60 interactions with surfaces, gaseous species and photons: An overview
[DE92-040738] 04 p0978 N93-15654
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235...] 07 p1850 N93-21651
Instrumentation for measurement of gas permeability of polymeric membranes 09 p2720 N93-25609
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365
GASIFICATION
NT COAL GASIFICATION
Metal slurry droplet and spray combustion 02 p0245 N93-11138
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
GASKETS
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
GASOLINE
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
Technical comparison between Hythane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
GASP
U GLOBAL AIR SAMPLING PROGRAM
GASTROINTESTINAL SYSTEM
NT INTESTINES
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine 02 p0382 N93-11311
GATES (CIRCUITS)
NT THRESHOLD GATES
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Gate-all-around device
[AD-A255287] 04 p0866 N93-14534
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Development of radiation resistant HCMOSIC 07 p1798 N93-20467
Development of 10 k gate-gate array 07 p1799 N93-20472
Development of 32 bit MPU 07 p1799 N93-20473
GGADS: A library independent layout synthesis system for user adaptive gate array master structures
[ETN-93-92571] 07 p1892 N93-21021
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Asynchronous design for parallel processing architectures
[AD-A259776] 08 p2448 N93-23453
Splash 2 09 p2814 N93-25575
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311
Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645
GAUGE INVARIANCE
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Darboux theorems and Wronskian formulas for integrable systems. 1: Constrained KP flows
[MATHS-REPT-A-172] 02 p0424 N93-11126
Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186
Yang phase for non-Hermitian systems and biunitary transformations
[PREPRINT-782] 06 p1645 N93-18197
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
The N equals 2 topological gauge theory, the Euler characteristic of moduli spaces, and the Casson invariant
[NIKHEF-H/91-28] 10 p3156 N93-27509
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
Normal equivariant forms of vector fields
[DE92-644845] 11 p3551 N93-30929
Superconformal structures and holomorphic 1/2-superdifferentials on N = 1 super Riemann surfaces
[DE93-604133] 11 p3558 N93-30989
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
String-like excitations in quantum electrodynamics
[DE92-642593] 12 p3830 N93-31075
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083

GAUGE THEORY
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
The class of the paths in the Feynman path integral on the phase space
[DE92-630205] 01 p0170 N93-10386
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Induced gauge theories and W gravity
[DE92-011218] 02 p0470 N93-11518
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
The Cabibbo-Kobayashi-Maskawa mixing matrix
[DE93-001255] 05 p1283 N93-15976
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Research in elementary particle physics
[DE93-001858] 05 p1284 N93-16146
BRST field theory of relativistic particles
[NIKHEF-H/92-04] 05 p1286 N93-16341
On lattice chiral gauge theories
[PREPRINT-794] 05 p1278 N93-16415
Low energy effects of heavy chiral fermions
[PREPRINT-872] 05 p1289 N93-16978
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
SU(3) lattice gauge fixing with overrelaxation and Gribov copies
[PREPRINT-839] 05 p1322 N93-16993
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
Regularization of chiral gauge theories
[PREPRINT-888] 05 p1330 N93-17024
Gribov copies and smeared correlation functions in lattice QCD
[PREPRINT-892] 05 p1330 N93-17027
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Probing the WWZ vertex at 500 GeV e(+)e(-) collider
[PREPRINT-831] 05 p1299 N93-17216
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
A preliminary study of the Gribov ambiguity in lattice SU(3) Coulomb gauge
[PREPRINT-816] 07 p2055 N93-21179
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Aspects of the electroweak phase transition
[DE93-004629] 07 p2063 N93-21723
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
The QCD Teraflops Project
[DE93-006386] 08 p2447 N93-23026
Investigations in dynamics of gauge theories in theoretical particle physics
[DE93-007260] 08 p2484 N93-24448
The Mathai-Quillen formalism and topological field theory
[NIKHEF-H/92-07] 10 p3155 N93-27496
The N equals 2 topological gauge theory, the Euler characteristic of moduli spaces, and the Casson invariant
[NIKHEF-H/91-28] 10 p3156 N93-27509
Extended pure Yang Mills gauge theories with scalar and tensor gauge fields
[SSCL-PREPRINT-769] 10 p3156 N93-27583
Large deviations theory and stochastic gauge fixing
[SSCL-PREPRINT-739] 10 p3126 N93-28193
The Gribov problem in the frame of stochastic quantization
[SSCL-PREPRINT-740] 10 p3157 N93-28194
A modified Faddeev-Popov formula and the Gribov ambiguity
[SSCL-PREPRINT-750] 10 p3157 N93-28209
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Neutrino mass
[DE93-010735] 11 p3566 N93-29315
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
String-like excitations in quantum electrodynamics
[DE92-642593] 12 p3830 N93-31075
A note on the Dirac canonical quantization of massive Yang-Mills theory
[DE93-608199] 12 p3813 N93-31460

GAUSS EQUATION
Migration by the Kirchhoff, slant stack, and Gaussian beam methods
[DE92-018640] 02 p0366 N93-12318
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961
Gaussian membership functions are most adequate in representing uncertainty in measurements
11 p3520 N93-29584

GAUSS FUNCTION
U GAUSS EQUATION

GAUSS-MARKOV THEOREM
Comparisons of theoretical limits for source coding with practical compression algorithms
06 p1513 N93-19428

GAUSSIAN DISTRIBUTIONS
U NORMAL DENSITY FUNCTIONS

GAUSSIAN ELIMINATION
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558

GAUSSIAN NOISE
U RANDOM NOISE

GAUSSMETERS
U MAGNETOMETERS

GAW-1 AIRFOIL
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531

GC-130 AIRCRAFT
U C-130 AIRCRAFT

GCR (REACTORS)
U GAS COOLED REACTORS

GEAR TEETH
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Contact stress analysis of spiral bevel gears using nonlinear finite element static analysis
[NASA-TM-106176] 10 p3049 N93-27037
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074
Face-gear drives: Design, analysis, and testing for helicopter transmission applications
[NASA-TM-106101] 10 p3050 N93-27133
Generation of helical gears with new surfaces, topology by application of CNC machines
[NASA-TM-106175] 10 p3051 N93-27687
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411

GEARS
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions
02 p0324 N93-11263
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
The trajectory analysis of bevel planetary gear trains
[DE92-040898] 04 p0893 N93-15380
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Dynamics in condition monitoring, a case study
06 p1558 N93-18758
Flexible rotorcraft system dynamics with time-variant contact conditions 06 p1441 N93-19034
Parallel axes gear set optimization in two-parameter space 07 p1917 N93-20637
Resonant response analysis of a high speed gear
07 p1917 N93-20662
Flex-Gears
[NASA-CR-192364] 07 p1914 N93-20759
Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191057] 08 p2311 N93-22466
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Planetary gear train ring gear and support structure investigation 08 p2314 N93-23188
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641
Generation of helical gears with new surfaces, topology by application of CNC machines
[NASA-TM-106175] 10 p3051 N93-27687
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846

GEIGER COUNTERS
Electronics for a neutron detector and a Geiger-Mueller detector for the radiation protection around MEA and AmPS
[DIGEL-1992-6] 11 p3413 N93-30838

GEIGER-MUELLER TUBES
U GEIGER COUNTERS

GEL PERMEATION CHROMATOGRAPHY
U LIQUID CHROMATOGRAPHY

GELATION
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942

GELLED PROPELLANTS
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602

GELS
NT DOUBLE BASE ROCKET PROPELLANTS
NT SILICA GEL
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21)
[AD-A253395] 01 p0091 N93-10290
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082

Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
The influence of gravity on the equilibrium and the growth of tenuous structures 08 p2249 N93-22851
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques 09 p2747 N93-24831
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Crystallization of nanocomposite glasses made by the SSG process
[AD-A262892] 11 p3333 N93-29511
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209

GEMINID METEOROIDS
Observation of meteors by MST radar 06 p1697 N93-19180
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile 06 p1517 N93-19579

GENE EXPRESSION
Plasmid encoded virulence of Yersinia
[FOA-B-40419-4.4] 10 p3082 N93-28199
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848

GENE REGULATION
U GENE EXPRESSION

GENERAL AVIATION AIRCRAFT
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692
Proceedings of the AIAA/FAA Joint Symposium on General Aviation Systems
[AD-A257780] 05 p1053 N93-17732
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training 06 p1430 N93-19706
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988
[PB92-917008] 08 p2117 N93-23187
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
Lightning data acquisition 09 p2778 N93-24883
Annual review of aircraft accident data: US general aviation calendar year 1989
[PB93-160687] 10 p2940 N93-27033
Preliminary design studies of an advanced general aviation aircraft 11 p3228 N93-29717
Reaction to aircraft noise near general aviation airfields
[DORA-8203] 12 p3817 N93-32377

GENERAL AVIATION WHITCOMB AIRFOIL
U GAW-1 AIRFOIL

GENERAL CIRCULATION MODELS (ATMOSPHERIC)
U ATMOSPHERIC GENERAL CIRCULATION MODELS

GENERAL DYNAMICS AIRCRAFT
NT CL-84 AIRCRAFT

GENERAL OVERVIEWS
Computer systems laboratory
[PB93-181873] 11 p3521 N93-29662

GENES
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421
Genetic algorithms for DNA sequence assembly
[DE93-012708] 12 p3792 N93-32299

GENETIC ALGORITHMS
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
Teaching polymers to fold
[DE93-002670] 06 p1494 N93-18437
A Darwinian approach to control-structure design 06 p1485 N93-18840
Generalization and parallelization of messy genetic algorithms and communication in parallel genetic algorithms
[AD-A258994] 06 p1630 N93-18890
Full design of fuzzy controllers using genetic algorithms 06 p1629 N93-19461
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
Application of genetic algorithms to tuning fuzzy control systems 08 p2450 N93-22209
Genetic learning in rule-based and neural systems 08 p2456 N93-22374
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
Algorithms for optimal redundancy allocation
[DE93-005709] 09 p2827 N93-24973
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
A genetic algorithm tool (splicer) for complex scheduling problems and the Space Station Freedom resupply problem 09 p2814 N93-25613
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
Genetic algorithms in adaptive fuzzy control 11 p3518 N93-29572
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers 11 p3518 N93-29573
Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124
Use of a genetic algorithm to solve two-fluid flow problems on an NCUBE multiprocessor computer
[DE93-009630] 11 p3425 N93-30184
Genetic algorithms for DNA sequence assembly
[DE93-012708] 12 p3792 N93-32299
Introduction to natural algorithms
[REPT-92-058] 12 p3793 N93-32391

GENETIC CODE
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989
Plasmid encoded virulence of Yersinia
[FOA-B-40419-4.4] 10 p3082 N93-28199
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

GENETIC ENGINEERING
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
Characterization and classification of strains of Francisella tularensis isolated in the central Asian focus of the Soviet Union and in Japan
[FOA-B-40421-4.4] 10 p3082 N93-28200
Use of RNA hybridization in the diagnosis of a case of ulceroglandular tularemia
[FOA-B-40422-4.4] 10 p3083 N93-28212
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

GENETICS
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
A randomised schema mutator for evolutionary database optimisation
[TR-91-24] 05 p1356 N93-17595
A genetic algorithm tool (splicer) for complex scheduling problems and the Space Station Freedom resupply problem 09 p2814 N93-25613
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

GENITOURINARY SYSTEM
NT PROSTATE GLAND

GEO ENVIRONMENTS
U EARTH ORBITAL ENVIRONMENTS

GEOASTROPHYSICS
U ASTROPHYSICS

GEOBOTANY
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430

GEOCHEMISTRY
NT BIOGEOCHEMISTRY
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana 01 p0122 N93-10191
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918
Characterization of site geochemistry in support of environmental restoration
[DE92-017512] 03 p0641 N93-12685
The geology of the Venera/Vega landing sites 04 p1024 N93-14296
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394

The Prospector mission
[DE93-000656] 05 p1385 N93-17194
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Apollo 17 region: A compositional overview 06 p1736 N93-18796
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Apollo 17 regolith 06 p1737 N93-18799
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
The Apollo 17 samples: The Massifs and landslide 06 p1738 N93-18809
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts 06 p1739 N93-18812
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Summaries of FY 1992 geosciences research
[DE93-004826] 07 p1965 N93-21726
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods 09 p2741 N93-24798
The JGOFS North Atlantic Bloom Experiment: An overview 09 p2735 N93-24934
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study 09 p2736 N93-24938
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
Aqueous geochemistry on Mars: Possible clues from salts and clays in SNC meteorites 12 p3863 N93-31944
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
The Martian ocean: First acid, then alkaline 12 p3866 N93-31958
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

GEOCHRONOLOGY

Large meteorite impacts: The K/T model 01 p0107 N93-10120
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe? 01 p0109 N93-10134
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome 01 p0122 N93-10189
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded? 06 p1739 N93-18813
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective 12 p3759 N93-31882

GEOCORONAL EMISSIONS

Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685

GEODESIC LINES

Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281

GEODESY

Construction of a geodesic strapdown inertial navigation system for point determination
[SER-C-367] 02 p0205 N93-11344
Coordinates in differential geodesy
[AD-A254951] 03 p0632 N93-12550
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Analysis of space geodetic measurements for studying the dynamics of the solid Earth
[NASA-CR-191215] 03 p0649 N93-12661
A feasibility study of space VLBI for geodesy and geodynamics 04 p0904 N93-14223
IERS standards for 1992
[AD-A257973] 05 p1192 N93-17739
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
ATKIS: The introduction phase at IfAG 07 p1967 N93-20533
NASA Space Geodesy Program: GSFC data analysis, 1992. Crustal Dynamics Project VLBI geodetic results, 1979 - 1991
[NASA-TM-104572] 07 p1999 N93-20900
National report of the Federal Republic of Germany on the geodetic activities in the years 1987-1991
[SER-B-294] 07 p1969 N93-20960
Commission 10: Continental networks. Subcommission for the European Reference Frame (EUREF) 07 p1969 N93-20961
Commission 10: Continental networks. Subcommission United European Levelling Network (UELN) 07 p1969 N93-20962
SSG 1.73: Integrated geodesy 07 p1969 N93-20963
SSG 1.77: Utilization of inertial techniques for geodesy and surveying 07 p1969 N93-20964
SSG 1.102: Vertical reference systems 07 p1970 N93-20966
IAG commission 8 and COSPAR ISSC B2: International Coordination of Space Techniques for Geodesy and Geodynamics (CSTG). Introduction 07 p1970 N93-20968
CSTG subcommission on Space Geodetic Measurement Sites (SGMS) 07 p1970 N93-20969
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS) 07 p1971 N93-20971
CSTG subcommission GPS: GPS in Germany (1988-1991)91) 07 p1971 N93-20972
SSG 2.106: Determination of orbits to cm-accuracy 07 p1971 N93-20973
Commission 12: International Geoid Commission 07 p1971 N93-20976
International Gravimetric Bureau 07 p1971 N93-20977
SSG 3.113: Spectral gravity field modelling methods 07 p1971 N93-20978
SSG 4.91: Local gravity field approximation 07 p1972 N93-20979
SSG 4.93: Wave propagation in refractive media 07 p1972 N93-20980
SSG 4.115: Mathematical analysis of geodetic boundary value problem 07 p1972 N93-20981
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
SSG 4.117: Optimization of modern positioning techniques 07 p1972 N93-20983
SSG 4.118: Inverse geodetic problems 07 p1973 N93-20984
SSG 4.119: Relativistic effects in geodesy 07 p1973 N93-20985
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
International geodetic bibliography 07 p1974 N93-20995
Education in geodesy 07 p1975 N93-20996
History of geodesy 07 p1975 N93-20997
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
Use of geodetic methods in detecting terrain movements with special reference to the Global Positioning System
[ISBN-0-315-69179-4] 08 p2393 N93-23190
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
Repair, evaluation, maintenance, and rehabilitation research program. Continuous Deformation Monitoring System (CDMS)
[AD-A261833] 09 p2586 N93-26274
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Radiointerferometric observations for estimation of pole motion by using long north-south reference axes
[SER-C-368] 12 p3746 N93-31339
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889

GEODETIC ACCURACY

Exact trajectory determinator for ERS-1 11 p3457 N93-28918

GEODETIC COORDINATES

Coordinates in differential geodesy
[AD-A254951] 03 p0632 N93-12550
Commission 10: Continental networks. Subcommission for the European Reference Frame (EUREF) 07 p1969 N93-20961
SSG 1.102: Vertical reference systems 07 p1970 N93-20966
CSTG subcommission GPS: GPS in Germany (1988-1991)91) 07 p1971 N93-20972
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
Some aspects of a 3-dimensional reference system for surveying in the Netherlands: Quality analysis of GPS phase observations
[REPT-92-1] 10 p3063 N93-27368
Experiences with two GPS receivers in northern Europe
[NLR-TP-91168-U] 12 p3675 N93-31120

Differential small displacements and rotation extensions in three dimensional coordinate systems
[SER-B-295] 12 p3804 N93-31338

GEODETIC SATELLITES
NT GEOSAT SATELLITES
Geophysical parameters from the analysis of laser ranging to Starlette
[NASA-CR-192406] 06 p1541 N93-18605
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005

GEODETIC SURVEYS
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Analysis of space geodetic measurements for studying the dynamics of the solid Earth
[NASA-CR-191215] 03 p0649 N93-12661
Plate tectonics from VLBI and SLR global data
[NASA-CR-191319] 04 p0916 N93-14913
SSG 1.77: Utilization of inertial techniques for geodesy and surveying 07 p1969 N93-20964
SSG 1.79: Optical interferometry and short range distance measurement (EDM) 07 p1969 N93-20965
Activity report of the IRIS subcommission in the period 1987-1991 07 p1970 N93-20970
History of geodesy 07 p1975 N93-20997
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
Intraplate deformation, stress in the lithosphere and the driving mechanism for plate motions
[NASA-CR-192782] 09 p2772 N93-25529
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241

GEODYNAMICS
Effects of gravity in folding --- of geological layers 01 p0124 N93-10324
Analysis of space geodetic measurements for studying the dynamics of the solid Earth
[NASA-CR-191215] 03 p0649 N93-12661
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion 03 p0652 N93-13481
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051
A feasibility study of space VLBI for geodesy and geodynamics 04 p0904 N93-14223
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data 04 p0931 N93-14997
IERS standards for 1992
[AD-A257973] 05 p1192 N93-17739
Evolution of attached and detached slabs and their associated mantle dynamics
[NASA-CR-191920] 06 p1576 N93-18320
Geodynamic contributions to global climatic change 06 p1575 N93-18963
Crustal deformation measurements in the vicinity of Vandenberg Air Force Base
[AD-A258536] 07 p1996 N93-20053
Lithospheric dynamics near plate boundaries
[NASA-CR-192108] 07 p1997 N93-20310
NASA Space Geodesy Program: GSFC data analysis, 1992. Crustal Dynamics Project VLBI geodetic results, 1979 - 1991
[NASA-TM-104572] 07 p1999 N93-20900
National report of the Federal Republic of Germany on the geodetic activities in the years 1987-1991
[SER-B-294] 07 p1969 N93-20960
IAG commission 8 and COSPAR ISSC B2: International Coordination of Space Techniques for Geodesy and Geodynamics (CSTG). Introduction 07 p1970 N93-20968
CSTG subcommission on Space Geodetic Measurement Sites (SGMS) 07 p1970 N93-20969
SSG 2.106: Determination of orbits to cm-accuracy 07 p1971 N93-20973
Gravimetric activities in the period 1986-1990, submitted to the International Gravity Commission of IAG 07 p1971 N93-20975
Commission 7: Recent crustal movements 07 p1973 N93-20988
International Centre on Recent Crustal movements 07 p1973 N93-20989
International Earth Rotation Service 07 p1974 N93-20990
SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374

GEOELECTRICITY
NT TELLURIC CURRENTS
Report of the Kakioka Magnetic Observatory. Geoelectricity: Kakioka, Memambetsu, Kanoya
[REPT-160] 07 p2001 N93-21947

GEOFABRICS
U GEOTECHNICAL FABRICS

GEOFRACTURES
U GEOLOGICAL FAULTS

GEOGRAPHIC INFORMATION SYSTEMS
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
Global positioning systems technology and its application in environmental programs
[PB92-169358] 01 p0007 N93-10442
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Spatial models of ecological systems and processes: The role of GIS
[DE92-016884] 01 p0175 N93-10788
Geographic Information System (GIS) development assistance for Nuclear Regulatory Commission (NRC) incident response capability
[DE92-017595] 01 p0176 N93-10867
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789
Geographic Resources Analysis Support System (GRASS) version 4.0 user's reference manual
[AD-A255218] 04 p1001 N93-14524
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823
Predicting database requirements for geographic information systems in the year 2000: Long-term design issues for GRASS
[AD-A256862] 04 p1009 N93-15627
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
Methods for analysis of networks within a geographical information system
[INPE-5299-PRE/1704] 06 p1693 N93-19835
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Tasks and construction of the geo-information system within the regional climatic project (REKLIP) in the Upper Rhine Valley (Germany) 07 p1968 N93-20538
Scanner technology as an alternative to manual digitizing. The data acquisition of the 1990s 07 p1968 N93-20539
Geographic data model: A survey 07 p1968 N93-20540
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
Product development of a user interface for Geographic Information Systems (GIS) and remote sensing for training purposes
[BCRS-90-32] 07 p2091 N93-20952
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Status of remote sensing and Geographic Information System (GIS) applications in the Environment and Natural Resources (ENR) sector 07 p1976 N93-21279
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
The development of a natural language interface to a geographical information system 08 p2530 N93-22153
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Data for map algebra 08 p2350 N93-23553
A Digital Landscape Model for Europe (DLME) 08 p2351 N93-23554
Image treatment and geographical information systems at the service of the Common Agricultural Policy 08 p2351 N93-23555
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data 08 p2351 N93-23558
Remote sensing landslide hazard mapping using GIS technology in Colombian Andes 08 p2351 N93-23559
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
Assessment of actual land use by means of an integrated LIS 08 p2353 N93-23568
Application of remote sensing and GIS. Technology to natural resources management: Selecting rice fields in Vietnam 08 p2353 N93-23569
Integration of remote sensing and GIS data for a multiscale study of the Po river basin 08 p2353 N93-23570
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment 08 p2367 N93-23812
Results of international meeting held in Tunis (Tunisia) 08 p2368 N93-23818
GEOSCOPE: An interactive global change encyclopedia 08 p2370 N93-23833
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
Land cover, an essential component of the CORINE information system on the environment: GIS implications 09 p2740 N93-24787
Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information 09 p2741 N93-24796
Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843

Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS
09 p2751 N93-24855
Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863
EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy)
09 p2755 N93-25434
Commercial applications multispectral sensor system
09 p2758 N93-25615
Detecting the scale and resolution effects in remote sensing and GIS 09 p2756 N93-25707
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
09 p2878 N93-25798
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419
Mesoscale and large-scale variability in California current system and its interaction with both California current and California undercurrent flows
[AD-A262195] 10 p3080 N93-27867
Near real-time GIS in deep-ocean exploration
[AD-A262073] 11 p3487 N93-29003
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
11 p3614 N93-29234
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465
Data quality statements for spatial databases
[AD-A264125] 11 p3616 N93-30195
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
Spatial relational algebra: An extended relational algebra for spatial database
[REPT-92-051] 12 p3786 N93-31249
European Road Database: Activities within the ATKIS
12 p3744 N93-31257
Satellite pictures: An efficient aid for information about land use
[ETN-93-93467] 12 p3747 N93-32343

GEOGRAPHY
NT OROGRAPHY
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
An evaluation of the use and future need of remotely sensed images in grades K-12 03 p0635 N93-13956
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
Delivery of information from Earth observation satellites 08 p2350 N93-23549
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009

GEOIDS
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry
02 p0373 N93-12002
Mantle plumes on Venus revisited
04 p1032 N93-14334
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
Commission 12: International Geoid Commission
07 p1971 N93-20976
SSG 4.91: Local gravity field approximation
07 p1972 N93-20979
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817

GEOLOGICAL FAULTS
NT SAN ANDREAS FAULT
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion
03 p0652 N93-13481
Global deformation on the surface of Venus
04 p1024 N93-14297
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Venus: Geology of Beta Regio rift system
04 p1037 N93-14355
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity
[ITN-93-85180] 05 p1208 N93-16744
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene
05 p1209 N93-17093
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites
06 p1507 N93-18921
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems
08 p2349 N93-23546
Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Low-frequency source parameters of twelve large earthquakes
[NASA-CR-192806] 09 p2771 N93-25202
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Modeling earthquakes with local and regional broadband data 11 p3478 N93-30005
Geologic controls on the West Antarctic Ice Sheet
12 p3762 N93-31900

GEOLOGICAL SURVEYS
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping
04 p1040 N93-14368
The geologic mapping of Venus using C-1 format: Sheets 75N254, 60N263 04 p1041 N93-14375
An investigation of extensional tectonics of southern California
[NASA-CR-191359] 05 p1209 N93-17092
The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Geological Research Center's aerial geological measuring system 06 p1569 N93-19875
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Visible imaging on the Pluto fast flyby mission
11 p3646 N93-28799
Applications of three-dimensional modeling in electromagnetic exploration 11 p3391 N93-30010
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

GEOLOGY
NT CONES (VOLCANOES)
NT GEOCHRONOLOGY
NT GEOMORPHOLOGY
NT GLACIOLOGY
NT HYDROGEOLOGY
NT LITHOLOGY
NT LUNAR GEOLOGY
NT MARS VOLCANOES
NT OROGRAPHY
NT PETROGRAPHY
NT PETROLOGY
NT PHOTOGEOLOGY
NT RADAR GEOLOGY
NT STRUCTURAL PROPERTIES (GEOLOGY)
NT SUBDUCTION (GEOLOGY)
NT TECTONICS
NT VOLCANOES
NT VOLCANOLOGY
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
Problem footprints in Magellan altimetry data
04 p1039 N93-14362
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
An investigation of extensional tectonics of southern California
[NASA-CR-191359] 05 p1209 N93-17092
Bibliographic study of georadar principles, applications, advantages, and inconvenience
[CR-35/91] 06 p1509 N93-18993
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Numerical simulations of drainage flows on Mars
06 p1742 N93-19816
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Summaries of FY 1992 geosciences research
[DE93-004826] 07 p1965 N93-21726
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557
GeoEnvironment Carpathes project
08 p2368 N93-23816

Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Satellite remote sensing for environmental geology: The Bandung (West Java) experience
09 p2739 N93-24784
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT)
09 p2740 N93-24792
Remote sensing of non-renewable resources
09 p2744 N93-24814
Remote sensing geology 09 p2744 N93-24815
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
Isolation and analysis of key components of seafloor relief
[AD-A261635] 09 p2790 N93-26170
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176

GEOMAGNETIC ANOMALIES
U MAGNETIC ANOMALIES

GEOMAGNETIC CROTCHETS
U SUDDEN IONOSPHERIC DISTURBANCES

GEOMAGNETIC EFFECTS
U MAGNETIC EFFECTS

GEOMAGNETIC EQUATOR
U MAGNETIC EQUATOR

GEOMAGNETIC FIELD
U GEOMAGNETISM

GEOMAGNETIC LATITUDE
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

GEOMAGNETIC MICROPULSATIONS
Ring current oxygen interaction with micropulsations
03 p0651 N93-13149
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068

GEOMAGNETIC PULSATIONS
NT GEOMAGNETIC MICROPULSATIONS
Ring current oxygen interaction with micropulsations
03 p0651 N93-13149
Long period pulsation events in electron precipitation and magnetic fields at the South Pole
08 p2394 N93-23387
Ionospheric control of the long-term occurrence of Pc1 pulsations observed on ground
12 p3860 N93-31722

GEOMAGNETIC STORMS
U MAGNETIC STORMS

GEOMAGNETIC TAIL
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
The formation, structure, and evolution of plasmoids
08 p2547 N93-23210
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211
Magnetotail processes associated with auroral surge formation
[ATR-90(7186)-1] 09 p2895 N93-26147
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144

GEOMAGNETICALLY TRAPPED PARTICLES
U RADIATION BELTS

GEOMAGNETISM
Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
Data report 92-1. Brorfelde Geornagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
A report on geomagnetic observatory operations, 1990
[PB92-224781] 03 p0649 N93-12804
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255
Magnetic holes near the magnetopause
03 p0653 N93-13491
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Annual report, 1990 - 1991 05 p1402 N93-16749
Long-term variations in the geomagnetic activity level. 1: A connection with solar-wind sources
[NOTA-INTERNA-978] 05 p1399 N93-17631
Modeling the geomagnetic field over Spain: Anomalous field, secular variation, and reference field
[MEMO-15] 05 p1211 N93-17634
Magnetic results 1987-89: Lerwick, Eskadalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-19] 06 p1576 N93-18137
Magnetic results 1990: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-20] 06 p1576 N93-18138
Auroral energization and geomagnetic disturbances
06 p1584 N93-18499
Magnetic susceptibility variations in Loess sequences and their relationship to astronomical forcing
06 p1580 N93-18967
Ice ages and geomagnetic reversals
06 p1580 N93-18968
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
Photoelectron enhanced plasma-line intensities at angles with the geomagnetic field as measured by EISCAT 06 p1724 N93-19536
International Monitor for Auroral Geomagnetic Effects (IMAGE): A new magnetometer network in Scandinavia
06 p1732 N93-19585
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Report of the Kakioka Magnetic Observatory, geomagnetism, Kakioka Memambetsu Kanoya, Chichijima, 1991
[JMA-159] 07 p2000 N93-21746
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
Report of the Kakioka Magnetic Observatory. Geoelectricity: Kakioka, Memambetsu, Kanoya
[REPT-160] 07 p2001 N93-21947
Electrostatic charging of spacecraft in geosynchronous orbit
[DRA-TM-SPACE-389] 08 p2181 N93-22489
Geomagnetic storm environments and effects on electrical systems
[DE92-041257] 08 p2262 N93-22980
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Solar-geophysical data number 580, December 1992. Part 1: (Prompt reports). Data for November, October 1992, and late data
[PB93-150332] 08 p2558 N93-24335
SCATHA mission termination report
09 p2605 N93-24725
A statistical study of field-aligned currents in the Earth's inner magnetosphere 09 p2773 N93-25709
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989
09 p2774 N93-25889
A predicted geomagnetic field model for epoch 1990.0
[AD-A260669] 09 p2775 N93-25891
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem
[NASA-TP-3272-PT-1B] 09 p2776 N93-26421
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere
11 p3395 N93-30731
Detecting and tracking changes in solar wind conditions using interplanetary scintillation
12 p3857 N93-31703

GEOMETRIC ACCURACY
Geometric constraint satisfaction
[CWI-CS-R9141] 05 p1236 N93-16339
Performance of scanline-oriented CSG direct display algorithms
[REPT-93-03] 12 p3788 N93-31548

GEOMETRIC RECTIFICATION (IMAGERY)
Incorporation of orbital imagery into a cartographic data base
[INPE-5300-PRE/1705] 06 p1688 N93-19644
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574
Precision geocoding demonstrator system
08 p2348 N93-23539
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis
08 p2158 N93-24361
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
Model-oriented correction of thematic mapper raw data 11 p3459 N93-28930
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321

GEOMETRICAL ACOUSTICS
Propagation of high frequency jet noise using geometric acoustics
[NASA-TM-106013] 04 p0975 N93-15575

GEOMETRICAL HYDROMAGNETICS
U MAGNETOHYDRODYNAMICS

GEOMETRICAL OPTICS
Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
The sapphire Cerenkov laser
03 p0605 N93-13365

Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
Geometric optics scaling laws for x-ray laser coherence
[DE92-040402] 05 p1301 N93-16102
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Plasma theory 08 p2496 N93-23262
Harmonic oscillator states in aberration optics 10 p3143 N93-27331
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
What is the center of the image?
[AD-A263550] 11 p3579 N93-29824
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830

GEOMETRICAL THEORY OF DIFFRACTION
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies 03 p0567 N93-14042
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619
Wide-angle radiation pattern calculation of paraboloidal reflector antennas: A comparative study
[EUT-91-E-252] 10 p3026 N93-27226

GEOMETRODYNAMICS
U RELATIVITY

GEOMETRY
NT ANGLE OF ATTACK
NT ANGLES (GEOMETRY)
NT BOSE GEOMETRY
NT BRAGG ANGLE
NT CARTESIAN COORDINATES
NT CHORDS (GEOMETRY)
NT CIRCLES (GEOMETRY)
NT CIRCUMFERENCES
NT COLLINEARITY
NT COMPUTATIONAL GEOMETRY
NT COPLANARITY
NT CRACK GEOMETRY
NT CUBES (MATHEMATICS)
NT CURVATURE
NT CURVES (GEOMETRY)
NT DESCRIPTIVE GEOMETRY
NT DIFFERENTIAL GEOMETRY
NT DIHEDRAL ANGLE
NT DUCT GEOMETRY
NT ELEVATION ANGLE
NT ELLIPSES
NT EUCLIDEAN GEOMETRY
NT FLOW GEOMETRY
NT FRACTALS
NT GEODESIC LINES
NT GREAT CIRCLES
NT HEXAGONS
NT HILBERT SPACE
NT HOMOTOPY THEORY
NT LEADING EDGE SWEEP
NT LIE GROUPS
NT LINES (GEOMETRY)
NT LOOK ANGLES (TRACKING)
NT MERCATOR PROJECTION
NT METRIC SPACE
NT NOZZLE GEOMETRY
NT OBLATE SPHEROIDS
NT PARABOLAS
NT PARALLELEPIPEDS
NT PARALLELOGRAMS
NT POINTS (MATHEMATICS)
NT POLYGONS
NT POLYHEDRONS
NT PROJECTIVE GEOMETRY
NT PROLATE SPHEROIDS
NT RADII
NT RECTANGLES
NT RHOMBOHEDRONS
NT RIEMANN MANIFOLD
NT SOBOLEV SPACE
NT SPECIMEN GEOMETRY
NT SPHEROIDS
NT SPINOR GROUPS
NT SWEEP ANGLE
NT TENSOR ANALYSIS
NT TETRAHEDRONS
NT TOPOLOGY
NT TORUSES
NT TRAPEZOIDS
NT TRIANGLES
NT VECTOR ANALYSIS
NT VORTICITY
NT ZERO ANGLE OF ATTACK
Hexagonal and octagonal finite elements 01 p0050 N93-10500
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
Geometric constraint satisfaction
[CWI-CS-R9141] 05 p1236 N93-16339
Note on the average rank of LYM-sets
[MEMO-1036] 05 p1266 N93-16640
Nonlinear control problems and systems approximations: A geometric approach
[MEMO-1039] 05 p1261 N93-16951
Controllability distributions and systems approximations: A geometric approach
[MEMO-1040] 05 p1269 N93-16952
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Surface/surface intersection on a processor mesh
[RR-864-M] 07 p2038 N93-20943
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
Survey of continuities of curves and surfaces
[CWI-CS-R9202] 10 p3097 N93-27495
Mathematical morphology as a tool for shape description
[CWI-BS-R9216] 10 p3119 N93-27991
Incidence and lattice calculus with applications to stochastic geometry and image analysis
[CWI-BS-R9213] 10 p3126 N93-28089
Topology of hybrid objects
[ETN-93-93594] 11 p3546 N93-28466
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493

GEOMORPHOLOGY
Structural aspects of the Araguainha impact structure (Brazil) 01 p0106 N93-10118
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe? 01 p0109 N93-10134
New perspectives on the Popigai impact structure 01 p0110 N93-10138
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism 01 p0118 N93-10169
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia 01 p0119 N93-10171
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa 01 p0123 N93-10192
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion 03 p0652 N93-13481
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping 04 p1040 N93-14368
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Different types of small volcanos on Venus 04 p1042 N93-14378
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Automated classification of basic-level terrain features in digital elevation models
[AD-A256932] 05 p1190 N93-16504
Morphodynamics of intertidal regions
[BCRS-92-03] 05 p1220 N93-16574
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene 05 p1209 N93-17093
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites 06 p1507 N93-18921
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques 08 p2355 N93-23581
The promise of raster data processing in digital terrain modelling 08 p2356 N93-23585
A method for sequential image analysis of hazard areas 09 p2743 N93-24810
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Spacecraft studies of Phobos and Mars
[NASA-CR-193298] 11 p3651 N93-30635
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960

GEON (TRADEMARK)
U POLYVINYL CHLORIDE

GEOPHYSICAL FLUID FLOW CELLS
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074

GEOPHYSICAL FLUIDS
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence 03 p0590 N93-13900

GEOPHYSICAL OBSERVATORIES
NT OSO
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834

GEOPHYSICAL SATELLITES
NT OSO
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
EISCAT related satellites in near future 06 p1578 N93-18738
Freja satellite program and its connection to EISCAT 06 p1578 N93-18739

GEOPHYSICS
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
Solar-geophysical data number 569, January 1992. Part 1: (Prompt reports). Data for December, November 1991, and late data
[PB92-158880] 01 p0190 N93-10771
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 570, February 1992. Part 2: (Comprehensive reports). Data for August 1991 and miscellaneous
[PB92-170398] 01 p0190 N93-10774
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Solar-geophysical data number 571, March 1992. Part 2: (Comprehensive reports). Data for September 1991 and miscellaneous
[PB92-177070] 01 p0190 N93-10776

Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Workshop on noninvasive geophysical site characterization
[LA-12311-C] 04 p0914 N93-14724
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data 04 p0931 N93-14997
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior 04 p0918 N93-14999
Precise orbit computation and sea surface modeling 04 p0813 N93-15000
Directory of research projects: Planetary geology and geophysics program
[NASA-TM-4428] 04 p0864 N93-15638
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium
[AD-A256711] 05 p1206 N93-16138
Annual report, 1990 - 1991 05 p1402 N93-16749
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene 05 p1209 N93-17093
Geophysical methods: An overview 05 p1385 N93-17235
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
Geophysical parameters from the analysis of laser ranging to Starlette
[NASA-CR-192406] 06 p1541 N93-18605
Introduction to ionospheric heating at Tromsoe (Norway). Part 1: Experimental overview 06 p1724 N93-19531
The Geological Research Center's aerial geological measuring system 06 p1569 N93-19875
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067
Basic studies of baroclinic flows 07 p2003 N93-20073
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Summaries of FY 1992 geosciences research
[DE93-004826] 07 p1965 N93-21726
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
Solar-geophysical data number 578, October 1992. Part 1: (Prompt reports). Data for September, August 1992 and late data
[PB93-134013] 08 p2556 N93-23227
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334
Solar-geophysical data number 580, December 1992. Part 1: (Prompt reports). Data for November, October 1992, and late data
[PB93-150332] 08 p2558 N93-24335
Solar-geophysical data number 580, December 1992. Part 2: (Comprehensive reports). Data for June 1992, and miscellaneous
[PB93-150340] 08 p2558 N93-24558
Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
The role of the World Data Centers in handling ocean climate data 09 p2732 N93-24919
Satellite altimetry 09 p2734 N93-24930
Low-frequency source parameters of twelve large earthquakes
[NASA-CR-192806] 09 p2771 N93-25202
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Proceedings of the Government Users Workshop on Ground Penetrating Radar Applications and Equipment
[AD-A261873] 09 p2686 N93-26541
Migration of seismic data in the double Radon transformed domain
[ETN-93-93596] 10 p3073 N93-28094
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777
Atmospheric and Geophysical Sciences Program report, 1990-1991
[DE93-007390] 11 p3470 N93-29055
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
Applications of three-dimensional modeling in electromagnetic exploration 11 p3391 N93-30010
Solar-geophysical data number 583, March 1993. Part 1: (Prompt reports). Data for February, January 1993, and late data
[PB93-188894] 12 p3881 N93-31436
Solar-geophysical data number 583, March 1993. Part 2: (Comprehensive reports). Data for September 1992 and miscellaneous
[PB93-188902] 12 p3881 N93-31437
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894

GEOPOTENTIAL
NT GEOPOTENTIAL HEIGHT
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit 09 p2601 N93-24704
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179

GEOPOTENTIAL HEIGHT
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb
[PB92-222694] 03 p0661 N93-12817
Parametric height field ray tracing 04 p0955 N93-15556
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968

GEORGIA
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200

GEOSAT SATELLITES
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Satellite monitoring of giant tabular icebergs 07 p1957 N93-21595
Global validation of the wave model WAM using Geosat wave height data 07 p1965 N93-21639
Satellite monitoring of the global ocean surface during 1987-1989 09 p2734 N93-24926
Satellite altimetry 09 p2734 N93-24930
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817

GEOSPHERE
U LITHOSPHERE

GEOSTATIONARY OPERATIONAL ENVIRON SATS
U GOES SATELLITES

GEOSTATIONARY PLATFORMS
U SYNCHRONOUS PLATFORMS

GEOSTATIONARY SATELLITES
U SYNCHRONOUS SATELLITES

GEOSTROPHIC WIND
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations 11 p3483 N93-30044

GEOSYNCHRONOUS EARTH ORBITAL ENVIRONMENTS
U EARTH ORBITAL ENVIRONMENTS

GEOSYNCHRONOUS ORBITS
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
Report of the Working Group on Space/Lunar Tradeoffs 03 p0747 N93-13599
Data management in NOAA CRRESRAD documentation
[AD-A256715] 04 p1003 N93-14779
Atmospheric electricity/meteorology analysis 05 p1213 N93-16172
Investigation of cloud/water vapor motion winds from geostationary satellite 07 p2006 N93-20086
Cycle life status of SAFT VOS nickel-cadmium cells 07 p2008 N93-20094
Electrostatic charging of spacecraft in geosynchronous orbit 07 p1985 N93-20511
[DRA-TM-SPACE-389] 08 p2181 N93-22489
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Practical aspects of transfer from GTO to lunar orbit 09 p2604 N93-24719
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
NOAA satellite programs and technology requirements 11 p3627 N93-30710
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

GEOTECHNICAL ENGINEERING
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Lunar regolith and structure mechanics 09 p2670 N93-26412
Lunar regolith densification 11 p3276 N93-29115
Regolith-structure modeling 11 p3276 N93-29116
Systems engineering studies of lunar base construction 11 p3277 N93-29121
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298

GEOTECHNICAL FABRICS
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion 03 p0652 N93-13481

GEOTEXTILES
U GEOTECHNICAL FABRICS

GEOTHERMAL ENERGY CONVERSION
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
Preliminary reservoir engineering studies of the Miravalles geothermal field, Costa Rica
[DE93-000631] 05 p1210 N93-17193
Documentation of the status of international geothermal power plants and a list by country of selected geothermally active governmental and private sector entities
[DE93-002273] 07 p1988 N93-21665
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

GEOTHERMAL ENERGY EXTRACTION
Prospects for the commercial development of hot dry rock geothermal energy in New Mexico
[DE92-018999] 02 p0346 N93-11825
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053

GEOTHERMAL ENERGY UTILIZATION
Status and prospects for Hot Dry Rock (HDR) in the US
[DE92-018876] 02 p0345 N93-11381
Prospects for the commercial development of hot dry rock geothermal energy in New Mexico
[DE92-018999] 02 p0346 N93-11825
Geothermal Energy and the Utility Market: The Opportunities and Challenges for Expanding Geothermal Energy in a Competitive Supply Market: Proceedings
[DE92-019090] 04 p0908 N93-15271
Geothermal energy survey and technology
[DE93-716356] 05 p1193 N93-15903
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

GEOTHERMAL RESOURCES
NT GEYSERS
Status and prospects for Hot Dry Rock (HDR) in the US
[DE92-018876] 02 p0345 N93-11381
Prospects for the commercial development of hot dry rock geothermal energy in New Mexico
[DE92-018999] 02 p0346 N93-11825
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
Data acquisition for low-temperature geothermal well tests and long-term monitoring
[DE93-000387] 05 p1193 N93-15669
Geothermal energy survey and technology
[DE93-716356] 05 p1193 N93-15903
Preliminary reservoir engineering studies of the Miravalles geothermal field, Costa Rica
[DE93-000631] 05 p1210 N93-17193
Documentation of the status of international geothermal power plants and a list by country of selected geothermally active governmental and private sector entities
[DE93-002273] 07 p1988 N93-21665
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

GEOTHERMAL TECHNOLOGY
Status and prospects for Hot Dry Rock (HDR) in the US
[DE92-018876] 02 p0345 N93-11381
Geothermal energy survey and technology
[DE93-716356] 05 p1193 N93-15903
Preliminary reservoir engineering studies of the Miravalles geothermal field, Costa Rica
[DE93-000631] 05 p1210 N93-17193
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

GEOTROPISM
Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226

GEP TELESCOPES
U PARTICLE TELESCOPES

GERDIEN ARC HEATERS
U ARC HEATING
U HEATING EQUIPMENT

GERIATRICS
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027

GERMAN SPACE PROGRAM
Modern helicopter technologies at MBB and the application in future programmes
[MBB-UD-0599-91-PUB] 05 p1063 N93-17566
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
German contributions to the International Space Year ISY 1992 08 p2366 N93-23806
Mir '92 project 08 p2157 N93-24350
Technology transfer: Potential of BMFT concept for hypersonics
[MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045

GERMANIUM
NT GERMANIUM ISOTOPES
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma 02 p0320 N93-12041
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A sparse architecture low power gated integrator for use with germanium gamma ray spectrometers in remote geochemistry measurements
[DE93-004769] 08 p2303 N93-22491
A massive neutrino in nuclear beta decay?
[DE93-004796] 08 p2482 N93-22950
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Radiation effects in germanium doped quartz 09 p2837 N93-25021
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150

GERMANIUM ALLOYS
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813

Recombination and metastability in amorphous silicon and silicon germanium alloys
[DE92-010593] 02 p0463 N93-11816
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691
High temperature rare earth and Si-Ge thermoelectric materials
[DE93-006913] 08 p2513 N93-24462
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387

GERMANIUM COMPOUNDS
NT GERMANIUM OXIDES
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016
Development of Si(1-x)Ge(x) technology for microwave sensing applications
[NASA-TM-106157] 11 p3405 N93-28610
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417

GERMANIUM ISOTOPES
Growth and characterization of isotopically enriched Ge-70 and Ge-74 single crystals
[DE93-004697] 08 p2510 N93-24050

GERMANIUM OXIDES
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829

GERMANY
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
Activities report of the German Institute for Flight Safety
[ETN-92-92272] 02 p0203 N93-11375
National report of the Federal Republic of Germany on the geodetic activities in the years 1987-1991
[SER-B-294] 07 p1969 N93-20960
CSTG subcommission on Space Geodetic Measurement Sites (SGMS) 07 p1970 N93-20969
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS) 07 p1971 N93-20971
CSTG subcommission GPS: GPS in Germany (1988-1991)91) 07 p1971 N93-20972
Satellite-borne Earth observations in the framework of German global change research 08 p2357 N93-23755
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140

GERMINATION
A study of the effects of micro-gravity on seed germination 03 p0510 N93-13167
Final results of space exposed experiment developed for students 11 p3492 N93-29702
Continued results of the seeds in space experiment 11 p3492 N93-29703

GERMINATORS
U PHYTOTRONS

GESTALT THEORY
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846

GET AWAY SPECIALS (STS)
The 1992 Shuttle Small Payloads Symposium
[NASA-CP-3171] 03 p0508 N93-13158
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
Investigation of microgravity effects on solidification phenomena of selected materials 03 p0510 N93-13168
GAMCIT: A gamma ray burst detector 03 p0510 N93-13173
Structural verification for GAS experiments 03 p0511 N93-13175
A Pennsylvania State University/General Electric Get Away Special (GAS) experiment 03 p0511 N93-13177
The ROMPS robot in HitchHiker 03 p0511 N93-13179
The unique challenge of managing an undergraduate Get-Away-Special experiment 03 p0512 N93-13185
Preparing safety data packages for experimenters using the Get Away Special (GAS) carrier system 03 p0512 N93-13186
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
ROMPS critical design review. Volume 2: Robot module design documentation
[NASA-CR-191614] 05 p1240 N93-16642
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
STS-45 Space Shuttle mission report
[NASA-CR-193054] 09 p2612 N93-25959
STS-47 Space Shuttle mission report
[NASA-CR-193056] 09 p2612 N93-25960
STS-42 Space Shuttle mission report
[NASA-CR-193059] 09 p2613 N93-25989
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
Description of the Joint Damping Experiment (JDX) 11 p3263 N93-28703
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644

GETTERS
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036
Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027

GEYSERS
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671

GGG (GARNET)
U GADOLINIUM-GALLIUM GARNET

GIACOBINI-ZINNER COMET
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231

GIANT STARS
NT ASYMPTOTIC GIANT BRANCH STARS
NT CARBON STARS
NT RED GIANT STARS
Yellow hypergiant interferometry: A clue to understanding evolutionary instability 01 p0182 N93-10919
Faint high-latitude carbon stars 04 p1019 N93-14638

GIBBS FREE ENERGY
Thermodynamic analysis of the binary systems Mo-V, Ni-V, Si-V, and Ti-V
[PB93-173185] 10 p3155 N93-26637
A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143

GIBBS-HELMHOLTZ EQUATIONS
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972

GIMBALS
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
Apparatus for simulating an exoatmospheric structure
[NASA-CASE-MSC-21975-1] 08 p2169 N93-22016
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Quick acting gimbal joint
[NASA-CASE-MSC-21918-1] 08 p2314 N93-23076
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors 09 p2606 N93-24733
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
Gravity referenced elevation encoder development 11 p3385 N93-29592
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512

GINGA SATELLITE
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095
BBXRT and Ginga observations of the Seyfert 1 galaxy MRK 335 06 p1561 N93-18710

GIOTTO MISSION
Giotto: The second encounter
[ESA-BR-83] 03 p0749 N93-12965
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment 03 p0752 N93-13469
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley 03 p0753 N93-13602

GIRDERS
Fracture-mechanical analysis of the residual service life of the welded main girders of the highway bridges of Ruedersdorf 07 p1949 N93-21329
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414

GLACIAL DRIFT
Sudbury Breccia and suevite as glacial indicators transported 800 km to Kentland Astrobleme, Indiana 01 p0117 N93-10165
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective 12 p3759 N93-31882

GLACIERS
Possible recent and ancient glacial ice flow in the south polar region of Mars 06 p1742 N93-19812
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective 12 p3759 N93-31882
Irregular oscillations of the West Antarctic Ice Sheet 12 p3759 N93-31884
Velocities of Thwaites and Land glaciers 12 p3760 N93-31885
The mass balance of the ice plain of Ice Stream B and Crary Ice Rise 12 p3760 N93-31888
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890
Recent acceleration of Thwaites Glacier 12 p3761 N93-31893
Basal hydraulic conditions of Ice Stream B 12 p3762 N93-31898
Geologic controls on the West Antarctic Ice Sheet 12 p3762 N93-31900
Effect of subglacial volcanism on changes in the West Antarctic Ice Sheet 12 p3762 N93-31901

Surface winds over West Antarctica
12 p3763 N93-31903
Modeling ice streams: Derived quantities
12 p3763 N93-31904
Chemical transport during formation and alteration of Martian impact and volcanic deposits
12 p3865 N93-31953

GLACIOFLUVIAL DEPOSITS
U GLACIAL DRIFT

GLACIOLOGY
Ice ages and geomagnetic reversals
06 p1580 N93-18968
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Glaciation in Elysium 06 p1740 N93-19802
The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366]
08 p2389 N93-24089
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
Sea level variation 09 p2734 N93-24929
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886
SPOT satellite mapping of Ice Stream B
12 p3760 N93-31887
The mass balance of the ice plain of Ice Stream B and Crary Ice Rise 12 p3760 N93-31888
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894

GLANDS (ANATOMY)
NT ENDOCRINE GLANDS
NT HYPOTHALAMUS
NT MAMMARY GLANDS
NT PINEAL GLAND
NT PITUITARY GLAND
NT PROSTATE GLAND

GLARE
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659

GLASS
NT BOROSILICATE GLASS
NT E GLASS
NT GLASS FIBERS
NT METALLIC GLASSES
NT SILICA GLASS
NT SPIN GLASS
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana
01 p0122 N93-10191
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa
01 p0123 N93-10192
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
The third Workshop on Non-Crystalline Solids, programme and abstracts
[AD-A250739] 01 p0036 N93-10244
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
Laser glasses
[DE92-018061] 02 p0267 N93-11549
Slow crack growth in vacuum
02 p0338 N93-11909
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887
Bonding in simple phosphate glass
[DE92-019437] 03 p0550 N93-12917
Optical glasses for high-peak-power laser applications
[DE92-040403] 04 p0886 N93-14906
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Study of the glass formation of high temperature superconductors
[NASA-TM-108389] 04 p0997 N93-15500
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Nucleation, crystal growth, and liquid/liquid phase separation in materials in microgravity, phase 3
[CTN-93-60612] 05 p1131 N93-16493
Glass and ceramics --- lunar resources
05 p1383 N93-16900
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
[CTN-93-60631] 05 p1133 N93-16937
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221
06 p1738 N93-18807
The production of high iron glasses by RST in microgravity 07 p1810 N93-21117
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights
07 p1810 N93-21119
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Optical properties of slags: Data for refractive indices and absorption coefficients
[NPL-DMM(A)-73] 08 p2486 N93-22453
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Plasma treatment of glass surfaces
[AD-D015619] 08 p2241 N93-24229
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Second-harmonic generation in optical fibers and glass
[AD-A260592] 09 p2853 N93-25839
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
Crystallization of nanocomposite glasses made by the SSG process
[AD-A262892] 11 p3333 N93-29511
Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856
Whisker toughening of ceramic materials: A review
[DE93-011565] 11 p3336 N93-30129
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Fracture of glass 11 p3293 N93-30969
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars
12 p3864 N93-31948
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
Affecting factors to the electrical properties of RuO2 thick-film resistors
[DE93-768332] 12 p3721 N93-32055

GLASS COATINGS
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836

GLASS FIBER REINFORCED PLASTICS
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Vibration damping response of composite materials
03 p0533 N93-13748
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
A literature survey on the fatigue behaviour of hybrid composites
[NLR-TP-91345-U] 05 p1099 N93-17541
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
What's a Parabeam 3D? 07 p1835 N93-21137
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate
[VTT-PUBS-105] 08 p2208 N93-22815
Development of fire protective coatings for GRP composites using plasma deposition technology, phase 2
[DREA-CR-91-453] 08 p2239 N93-23121
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181
Damage and failure analysis on continuous fiber-reinforced polymer composites
09 p2637 N93-25716
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 1
[AD-A263813] 11 p3335 N93-29886
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992
[PB93-188647] 12 p3700 N93-31334

GLASS FIBERS
Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048
Fiber optic polishing system
[AD-D015353] 02 p0446 N93-11052
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading
[NPL-DMM(A)-47] 02 p0266 N93-11397
Test equipment data package for the KC-135 fiber pulling apparatus
[NASA-CR-184446] 03 p0506 N93-13013
Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report
[NASA-TM-108379] 03 p0551 N93-13115
A new route for fibre management in metal matrix composites 03 p0534 N93-13779
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836

Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Fiber pulling apparatus modification
[NASA-CR-184498] 04 p0891 N93-14763
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Design for producing fiberglass fabric in a lunar environment
[NASA-CR-192068] 05 p1135 N93-17770
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843
Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
What's a Parabeam 3D? 07 p1835 N93-21137
Near net shape knitting of fiber glass and carbon for composites 07 p1836 N93-21145
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites 07 p1836 N93-21146
Fatigue of fiberglass wind turbine blade materials
[DE93-005381] 07 p1951 N93-21711
Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Second-harmonic generation in optical fibers and glass
[AD-A260592] 09 p2853 N93-25839
International Workshop on Advances in Inorganic Fibre Technology
[AD-A260719] 09 p2639 N93-25908
Ceramic fiber reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15262-1] 09 p2640 N93-26100
Melt-processing of lunar ceramics 10 p3007 N93-26685
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite
[AD-A262980] 11 p3298 N93-29425
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines
[DLR-FB-92-17] 12 p3700 N93-31461

GLASS LASERS
Laser glasses
[DE92-018061] 02 p0267 N93-11549
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097

GLASS TRANSITION TEMPERATURE
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region 02 p0269 N93-11985
The measurement and calculation of birefringence in quenched polycarbonate specimens 02 p0269 N93-11986
Polyimides containing the cyclobutene-3,4-dione moiety
[NASA-CASE-LAR-14753-1] 09 p2656 N93-25999
A 69 cent look at thermoplastic softening 11 p3292 N93-30963

GLASSY CARBON
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488

GLAUERT COEFFICIENT
U AERODYNAMIC FORCES
U MACH NUMBER

GLAZES
Heat transfer on accreting ice surfaces
[AIAA PAPER 90-0200] 08 p2106 N93-22565

GLIDE ANGLES
U GLIDE PATHS

GLIDE LANDINGS
NT HORIZONTAL SPACECRAFT LANDING

GLIDE PATHS
Scene correlation for INS aiding in flight-test systems: Runway-referenced flight-tests with on-board sensors only 08 p2121 N93-22792
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165

GLIDE SLOPES
U GLIDE PATHS

GLIDERS
NT HANG GLIDERS
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855

GLINT
Definition of the sea surface infrared sun glitter corridor
[AD-A257100] 05 p1220 N93-16125

GLOBAL AIR POLLUTION
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
Trends in middle-atmosphere ozone 06 p1575 N93-18500
Chemistry of the atmosphere: Its impact on global change. CHEMRAWN 7: Perspectives and recommendations
[PB93-180644] 11 p3488 N93-29670

GLOBAL AIR SAMPLING PROGRAM
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011

GLOBAL ATMOSPHERIC RESEARCH PROGRAM
Data management for JGOFS: Theory and design 09 p2735 N93-24935
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006

GLOBAL POSITIONING SYSTEM
GPS azimuth determination using short baseline carrier wave interferometry
[AD-A254257] 01 p0006 N93-10265
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
Global positioning systems technology and its application in environmental programs
[PB92-169358] 01 p0007 N93-10442
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
Dredging research program: Feasibility of a kinematic differential Global Positioning System
[AD-A248953] 02 p0205 N93-11419
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Analysis of space geodetic measurements for studying the dynamics of the solid Earth
[NASA-CR-191215] 03 p0649 N93-12661
GPS azimuth determination
[AD-A254687] 03 p0499 N93-13348
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
Proposed revisions to RTCM SC-104 recommended standards for differential NAVSTAR/GPS service for carrier phase applications
[AD-A255276] 04 p0789 N93-15005
Correction of inertial measurements using GPS updates for underwater navigation
[AD-A257329] 05 p1058 N93-15988
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
Multipath effects in a Global Positioning Satellite system receiver 05 p1059 N93-17311
Navstar global positioning system: Introduction and status
[NLR-TP-91008-U] 05 p1059 N93-17559
Chaotic dynamics of atoms 06 p1659 N93-18491
GPS Interferometry
[NASA-CR-192301] 06 p1432 N93-18873
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
A model of Global Positioning System (GPS) Master Control Station (MCS) operations
[AD-A258846] 06 p1433 N93-19067
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094
Modeling the global positioning system signal propagation through the ionosphere 06 p1434 N93-19420
Flight testing of GPS and GPS-aided systems 06 p1445 N93-19919
Crustal deformation measurements in the vicinity of Vandenberg Air Force Base
[AD-A258536] 07 p1996 N93-20053
Research on GPS utilization in space 07 p1780 N93-20453
Development of a realtime DGPS system
[DLR-MITT-92-06] 07 p1779 N93-20749
National report of the Federal Republic of Germany on the geodetic activities in the years 1987-1991
[SER-B-294] 07 p1969 N93-20960
Commission 10: Continental networks. Subcommission for the European Reference Frame (EUREF) 07 p1969 N93-20961
SSG 1.77: Utilization of inertial techniques for geodesy and surveying 07 p1969 N93-20964
SSG 1.105: GPS kinematic positioning methods and applications 07 p1970 N93-20967
CSTG subcommission GPS: GPS in Germany (1988-1991)91) 07 p1971 N93-20972
Commission 12: International Geoid Commission 07 p1971 N93-20976
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
SSG 4.117: Optimization of modern positioning techniques 07 p1972 N93-20983
Commission 7: Recent crustal movements 07 p1973 N93-20988
International Earth Rotation Service 07 p1974 N93-20990
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
Current and planned use of the Navstar Global Positioning System by NASA
[NASA-TM-108190] 07 p1779 N93-21190
Investigation of the real-time accuracy of the DGPS method
[AD-A257692] 07 p1780 N93-21222
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station 07 p1780 N93-21413
Office of Spaceflight Standard Spaceborne Global Positioning System (GPS) user equipment project 07 p1780 N93-21417
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 07 p1780 N93-21426
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 07 p1817 N93-21440
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028
Applicability of relative GPS to automated rendezvous between the space shuttle and space station 08 p2138 N93-22241
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
DGPS for space and return 08 p2146 N93-22286
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics 08 p2147 N93-22293

Office of Space Flight standard spaceborne Global Positioning System user equipment project
08 p2148 N93-22301
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
08 p2151 N93-22316
GPS multipath errors in the precision landing environment 08 p2106 N93-22569
Optimization of the integration of inertia and GPS
08 p2120 N93-22787
Retrofitting of GPS into existing navigation suites
08 p2120 N93-22788
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
Toward achieving global sole means radionavigation systems 08 p2121 N93-22794
Use of geodetic methods in detecting terrain movements with special reference to the Global Positioning System
[ISBN-0-315-69179-4] 08 p2393 N93-23190
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
Maritime satellite communication and navigation
08 p2275 N93-23508
The role of GPS in a future radionavigation mix: Trends in the 1992 US Federal Radionavigation Plan
08 p2124 N93-23509
Financial alternatives for global satellite navigation
08 p2124 N93-23519
SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522
Precise flight navigation by integration of global positioning system and inertial measurement units
08 p2124 N93-23523
A permanent near-online High Precision Positioning Service (HPPS) with GPS 08 p2124 N93-23524
Satellite navigation in agriculture
08 p2124 N93-23528
Towards global satellite navigation
08 p2124 N93-23529
Fleet management based on satellite positioning and communication 08 p2276 N93-23531
An integrated car navigation system using a single processor for GPS signal processing, positioning, map display, and reporting 08 p2124 N93-23533
NAVSAT: An application of GPS and GLONASS for the civil user community 08 p2124 N93-23534
On-line health monitoring: An integrity improvement for the civil use of GPS and GLONASS
08 p2125 N93-23535
Precise GPS-based tracking of remote sensing satellites 08 p2122 N93-23587
Test results of the advanced translator processing system 08 p2269 N93-23620
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability
[DLR-MITT-92-07] 08 p2123 N93-24138
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
Mixed constellation synchronization of GPS time
09 p2836 N93-25015
GPS standardization for the needs of time transfer
09 p2836 N93-25016
Comparison of GLONASS and GPS time transfers
09 p2836 N93-25017
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
Oscillators for mobile GPS receivers
09 p2694 N93-25055
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument
09 p2711 N93-25614
Knowledge-based control for robot self-localization
09 p2822 N93-25963
Methodology investigation: Global Positioning System integration (GPS)
[AD-A261054] 09 p2586 N93-26237
Repair, evaluation, maintenance, and rehabilitation research program. Continuous Deformation Monitoring System (CDMS)
[AD-A261833] 09 p2586 N93-26274
Bit hit/solar activity correlation study
[AD-A261381] 09 p2896 N93-26340
GPS system simulation methodology
10 p2984 N93-26990
Some aspects of a 3-dimensional reference system for surveying in the Netherlands: Quality analysis of GPS phase observations
[REPT-92-1] 10 p3063 N93-27368
GPS L1-L2 bias determination
[AD-A262141] 10 p2941 N93-27544
Follow-on operational test and evaluation of the NAVSTAR global positioning system air integration/installation program
[AD-A263067] 10 p2941 N93-27925
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
11 p3260 N93-28869
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
Embedded GPS: The Canadian Marconi approach
11 p3247 N93-30330
Attitude determination using GPS: Development of an all solid-state guidance, navigation, and control sensor for air and space vehicles based on the global positioning system 11 p3246 N93-30605
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671
Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
Experiences with two GPS receivers in northern Europe
[NLR-TP-91168-U] 12 p3675 N93-31120
Mass balance assessment using GPS
12 p3761 N93-31892
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894
The application of phase tracking GPS for flight test trajectory determination
[NLR-TP-91349-U] 12 p3678 N93-32337

GLOBAL TRACKING NETWORK
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS)
07 p1971 N93-20971

GLOBAL WARMING
Radiative forcing of climate 02 p0351 N93-11094
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
Tenth International Symposium on Environmental Biogeochemistry
[DE92-016200] 02 p0355 N93-11864
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
Cloud amount and sunshine duration in the People's Republic of China, 1954-1988
[DE92-041023] 05 p1214 N93-16601
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Greenhouse Earth: A Traveling Exhibition
[DE93-002419] 06 p1572 N93-17912
NATO Advanced Research Workshop on Non-Thermal Plasma Techniques for Pollution Control
[AD-A258477] 06 p1665 N93-18323
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
Global temperature variations
07 p2003 N93-20068
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
A 2 x CO2 experiment with prescribed changes in sea surface temperature 07 p1958 N93-21598
Global Change Data Base Pilot (Diskette) Project for Africa. Base base documentation version 1.1
[PB93-117927] 07 p2000 N93-21686
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
On the cold start problem in transient simulations with coupled atmosphere-ocean models
[MPIM-83] 08 p2397 N93-23859
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011
General circulation model output for forest climate change research and applications
[PB93-124626] 08 p2388 N93-24015
Sea level variation 09 p2734 N93-24929
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Global warming potential for CF4
[DE93-005740] 09 p2762 N93-25146
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Trend survey on the elucidation of the global warming mechanism by the governments of major industrialized nations
[DE93-776427] 11 p3470 N93-29672
Irregular oscillations of the West Antarctic Ice Sheet
12 p3759 N93-31884

GLOBULAR CLUSTERS
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
Compact objects in the disk and globular clusters
04 p1018 N93-14594
Field star interactions with globular clusters
07 p2096 N93-20047
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Globular cluster systems as clues to galaxy evolution
10 p3175 N93-26728
Globular cluster formation in merging galaxies?
10 p3175 N93-26729
Stellar encounters in globular clusters
11 p3632 N93-28606
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604

GLOSSARIES
U DICTIONARIES

GLOTRAC (TRACKING NETWORK)
U GLOBAL TRACKING NETWORK

GLOVES
Gloved operator performance study
[AD-A256894] 05 p1227 N93-16048
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129
An innovative method for hand protection from extreme cold using heat pipe
[AD-A259720] 08 p2428 N93-24128
Investigation of the effects of Extra Vehicular Activity (EVA) and Launch and Entry (LES) gloves on performance 09 p2803 N93-26061
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
Power assist EVA glove development
10 p3086 N93-27850
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884

GLOW
U LUMINESCENCE

GLOW DISCHARGES
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges
[DE92-040226] 04 p0989 N93-15422
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166

GLUCOSE
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172
Idiopathic Reactive Hypoglycemia in a population of healthy trainees of an Italian Air Force military school
12 p3779 N93-32248

GLUCOSIDES
NT ADENINES

GLUONS
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Dressed skeleton expansion and the coupling scale ambiguity problem
[DE93-002516] 05 p1331 N93-17185
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
Time evolution of the quark-gluon plasma
[DE93-008703] 10 p3149 N93-27620
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

GLUTAMATES
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Study of SCN neurochemistry using in vivo microdialysis in the conscious brain: Correlation with circadian activity rhythms
[AD-A259803] 08 p2421 N93-23459

GLYCIDYL AZIDE POLYMER
GAP benefits 01 p0019 N93-10025

GLYCOGENS
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209

GLYCOLS
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401

GLYCOLYSIS
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796

GNEISS
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure
01 p0106 N93-10115
Thermobarometric studies on the Levack Gneisses: Footwall rocks to the Sudbury Igneous Complex
01 p0114 N93-10152
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study
01 p0117 N93-10163
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187

GODDARD EXPERIMENT PACKAGE TELESCOPE
U PARTICLE TELESCOPES

GODDARD TRAJECTORY DETERMINATION SYSTEM
TDRSS-user orbit determination using batch least-squares and sequential methods
09 p2601 N93-24703

GOERTLER INSTABILITY
Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742

GOES SATELLITES
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Coronal mass ejecta and flares: A statistical study
12 p3859 N93-31716

GOGGLES
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Integration of exterior lighting systems and night vision imaging systems
[AD-A254826] 03 p0677 N93-12732
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue (joint Canadian/US Coast Guard experiment)
[AD-A255525] 04 p0939 N93-14554
Night vision manual for the flight surgeon
[AD-A257059] 05 p1227 N93-15710
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Night vision goggle training: Development and production of six video programs
[AD-A258529] 07 p2025 N93-20050
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Interpupillary and vertex distance effects on field-of-view and acuity with ANVIS
[AD-A261259] 09 p2802 N93-26265
Goggles emergency release apparatus
[AD-D015685] 11 p3507 N93-29607
CATS EYES adjustment procedures
[AD-A264069] 11 p3508 N93-29924
The effects of superimposing symbology on a simulated night vision goggle display
[AD-A263458] 11 p3508 N93-30590

GOLD
NT GOLD ISOTOPES
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Phase behavior of Au and Pt surfaces
[DE92-041021] 05 p1112 N93-16203
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Au(111) and Pt(111) surface phase behavior
[DE92-040881] 05 p1321 N93-16598
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Reconstruction of twist grain boundaries in gold
[DE93-004861] 08 p2226 N93-22049
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
Peculiarities of structures and meltinglike transition in gold clusters
[DE93-004810] 08 p2228 N93-22741
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Low cost dewatering of waste slurries
09 p2769 N93-25573
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998

GOLD ALLOYS
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476

GOLD ISOTOPES
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926

GONIOMETERS
NT RADIOGONIOMETERS
Bearing determination and bearing quality indication from a goniometric HF DF system
08 p2268 N93-23617
Location of emissions by evasion of frequency and gusts by sequential analysis sensor in fast scanning
08 p2270 N93-23625
Measurement results of the crystallographic orientation of the SC cut round plates 09 p2840 N93-25040

GOODNESS OF FIT
Change analysis
[AD-A253567] 01 p0146 N93-10795
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Stochastic integrals and goodness-of-fit tests
[ISBN-90-9003836-1] 05 p1275 N93-16223
Comparison of tests, and local families
[MEMO-1034] 05 p1266 N93-16594
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
A Kolmogorov-Smirnov type test for ergodic diffusion processes
[INRIA-RR-1696] 10 p3122 N93-28447
Modified goodness-of-fit tests for the Weibull distribution
[AD-A262552] 11 p3553 N93-28574
Modified Anderson-Darling and Cramer-Von Mises goodness-of-fit tests for the normal distribution
[AD-A262554] 11 p3553 N93-28575
A new goodness-of-fit test for the Weibull distribution based on spacings
[AD-A262615] 11 p3553 N93-28587
A modified Anderson Darling goodness-of-fit test for the gamma distribution with unknown scale and location parameters
[AD-A262486] 11 p3553 N93-28760
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845

GOSS (SUPPORT SYSTEM)
U GROUND OPERATIONAL SUPPORT SYSTEM

GOVERNMENT PROCUREMENT
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
Streamlined acquisition handbook
[NASA-TM-108133] 04 p1002 N93-14719
Public space launch acquisition: A comparative case study
[AD-A258141] 06 p1455 N93-18083
Applying commercial style acquisition practices to the procurement of commercially available aircraft
[AD-A258143] 06 p1683 N93-18087
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
How to compete for NASA contracts
[NASA-TM-109238] 11 p3610 N93-30644
GOVERNMENT/INDUSTRY RELATIONS
Aerospace Industries Association of Canada
[CTN-92-60345] 01 p0192 N93-10640
Aerospace Industries Association of Canada
[CTN-92-60590] 01 p0001 N93-10644
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
A post cold war assessment of US space policy
05 p1073 N93-17218
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Science, technology, and the states in America's third century
[ISBN-1-881054-03-9] 08 p2519 N93-23074
Outreach and public service 08 p2517 N93-23147
State and local governments
08 p2517 N93-23149
Communications 08 p2517 N93-23153
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
Designing and implementing a state quality award
[PB93-154458] 09 p2722 N93-26546
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
Defense conversion: Redirecting research and development
[OTA-ITE-552] 11 p3610 N93-29649
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
The NCAT process 11 p3626 N93-30697
National Technology Transfer Center
11 p3626 N93-30700
Technology transfer within the government
11 p3627 N93-30711
Technology transfer and Rockwell International
11 p3627 N93-30712
NASP technology transfer 11 p3627 N93-30713
High performance computing and communications program 11 p3627 N93-30715
Technology transfer between the government and the aerospace industry 11 p3628 N93-30716
National Media Laboratory 11 p3628 N93-30717
Technology transfer to the broader economy
11 p3628 N93-30719
A research experiment on facilitation and formation of joint research and development programs between government, industry, and universities: Overview, preliminary findings, and observations
11 p3628 N93-30725
States and small business: A directory of programs and activities, 1993 edition
[PB93-186427] 12 p3834 N93-31433
GOVERNMENTS
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK)
01 p0173 N93-10594
Information dissemination: Case studies on electronic dissemination at four agencies. Fact sheet for the Chairman, Committee on Governmental Affairs, US Senate
[GAO/IMTEC-92-6FS] 02 p0474 N93-11274
Federal funds for research and development: Fiscal years 1990, 1991, and 1992, volume 40
[NSF-92-322-VOL-40] 06 p1694 N93-17853
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Metric transition plans and activities of Federal Government Agencies
[PB92-222249] 07 p1878 N93-21468
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
International energy outlook 1992
[PB93-107951] 07 p1988 N93-21550
State and local governments
08 p2517 N93-23149
Total quality management in the Federal Government. Implementation of TQM in federal agencies receiving the Federal Quality Institute Quality Improvement Prototype Award, 1990-1992
[PB93-154573] 08 p2521 N93-24306
In the national interest: The Federal Government and research-intensive universities
[PB93-140135] 08 p2518 N93-24583
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
Trend survey on the elucidation of the global warming mechanism by the governments of major industrialized nations
[DE93-776427] 11 p3470 N93-29672
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
GRABENS
U GEOLOGICAL FAULTS
GRADE
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
GRADIENTS
NT ELECTRON DENSITY PROFILES
NT PRESSURE GRADIENTS
NT TEMPERATURE GRADIENTS
NT THERMOCLINES
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
One-dimensional transient finite difference model of an operational salinity gradient solar pond
03 p0586 N93-13400
Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357
Design features of a seven-cell high-gradient superconducting cavity
[DE92-040229] 04 p0870 N93-15424
Exact-gradient shape optimization of a 2D Euler flow
[INRIA-RR-1540] 06 p1530 N93-18623
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Extending compile-time reverse mode and exploiting partial separability in ADIFOR
[DE93-004668] 08 p2467 N93-22776
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer
10 p2937 N93-27462
Gradient estimation for regenerative processes
[AD-A263766] 11 p3555 N93-29878
The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063
GRADIOMETERS
Gradiometer antennas for tunnel detection
[PB92-205400] 01 p0069 N93-10440
GRADUATION
U CALIBRATING
GRAIN BOUNDARIES
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
Atomic relaxation modes in grain boundaries
[DE92-016781] 03 p0722 N93-13195
On grain boundary transport of hydrogen and mechanism of hydrogen-induced intergranular fracture
03 p0544 N93-14047
Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
Fatigue damage study in aluminum-2024 T3 alloys
05 p1116 N93-16767
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227
Energetics and structural properties of twist grain boundaries in Cu 05 p1118 N93-17304
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Ductility and fracture in L1(sub 2) intermetallic alloys
[DE93-001644] 06 p1487 N93-18534
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005080] 06 p1490 N93-19635
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Reconstruction of twist grain boundaries in gold
[DE93-004861] 08 p2226 N93-22049
Flux pinning structures in melt-processed YBa2Cu3O(7-x)
[DE93-005151] 08 p2501 N93-22497
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Fabrication and properties of Si3N4 with rare earth apatite grain boundary phases
[DE93-005752] 08 p2505 N93-23037
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys
[DE93-005039] 08 p2232 N93-23980
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Studies of microstructure/critical current density relationships for grain boundaries in YBa2Cu3O(7-delta) bicrystals
[DE93-003000] 08 p2513 N93-24512

A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796

GRAIN SIZE
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
Magnetic properties of high-T(sub c) superconductors
03 p0726 N93-13905
Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252
Fatigue damage study in aluminum-2024 T3 alloys
05 p1118 N93-16767
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
The Apollo 17 regolith 06 p1737 N93-18799
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data
06 p1699 N93-19257
Nanostructured materials
[DE93-002990] 06 p1656 N93-19499
Grain refinement of Al-Cu-Ti alloys in microgravity
07 p1810 N93-21120
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938

GRAINS
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037

GRAINS (FOOD)
NT CORN
NT OATS
NT RICE
NT WHEAT

GRAMMARS
Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494
Parallel on-line parsing in constant time
[MEMO-INF-91-64] 04 p0958 N93-15082
Grammatical trigrams: A probabilistic model of link grammar
[AD-A256365] 04 p0947 N93-15206
Data modelling in complex application domains
[TR-92-01] 05 p1355 N93-16371
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Generalized LR parsing for general context-free grammars
[CWI-CS-R9153] 05 p1242 N93-16853
Dynamic parsers, evolving grammars and incremental languages
[PREPRINT-863] 05 p1243 N93-16998
Fine-grain incremental implementation of algebraic specifications
[CWI-CS-R9159] 05 p1270 N93-17489
Lazy scanner generation for modular regular grammars
[CWI-CS-R9158-REV] 05 p1251 N93-17533
On the borderline between grammars and programs
[TR-91-17] 05 p1252 N93-17594
Lambek grammar: An information-based categorical grammar
[LP-92-01] 05 p1273 N93-17715
The Lambek calculus enriched with additional connectives
[LP-91-04] 06 p1642 N93-17826
Categorical grammar and natural reasoning
[LP-91-08] 06 p1642 N93-17828
A note on interrogatives and adverbs of quantification
[LP-92-07] 06 p1615 N93-17830
Grammatica: An open software laboratory for artificial intelligence
[REPT-92-031] 06 p1632 N93-18331
(Generalized) LR parsing: From Knuth to Tomita
07 p2030 N93-20221
Recursive ascent parsing 07 p2030 N93-20222
A parsing algorithm for non-deterministic context-sensitive languages 07 p2031 N93-20223
Unrestricted on-line parsing and transduction with graph structured stacks 07 p2031 N93-20224
Substring parsing for arbitrary context-free grammars
07 p2031 N93-20225
Detection and correction of morpho-syntactic errors in shift-reduce parsing 07 p2031 N93-20226
Tomita's algorithm in practical applications
07 p2031 N93-20227
On the comparison of sequences: Analyzing behavioural aspects of courseware development and use
[MEMO-1030] 07 p2038 N93-21033
Using cached functions and constructors for incremental attribute evaluation
[RUU-CS-92-11] 10 p3094 N93-27369
Left-corner and head-corner chart parsing
[MEMO-INF-92-55] 10 p3096 N93-27489
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
An executable semantics for a subset of COLD
[CWI-CS-R9145] 10 p3097 N93-27493
GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
Speeding up parallelism detection for attribute grammars
[RUU-CS-92-18] 10 p3107 N93-27909
Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525
A formal discourse grammar tackling verb phrase anaphora
[CL-91-03] 12 p3787 N93-31478

GRAND CANYON (AZ)
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
Wintertime meteorology of the Grand Canyon region
[DE93-001557] 05 p1216 N93-17179
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390

GRAND UNIFIED THEORY
NT UNIFIED FIELD THEORY

Neutrino mass
[DE93-010735] 11 p3566 N93-29315
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841

GRANITE
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure
01 p0106 N93-10115
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence
01 p0107 N93-10124
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196

GRANTS
Selected data on Federal funds for research and development: Fiscal years 1990, 1991, and 1992
[NSF-92-319] 03 p0741 N93-13657
Awards: 1991 undergraduate course and curriculum development program
[NSF-92-45] 03 p0731 N93-13699
Fiscal Year 1991 highlights
[NSF-92-23] 03 p0731 N93-13702
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
Directory of awards, fiscal year 1991. Directorate for engineering
[NSF-92-55] 03 p0775 N93-13704
Arctic science, engineering, and education. Directory of awards, fiscal year 1991
[NSF-92-60] 03 p0775 N93-13713
Federal funds for research and development: Fiscal years 1990, 1991, and 1992, volume 40
[NSF-92-322-VOL-40] 06 p1694 N93-17853
EHR directory of awards, FY 1990
[NSF-92-75] 06 p1746 N93-17854
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Evaluation of NASA space grant consortia programs
08 p2516 N93-23141
Publicity and public relations
08 p2516 N93-23145
Underrepresented groups 08 p2517 N93-23146
Outreach and public service 08 p2517 N93-23147
State and local governments
08 p2517 N93-23149
Focusing educational initiatives
08 p2517 N93-23150
University-industry interaction
08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051

GRANULAR MATERIALS
Mathematical analysis of reactive multiphase flows
[AD-A253854] 01 p0083 N93-10810
Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422
Experiments, theory, and simulation on the evolution of fabric in granular materials
[AD-A254820] 03 p0545 N93-12729
Studies of granular flow down an inclined chute
[DE92-018871] 03 p0577 N93-13074
On development of a three-dimensional particle motion tracking system
[DE92-015846] 03 p0704 N93-13263
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Microstatic study of the behavior of granular media
[ECL-90-31] 08 p2236 N93-22460
Continuous production of granular or powder Ti, Zr, and Hf or their alloy products
[PB93-135051] 08 p2227 N93-22592
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
Plastic deformation of granular materials
[AD-A262449] 10 p3058 N93-27826
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630
Studies of complexity in fluid systems
[DE93-010776] 11 p3418 N93-28878

Direct tension experiments on compacted granular materials 11 p3292 N93-30960

GRAPH THEORY

Symbolic Boolean manipulation with ordered binary decision diagrams
[AD-A253822] 01 p0142 N93-10828

The network destruction problem (extended abstract)
[DE92-016171] 02 p0419 N93-11860

Decomposition of balanced matrices. Part 5: Goggles
[AD-A247462] 02 p0430 N93-12217

Two extendability in two classes of claw-free graphs
[AD-A254639] 02 p0427 N93-12243

Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707

Graph rewriting using a single pushout; a comparison
[MEMO-INF-92-28] 04 p0968 N93-15121

An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364

On Hamiltonian properties of 2-tough graphs
[MEMO-1037] 05 p1266 N93-16669

Cycles containing all vertices of maximum degree
[MEMO-1044] 05 p1268 N93-16844

A linear time algorithm for recognizing interval orders
[MEMO-1046] 05 p1242 N93-16846

Going stable in graph models
[ML-91-08] 05 p1274 N93-17786

Parallel contraction of binary dags
[REPT-92-36] 06 p1616 N93-17848

Testing superperfection of k-trees
[RUU-CS-92-09] 06 p1645 N93-18196

Location and distribution of local optima
[AD-A257791] 06 p1645 N93-18237

En route air traffic controllers use of flight progress strips: A graph-theoretic analysis
[AD-A259062] 06 p1433 N93-18927

Plane multiflows with a fixed number of demands
[RR-885-M] 07 p2034 N93-20788

On the existence of (0,2)-graph of order 18
[RR-887-I] 07 p2051 N93-20800

Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848

Forcing colorations, intervals and the perfect graph conjecture (an extended abstract)
[RR-867-M] 07 p2053 N93-20945

General antifactors of graphs
[RR-868-M] 07 p2054 N93-20946

A generalized cut condition for multiflows in matroids
[RR-869-M] 07 p2054 N93-20947

Counterexamples to three conjectures concerning perfect graphs
[RR-870-M] 07 p2054 N93-20948

Triangulating planar graphs while minimizing the maximum degree
[RUU-CS-92-07] 07 p2054 N93-20950

On semantics: The case of knowledge graphs
[MEMO-1028] 07 p2091 N93-20955

An O(n squared) maximal planarization algorithm based on PQ-trees
[RUU-CS-92-03] 07 p2038 N93-21035

Graphs with maximum number of minimum cuts
[RR-880-M] 07 p2054 N93-21168

Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-003365] 07 p2057 N93-21963

Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-004119] 08 p2468 N93-22938

Design and analysis of algorithms for processing queries in database systems 09 p2876 N93-25482

Contributions to the Twente Workshop on Hamiltonian Graph Theory
[MEMO-1043] 10 p3115 N93-27469

On Hamilton-connectedness of Cayley graphs 10 p3115 N93-27470

On Hamiltonian properties of 2-tough graphs 10 p3115 N93-27471

Toughness and the cycle structure of graphs 10 p3115 N93-27472

The Hopping Lemma 10 p3115 N93-27473

Cycles containing all vertices of maximum degree 10 p3115 N93-27474

Long paths and cycles in tough graphs 10 p3115 N93-27475

The complete closure of a graph 10 p3115 N93-27476

Generalized closures of graphs 10 p3116 N93-27477

Two problems related to results of Chvatal-Erdos 10 p3116 N93-27478

Concerning the circumference of certain families of graphs 10 p3116 N93-27479

Ore-type conditions for cycles through specified vertices 10 p3116 N93-27480

Hamilton cycles in path-tough graphs 10 p3116 N93-27481

Cubic graphs containing k vertex-disjoint subgraphs of given cyclomatic number 10 p3116 N93-27482

Grid minors of graphs on the torus
[CWI-BS-R9205] 10 p3117 N93-27526

Classification of minimal graphs of given face-width on the torus
[CWI-BS-R9203] 10 p3117 N93-27607

Graphs on the torus and geometry of numbers
[CWI-BS-R9204] 10 p3117 N93-27608

Speeding up parallelism detection for attribute grammars
[RUU-CS-92-18] 10 p3107 N93-27909

Odd paths and odd circuits in planar graphs with two odd faces
[CWI-BS-R9218] 10 p3119 N93-27993

A note on 2-factors in graphs
[MEMO-1064] 10 p3120 N93-28073

Approximating treewidth and pathwidth of some classes of perfect graphs
[RUU-CS-92-29] 10 p3102 N93-28105

Drawing planar graphs using the lmc-ordering
[RUU-CS-92-33] 10 p3102 N93-28108

Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527

Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171

Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577

Polynomial space polynomial delay algorithms for listing families of graphs
[DE93-010677] 11 p3530 N93-29808

Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616

A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471

Disturbance decoupling by measurement feedback for structured systems: A graph theoretical approach
[REPT-92-53] 12 p3805 N93-31487

Graph theoretic methods for the computation of disturbance decoupling feedback matrices for structured systems
[REPT-92-54] 12 p3789 N93-31614

Cycles in tough graphs: Updating the last four years
[MEMO-1091] 12 p3810 N93-32398

Smallest regular graphs with given diameter
[MEMO-1092] 12 p3810 N93-32399

A note on dominating cycles in 2-connected graphs
[MEMO-1094] 12 p3810 N93-32401

GRAPHIC ARTS

NT ANIMATION

NT COMPUTER ANIMATION

A cognitive approach to the design of information graphics
[AD-A252692] 02 p0474 N93-11353

Mapping thoughts: Visual interfaces for information retrieval 04 p1000 N93-14208

GRAPHICAL USER INTERFACE

NT WINDOWS (COMPUTER PROGRAMS)

Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179

NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939

A new class of mission support for combat air-crew 11 p3501 N93-28854

Index mappings for interactive editing of symbolic matrices
[DE93-009316] 11 p3549 N93-29060

RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212

Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218

Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219

Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124

Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849

Automatic specification of reliability models for fault-tolerant computers
[NASA-TP-3301] 12 p3812 N93-31869

GRAPHITE

NT PYROLYTIC GRAPHITE

Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206

Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585

Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143

Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694

Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269

Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463

Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966

Nanorecording 06 p1539 N93-18467

Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498

Adherence and reactivity of graphite base multimaterials
[ECL-92-04] 07 p1859 N93-20542

Heat transfer device
[NASA-CASE-LEW-14162-4] 07 p1832 N93-20568

Barely visible damage threshold in a BMI 07 p1843 N93-21524

Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578

Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909

Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912

Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500

Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287

Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052

Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215

Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303

The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488

Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364

An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414

Apparatus for intercalating large quantities of fibrous structures
[NASA-CASE-LEW-15077-2] 11 p3298 N93-29609

NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805

Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004

Complex dielectric function of amorphous diamond films deposited by pulsed excimer (ArF) laser ablation of graphite
[AD-A264527] 11 p3598 N93-30408

Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439

Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548

Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178

GRAPHITE-EPOXY COMPOSITES

Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586

Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842

Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy
[FFA-TN-1992-04] 02 p0237 N93-11128

Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054

The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Vibration damping response of composite materials
03 p0533 N93-13748
Delamination initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493
Characterizing longitudinal splitting and delamination fracture toughness of composites
04 p0831 N93-14607
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
04 p0819 N93-15597
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Hydrostatic pressure testing of graphite/epoxy cylinder C6-1
[DE93-000427] 05 p1185 N93-16240
A study of the Lute Metering Structure
05 p1189 N93-17294
Design of a pressurized lunar rover
[NASA-CR-192033] 06 p1545 N93-18016
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Protection of Radarsat SAR antenna graphite/epoxy support structure 07 p1848 N93-20819
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Ultrasonic inspection of filament wound graphite epoxy cylinders
[AD-A260361] 08 p2321 N93-24173
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Stress distribution in composite flatwise tension test specimens
[NASA-TM-106074] 09 p2634 N93-25071
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
A three-dimensional model for the residual stresses in a unidirectional composite plate
09 p2728 N93-25825
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Composite laminated bend analysis and experiments
10 p2921 N93-27181
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel
10 p2992 N93-28265
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Mechanical and analytical screening of braided composites for transport fuselage applications
11 p3305 N93-30855
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Effects of bolt-hole contact on bearing-bypass damage-onset strength 11 p3307 N93-30870
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression
11 p3307 N93-30872
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065

GRAPHITE-POLYIMIDE COMPOSITES

The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317

GRAPHITIZATION

NMR imaging of elastomeric materials
[AD-A256034] 04 p0841 N93-14658
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites
[AD-A256826] 05 p1096 N93-15705
Method for producing hybrid graphite composite
[NASA-CASE-LEW-15241-2] 12 p3700 N93-31296

GRAPHOEPITAXY

Protein crystal growth in low gravity
[NASA-CR-191770] 06 p1498 N93-17886

GRAPHS (CHARTS)

NT BOND GRAPHS
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
Two extendability in two classes of claw-free graphs
[AD-A254639] 02 p0427 N93-12243
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
JARE data reports no. 175 (ionosphere 46). Records of radio aurora at Syowa Station, Antarctica in 1990
03 p0651 N93-13285
A theory of reference graphs in relational databases
03 p0739 N93-13912
Graph rewriting using a single pushout; a comparison
[MEMO-INF-92-28] 04 p0968 N93-15121
Experiments with an incremental closure algorithm
[MEMO-INF-92-33] 05 p1236 N93-16336
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
On Hamiltonian properties of 2-tough graphs
[MEMO-1037] 05 p1266 N93-16669
Cycles containing all vertices of maximum degree
[MEMO-1044] 05 p1268 N93-16844
Going stable in graph models
[ML-91-08] 05 p1274 N93-17786
A modal theory of arrows: Arrows logics 1
[ML-92-04] 06 p1644 N93-17915
Testing superperfection of k-trees
[RUU-CS-92-09] 06 p1645 N93-18196
Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
General antifactors of graphs
[RR-868-M] 07 p2054 N93-20946
Conformal length of graphs
[ETN-93-93419] 07 p2054 N93-21068
Hexagonal grid drawings
[RUU-CS-92-06] 07 p2055 N93-21172
Advanced display object selection methods for enhancing user-computer productivity
08 p2444 N93-22151
An ontology of knowledge graphs
[MEMO-1049] 08 p2441 N93-24063
Automated program recognition by graph parsing
[AD-A259609] 08 p2441 N93-24125
Model-based reasoning for system and software engineering: The Knowledge From Pictures (KFP) environment 09 p2825 N93-25978
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635
One-third-integrality in the metric polytope
[CWI-BS-R9209] 10 p3112 N93-27293
On the treewidth and pathwidth of permutation graphs
[RUU-CS-92-13] 10 p3113 N93-27305
A tourist guide through treewidth
[RUU-CS-92-12] 10 p3114 N93-27370
Finding k disjoint paths in a directed planar graph
[CWI-BS-R9206] 10 p3095 N93-27379
On Hamilton-connectedness of Cayley graphs
10 p3115 N93-27470
On the adequacy of graph rewriting for simulating term rewriting
[CWI-CS-R9204] 10 p3098 N93-27540
Integral solution to systems Ax less than or equal to b
[CWI-BS-R9217] 10 p3119 N93-27992
Odd paths and odd circuits in planar graphs with two odd faces
[CWI-BS-R9218] 10 p3119 N93-27993
Sparse arrangements and the number of views of polyhedral scenes
[RUU-CS-92-24] 10 p3120 N93-28065
A note on 2-factors in graphs
[MEMO-1064] 10 p3120 N93-28073
Graphs and games
[MEMO-1065] 10 p3120 N93-28074
Treewidth and pathwidth of permutation graphs
[RUU-CS-92-30] 10 p3101 N93-28093
A linear time algorithm for finding tree-decompositions of small treewidth
[RUU-CS-92-27] 10 p3102 N93-28103
Treewidth of chordal bipartite graphs
[RUU-CS-92-28] 10 p3102 N93-28104
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Polynomial space polynomial delay algorithms for listing families of graphs
[DE93-010677] 11 p3530 N93-29808
Packing odd paths
[CWI-BS-R9207] 11 p3549 N93-29849
Thermoforming from a systems viewpoint
11 p3293 N93-30967
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
Cycles in tough graphs: Updating the last four years
[MEMO-1091] 12 p3810 N93-32398

Smallest regular graphs with given diameter
[MEMO-1092] 12 p3810 N93-32399
A note on dominating cycles in 2-connected graphs
[MEMO-1094] 12 p3810 N93-32401

GRASSLANDS
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing
09 p2751 N93-24859
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045

GRASSMANN ALGEBRA
U VECTOR SPACES

GRATINGS
Design and fabrication of Dammann gratings to illuminate a time-integrating correlator
[CTN-93-60700] 08 p2305 N93-24650

GRATINGS (SPECTRA)
NT ECHELLE GRATINGS
The solar ultraviolet network subtractive double monochromator 01 p0183 N93-10931
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
United Kingdom Infrared Telescope
03 p0743 N93-13273
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
A modal analysis of lamellar diffraction gratings in conical mountings 04 p0986 N93-15519
On the convergence of the coupled-wave approach for lamellar diffraction gratings 04 p0986 N93-15520
The world of grid methods
[NLR-TP-89298-U] 05 p1186 N93-16292
Computer-generated gratings
[ISBN-951-22-0785-0] 05 p1252 N93-17599
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Laser diagnostics 08 p2311 N93-23260
Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257
Atom wave interferometer
[AD-A260082] 08 p2484 N93-24410
Ruled and holographic experiment (AO 138-5)
11 p3434 N93-29696
Wavelength-division multiplexed optical integrated circuit with vertical diffraction grating
[NASA-CASE-NPO-18357-1-CU]
11 p3579 N93-29848
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054

GRAUPEL
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352

GRAVIMETERS
Precision tests of gravitation: Liquid-supported torsion balance experiments and a tower experiment
04 p0914 N93-14589
Gravimetric activities in the period 1986-1990, submitted to the International Gravity Commission of IAG
07 p1971 N93-20975

GRAVIMETRY
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity
[ITN-93-85180] 05 p1208 N93-16744
Applications of marine gravimetry to mid-oceanic spreading centers and volcanos
06 p1590 N93-19382
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
Gravimetric activities in the period 1986-1990, submitted to the International Gravity Commission of IAG
07 p1971 N93-20975
International Gravimetric Bureau
07 p1971 N93-20977
Commercialization of atom interferometers for borehole gravity gradiometry
[DE93-006889] 08 p2398 N93-24018

GRAVIRECEPTORS
NT OTOLITH ORGANS

GRAVITATION
NT ARTIFICIAL GRAVITY
NT EARTH GRAVITATION
NT GRAVITY ANOMALIES
NT LUNAR GRAVITATION
NT MICROGRAVITY
NT PLANETARY GRAVITATION
NT SOLAR GRAVITATION
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Second quantization in bit-string physics
[DE92-019645] 03 p0727 N93-12826
Control of a very flexible robot in gravity
03 p0615 N93-13541
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
Precision tests of gravitation: Liquid-supported torsion balance experiments and a tower experiment
04 p0914 N93-14589
Cosmological models in higher-order gravity
04 p1018 N93-14592
Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884
Anti-hydrogen: The cusp between quantum mechanics and general relativity
[DE93-001807] 04 p0998 N93-15469
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
A continuum string model for D greater than 1
[PREPRINT-853] 05 p1329 N93-16960
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
An overview of European activities on microgravity combustion 07 p1868 N93-20181
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Capabilities and constraints of NASA's ground-based reduced gravity facilities 07 p1819 N93-20184
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199
Microgravity combustion of dust suspensions
07 p1853 N93-20201
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
Flame spread across liquid pools
07 p1854 N93-20209
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Metals combustion in normal gravity and microgravity
07 p1854 N93-20211
Combustion experiments in reduced gravity with two-component miscible droplets
07 p1854 N93-20214
Combustion of interacting droplet arrays in a microgravity environment 07 p1854 N93-20217
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
On the origin of SL(nC) current algebra in generalized two dimensional gravity
[PREPRINT-818] 07 p2055 N93-21180
Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite
10 p2924 N93-27199
The algebra of supertraces for 2+1 super de Sitter gravity 10 p3144 N93-27337
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Beyond metric gravity: Progress on PS-200
[DE93-008723] 10 p3158 N93-28461
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
An algebraic approach to the quantization of constrained systems: Finite dimensional examples
11 p3548 N93-28671
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
The physiological limitations of man in the high G environment 11 p3503 N93-28861
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194
Gravity referenced elevation encoder development
11 p3385 N93-29592
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
General scalar-tensor theories for induced gravity inflation
[DE93-602505] 11 p3479 N93-30940
Fourth-rank cosmology
[DE92-641346] 11 p3637 N93-30997
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
2 + 1 gravity without dynamics
[DE92-642587] 12 p3757 N93-31081
Gravitation of global topological defects
12 p3757 N93-31130
BRST cohomology ring in 2D gravity coupled to minimal models
[DE93-608192] 12 p3757 N93-31305

GRAVITATION THEORY
NT SUPERGRAVITY
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
Induced gauge theories and W gravity
[DE92-011218] 02 p0470 N93-11518
Second quantization in bit-string physics
[DE92-019645] 03 p0727 N93-12826
Dual mass and torsion 03 p0728 N93-13498
Perturbations of the Robertson-Walker space
04 p1015 N93-14134
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961
Solutions to the strong-CP problem in a world with gravity
[DE93-002650] 05 p1291 N93-17200
Combinatorial and topological phase structure of non-perturbative n-dimensional quantum gravity
[PREPRINT-861] 05 p1331 N93-17224
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
Lectures on 2D gravity and 2D string theory
[DE93-003746] 07 p2084 N93-21737
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928

A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002

GRAVITATIONAL COLLAPSE

Topics in General Relativity theory: Gravitational-wave measurements of black-hole parameters; gravitational collapse of a cylindrical body; and classical-particle evolution in the presence of closed, timelike curves
11 p3603 N93-28690

Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931

A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002

Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

Constraints on cosmic strings due to black holes formed from collapsed cosmic string loops
[NASA-CR-193248] 12 p3861 N93-31837

GRAVITATIONAL CONSTANT

Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829

Spokes in ring galaxies 10 p3202 N93-26885

GRAVITATIONAL EFFECTS

NT GRAVITATIONAL LENSES

Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126

Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179

Effects of gravity in folding --- of geological layers
01 p0124 N93-10324

Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512

An overview of gravitational physiology
[NASA-TM-102849] 02 p0391 N93-12319

A fundamental study of the effect of gravity on the static and dynamic behavior of robots
03 p0610 N93-12760

Test equipment data package for the KC-135 fiber pulling apparatus
[NASA-CR-184446] 03 p0506 N93-13013

Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report
[NASA-TM-108379] 03 p0551 N93-13115

A study of the effects of micro-gravity on seed germination 03 p0510 N93-13167

Investigation of microgravity effects on solidification phenomena of selected materials
03 p0510 N93-13168

Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449

Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691

Bone loss and human adaptation to lunar gravity
03 p0676 N93-14002

An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529

Fiber pulling apparatus modification
[NASA-CR-184498] 04 p0891 N93-14763

Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367

Nucleate pool boiling in the long duration low gravity environment of the Space Shuttle
[NASA-TM-105973] 04 p0855 N93-15420

Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573

Vehicle/payload interface specification for the reusable reentry satellite
[NASA-CR-187883] 04 p0824 N93-15631

Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644

The influence of microgravity on the microstructure and properties of eutectics, phase 4
[CTN-93-60629] 05 p1132 N93-16690

Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458

Microstructural development during directional solidification of peritectic alloys
[NASA-CR-192090] 06 p1488 N93-18603

Evolution of the Quadrantid meteor stream
06 p1708 N93-19177

Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216

A proposal to determine properties of the gravitropic response of plants in the absence of a complicating g-force (GTHRES)
[NASA-CR-192219] 06 p1593 N93-19377

The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894

An overview of European activities on microgravity combustion 07 p1868 N93-20181

Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames
07 p1853 N93-20189

Laser diagnostics for microgravity droplet studies
07 p1853 N93-20195

Modeling of microgravity combustion experiments
07 p1853 N93-20197

The effects of gravity on wrinkled laminar flames
07 p1853 N93-20200

Opposed-flow flame spreading in reduced gravity
07 p1854 N93-20206

Flame spread across liquid pools
07 p1854 N93-20209

A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210

Radiological assessment for Space Station Freedom
[NASA-TM-104758] 07 p2022 N93-20303

Gravitational metric deviation by supernova neutrino bursts
[PREPRINT-789] 07 p2096 N93-20849

SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993

Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070

On the modelling of the dissolution and liquid phase epitaxial growth processes in a horizontal sandwich system 07 p1803 N93-21080

Stability of the fluid-fluid interphase in rotating systems subjected to different gravitational intensities
07 p1805 N93-21087

Preparation results for a Marangoni-Benard experiment with Soret effect under microgravity conditions
07 p1805 N93-21088

A visualization study of the diffusion process between two liquids of different densities under microgravity conditions 07 p1806 N93-21095

How do zooplankton feed? A critical microgravity experiment 07 p1806 N93-21097

Gravity as a factor in the orientation and vertical migration of marine zooplankton
07 p1806 N93-21098

Studying the effects of microgravity on lower vertebrate development and behavior 07 p1807 N93-21099

Canadian microgravity experiments flown in 1990-1991 07 p1807 N93-21101

CSAR-1: The first Canadian microgravity sounding rocket flight 07 p1807 N93-21103

Studies of dispersed phase systems: Ostwald ripening and metal matrix composites 07 p1808 N93-21106

Elucidation of the role of gravity and gravity driven convection in the formation of silicon carbide/silicon nitride whiskers 07 p1808 N93-21107

An experiment on producing foam metals in a microgravity environment aboard NASA KC-135 aircraft
07 p1808 N93-21109

Gas bubbles in liquid metals 07 p1808 N93-21110

Eye movements under altered gravitoinertial forces
07 p1809 N93-21111

Aimed arm movements under changed gravity
07 p1809 N93-21113

Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118

Acceleration levels on the KC-135
07 p1784 N93-21124

Laser welding of plastics under low and high gravity conditions 07 p1811 N93-21125

Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670

Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262

Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625

Materials science research in microgravity
08 p2191 N93-22645

Action of an acceleration field on premixed methane/air flames 08 p2226 N93-22838

Influence of gravity on polyedric flames
08 p2226 N93-22840

Heat and mass transfer in polyphase flows
08 p2248 N93-22844

Boiling under microgravity conditions
08 p2249 N93-22847

The influence of gravity on the equilibrium and the growth of tenuous structures 08 p2249 N93-22851

Polyreactions in microgravity environment
08 p2251 N93-22859

Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865

Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179

The effect of microgravity on tremor (microvibration)
08 p2160 N93-24368

Altered fluid shift dynamics with 6 days in microgravity
08 p2160 N93-24369

Fluid science users requirements
08 p2163 N93-24385

Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755

A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946

Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986

Modeling of bubble and drop formation in flowing liquids in terrestrial and microgravity environments
09 p2664 N93-25390

Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540

Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740

The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724

The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738

Deep H alpha images of interacting galaxies
10 p3191 N93-26826

The Middeck Active Control Experiment (MACE)
10 p3059 N93-27896

The middeck active control experiment: Gravity and suspension effects 10 p3010 N93-27897

Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554

Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630

Sodium-Sulfur Cell Technology flight experiment (SSCT) 11 p3264 N93-28715

Heat pipe performance experiment
11 p3265 N93-28722

NASA supporting studies for microgravity research on eye movements
[NASA-CR-193233] 11 p3493 N93-29041

Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179

Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194

Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400

GRAVITATIONAL FIELDS

Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10085

On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system
01 p0179 N93-10303

Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122

New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183

The lunar environment and its effect on optical astronomy 03 p0746 N93-13594

The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771

Resonance studies of artificial earth satellites
03 p0523 N93-14037

Gravitational instabilities in a protoplanetary disk
04 p1016 N93-14154

Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376

Venus gravity: Summary and coming events
04 p1042 N93-14377

An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529

Precision tests of gravitation: Liquid-supported torsion balance experiments and a tower experiment
04 p0914 N93-14589

Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990

Interacting Euclidean three-dimensional quantum gravity
[PREPRINT-867] 05 p1330 N93-16965

On the black-hole conformal field theory coupled to the Polyakov's string theory. A non perturbative analysis
[PREPRINT-852] 05 p1365 N93-17072

Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout
[AD-A258852] 06 p1534 N93-19367

Mars observer radio science (MORS) observations in polar regions 06 p1743 N93-19818

The world of NASA microgravity science
07 p1868 N93-20179

Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
SSG 2.107: Gravity field determination by satelli te gravity-gradiometry 07 p1971 N93-20974
SSG 3.113: Spectral gravity field modelling methods 07 p1971 N93-20978
SSG 4.91: Local gravity field approximation 07 p1972 N93-20979
SSG 4.118: Inverse geodetic problems 07 p1973 N93-20984
Commission 7: Recent crustal movements 07 p1973 N93-20988
SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904
Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660 09 p2607 N93-25396
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
The use of satellites in gravity field determination and model adjustment
[ISBN-90-6275-802-9/CIP] 10 p2973 N93-27946
Variational methods in general relativity: Mitteleuropean mathematical inaccuracy and Italian rigour. The contribution of A. Palatini
[SSCL-PREPRINT-760] 10 p3156 N93-28145
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
Ashtekar variables, self-dual metrics, and w(infinity)
[DE92-642588] 12 p3802 N93-31074
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test 12 p3849 N93-31778
A universal mass in (2+1)-dimensions
[DE93-609888] 12 p3832 N93-31911

GRAVITATIONAL LENSES
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848
Gravitational lenses 08 p2534 N93-23883
Gravitational lensing and gamma ray bursts 09 p2900 N93-25828
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376

GRAVITATIONAL PHYSIOLOGY
Space flight and immune system 02 p0376 N93-11284
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
An overview of gravitational physiology
[NASA-TM-102849] 02 p0391 N93-12319
SLS-1 flight experiments preliminary significant results
[NASA-TM-108033] 03 p0520 N93-13613
Bone loss and human adaptation to lunar gravity 03 p0676 N93-14002
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Long duration human exposure to microgravity 07 p1802 N93-21073
Space life sciences overview 07 p1802 N93-21074
Cerebral autoregulation in microgravity 07 p1809 N93-21112
Aimed arm movements under changed gravity 07 p1809 N93-21113
Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800
Neural processing of gravity information
[NASA-CR-192766] 08 p2419 N93-23233
Physiological experiments within the project AustroMir 08 p2157 N93-24354
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Development and implementation of the MotoMir experiment on the Mir Space Station 08 p2159 N93-24363
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
The effect of microgravity on tremor (microvibration) 08 p2160 N93-24368
Altered fluid shift dynamics with 6 days in microgravity 08 p2160 N93-24369
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-022] 09 p2795 N93-25407
The physiological limitations of man in the high G environment 11 p3503 N93-28861
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651

GRAVITATIONAL POTENTIAL
U GRAVITATIONAL FIELDS

GRAVITATIONAL RADIATION
U GRAVITATIONAL WAVES

GRAVITATIONAL WAVE ANTENNAS
Six degrees of freedom vibration isolation using electromagnetic suspension 10 p2960 N93-27559

GRAVITATIONAL WAVES
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
The dynamics of dense galactic nuclei 03 p0750 N93-13340
HST imaging of the binary pulsar PSR1913+16 08 p2536 N93-23902
On colliding plane gravitational waves coupled with fluid motions
[MATHS-REPT-A-161] 08 p2398 N93-24060
On the propagation of a gravitational wave in a stiff perfect fluid
[MATHS-REPT-A-178] 08 p2398 N93-24079
The collision of gravitational waves in a stiff perfect fluid
[MATHS-REPT-A-179] 08 p2398 N93-24080
Cosmic string cosmology 09 p2891 N93-24907
Gravitational radiation from coalescing binary star systems 09 p2900 N93-25625
The uncertainty principle in resonant gravitational wave antennae and quantum non-demolition measurement schemes 10 p3143 N93-27330
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions 10 p3204 N93-28081
Topics in General Relativity theory: Gravitational-wave measurements of black-hole parameters; gravitational collapse of a cylindrical body; and classical-particle evolution in the presence of closed, timelike curves 11 p3603 N93-28690
Topics in inflationary universe models and cosmic string theories 11 p3637 N93-30579

GRAVITONS
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951

GRAVITROPISM
A proposal to determine properties of the gravitropic response of plants in the absence of a complicating g-force (GTHRES)
[NASA-CR-192219] 06 p1593 N93-19377
Gravity and root morphogenesis 08 p2166 N93-24403

GRAVITY
U GRAVITATION

GRAVITY ANOMALIES
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity
[ITN-93-85180] 05 p1208 N93-16744
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817

GRAVITY ASSIST TRAJECTORIES
U SWINGBY TECHNIQUE

GRAVITY GRADIOMETERS
SSG 2.107: Gravity field determination by satelli te gravity-gradiometry 07 p1971 N93-20974
Commercialization of atom interferometers for borehole gravity gradiometry
[DE93-006889] 08 p2398 N93-24018

GRAVITY METERS
U GRAVIMETERS

GRAVITY PROBE B
Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP 03 p0518 N93-13922
The design of a propulsion system using vent gas from a liquid helium cryogenic system 09 p2623 N93-25539
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179

GRAVITY WAVES
NT BAROCLINIC WAVES
Yellow hypergiant interferometry: A clue to understanding evolutionary instability 01 p0182 N93-10919
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
CORRIDOR: A routine for estimating the initial wave front resulting from high temperature fire exposure to a corridor
[PB92-213347] 03 p0559 N93-13640
A new instrument for the study of mesospheric gravity waves through nightglow observations 03 p0656 N93-13789
Optical model analysis of gravity wave-critical layer interaction 03 p0658 N93-13888
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Wave drag in the atmospheric boundary layer 04 p0915 N93-14873
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Kink-assisted mode hopping in a surface wave resonator
[AD-A256314] 05 p1207 N93-16264
Internal gravity waves in the equatorial Pacific
[DE93-001517] 05 p1211 N93-17653
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Atmospheric dynamics and coupling 06 p1584 N93-18495
Aeronomy of auroral and airglow emissions 06 p1584 N93-18496
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
EISCAT observations of spectral components of atmospheric gravity waves in the F region 06 p1578 N93-18743
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT 06 p1729 N93-19569
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990 06 p1733 N93-19589
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders 08 p2265 N93-23601
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24090
Rossby-gravity waves in tropical total ozone data
[NASA-CR-192983] 09 p2764 N93-25432

Gravity waves from O2 airglow
09 p2772 N93-25547
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions
10 p3204 N93-28081
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
ARI: Internal gravity waves at abrupt topography
[AD-A263795] 11 p3477 N93-29879
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Numerical modeling and parameterization of gravity wave processes and effects in the atmosphere
[AD-A264331] 11 p3478 N93-30367
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182

GRAY GAS
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168

GRAY SCALE
An extended cuberille model for identification and display of 3D objects from 3D gray value data
04 p0953 N93-15542
PLTPWR: A versatile tool for greyscale and power spectral display
[DREA-TC-92-306] 08 p2435 N93-22473
A survey of quality measures for gray-scale image compression 08 p2431 N93-24550
Gray-scale granulometries compatible with spatial scalings
[CWI-BS-R9212] 10 p3121 N93-28088

GRAZING INCIDENCE
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
Application of grazing incidence x ray diffraction to polymer blends
[DE93-000709] 05 p1122 N93-16228
Development of a measurement of upper MID frequency errors on arbitrary grazing incidence optics
[NASA-CR-191333] 07 p2067 N93-20731
VETA-I x ray test analysis
[NASA-CR-192321] 09 p2854 N93-26183
The x ray reflectivity of the AXAF VETA-I optics
09 p2855 N93-26192

GRAZING LANDS
U GRASSLANDS

GREASES
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
Synthetic lubricating oil greases containing metal chelates of Schiff bases
[AD-D015694] 11 p3333 N93-29458

GREAT BASIN (US)
Final report — Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927

GREAT BRITAIN
U UNITED KINGDOM

GREAT CIRCLES
Large bearing errors observed at a high latitude DF site 08 p2268 N93-23615

GREAT LAKES (NORTH AMERICA)
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049

GREAT PLAINS CORRIDOR (NORTH AMERICA)
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring
03 p0664 N93-13643
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275

GREAT SALT LAKE (UT)
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200

GREECE
Documentation practices: The national scene (Greece)
01 p0173 N93-10595

GREEN THEOREM
U GREEN'S FUNCTIONS

GREEN'S FUNCTIONS
Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
A fresh look at (e,e(prime)) scattering from light nuclei: A GFMC approach
[DE92-016377] 03 p0703 N93-13246
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media
03 p0568 N93-14044
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
Regularization of chiral gauge theories
[PREPRINT-888] 05 p1330 N93-17024
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946
Shielding from space radiations
[NASA-CR-191966] 06 p1655 N93-18567
Green's function method for vibration of structures
07 p1934 N93-20667
Green's function methods in heavy ion shielding
[NASA-TP-3311] 08 p2485 N93-22488
Structural acoustics: A general form of reciprocity principles in acoustics
[AD-A261515] 09 p2846 N93-26376
An efficient method for analyzing microstrip antennas with a dielectric cover using a spectral domain moment method
[EUT-91-E-255] 10 p3026 N93-27228
Fluctuations in quantum transport theories of nuclear matter
[KVI-930] 10 p3155 N93-27395
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
Determination of the electrostatic Green's function for stratified media
[REPT-92-067] 12 p3716 N93-31607
Numerical analysis of the spectral domain of transmission lines in dielectric layers
[REPT-92-068] 12 p3716 N93-31608
Characteristics and properties of the continuity equations in a semiconductor
[REPT-92-080] 12 p3720 N93-31609

GREEN'S THEORUM
U GREEN'S FUNCTIONS

GREEN'S THEOREM
U GREEN'S FUNCTIONS

GREENHOUSE EFFECT
The current and future environmental role of atmospheric methane: Model studies and uncertainties
[NASA-CR-190662] 01 p0104 N93-10256
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Radiative transfer in the middle atmosphere
03 p0652 N93-13482
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
[DE93-001600] 05 p1198 N93-15811
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Sensitivity of direct global warming potentials to key uncertainties
[DE92-041045] 05 p1201 N93-16298
Cloud amount and sunshine duration in the People's Republic of China, 1954-1988
[DE92-041023] 05 p1214 N93-16601
Global climate change: Some implications, opportunities, and challenges for US forestry
[DE92-040874] 05 p1203 N93-17209
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Greenhouse Earth: A Traveling Exhibition
[DE93-002419] 06 p1572 N93-17912
Global change research: Summaries of research in FY 1992
[DE93-002859] 06 p1573 N93-18405
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
Earth observation in the TIGER programme of the UK Natural Environment Research Council
07 p1953 N93-21572
Climatological use of long time series of data from the water vapour channel of Meteosat
07 p1958 N93-21601
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Screening analysis of CO2 utilization and fixation
[DE93-004313] 07 p1994 N93-21850
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
The Finnish research programme on climate change
[DE93-752870] 08 p2383 N93-22597
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011
Sea level variation 09 p2734 N93-24929

Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Long term modeling of the links between economics, technical progress, and environment: Evolution of approaches and new trends
[DE93-005035] 09 p2767 N93-26497
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Quantifying and minimizing uncertainty of climate forcing by anthropogenic aerosols
[NASA-TM-108259] 11 p3472 N93-30043
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871

GREENLAND
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377

GRID GENERATION (MATHEMATICS)
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349
Analysis and control of grid quality in computational simulation
[AD-A253723] 01 p0138 N93-10746
Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
FNAS computational fluid dynamics
[NASA-CR-184394] 02 p0307 N93-12397
An advancing front Delaunay triangulation algorithm designed for robustness
[NASA-CR-189719] 02 p0416 N93-12400
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains 03 p0593 N93-14041
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
An advanced graphics-interactive system for a multi-block structured grid generation within an industrial environment
[ETN-92-92885] 05 p1235 N93-16288
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971] 05 p1240 N93-16620
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122] 05 p1164 N93-17557
Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
Numerical analysis of surface cracks 06 p1556 N93-18750
VGRIDSG: An unstructured surface grid generation program
[NASA-CR-191426] 06 p1624 N93-18874
A numerical simulation of flows around a deformable gas bubble 06 p1413 N93-19300
Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232
Multiple-body simulation with emphasis on integrated Space Shuttle vehicle
[NASA-CR-192289] 07 p1821 N93-20234
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
Surface/surface intersection on a processor mesh
[RR-864-M] 07 p2038 N93-20943
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed
[MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Adaptive meshing in solids
[DE93-003238] 08 p2287 N93-22331
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Mapping methods for computationally efficient and accurate structural reliability
[NASA-TM-105892] 08 p2330 N93-23745
On essentially non-oscillatory schemes on unstructured meshes: Analysis and implementation
[NASA-CR-191415] 08 p2471 N93-24492
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Rapid exploration of curvilinear grids using direct volume rendering
[NASA-CR-192765] 09 p2808 N93-24944
A comparison using APPL and PVM for a parallel implementation of an unstructured grid generation program
[NASA-CR-191425] 09 p2808 N93-25073
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Structured adaptive mesh refinement on the connection machine
[DE93-007368] 09 p2816 N93-25316
Transformation of two and three-dimensional regions by elliptic systems
[NASA-CR-192955] 09 p2810 N93-25669
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Grid adaption using Chimera composite overlapping meshes
[NASA-TM-106163] 10 p3111 N93-27065
Unstructured viscous grid generation by advancing-front method
[NASA-CR-191449] 10 p2929 N93-27067
Analysis of local uniform grid refinement
[CWI-NM-R9211] 10 p3114 N93-27364
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Adaptive EAGLE dynamic solution adaptation and grid quality enhancement 10 p2937 N93-27464
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Finite element mesh generation from CSG models
[ETN-93-93614] 10 p3119 N93-27932
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
Design of an essentially non-oscillatory reconstruction procedure in finite-element type meshes
[INRIA-RR-1584] 11 p3547 N93-28615
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
The three-dimensional Multi-Block Advanced Grid Generation System (3DMAGGS)
[NASA-TM-108985] 11 p3420 N93-29155
Grid Analysis and Display System (GrADS): A practical tool for earth science visualization 11 p3613 N93-29225
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Computational fluid dynamics research on dynamically adaptive mesh methods for transonic flows
[AD-A264833] 11 p3428 N93-30630
Nonlinear explicit transient finite element analysis on the Intel Delta
[DE93-009561] 11 p3535 N93-30647
The ViB-code to simulate 3-D stator/rotor flow in axial turbines
[DLR-FB-92-19] 12 p3681 N93-31170

GRIDS (MATHEMATICS)
U COMPUTATIONAL GRIDS

GRIFFITH CRACK
Interference of wedge-shaped protrusions on the faces of a Griffith crack in biaxial stress
[DE92-041375] 05 p1185 N93-16270
Some remarks upon fracture mechanics
[VTT-PUBS-100] 06 p1556 N93-18700

GRIGG-SKJELLERUP COMET
Giotto: The second encounter
[ESA-BR-83] 03 p0749 N93-12965

GRINDING
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123

GRINDING (COMMINUTION)
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill 09 p2659 N93-25585

GRINDING (MATERIAL REMOVAL)
NT METAL GRINDING
The dressing of resin bonded diamond grinding wheels
[PNR-90965] 02 p0264 N93-11086
Tool grinding and spark testing 11 p3291 N93-30954

GRIT
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021

GROOVES
NT RIBLETS
NT V GROOVES
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Experimental study of the effect of helical grooves on an infinite cylinder
[AD-A260890] 09 p2676 N93-25912

GROOVING
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072

GROUND BASED CONTROL
NT AIR TRAFFIC CONTROL
NT AUTOMATED EN ROUTE ATC
NT RADAR APPROACH CONTROL
Airport stand assignment model
[TT-9104] 02 p0218 N93-11728
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
Mission Control Center enhancement opportunities in the 1990's 02 p0396 N93-11942
An intelligent position-specific training system for mission operations
[NASA-TM-108381] 03 p0691 N93-13156
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Developing satellite ground control software through graphical models 05 p1246 N93-17500
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment
[NASA-TM-107748] 09 p2585 N93-26087

TACSAT ground control and data collection
11 p3388 N93-29895

GROUND CREWS
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Columbus program: Ground staff training simulation
[ETN-93-93694] 08 p2194 N93-23415
Training concept for crew, end user, and ground centre personnel in the Columbus utilisation programme
08 p2162 N93-24382
Lipidemic profile of Hellenic Airforce officers
12 p3774 N93-32250
The X-15/HL-20 operations support comparison
[NASA-TM-4453] 12 p3687 N93-32379

GROUND EFFECT (AERODYNAMICS)
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217

GROUND EFFECT (COMMUNICATIONS)
Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878
Systems issues in airborne Doppler radar/LIDAR certification 04 p0785 N93-14855
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Ground clutter measurements for surface-sited radar
[AD-A262472] 11 p3379 N93-28655

GROUND HANDLING
Bogie-gripping transfer device
[CA-PATENT-APPL-SN-024586]
08 p2135 N93-24643
Wheeled transfer device for moving an aircraft
[INT-PATENT-CLASS-B64F-1/10]
08 p2135 N93-24644

GROUND OPERATIONAL SUPPORT SYSTEM
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
Ever watchful
[ESA-BR-37-I] 03 p0517 N93-13903
GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. Economy
[NASA-TM-103895] 08 p2430 N93-23240
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Develop margin philosophy to attain robustness
[MCR-92-5005] 09 p2610 N93-26182
TCMS operations and maintenance philosophy
[NASA-TM-108756] 09 p2873 N93-26418
Test, Control and Monitor System (TCMS) operations plan
[NASA-CR-193098] 09 p2873 N93-26419
Test, Control and Monitor System maintenance plan
[NASA-CR-193099] 09 p2873 N93-26420
TACSAT ground control and data collection
11 p3388 N93-29895
Ground Robotic Hand Applications for the Space Program study (GRASP)
[NASA-CR-193571] 12 p3737 N93-32235
The X-15/HL-20 operations support comparison
[NASA-TM-4453] 12 p3687 N93-32379

GROUND RESONANCE
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544

GROUND SPEED
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
The 1990/1991 project summaries
11 p3229 N93-29725

GROUND STATE
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
The 2S(+) - 2P separation in KO
[NASA-TM-108086] 03 p0702 N93-12900
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
The contribution of electronically excited states to the radiation chemistry of organic systems
[DE92-040465] 05 p1104 N93-16585
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996
Electron-phonon driven spin frustration in multi-band Hubbard models: MX chains and oxide superconductors
[DE93-003697] 08 p2503 N93-22754
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
New ground states in unconventional superconductors
09 p2688 N93-25282
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E)
11 p3318 N93-30068
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289

GROUND STATIONS
NT EARTH TERMINALS
NT INTEGRATED MISSION CONTROL CENTER
NT POLYSTATION DOPPLER TRACKING SYSTEM
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Giotto: The second encounter
[ESA-BR-83] 03 p0749 N93-12965
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
A second generation expert system for checking and diagnosing AXAF's electric power system
05 p1152 N93-17287
Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991
06 p1578 N93-18741
A model to compare performance of space and ground network support of low-Earth orbiters
06 p1508 N93-18925
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Transportation systems analyses, volume 2
[NASA-CR-192486] 08 p2177 N93-22386
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Meteosat operational programme current missions and services 08 p2357 N93-23752
SPOT 4 image ground segment
08 p2360 N93-23768
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659
QuickStar: System design, capabilities, and tactical applications of a small, smart space system
11 p3284 N93-29905
VLF/LF propagation measurements
11 p3395 N93-30732

GROUND SUPPORT EQUIPMENT
NT GROUND OPERATIONAL SUPPORT SYSTEM
Generic Propellant Transfer Unit
01 p0011 N93-10046
Steering system of a vehicle, such as a snow removing machine for airfields
[CA-PATENT-APPL-SN-1293201]
01 p0091 N93-10367
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
The Teledyne controls aircraft condition monitoring system 04 p0793 N93-15155
Ground Support Equipment (GSE) for Aircraft Condition Monitoring System (ACMS) 04 p0778 N93-15158
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
Problems involving combined loading
05 p1189 N93-17314
Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991
06 p1578 N93-18741
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
Bogie-gripping transfer device
[CA-PATENT-APPL-SN-024586]
08 p2135 N93-24643
Wheeled transfer device for moving an aircraft
[INT-PATENT-CLASS-B64F-1/10]
08 p2135 N93-24644
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901

GROUND SUPPORT SYSTEMS
Generic Propellant Transfer Unit
01 p0011 N93-10046
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems
05 p1254 N93-17305
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
The first European remote sensing satellite, ERS-1. A summary of useful load, mission, ground segment, standard products and user service
08 p2339 N93-22437
Columbus program: Ground staff training simulation
[ETN-93-93694] 08 p2194 N93-23415
SPOT 4 image ground segment
08 p2360 N93-23768
SAX overview 08 p2540 N93-23927
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
Telescience opportunities in the precursor flights
08 p2161 N93-24376
Information handling as task layer of Columbus user support 08 p2163 N93-24383
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
The scope of DLR's SAR calibration program
09 p2738 N93-24778
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809
DSN support of Mars Observer
11 p3385 N93-29598
Lunar lander ground support system
11 p3230 N93-29729

GROUND TESTS
NT COLD FLOW TESTS
NT PRELAUNCH TESTS
A 26 kW arcjet system for on-orbit demonstration
01 p0021 N93-10031
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970

Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Advanced two-phase heat transfer systems
02 p0229 N93-12459
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255896] 03 p0524 N93-14087
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
Space based radar: Test of large space structures
04 p0808 N93-14941
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
A new ground test for determining the resolution of pushbroom sensors
[AD-A257193] 05 p1189 N93-16002
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Space power reactor ground test in the Experimental Gas Cooled Reactor (EGCR) at Oak Ridge
[DE92-016788] 05 p1299 N93-17202
Ground testing of bioconvective variables such as morphological characterizations and mechanisms which regulate macroscopic patterns 05 p1224 N93-17303
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Identification and interpretation of patterns in rocket engine data
[NASA-CR-192100] 06 p1473 N93-18401
Propulsion diagnostics 06 p1475 N93-18482
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941
Flight Testing
[AGARD-CP-519] 06 p1442 N93-19901
High precision navigation for flight testing (AERONAV)
06 p1434 N93-19920
Research on advanced spacecraft testing technology
07 p1796 N93-20452
Autonomous docking ground demonstration (category 3) 08 p2145 N93-22282
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
HERO resistant semiconductor bridge igniter
09 p2627 N93-26024
Study of plate-fin heat exchanger and cold plate for the active thermal control system of Space Station
09 p2619 N93-26064
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201
Heat pipe performance experiment
11 p3265 N93-28722
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
TACSAT ground control and data collection
11 p3388 N93-29895
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274

GROUND TRACKS
NT SATELLITE GROUND TRACKS
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites
10 p2924 N93-27200

GROUND TRUTH
Radiometric calibration of SAR systems
03 p0564 N93-13055
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
Development of data sets for the ISY sea surface temperature: MOS-1/MOS-1b data sets
08 p2371 N93-23838
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568
Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers
09 p2738 N93-24776
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
09 p2878 N93-25798
Erosional and depositional history of central Chryse Planitia
[NASA-CR-193068] 10 p3210 N93-27497
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
11 p3614 N93-29234

GROUND WATER
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
A new two-phase flow and transport model with interphase mass exchange
[PB92-206564] 02 p0298 N93-11251
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Fiber optic sensors for environmental applications: A brief review
[DE92-040170] 03 p0710 N93-13576
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
Data acquisition for low-temperature geothermal well tests and long-term monitoring
[DE93-000387] 05 p1193 N93-15669
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater
[PB93-150001] 08 p2375 N93-24638
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky
[PB93-182244] 11 p3474 N93-30825
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Preferential flow effects on chemical transport and retardation in soils
[PB93-190668] 12 p3723 N93-31204
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C
12 p3862 N93-31940
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

GROUND WAVE PROPAGATION
Software for prediction and analysis of ground wave propagation loss
[AD-A253474] 01 p0067 N93-10199
LORAN and the effects of terrestrial propagation
[PB92-197219] 02 p0205 N93-11472
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510

GROUND WIND
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho
02 p0367 N93-11159
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Surface winds over West Antarctica
12 p3763 N93-31903

GROUND-AIR-GROUND COMMUNICATION
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698
Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514
The future role of satellite communications in an improved air traffic management
08 p2275 N93-23518
Enhancing availability, performance, and flexibility of air traffic control air-ground services
11 p3247 N93-30353
Testing concept of a taxiing control system, summary
12 p3676 N93-31278

GROUNDWATER
U GROUND WATER

GROUP BEHAVIOR
U GROUP DYNAMICS

GROUP DYNAMICS
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Advanced team decision making: A developmental method
[AD-A259512] 08 p2520 N93-23466
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698

GROUP THEORY
NT AUTOMORPHISMS
NT HOMOMORPHISMS
NT MONOIDS
NT SUBGROUPS
Finite group actions and elliptic genera
[DE92-630207] 01 p0170 N93-10388
Applications of star complexes in group theory
02 p0485 N93-11879

An isomorphism for algebra of distributions with compact support on Lie groups
[DE92-603605] 02 p0427 N93-12176
The dynamics of spatially extended lasers
04 p0883 N93-14123
From the rotation group to the Poincare group
[DE93-000864] 05 p1279 N93-17386
Sub-groups of Z(sup n), standard basis, and linear diophantine systems
[INRIA-RR-1510] 06 p1615 N93-17836
On homogeneous quasilinear evolution equation
[REPT-91-65] 07 p2052 N93-20854
Spectroscopic and dynamical studies of highly energized small polyatomic molecules
[DE93-006504] 08 p2480 N93-22712
The canonical forms of a lattice rule
[DE93-005686] 08 p2466 N93-22759
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
A group-theoretical setting for some intersecting Sperner families
[MEMO-1060] 10 p3120 N93-28011
Lie groups whose set of compact subgroups is inductive
[ETN-93-93791] 11 p3547 N93-28524
Differential calculus on quantum spaces and quantum groups
[DE93-010425] 11 p3551 N93-30392
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986
BRST cohomology ring in 2D gravity coupled to minimal models
[DE93-608192] 12 p3757 N93-31305
Most monothetic extensions are rank-1
[REPT-93-05] 12 p3813 N93-31546
Perturbation of the Laplacian by the Coulomb potential and a point interaction in L(sup p)(R cubed)
[REPT-92-55] 12 p3807 N93-31613
Three lectures on quantum groups: Representations, duality, real forms
[DE93-608159] 12 p3832 N93-31807

GROUP VELOCITY
Baroclinic wave packets in models and observations
03 p0663 N93-13361
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Beam loading compensation with variable group velocity
[DE93-001810] 05 p1297 N93-16199
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements
09 p2635 N93-25544
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725

GROUP 1A COMPOUNDS
U ALKALI METAL COMPOUNDS

GROUP 7A COMPOUNDS
U HALOGEN COMPOUNDS

GROWTH
NT CROP GROWTH
NT CRYSTAL GROWTH
NT CZOCHRALSKI METHOD
NT DIRECTIONAL SOLIDIFICATION (CRYSTALS)
NT ELECTROEPITAXY
NT EPITAXY
NT HYDROTHERMAL CRYSTAL GROWTH
NT LIQUID PHASE EPITAXY
NT MOLECULAR BEAM EPITAXY
NT PROTEIN CRYSTAL GROWTH
NT VAPOR PHASE EPITAXY
NT VEGETATION GROWTH
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Gravity and root morphogenesis
08 p2166 N93-24403
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415

GROWTH CHAMBERS
U PHYTOTRONS

GRUMMAN AIRCRAFT
NT A-6 AIRCRAFT
NT E-2 AIRCRAFT
NT F-14 AIRCRAFT

GTDS
U GODDARD TRAJECTORY DETERMINATION SYSTEM

GUANIDINES
Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423

GUAYULE
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906

GUI (COMPUTERS)
U GRAPHICAL USER INTERFACE

GUIDANCE (MOTION)
NT AIRCRAFT GUIDANCE
NT BEAM RIDER GUIDANCE
NT COMMAND GUIDANCE
NT INERTIAL GUIDANCE
NT INJECTION GUIDANCE
NT LASER GUIDANCE
NT MAP MATCHING GUIDANCE
NT RENDEZVOUS GUIDANCE
NT SPACECRAFT GUIDANCE
NT STRAPDOWN INERTIAL GUIDANCE
NT TERMINAL GUIDANCE
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Advanced booster guidance studies
[NASA-CR-192336] 07 p1829 N93-20896
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
Autonomous docking ground demonstration
07 p1816 N93-21430
Robust Neighboring Optimal Guidance for the Advanced Launch System --- Author
[NASA-CR-192087] 08 p2171 N93-22009
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026

GUIDANCE SENSORS
Research on equipment life extension technology
07 p1793 N93-20436
Video guidance sensor 07 p1812 N93-21409
Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
Video guidance sensor for autonomous capture
08 p2142 N93-22267
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors
09 p2604 N93-24723
An auto-guiding system for mid-sized telescopes
11 p3375 N93-30340

GUIDE VANES
NT JET VANES
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane
11 p3253 N93-29930
Aero-thermal design of a cooled transonic NGV and comparison with experimental results
11 p3257 N93-29957
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961

GULF OF ALASKA
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969

GULF OF CALIFORNIA (MEXICO)
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885

GULF OF MEXICO
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146

GULF STREAM
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
The Gulf Stream downstream of Cape Hatteras: Model/data comparisons 03 p0670 N93-13633
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2
03 p0665 N93-13776
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream
04 p0929 N93-14985
Hydrographic data from Endeavor 214: A study of the Gulf Stream-Deep Western Boundary Current crossover
[AD-A257966] 05 p1221 N93-17737
Observations of an intrathermocline vortex
09 p2788 N93-24769
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

GULFS
NT GULF OF ALASKA
NT GULF OF CALIFORNIA (MEXICO)
NT GULF OF MEXICO
NT PERSIAN GULF
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983

GUMBEL THEORY
U RANGE (EXTREMES)

GUMS (SUBSTANCES)
NT ROSIN

GUN LAUNCHERS
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
Data acquisition applications for long duration electromagnetic launcher experiments
[AD-A254546] 03 p0519 N93-12611
An impact technique to accelerate flier plates to velocities over 12 km/s
[DE93-002467] 07 p1820 N93-21485
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987
A multiple armature railgun launcher
[AD-A259768] 08 p2171 N93-23486

GUN PROPELLANTS
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001

The 28th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-573-VOL-1] 02 p0244 N93-11132
Energetic composites of cyclodextrin nitrate esters and nitrate ester plasticizers
[AD-D015364] 02 p0274 N93-11665
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
Performance oriented packaging testing for liquid propellant, XM1846
[AD-A258430] 06 p1496 N93-17865
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
The burning rate behavior of pure nitrocellulose propellant samples
[AD-A261009] 09 p2661 N93-25857
Infrared fiber optic diagnostic for solid propellant combustion 09 p2628 N93-26031
The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
A summary of the JANNAF Workshop on Methods for Exchange of Gun Propellant Burning Rate Information
[AD-A264113] 12 p3713 N93-32030

GUN TURRETS
A fuzzy logic controller system
[AD-A259723] 08 p2439 N93-23467

GUNN DIODES
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
Modeling, design, fabrication, and testing of InP Gunn devices in the D-band (110 GHz - 170 GHz)
10 p3018 N93-27767

GUNN EFFECT
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656

GUNPOWDER
U GUN PROPELLANTS

GUNS (ORDNANCE)
NT ARTILLERY
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator
10 p2985 N93-27138
Transient simulation of ram accelerator flowfields
10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140

GUST LOADS
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate
[NLR-TP-91104-U] 05 p1063 N93-17562

GUSTS
The measurement of the velocity field induced by a gust generator in a closed-circuit subsonic wind-tunnel
[RAE-TM-MAT/STR-1102] 02 p0217 N93-11435
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739

GUT
U GRAND UNIFIED THEORY

GUY WIRES
Comparative study of stability of flexible satellites with and without guy-wire constraints
04 p0817 N93-14585

GYMNASTICS
U PHYSICAL EXERCISE

GYRALS
U GYRES

GYRATION
NT COROTATION
NT COUNTER ROTATION
NT EARTH ROTATION
NT MOLECULAR ROTATION
NT MUON SPIN ROTATION
NT PLANETARY ROTATION
NT PRECESSION
NT QUENCHING (ATOMIC PHYSICS)
NT REVOLVING
NT ROTATION
NT SATELLITE ROTATION
NT SOLAR ROTATION
NT STELLAR ROTATION

GYRATORS
NT MICROWAVE FILTERS

GYRES
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres
04 p0926 N93-14966
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data
04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049

GYROMAGNETISM
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245

GYROPLANES
U HELICOPTERS

GYROS
U GYROSCOPES

GYROSCOPES
NT ATTITUDE GYROS
NT CONTROL MOMENT GYROSCOPES
NT GYROSTABILIZERS
NT LASER GYROSCOPES
NT OPTICAL GYROSCOPES
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Research on equipment life extension technology
07 p1793 N93-20436
Frequency ratio lock up in the attitude drift of a dissipative axisymmetric gyrostat 07 p1908 N93-20725
Initial trials results for image stabilisation using a rugged low noise gyroscope 08 p2255 N93-22021
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
08 p2151 N93-22316
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Visual autonomous automatic landing of airplanes
08 p2121 N93-22791
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory
09 p2600 N93-24697
Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
Gyroscope with excess noise subtraction
[AD-D015698] 11 p3431 N93-29046
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
Evaluation of a solid-state gyroscope for robotics applications
[OUEL-1957/92] 12 p3728 N93-31125

GYROSCOPIC DRIFT
U GYROSCOPES
U GYROSCOPIC STABILITY

GYROSCOPIC STABILITY
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera
10 p2923 N93-27194
TechSAT attitude control 10 p2924 N93-27197
Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648

GYROSTABILIZERS
Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648

GYROSTATS
U GYROSCOPES

GYROTRONS
U CYCLOTRON RESONANCE DEVICES

GYROTROPISM
Microstrip antennas on/in anisotropic material layers
[AD-A261700] 09 p2681 N93-26383

H

H ALPHA LINE
Pattern recognition applied to H(sub alpha) spectroheliograms solar rotation and meridional circulation 01 p0182 N93-10924
High-resolution observations of the spatial and velocity distribution of cometary hydrogen
06 p1703 N93-19135
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations 08 p2536 N93-23901
Deep H alpha images of interacting galaxies
10 p3191 N93-26826
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France)
12 p3880 N93-31420
Automatic recognition of solar features
12 p3880 N93-31421
P Cyg envelope and prospects of interferometric observations 12 p3848 N93-31777

H BETA LINE
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860

H I REGIONS
H I shells and supershells: Observations and theory
03 p0751 N93-13360
HI in galaxy outskirts and the extragalactic ionizing flux 05 p1372 N93-17139
Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095
The Boston University-Arecibo galactic HI survey: The galaxy at 4 arcminute resolution
08 p2543 N93-23720
Formation of massive clouds and dwarf galaxies during tidal encounters 10 p3190 N93-26822
The disk-halo interface in edge-on spirals
10 p3198 N93-26865
Study of ISM turbulence using radiointerferometers (new method) 12 p3847 N93-31767

H II REGIONS
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions
03 p0756 N93-13853
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
Far-infrared emission, gas, and ultraluminous HII regions in M101
[NASA-CR-192791] 09 p2890 N93-25755
Oxygen abundances in low surface-brightness galaxies 10 p3178 N93-26747
H II regions in the dwarf galaxy UGC-A 86
10 p3178 N93-26749

The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
The critical density for star formation in HII galaxies 10 p3189 N93-26817
High chemical abundances in stripped Virgo spiral galaxies 10 p3191 N93-26825

H LINES
NT H ALPHA LINE
NT H BETA LINE

H-INFINITY CONTROL
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
Redheffer's lemma and H(infinity)-control or infinite-dimensional systems
[W-9206] 05 p1259 N93-16355
Nonlinear H(infinity) control and Hamilton-Jacobi inequalities
[MEMO-1042] 05 p1268 N93-16843
Robust multivariable feedback design for uncertain linear systems
[AD-A258257] 06 p1648 N93-17902
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Mixed H2/H infinity control in a stochastic framework
[MEMO-COSOR-92-13] 10 p3109 N93-27232
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Robust control via H-infinity optimization 11 p3354 N93-30216
Optimal solutions to a two-block H infinity problem
[MEMO-1080] 12 p3798 N93-31468
H infinity-control with measurement-feedback for Pritchard-Salamon system
[W-9211] 12 p3799 N93-31628

H-53 HELICOPTER
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268

H-60 HELICOPTER
Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660

HABITABILITY
Long-duration isolation and confinement: Human factors issues and research requirements 05 p1223 N93-16808
The US global change research program: Early achievements and future directions 06 p1573 N93-18864
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083

HABITATS
Habitat automation 02 p0391 N93-11976
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Lunar resource recovery: A definition of requirements 03 p0761 N93-13978
Ecological implications of landscape fragmentation
[DE92-019186] 04 p0911 N93-15273
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory
[NASA-CR-192029] 06 p1695 N93-18163
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
Biodiversity indication by Earth observation data 09 p2751 N93-24858
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs 09 p2670 N93-26063
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069
Development of a pyrolysis waste recovery model with designs, test plans, and applications for space-based habitats 09 p2803 N93-26076
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057

HABITS
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas 12 p3780 N93-32257

HABITUATION (LEARNING)
Background and objectives of the PARAT program 12 p3775 N93-31230
The PARAT tests as examination system 12 p3776 N93-31238

HADRONS
NT BARYONS
NT KAONS
NT MESONS
NT MUONS
NT RHO-MESONS
NT VECTOR MESONS
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
Experimental investigations in particle physics at intermediate energies
[DE93-000406] 05 p1284 N93-16160
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
Four-fermion operators with improved nearest-neighbour action
[PREPRINT-805] 05 p1287 N93-16443
QCD corrections to Z pair hadronic production
[PREPRINT-832] 05 p1288 N93-16954
instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Monte Carlo simulation of minimum bias events at the LHC energy
[NOTA-INTERNA-969] 05 p1294 N93-17544
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment
[NOTA-INTERNA-994] 06 p1536 N93-17810
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Semiweak production of a top quark accompanied by a bottom quark and 2 jets at hadron colliders
[NIKHEF-H/91-27] 10 p3132 N93-27508
The improvement of hadronic matrix elements in lattice QCD
[SSCL-PREPRINT-737] 10 p3157 N93-28162
Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Experimental challenges at future hadron colliders (lectures for the 1992 Saint Croix Summer School)
[DE93-008613] 10 p3140 N93-28429
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126
Multidimensional intermittency in hadronic collisions
[DE93-010562] 11 p3577 N93-30532
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Two jet production in hadron collisions at order alpha(sub s)(sup 3) in QCD
[DE93-010563] 12 p3822 N93-32159

HAFNIUM
NT HAFNIUM ISOTOPES

HAFNIUM ISOTOPES
Tilted cranking classification of multiband spectra
[DE92-041187] 05 p1283 N93-15959

HAIL
Positive cloud-to-ground flashes in severe storms 09 p2780 N93-24896

HAILSTONES
U HAIL

HAILSTORMS
Positive cloud-to-ground flashes in severe storms 09 p2780 N93-24896

HAIRPIN VORTICES
U HORSESHOE VORTICES

HALF LIFE
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604

HALF PLANES
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494

HALF SPACES
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946

HALIDES
NT ALKALI HALIDES
NT ALUMINUM CHLORIDES
NT AMMONIUM CHLORIDES
NT BARIUM FLUORIDES
NT BORON FLUORIDES
NT BROMIDES
NT CALCIUM CHLORIDES
NT CALCIUM FLUORIDES
NT CARBON TETRACHLORIDE
NT CESIUM FLUORIDES
NT CESIUM IODIDES
NT CHLORIDES
NT COPPER CHLORIDES
NT DICHLORIDES
NT FLUORIDES
NT HYDROCHLORIC ACID
NT HYDROFLUORIC ACID
NT IRON CHLORIDES
NT LITHIUM CHLORIDES
NT METAL HALIDES
NT OXYFLUORIDES
NT SILVER BROMIDES
NT SILVER IODIDES
NT SODIUM CHLORIDES
NT STRONTIUM FLUORIDES
NT SULFUR FLUORIDES
NT URANIUM FLUORIDES
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443

A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112

HALL COEFFICIENT
U HALL EFFECT

HALL CURRENTS
U ELECTRIC CURRENT
U HALL EFFECT

HALL EFFECT
Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
Characterization of magneto-optical recording media
04 p0979 N93-14140
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
NIST mesurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Low temperature Hall and Shubnikov-de Haas effects
[AD-A261871] 09 p2869 N93-26540
Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
The fluctuation induced Hall effect
[DE93-010130] 11 p3585 N93-28912
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Regular and chaotic motion of two dimensional electrons in a strong magnetic field
[DE93-604091] 11 p3607 N93-30933
The constraint for the lowest Landau level and the effective field theory approach for the fractional quantum hall system
[DE93-608200] 12 p3831 N93-31509

HALL GENERATORS
Design and implementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276

HALLEY'S COMET
The Comet Halley archive: Summary volume
[NASA-CR-190358] 02 p0484 N93-11243
Giotto: The second encounter
[ESA-BR-83] 03 p0749 N93-12965
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer
03 p0752 N93-13468
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment
03 p0752 N93-13469
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley
03 p0753 N93-13602
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814
Comets: Role and importance to exobiology
06 p1592 N93-18556
CRAF Mission: An opportunity for exobiology
06 p1592 N93-18558
CCD imaging of the inner coma jets of comet P/Halley
06 p1702 N93-19133
Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail
06 p1704 N93-19147
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations
06 p1705 N93-19154
P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170
On LAM's and SAM's for Halley's rotation
06 p1714 N93-19221
The disconnection event of 16.0 March 1986 in comet Halley 06 p1715 N93-19227
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
Evolution of near UV Halley's spectrum in the inner coma 06 p1716 N93-19235
Spatial and temporal variations in the column density distribution of comet Halley's CN coma
06 p1717 N93-19238
The role of organic polymers in the structure of cometary dust 06 p1719 N93-19256
The contribution of electron collisions to rotational excitations of cometary water 06 p1721 N93-19268
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
Near Earth object fuels (neo-fuels): Discovery, prospecting and use
[DE93-005185] 09 p2892 N93-25164

HALOCARBONS
NT CHLOROCARBONS
NT FLUOROCARBONS
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Future chlorine-bromine loading and ozone depletion
02 p0352 N93-11095
An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624

HALOGEN COMPOUNDS
NT ALKALI HALIDES
NT ALUMINUM CHLORIDES
NT AMMONIUM CHLORIDES
NT AMMONIUM PERCHLORATES
NT BARIUM FLUORIDES
NT BORON FLUORIDES
NT BROMIDES
NT BROMINE COMPOUNDS
NT CALCIUM CHLORIDES
NT CALCIUM FLUORIDES
NT CARBON TETRACHLORIDE
NT CARBON TETRAFLUORIDE
NT CESIUM FLUORIDES
NT CESIUM IODIDES
NT CHLORIDES
NT CHLORINE COMPOUNDS
NT CHLORINE OXIDES
NT CHLOROCARBONS
NT COMPOUND A
NT COPPER CHLORIDES
NT CRYOLITE
NT DICHLORIDES
NT FLUORIDES
NT FLUORINE COMPOUNDS
NT FLUORINE ORGANIC COMPOUNDS
NT FLUORITE
NT FLUORO COMPOUNDS
NT FLUOROCARBONS
NT FLUOROHYDROCARBONS
NT FLUOROPOLYMERS
NT HALIDES
NT HALOCARBONS
NT HYDROCHLORIC ACID
NT HYDROFLUORIC ACID
NT IODIDES
NT IODINE COMPOUNDS
NT IRON CHLORIDES
NT LITHIUM CHLORIDES
NT LITHIUM PERCHLORATES
NT METAL FLUORIDES
NT METAL HALIDES
NT OXYFLUORIDES
NT PERCHLORATES
NT PERFLUOROALKANE
NT POLYTETRAFLUOROETHYLENE
NT POTASSIUM PERCHLORATES
NT SILVER BROMIDES
NT SILVER IODIDES
NT SODIUM CHLORIDES
NT STRONTIUM FLUORIDES
NT SULFUR FLUORIDES
NT TEFLON (TRADEMARK)
NT URANIUM FLUORIDES
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875
Viscosity of liquids. Halogenated methanes
[ESDU-92028] 04 p0839 N93-14539
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557

HALOGENATION
NT CHLORINATION
NT FLUORINATION

HALOGENS
NT BROMINE
NT CHLORINE
NT FLUORINE
NT FLUORINE ISOTOPES
NT IODINE
NT IODINE ISOTOPES
Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
Resonant tunneling through chemisorbed halogen atoms on Ag(111)
[AD-A261794] 09 p2868 N93-26254
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375

HALOS
Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
A study of properties of dark galaxy halos in a CDM universe using N-body computer simulations
08 p2546 N93-23132
X raying the interstellar dust 08 p2540 N93-23925
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Faint blue counts from formation of dwarf galaxies at z approximately equals 1 10 p3177 N93-26744
Static galactic halo and galactic wind
10 p3198 N93-26862
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
The disk-halo interface in edge-on spirals
10 p3198 N93-26865

HAMBURGER AIRCRAFT
NT C-160 AIRCRAFT

HAMILTON-JACOBI EQUATION
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Nonlinear H(infinity) control and Hamilton-Jacobi inequalities
[MEMO-1042] 05 p1268 N93-16843
Balancing for nonlinear systems
[MEMO-1071] 10 p3121 N93-28156

HAMILTONIAN FUNCTIONS
Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226

Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
Electronic structure of highly correlated structures
[DE92-017017] 01 p0155 N93-10863
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Theory of normal metals
[DE92-016828] 02 p0262 N93-12476
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Research in particle theory
[DE93-002868] 05 p1284 N93-16147
An approximate invariant using Lie algebra
[DE93-000564] 05 p1263 N93-16247
On Gupta-Bleuler quantization of systems with second-class constants
[NIKHEF-H/92-05] 05 p1264 N93-16342
The direct Monte Carlo method for calculating alloy phases
[DE93-000436] 05 p1113 N93-16450
On Hamiltonian properties of 2-tough graphs
[MEMO-1037] 05 p1266 N93-16669
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
Time evolution of Caldirola-Kanai oscillators
[PREPRINT-846] 05 p1272 N93-17712
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Lie-admissible perturbation methods for open quantum systems
[PREPRINT-845] 06 p1651 N93-17840
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187
Yang phase for non-Hermitian systems and biunitary transformations
[PREPRINT-782] 06 p1645 N93-18197
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358
Decoherence of multimode thermal squeezed coherent states
[DE93-002627] 06 p1679 N93-19489
On the normalized Hamiltonian formulation of the restricted three-body problem 07 p1944 N93-20727
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648
Quantum mechanics of electrons in crystals with graded composition
[AD-A260294] 08 p2512 N93-24262
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
The universal propagator 10 p3141 N93-27313
Proper-time relativistic dynamics
10 p3144 N93-27334
On harmonic oscillators and their Kemmer relativistic forms 10 p3144 N93-27336
Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340
Decoherence of multimode thermal squeezed coherent states 10 p3145 N93-27344
A study of electron transfer using a three-level system coupled to an ohmic bath 10 p3145 N93-27346
Symmetry algebra of a generalized anisotropic harmonic oscillator 10 p3122 N93-27347
From harmonic to anharmonic oscillators
10 p3146 N93-27352
Energy and chemical change
[AD-A262359] 10 p3133 N93-27648
Solutions of the ARE in terms of the Hamiltonian for Riesz-spectral systems
[MEMO-1054] 10 p3119 N93-28002
Transformation of the Kepler problem
10 p3156 N93-28068
A note on 2-factors in graphs
[MEMO-1064] 10 p3120 N93-28073
Quantum non-demolition measurements and generalized states at thermal equilibrium
[SSCL-PREPRINT-743] 10 p3158 N93-28386
Self-consistent chaos in the beam-plasma instability
[DE93-009581] 11 p3584 N93-28599
Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648
A normally elliptic Hamiltonian bifurcation
[W-9201] 11 p3548 N93-28753
Balanced approximation can be optimal
[OUEL-1950/92] 11 p3548 N93-28754
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Ashtekar variables, self-dual metrics, and w(infinity)
[DE92-642588] 12 p3802 N93-31074
2 + 1 gravity without dynamics
[DE92-642587] 12 p3757 N93-31081
Numerical evidence for two types of localized states in a two-dimensional disordered lattice
[DE92-642677] 12 p3827 N93-31159
Microscopic origin of marginal Fermi-liquid in strongly correlated spin systems
[DE93-608697] 12 p3827 N93-31163
Calculations of wavefunctions and energies of electron system in Coulomb potential by variational method without a basis set
[DE93-608161] 12 p3819 N93-31286
Information-theoretic outlook of the quantum dissipation problem
[DE93-608162] 12 p3831 N93-31287
Information-theoretic and Wigner function approaches to the nonclassical states dynamics for the variable frequency harmonic oscillator
[DE93-608166] 12 p3813 N93-31301
A note on the Dirac canonical quantization of massive Yang-Mills theory
[DE93-608199] 12 p3813 N93-31460
A normally elliptic Hamiltonian bifurcation
[W-9214] 12 p3807 N93-31623
The Lipkin model second order phase transition in the deformed su(2) algebra description
[DE93-608201] 12 p3807 N93-31661
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669
Supersymmetric construction of W-algebras from super Toda and WZNW theories
[DE93-608244] 12 p3808 N93-31819
Hamiltonian moments and the Lanczos method in the Heisenberg model
[DE93-609845] 12 p3813 N93-31905
Plaquette expansion in lattice Hamiltonian models
[DE93-609846] 12 p3813 N93-31906
On two-current realization of KP hierarchy
[DE93-609917] 12 p3808 N93-31912
Random walks and a simple chirally invariant lattice Hamiltonian without fermion doubling
[DE93-609920] 12 p3821 N93-31913
A note on dominating cycles in 2-connected graphs
[MEMO-1094] 12 p3810 N93-32401

HAND (ANATOMY)
NT FINGERS
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138

HANDBOOKS
NT USER MANUALS (COMPUTER PROGRAMS)
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Testability design rating system. Volume 2: Analytical procedure
[AD-A254333] 02 p0413 N93-12146
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
Environmental Quality Information Analysis Center (EQIAC) operating procedures handbook
[DE92-041391] 05 p1201 N93-16271
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
Wright Laboratory research and development facilities handbook
[AD-A258746] 07 p2085 N93-20403
NASA systems engineering handbook. Draft
[NASA-TM-106702] 07 p2086 N93-21188
The resonator handbook
[NASA-CR-192217] 07 p1894 N93-21559
Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895
Space Biology Initiative. Trade Studies, volume 1
[NASA-CR-190989] 08 p2417 N93-23068
Space Biology Initiative. Trade Studies, volume 2
[NASA-CR-190990] 08 p2418 N93-23079
1993 Earth Observing System reference handbook
[NASA-NP-202] 08 p2356 N93-23737
Writer's guide for technical procedures
[DE93-007746] 08 p2529 N93-24573
Handbook of actuators and edge alignment sensors
[NASA-CR-193203] 09 p2620 N93-25317
Human computer interface style guide, version 2.0
[AD-A261280] 09 p2807 N93-26291
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Handbook for users
[AD-A260738] 10 p3166 N93-27605
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
Handbook for the USAF space environment standard (MIL-STD-1809)
[AD-A262799] 10 p3074 N93-28379
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
LDEF space optics handbook
11 p3582 N93-29695
Handbook of frequently used acronyms and glossary of terms
[DE93-011388] 11 p3616 N93-30123
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200
Medical aspects of cold weather operations: A handbook for medical officers
[AD-A263559] 11 p3496 N93-30588
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
Composites design handbook: Update
[ESA-PSS-03-1101-ISSUE-1-REV-2]
12 p3701 N93-31740
Standard Reference Materials: Handbook for SRM users
[PB93-183796] 12 p3699 N93-31830

HANDEDNESS
Handedness and motor programming effects of manual control and movement
[AD-A264022] 11 p3499 N93-30027

HANDICAPS
U DISABILITIES

HANDLES
Extra-vehicular activity translation tool
[NASA-CASE-MSC-21955-1] 04 p0891 N93-14842

HANDLING EQUIPMENT
NT CRANES
NT GANTRY CRANES
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568

Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
Bogie-gripping transfer device
[CA-PATENT-APPL-SN-024586] 08 p2135 N93-24643
Wheeled transfer device for moving an aircraft
[INT-PATENT-CLASS-B64F-1/10] 08 p2135 N93-24644
Transmission system for a transfer device gripping a double wheel
[CA-PATENT-APPL-SN-2024585] 09 p2597 N93-25178
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012

HANDLING QUALITIES
U CONTROLLABILITY

HANDS (ROBOTICS)
U END EFFECTORS

HANDWRITING
Comparison of crisp and fuzzy character networks in handwritten word recognition 11 p3514 N93-29545

HANG GLIDERS
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618

HANKEL FUNCTIONS
Studies in estimation theory, applications, and implementation
[AD-A256964] 05 p1275 N93-16250
Balanced approximation can be optimal
[OUEL-1950/92] 11 p3548 N93-28754

HARDENING
Some consistency requirements on hardening-recovery evolution equations for welding, part 1
[DE92-015992] 02 p0329 N93-12220
High temperature alloys 07 p1858 N93-20626

HARDENING (MATERIALS)
NT CARBURIZING
NT HOT ISOSTATIC PRESSING
NT HOT PRESSING
NT NITRIDING
NT PRECIPITATION HARDENING
NT SHOT PEENING
NT STRAIN HARDENING
NT WORK HARDENING
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
Magnetic hardening studies and novel techniques for preparation of high performance magnets
[AD-A254761] 03 p0698 N93-12865
Structural study of thermohardening matrices: Deformation of composite matrices in relation to their molecular structure
[ONERA-RT-12/3521-M] 04 p0836 N93-15253

HARDENING (SYSTEMS)
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423

HARDNESS
NT MICROHARDNESS
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
High temperature alloys 07 p1858 N93-20626
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Synthesis, processing, and properties of Ti5Si3
[DE93-004465] 08 p2229 N93-22820
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Dynamic hardness tester and cure meter 09 p2711 N93-25608
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1
[NASA-TM-108408] 11 p3331 N93-29193
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089

HARDNESS TESTS
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system 06 p1496 N93-19402
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961

HARDWARE
Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386
Data storage and retrieval system 04 p1005 N93-15034
Storage needs in future supercomputer environments 04 p1007 N93-15047
Robot welding process control development task
[NASA-CR-192434] 06 p1549 N93-18851
Space biology initiative program definition review. Trade study 5: Modification of existing hardware (COTS) versus new hardware build cost analysis 08 p2417 N93-23069
Space biology initiative program definition review. Trade study 4: Design modularity and commonality 08 p2418 N93-23071
Space biology initiative program definition review. Trade study 3: Hardware miniaturization versus cost 08 p2418 N93-23080
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
Test, Control and Monitor System (TCMS) operations plan
[NASA-CR-193098] 09 p2873 N93-26419
Reliability analysis of complex models using sure bounds
[NASA-CR-191445] 10 p3091 N93-26897
XInPosse: Structural simulation for graphics hardware
[CWI-CS-R9208] 10 p3098 N93-27553
Welding process modelling and control
[NASA-CR-192549] 10 p3051 N93-27593
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-27969
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713

HARDWARE UTILIZATION LISTS
Space biology initiative program definition review. Trade study 3: Hardware miniaturization versus cost 08 p2418 N93-23080
Space biology initiative program definition review. Trade study 2: Prototype utilization in the development of space biology hardware 08 p2418 N93-23082
Space Station Freedom biomedical monitoring and countermeasures: Biomedical facility hardware catalog
[NASA-CR-193156] 10 p3081 N93-26700

HARMONIC ANALYSIS
Harmonic analysis of the aerodynamic forces on a Darrieus rotor 01 p0006 N93-10551
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
Modeling the geomagnetic field over Spain: Anomalous field, secular variation, and reference field
[MEMO-15] 05 p1211 N93-17634
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946
The acoustical impedance at the junction of non-coaxial cylindrical ducts
[MATHS-REPT-A-157] 08 p2477 N93-24123

HARMONIC CONTROL
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248

HARMONIC EXCITATION
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Transient response of a viscous liquid bridge of finite length and anchored edges
[LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
Response of a rotating anchored finite annular liquid layer to axial excitation
[LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Response of a viscous liquid column with anchored edges to axial excitations
[LRT-WE-9-FB-7-1991] 05 p1164 N93-17550
Response of an annular cylindrical liquid layer with anchored edges in zero-gravity
[LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
A non-linear phenomenon in the dynamic response of metallic and composite structures 07 p1926 N93-20620
Axial response and pulse behavior of a cylindrical liquid column. Part 2
[LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296
Response of a non-viscous liquid column with anchored liquid surface to axial excitation
[LRT-WE-9-FB-4-1991] 08 p2288 N93-22677
The effect of UV light on Ir absorption in chemically vapor deposited a-SiN(x):H films
[DE93-004502] 08 p2486 N93-22941
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
Dynamic response of a transducer mounted at one end of an acoustical cavity
[DE93-012837] 12 p3816 N93-32301

HARMONIC GENERATIONS
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
Potential modulation of equilibrium and excitation phenomena at the electrolyte-solid interface
[DE93-001685] 05 p1103 N93-16163
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052
A frequency generating source: Frequency synthesizers 09 p2693 N93-25041
Advances in nonlinear optical materials and devices
[NASA-CR-192681] 09 p2852 N93-25281
Second-harmonic generation in optical fibers and glass
[AD-A260592] 09 p2853 N93-25839
Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers
[AD-A262013] 10 p3004 N93-27669
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A262377] 10 p3147 N93-27695
A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489
Dipolar orientational relaxation in guest/host amorphous polymer probed by second harmonic generation
[AD-A262006] 11 p3333 N93-29441
Isothermal annealing and relaxation of the second harmonic generation signal from a nonlinear optical polymer
[AD-A262007] 11 p3333 N93-29442
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146

Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801

HARMONIC GENERATORS
Synthesis and characterization of dipolar organic molecules for nonlinear optical materials
[AD-A257111] 05 p1302 N93-16118
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
Enhanced chromophore polymeric NLO materials
[AD-A262258] 10 p3147 N93-28111

HARMONIC OSCILLATION
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
Oscillations of finite liquid columns 08 p2250 N93-22855
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential 10 p3141 N93-27314
Wave packet motion in harmonic potential and computer visualization 10 p3141 N93-27315
Bifurcations phenomena in a nonlinear oscillator: Approximate analytical studies versus computer simulation results 11 p3407 N93-29037

HARMONIC OSCILLATORS
Theory of the ion-channel laser 03 p0607 N93-13777
Decoherence of multimode thermal squeezed coherent states
[DE93-002627] 06 p1679 N93-19489
Workshop on Harmonic Oscillators
[NASA-CP-3197] 10 p3141 N93-27311
Quons, an interpolation between Bose and Fermi oscillators 10 p3141 N93-27312
The universal propagator 10 p3141 N93-27313
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential 10 p3141 N93-27314
The SU(2) action-angle variables 10 p3129 N93-27316
Alternative descriptions of wave and particle aspects of the harmonic oscillator 10 p3142 N93-27317
Symmetries of coupled harmonic oscillators 10 p3142 N93-27318
The q-harmonic oscillators, q-coherent states and the q-symplecton 10 p3142 N93-27319
Which Q-analogue of the squeezed oscillator? 10 p3142 N93-27320
Deformation of supersymmetric and conformal quantum mechanics through affine transformations 10 p3142 N93-27321
Phase of the quantum harmonic oscillator with applications to optical polarization 10 p3142 N93-27322
Condition for equivalence of q-deformed and anharmonic oscillators 10 p3143 N93-27323
Distribution of photons in squeezed polymode light 10 p3143 N93-27325
Two photon annihilation operators and squeezed vacuum 10 p3143 N93-27326
Using harmonic oscillators to determine the spot size of Hermite-Gaussian laser beams 10 p3049 N93-27328
Squeezed states of damped oscillator chain 10 p3143 N93-27329
The uncertainty principle in resonant gravitational wave antennae and quantum non-demolition measurement schemes 10 p3143 N93-27330
Harmonic oscillator states in aberration optics 10 p3143 N93-27331
Point form relativistic quantum mechanics and relativistic SU(6) 10 p3144 N93-27332
On harmonic oscillators and their Kemmer relativistic forms 10 p3144 N93-27336
Quantum wormholes and harmonic oscillators 10 p3144 N93-27338
On inducing finite dimensional physical field representations for massless particles in even dimensions 10 p3144 N93-27339
Galilean covariant harmonic oscillator 10 p3145 N93-27341
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
Wigner expansions for partition functions of nonrelativistic and relativistic oscillator systems 10 p3145 N93-27343
Decoherence of multimode thermal squeezed coherent states 10 p3145 N93-27344
Quantum harmonic oscillator in a thermal bath 10 p3145 N93-27345
Symmetry algebra of a generalized anisotropic harmonic oscillator 10 p3122 N93-27347
Fermion realization of exceptional Lie algebras from maximal unitary subalgebras 10 p3123 N93-27348
Quantized discrete space oscillators 10 p3146 N93-27349
Orbit-orbit branching rules 10 p3146 N93-27350
From harmonic to anharmonic oscillators 10 p3146 N93-27352
Atomic supersymmetry 10 p3146 N93-27353
The harmonic oscillator and nuclear physics 10 p3146 N93-27354
On the spring and mass of the Dirac oscillator 10 p3146 N93-27355
Second quantization in bit-string physics 10 p3146 N93-27357
Covariant harmonic oscillators: 1973 revisited 10 p3147 N93-27358
Calculation of the nucleon structure function from the nucleon wave function 10 p3147 N93-27359
Information-theoretic outlook of the quantum dissipation problem
[DE93-608162] 12 p3831 N93-31287
Information-theoretic and Wigner function approaches to the nonclassical states dynamics for the variable frequency harmonic oscillator
[DE93-608166] 12 p3813 N93-31301
Geometric model from microscopic theory for nuclear absorption
[NASA-TP-3324] 12 p3822 N93-32369

HARMONICS
NT HARMONIC EXCITATION
NT HARMONIC GENERATIONS
NT HARMONIC OSCILLATION
NT SPHERICAL HARMONICS
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams 04 p0973 N93-14145
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation
[AD-A259372] 06 p1522 N93-19853
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Understanding and modeling the behavior of a harmonic drive gear transmission
[AD-A259610] 08 p2317 N93-24152
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
Synchrotron radiation X ray topography study of lateral field resonators 09 p2833 N93-24994
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006

HARRIER AIRCRAFT
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170

HARTREE APPROXIMATION
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
An introduction to superconductivity
[PREPRINT-801] 05 p1280 N93-16421
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063

HARTREE-APPLETON APPROXIMATION
U HARTREE APPROXIMATION

HARTREE-FOCK APPROXIMATION
U HARTREE APPROXIMATION

HASTELLOY (TRADEMARK)
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire
[DE92-017233] 02 p0262 N93-12487
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition
[DE92-556729] 05 p1114 N93-16649
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
Improved techniques for thermomechanical testing in support of deformation modeling
[NASA-TM-105944] 08 p2323 N93-22555
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095

HATCHES
Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report
[NASA-CR-167698] 04 p0815 N93-15474
Hatch securing mechanism
[AD-D015613] 07 p1914 N93-20399

HAULING
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815

HAWAII
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758

HAWKER SIDDELEY AIRCRAFT
NT HARRIER AIRCRAFT

HAWKEYE AIRCRAFT
U E-2 AIRCRAFT

HAZ (METALLURGY)
U HEAT AFFECTED ZONE

HAZARDS
NT AIRCRAFT HAZARDS
NT FLIGHT HAZARDS
NT METEOROID HAZARDS
NT OPERATIONAL HAZARDS
NT RADIATION HAZARDS
NT TOXIC HAZARDS
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Occupational ergonomics in space 03 p0680 N93-14013
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051

State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1761 N93-20579
Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796
Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
Sneak analysis applied to process systems
[DE93-752866] 08 p2257 N93-22970
The annual probability of an aircraft crash on the US Department of Energy reservation in Oak Ridge, Tennessee
[DE93-005171] 08 p2118 N93-23325
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation
09 p2743 N93-24805
A method for sequential image analysis of hazard areas 09 p2743 N93-24810
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198
Maglev guideway and route integrity requirements
[PB93-154870] 12 p3736 N93-32086
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

HAZE
Ethane ice haze in the upper atmosphere of Uranus
04 p1023 N93-14212
Pioneer Venus polarimetry and haze optical thickness
04 p1032 N93-14335
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
The NPL reference hazemeter
[NPL-QU-94] 12 p3729 N93-31325

HC-1 HELICOPTER
U CH-47 HELICOPTER

HDTV
U HIGH DEFINITION TELEVISION

HEAD (ANATOMY)
Improved head support stand adjustable by compoundturnbuckle
[AD-D015384] 04 p0936 N93-15249
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters
06 p1428 N93-19691
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889

HEAD DOWN TILT
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318

HEAD MOVEMENT
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

HEAD-UP DISPLAYS
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Advantages of using a projected head-up display in a flight simulator
[AD-A255332] 04 p0804 N93-14559
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Annotating the real world with knowledge-based graphics on a see-through head-mounted display
04 p0954 N93-15543
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Panoramic cockpit displays 06 p1608 N93-19765
Test techniques for evaluating flight displays
[NASA-TM-103947] 07 p1783 N93-21810
Attention factors associated with head-up display and helmet-mounted display systems
[AD-A260204] 08 p2427 N93-24001
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
Oculo-motor responses and virtual image displays
11 p3503 N93-28862
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167

HEADSETS
U EARPHONES

HEALING
NT WOUND HEALING

HEALTH
NT HEALTH PHYSICS
NT MENTAL HEALTH
NT PUBLIC HEALTH
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
Biomedical Polar Research Workshop Minutes
[NASA-TM-108026] 05 p1221 N93-16799
NASA/NSF Workshop on Antarctic Research
05 p1222 N93-16803
Infectious disease 05 p1222 N93-16804
Long-duration isolation and confinement: Human factors issues and research requirements
05 p1223 N93-16808
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system
06 p1496 N93-19402
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography
[BCRS-91-44] 07 p1968 N93-20740
Environmental health discipline science plan
[NASA-TM-108042] 07 p2024 N93-21369
Space human factors discipline science plan
[NASA-TM-108023] 07 p2026 N93-21370
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Crew health 08 p2187 N93-22630
Tobacco and health of the pilot
[ETN-93-93693] 08 p2421 N93-23414
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations
[AD-A259625] 08 p2422 N93-24021
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2884 N93-26568

HEALTH PHYSICS
NT PUBLIC HEALTH
Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
AFRRI research, fiscal year 1991
[AD-A260933] 09 p2911 N93-25710

HEAO
NT HEAO 2

HEAO B
U HEAO 2

HEAO 2
The x ray properties of a large, uniform QSO sample: Einstein observations of the LBQS
05 p1361 N93-17106
Extragalactic counterparts to Einstein slew survey sources 05 p1361 N93-17107

HEARING
NT BINAURAL HEARING
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Measurement and evaluation of blast overpressure during F-15A crew station vulnerability assessment test
[AD-A257152] 05 p1227 N93-16033
An automated version of the dichotic listening test: Hardware, software, and procedural details
[AD-A258114] 06 p1594 N93-17895
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Meteor fireball sounds identified
06 p1709 N93-19184
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787

Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
Programmable interactive system for cochlear implant electrode stimulation
[AD-A262558] 11 p3494 N93-29421

HEARING LOSS
U AUDITORY DEFECTS

HEART
NT MYOCARDIUM
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764

HEART DISEASES
NT CORONARY ARTERY DISEASE
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
Correlation of life-style and dietary concomitants of Greek pilots with serum analytes
12 p3780 N93-32256

HEART FUNCTION
NT FIBRILLATION
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990
[NASA-CR-4475] 06 p1598 N93-18376
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648

HEART RATE
NT ARRHYTHMIA
Development and enhancement of a mode of performance and decision making under stress in a real life setting
[AD-A257796] 06 p1598 N93-18363
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
Portable equipment developed to estimate energy expenditure by simultaneous recording of heart rate and body position 12 p3778 N93-32243

HEAT
NT DRY HEAT
NT ENTHALPY
NT GIBBS FREE ENERGY
NT HEAT OF COMBUSTION
NT HEAT OF FORMATION
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
NT PROCESS HEAT
NT SPECIFIC HEAT

HEAT AFFECTED ZONE
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057

HEAT BALANCE
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
The structure and energetics of Amazon squall lines
08 p2404 N93-23166
Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates
[AD-A262762] 11 p3493 N93-28939
Thermal control of ice-stream margins
12 p3762 N93-31897

HEAT BUDGET
NT ATMOSPHERIC HEAT BUDGET
Anelastic modelling of explosive cyclogenesis
01 p0126 N93-10377

HEAT CAPACITY
U SPECIFIC HEAT

HEAT CONDUCTION
U CONDUCTIVE HEAT TRANSFER

HEAT CONTENT
U ENTHALPY

HEAT DISSIPATION
U COOLING

HEAT DISSIPATION CHILLING
U COOLING

HEAT EFFECTS
U TEMPERATURE EFFECTS

HEAT ENGINES
Stirling heat pump external heat systems: An appliance perspective
[DE92-018251] 02 p0349 N93-12498
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
Analytical and experimental evaluation of joining silicon carbide to silicon carbide and silicon nitride to silicon nitride for heat engine applications
[DE92-041376] 04 p0837 N93-15454
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
Time-reversible Maxwell's demon
[AD-A260170] 08 p2460 N93-23709
Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Theoretical and experimental study of thermoacoustic engines
[AD-A261934] 11 p3561 N93-28995
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
The drive to cost-effective structural ceramics
[DE93-009722] 11 p3335 N93-30047
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

HEAT EQUATIONS
U THERMODYNAMICS

HEAT EXCHANGERS
NT TUBE HEAT EXCHANGERS
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Microtube strip heat exchanger
[DE92-018709] 02 p0300 N93-11440
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
The influence of the Prandtl number on the thermal performance of tubes with the separation and reattachment enhancement mechanism
[DE92-016601] 02 p0306 N93-12313
Inert gas electric heater for elevated temperature testing of small propulsion components
[DE92-017434] 02 p0221 N93-12317
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473
High performance titanium plate fin heat exchanger using a novel manufacturing process
[PNR-90933] 04 p0880 N93-15488
Summary of the NASA Lewis component technology program for Stirling power converters
[NASA-TM-105640] 04 p0827 N93-15526
Reusable Reentry Satellite (RRS): Thermal control trade study
[NASA-CR-186528] 05 p1087 N93-16719
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Selection and costing of heat exchangers
[ESDU-92013] 06 p1524 N93-18040
Electrostatic enhancement of heat transfer in a gas-to-gas heat exchanger
[PB93-114338] 07 p1903 N93-21454
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296
High performance microchannel heat exchanger for cooling high heat load x ray optical elements
[DE93-004245] 08 p2296 N93-23688
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2]
08 p2259 N93-23715
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Compressor calorimeter performance of refrigerant blends: Comparative methods and results for a refrigerator/freezer application
[DE93-006734] 09 p2667 N93-24970
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems
09 p2700 N93-25478
Study of plate-fin heat exchanger and cold plate for the active thermal control system of Space Station
09 p2619 N93-26064
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638
By-passing of heat exchangers in gas turbines
10 p2922 N93-27189
Advanced interface heat exchangers for the Space Station main thermal bus 10 p2971 N93-27844
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694
In-STEP Two-Phase Flow (TPF) thermal control experiment 11 p3265 N93-28719
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815
Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

HEAT FLOW
U HEAT TRANSMISSION

HEAT FLUX
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
The vertical distribution of heating in the tropical atmosphere
[AD-A254982] 02 p0372 N93-12507
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
Temperature and heat flux measurements: Challenges for high temperature aerospace application
03 p0598 N93-13662
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat flux microsensor measurements and calibrations
03 p0599 N93-13665
Fabrication of thin film heat flux sensors
03 p0599 N93-13667
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Radiative heat transfer in combustion systems
04 p0840 N93-14621
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources
04 p0920 N93-14640
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Radiation fluxes at the FIFE site
[NASA-CR-191717] 05 p1208 N93-16718
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
[DE93-002351] 05 p1163 N93-17038
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical analysis of flow in a heated horizontal square duct 06 p1413 N93-19305
Variational iterative method for the calculation of heat flux and mean energy balance
[INPE-5236-RPQ/648] 06 p1583 N93-19824
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
Remote sensing of latent heat fluxes at the air-sea interface 07 p1959 N93-21603
Air/sea latent heat flux measurements with microwave radiometers 07 p1959 N93-21604
Boiling under microgravity conditions
08 p2249 N93-22847
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
A correlated K-distribution model of the heating rates for H2O and a molecular mixture in the 0-2500 cm(exp -1) wavelength region in the atmosphere between 0 and 60 km
[DE93-005741] 09 p2762 N93-25147
Effect of continuous eigenvalue spectrum on plasma transport in toroidal systems
[NIFS-214] 09 p2859 N93-25215
Simulation and prediction of tropical SST with a coupled ocean-atmosphere model 09 p2789 N93-25469
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
An efficient solution procedure for the thermoelastic analysis of truss space structures
10 p2923 N93-27191
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method
10 p3074 N93-28249
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments
11 p3428 N93-29624
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations
11 p3483 N93-30044
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860
Aerogeophysical evidence for active volcanism beneath the West Antarctic Ice Sheet 12 p3761 N93-31895
Sensible and latent heat flux estimates in Antarctica
12 p3763 N93-31902
Non-contact heat flux measurement using a transparent sensor
[NASA-TM-106252] 12 p3713 N93-32330

HEAT GAIN
U HEATING

HEAT GENERATION
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798

HEAT MEASUREMENT
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
Calorimetric examination of the polarization cluster of the beginning ferroelectric material KTaO3
[ETN-93-93418] 07 p2084 N93-21067
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Compressor calorimeter performance of refrigerant blends: Comparative methods and results for a refrigerator/freezer application
[DE93-006734] 09 p2667 N93-24970
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Fibre optic sensors for heat transfer studies
09 p2853 N93-25748
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces
11 p3255 N93-29944
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

HEAT OF COMBUSTION
Performance and heat transfer characteristics of a carbon monoxide/oxygen rocket engine
[NASA-TM-105897] 06 p1474 N93-18878
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels data sets
[AD-A260220] 08 p2220 N93-22917
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion studies
[AD-A260253] 08 p2224 N93-24333

HEAT OF FORMATION
Determination of parameters of a new method for predicting alloy properties
[NASA-TM-105895] 02 p0257 N93-11609
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Optimizing liquid hydrogen storage systems
07 p1879 N93-20692
Energetic materials from cubane
[AD-A261317] 09 p2662 N93-26308
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653

HEAT OF FUSION
Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout
[AD-A258852] 06 p1534 N93-19367

HEAT OF VAPORIZATION
Optimizing liquid hydrogen storage systems
07 p1879 N93-20692

HEAT PIPES
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors [DE92-015946] 02 p0346 N93-11823
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation [AD-A254941] 03 p0727 N93-12546
Transient behavior of heat pipe with thermal energy storage under pulse heat loads 03 p0588 N93-13743
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
Summary of the NASA Lewis component technology program for Stirling power converters [NASA-TM-105640] 04 p0827 N93-15526
Optimization of an internally finned rotating heat pipe [AD-A256725] 05 p1329 N93-15980
Thermal management in space 05 p1095 N93-16909
Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout [AD-A258852] 06 p1534 N93-19367
A study of heat flux induced dryout in capillary grooves [AD-A259175] 07 p1899 N93-20270
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC) [NASA-CR-191065] 08 p2203 N93-22662
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals [DE93-004432] 08 p2228 N93-22724
Researches and developments on typical thermal technologies for space applications 08 p2248 N93-22845
Heat pipe fatigue test specimen: Metallurgical evaluation [NASA-CR-189120] 08 p2381 N93-23360
An innovative method for hand protection from extreme cold using heat pipe [AD-A259720] 08 p2428 N93-24128
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications [DLR-FB-92-09] 08 p2382 N93-24139
Design manual for two-phase components of spacecraft thermal management systems [AD-A260027] 08 p2196 N93-24439
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe [NASA-TM-105883] 09 p2759 N93-25136
Radiator technology 10 p2983 N93-26979
Joining carbon composite fins to titanium heat pipes [AD-A261970] 10 p2991 N93-27667
Cryogenic Heat Pipe Experiment (CRYOHP) 11 p3265 N93-28721
Heat pipe performance experiment 11 p3265 N93-28722
Technology transfer personnel exchange at the Boeing Company [DE93-010190] 11 p3625 N93-29329
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load [AD-A263496] 11 p3422 N93-29338
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads [AD-A263497] 11 p3423 N93-29339
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results 11 p3429 N93-29701
Thermion: Verification of a thermionic heat pipe in microgravity 11 p3235 N93-29757
Improved heat removal by microscopic surface texturing of capillaries [AD-A263483] 11 p3424 N93-29966
Pulse mitigation and heat transfer enhancement techniques. Volume 5: Transient liquid movement in heat pipe wicks [AD-A264513] 11 p3426 N93-30403

HEAT PUMPS
Advanced heat pump for the recovery of volatile organic compounds [DE92-011592] 02 p0303 N93-11774
NEDO Fuel/Storage Technology Subcommittee [DE92-526262] 02 p0346 N93-11777
Stirling heat pump external heat systems: An appliance perspective [DE92-018251] 02 p0349 N93-12498
Diffusion-absorption heat pump [PB92-217538] 03 p0576 N93-12975
Thermal control systems for low-temperature heat rejection on a lunar base [NASA-CR-191286] 03 p0679 N93-13717
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory [DE92-040026] 04 p0893 N93-15278
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
Heat pump technology: Responding to new opportunities [DE93-005939] 08 p2379 N93-22978
An environmental rating for heat pump equipment [DE93-004526] 08 p2379 N93-22983
Diffusion-absorption heat pump [PB93-165777] 10 p3037 N93-26620
The role of gas heat pumps in electric DSM [DE93-007858] 10 p3038 N93-27049
Thermoelectric cooler design [AD-A262149] 10 p3010 N93-27545
Investigation of thermoacoustic muffler [AD-A262009] 11 p3562 N93-29392
Complex-compound heat pump: Topical report on phase 1 results [PB93-185460] 11 p3466 N93-30814
International Energy Agency's Heat Pump Centre (IEA-HPC) Annual National Team Working Group Meeting [DE93-009932] 12 p3750 N93-32281

HEAT RADIATORS
NT SPACECRAFT RADIATORS
Preliminary design of a radiator shading device for a lunar outpost [NASA-CR-192016] 06 p1605 N93-18019
Automating an orbiter approach to Space Station Freedom to minimize plume impingement 08 p2149 N93-22305
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834

HEAT REGULATION
U TEMPERATURE CONTROL

HEAT REJECTION DEVICES
U HEAT RADIATORS

HEAT RESISTANCE
U THERMAL RESISTANCE

HEAT RESISTANT ALLOYS
NT MOLYBDENUM ALLOYS
NT NIOBIUM ALLOYS
NT RHENIUM ALLOYS
NT TANTALUM ALLOYS
NT TUNGSTEN ALLOYS
NT WASPALOY
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy [AD-A253967] 01 p0033 N93-10717
Modelling short crack growth behaviour in nickel-base superalloys [PNR-90912] 02 p0255 N93-11033
Sigma phase in nickel based superalloys [PNR-90950] 02 p0255 N93-11109
Present and future trends in turbine blade material and manufacture technology [PNR-90960] 02 p0255 N93-11111
Friction of self-lubricating surfaces by ion beam techniques [DE92-016069] 02 p0328 N93-12122
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Fatigue in single crystal nickel superalloys [AD-A254603] 02 p0260 N93-12237
Design and development of Ni-base superalloy and Ti alloys [NRIM-SR-92-01] 02 p0261 N93-12322
Fatigue in single crystal nickel superalloys [AD-A254704] 03 p0541 N93-12746
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C [NASA-TM-105765] 03 p0625 N93-13153
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue [NASA-CR-190794] 03 p0626 N93-13290
Fatigue in single crystal nickel superalloys [AD-A256095] 04 p0844 N93-14264
HIP consolidation of aluminum-rich intermetallic alloys and their composites [NAWCADWAR-92003-60] 04 p0845 N93-14726
Fiber reinforced composites: A new class of glass and glass ceramic materials for thermomechanical applications [REPT-921-430-104] 04 p0838 N93-15490
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature [NASA-CR-191649] 05 p1109 N93-15830
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition [DE92-556729] 05 p1114 N93-16649
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel [DE93-001373] 05 p1116 N93-17479
Study of the different oxidation states of nickel base superalloys [ETN-92-92555] 05 p1116 N93-17495
Fatigue in single crystal nickel superalloys [AD-A258038] 05 p1117 N93-17704
Experimental investigation of cyclic thermomechanical deformation in torsion [NASA-TM-105938] 06 p1554 N93-17996
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter [NASA-TM-105934] 06 p1486 N93-18069
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys [NASA-CR-191932] 06 p1674 N93-18593
Microstructural development during directional solidification of peritectic alloys [NASA-CR-192090] 06 p1488 N93-18603
High-temperature, bellows hybrid seal [NASA-CASE-LEW-15570-1] 06 p1549 N93-19027
Advanced industrial materials. An overview 07 p1845 N93-20623
High temperature alloys 07 p1858 N93-20626
Supersonic transport: Which material for the engine [DS-2023] 07 p1786 N93-21459
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment [MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H [DE93-004064] 07 p1876 N93-21999
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors [NASA-TM-105978] 08 p2130 N93-23013
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system [NASA-TP-3257] 08 p2297 N93-24096
Fatigue in single crystal nickel superalloys [AD-A260709] 09 p2651 N93-25843
Fatigue in single crystal nickel superalloys [AD-A261742] 09 p2652 N93-26282
Solidification processing and phase transformations in ordered high temperature alloys [AD-A261751] 09 p2652 N93-26284
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy [NASA-TM-106125] 09 p2731 N93-26550
Fatigue in single crystal nickel superalloys [AD-A262126] 10 p2999 N93-27674
Fundamental aspects in the design of passive alloys [DE93-009028] 11 p3320 N93-28545
Planning of a West Virginia University Research Center in the basic materials sciences [DE93-011731] 11 p3592 N93-28647
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum [NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Platinum-modified diffusion aluminide coatings on nickel-base superalloys [AD-A263597] 11 p3325 N93-29981
Examination of formability to seamless tubes on Ni-Cr-W superalloy [DE93-764158] 11 p3326 N93-30396
Development of Ni-Cr-W superalloys for high temperature components in high temperature gas-cooled reactors, part 2 [DE93-764469] 11 p3326 N93-30399
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F [AD-A263747] 11 p3327 N93-30812
Oxidation resistant overlay coatings for low expansion substrates [NASA-CASE-LEW-15154-2] 12 p3708 N93-31300
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576

Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads
12 p3696 N93-31578
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795

HEAT SHIELDING
NT REENTRY SHIELDING
NT REUSABLE HEAT SHIELDING
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Ablative thermal protection structure design of ballistic reentry spacecraft
[AD-A256908] 05 p1087 N93-16027
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Rigid fibrous ceramics for entry systems
08 p2177 N93-22117
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078

HEAT SINKS
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
Heat flow in variable polarity plasma arc welds
05 p1181 N93-17280
Research on HOPE heat sink device
07 p1792 N93-20431
Metals production 10 p3214 N93-27970
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614
Performance of thermal adhesives in forced convection 11 p3293 N93-30974

HEAT SOURCES
NT GEOTHERMAL RESOURCES
NT GEYSERS
Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
Milliwatt Generator Project
[DE92-015348] 02 p0294 N93-12156
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
An innovative method for hand protection from extreme cold using heat pipe
[AD-A259720] 08 p2428 N93-24128
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
Thulium heat sources for space power application
[DE93-002249] 12 p3691 N93-31168
Study survey on a high-efficiency environment harmony type energy cascade utilization system
[DE93-768469] 12 p3748 N93-31812

HEAT STORAGE
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Transient behavior of heat pipe with thermal energy storage under pulse heat loads
03 p0588 N93-13743
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility
[DE93-004778] 08 p2404 N93-22964
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Advanced solar dynamic technology program
10 p2968 N93-27806
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Thermal energy storage flight experiment in microgravity 11 p3265 N93-28720
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339

HEAT TESTS
U HIGH TEMPERATURE TESTS

HEAT TOLERANCE
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Thermal stress in US Air Force operations
[AD-A255785] 03 p0676 N93-14027
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
AFTERRISE: Deep body temperature following exercise
[AD-A259887] 08 p2421 N93-23984
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471

HEAT TRANSFER
NT AERODYNAMIC HEAT TRANSFER
NT CONDUCTIVE HEAT TRANSFER
NT CONVECTIVE HEAT TRANSFER
NT HYPERSONIC HEAT TRANSFER
NT LAMINAR HEAT TRANSFER
NT RADIATIVE HEAT TRANSFER
NT SUPERSONIC HEAT TRANSFER
NT TURBULENT HEAT TRANSFER
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Radial turbine cooling 01 p0078 N93-10061
Heat transfer additives for absorption cooling system fluids
[PB92-190354] 01 p0169 N93-10249
Shortened Test Heating Season (STHS)
01 p0043 N93-10314
Flow over a leading edge with distributed roughness
01 p0006 N93-10549
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
Thermal management in high average power pulsed compression systems
[DE92-017055] 01 p0076 N93-10836
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer
02 p0302 N93-11698
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
A model for analytical performance prediction of hypervapotron
[DE92-018885] 02 p0305 N93-12010
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
The influence of the Prandtl number on the thermal performance of tubes with the separation and reattachment enhancement mechanism
[DE92-016601] 02 p0306 N93-12313
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Advanced two-phase heat transfer systems
02 p0229 N93-12459
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
Thermal issues at the SSC 03 p0584 N93-13387
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications
03 p0586 N93-13399
Aerospace applications of SINDA/FLUINT at the Johnson Space Center 03 p0586 N93-13401
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers
03 p0590 N93-13826
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
Stability of the compressible reacting mixing layer
03 p0592 N93-13948

An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102
Finite element models of laser welding
04 p0888 N93-14226
Advances in TMG 04 p0811 N93-14956
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
Melt spinning of intermetallic alloys: Heat transfer and microstructure
[AD-A257455] 05 p1109 N93-15877
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087
Present state-of-the-art of two-phase flow model calculations
[DE92-041124] 05 p1156 N93-16159
Domain decomposition: A blowup problem and the Ginzburg-Landu equations
[DE92-040736] 05 p1266 N93-16587
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
[DE93-002351] 05 p1163 N93-17038
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Heat flow in variable polarity plasma arc welds
05 p1181 N93-17280
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
[ETN-93-93362] 06 p1498 N93-17811
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
Diabatic dynamic initialization
06 p1563 N93-18719
Performance and heat transfer characteristics of a carbon monoxide/oxygen rocket engine
[NASA-TM-105897] 06 p1474 N93-18878
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical analysis of flow in a heated horizontal square duct 06 p1413 N93-19305
Three-dimensional Navier-Stokes heat transfer predictions for turbine blade rows
[NASA-TM-105800] 07 p1897 N93-19969
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Film condensation in a horizontal rectangular duct
[NASA-CR-191061] 07 p1898 N93-20063
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Development of high heat radiation printed boards
07 p1796 N93-20456
Heat transfer device
[NASA-CASE-LEW-14162-4] 07 p1832 N93-20568
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Spatial formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20690
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
On the thermoelastohydrodynamic lubrication dimensionless problem formulations
07 p1917 N93-20693
Enhanced heat transfer in ribbed ducts using vortex generators
[PB93-114320] 07 p1902 N93-21219
Electrostatic enhancement of heat transfer in a gas-to-gas heat exchanger
[PB93-114338] 07 p1903 N93-21454
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Multi-heat addition turbine engine
[NASA-CASE-LEW-15094-1] 08 p2129 N93-22034
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
A distributed visualization environment for engineering sciences
[DE93-006961] 08 p2257 N93-22600
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
Engineering aspects of two-phase flow systems for heat transport 08 p2247 N93-22833
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity
08 p2247 N93-22836
Heat and mass transfer in polyphase flows
08 p2248 N93-22844
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
Boiling under microgravity conditions
08 p2249 N93-22847
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature
08 p2249 N93-22849
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace 08 p2251 N93-22863
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866
Finite element methods in heat transfer
[DE93-006451] 08 p2290 N93-22886
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels data sets
[AD-A260220] 08 p2220 N93-22917
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Stability and heat transfer in time-modulated flows
[DE93-006423] 08 p2293 N93-23339
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
An innovative method for hand protection from extreme cold using heat pipe
[AD-A259720] 08 p2428 N93-24128
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion studies
[AD-A260253] 08 p2224 N93-24333
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966
Heat transfer in rotating serpentine passages with selected model orientation for smooth or skewed trip walls
[NASA-TM-106126] 09 p2667 N93-25177
Shock tube application to the study of compressible turbulent boundary layer with mass injection
09 p2697 N93-25252
Turbine turbobrake systems 09 p2717 N93-25268
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
Measurements and computations of external heat transfer and film cooking in turbines
[RAE-TM-P-1223] 09 p2592 N93-25455
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems
09 p2700 N93-25478
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Heat transfer measurements in swept shock wave/turbulent boundary-layer interactions
09 p2704 N93-25705
Flow and heat transfer experiments in the turbine airfoil/endwall region 09 p2704 N93-25725
Two-dimensional fin analysis
09 p2705 N93-25737
Fibre optic sensors for heat transfer studies
09 p2853 N93-25748
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212
Flow control of low heat load turbine airfoils
[AD-A260941] 09 p2595 N93-26219
Influence of supercritical conditions on pre-combustion chemistry and transport behavior of jet fuels
[AD-A261813] 09 p2661 N93-26268
AMPHIB: A users manual
[AD-A261769] 09 p2669 N93-26285
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
SAFSIM overview 10 p2981 N93-26959
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients
10 p2981 N93-26960
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Regression rate mechanism in a solid fuel ramjet
10 p2922 N93-27185
Combined forced and free convection in a curved duct
10 p2937 N93-27461
Thermal systems 10 p2971 N93-27843
Thermal control system technology discipline
10 p2973 N93-27866
Natural convection around a smooth cylinder and a Spiro tube: Experiments and calculations
[ISBN-90-370-0072-X] 10 p3041 N93-27939
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985

Analysis of electrothermal interactions in power semiconductor modules
[ETN-93-93800] 11 p3591 N93-28470
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Theoretical and experimental study of thermoacoustic engines
[AD-A261934] 11 p3561 N93-28995
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions 11 p3253 N93-29933
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Heat transfer with moderate free stream turbulence 11 p3254 N93-29936
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels 11 p3255 N93-29942
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases 11 p3255 N93-29943
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces 11 p3255 N93-29944
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946
Flow and heat transfer between gas-turbine discs 11 p3256 N93-29950
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952
Impingement/effusion cooling 11 p3257 N93-29954
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows 11 p3259 N93-29963
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
Pulse mitigation and heat transfer enhancement techniques. Volume 5: Transient liquid movement in heat pipe wicks
[AD-A264513] 11 p3426 N93-30403
Quantum group and symmetry of the heat equation
[DE93-607560] 11 p3605 N93-30779
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
Thermal conductivities of slags
[NPL-DMM(A)-68] 12 p3705 N93-31322
Heat transfer measurements using infra-red thermography in rarefied flows
[RAE-TM-W-1] 12 p3724 N93-31336
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184
Understanding heat and fluid flow in linear GTA welds
[DE93-012958] 12 p3727 N93-32303

HEAT TRANSFER COEFFICIENTS

Thermal management in high average power pulsed compression systems
[DE92-017055] 01 p0076 N93-10836
Leading edge film cooking heat transfer including the effect of mainstream turbulence 02 p0199 N93-11886
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces 04 p0995 N93-15311
Advancements in the LEWICE ice accretion model
[NASA-CR-191019] 04 p0879 N93-15402
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
[DE93-002351] 05 p1163 N93-17038
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Steady heat transfer in a tube with turbulent flow
[OEFZS-4642] 10 p3042 N93-28205
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane 11 p3253 N93-29930
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces 11 p3255 N93-29944
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647

HEAT TRANSMISSION

NT AERODYNAMIC HEAT TRANSFER
NT CONDUCTIVE HEAT TRANSFER
NT CONVECTIVE HEAT TRANSFER
NT HEAT TRANSFER
NT HYPERSONIC HEAT TRANSFER
NT LAMINAR HEAT TRANSFER
NT RADIATIVE HEAT TRANSFER
NT SUPERSONIC HEAT TRANSFER
NT TURBULENT HEAT TRANSFER
The effects of chemistry on weld profiles in partial and full penetration welds
[DE92-016865] 02 p0327 N93-11679
Flexural analysis of uplifted rift flanks on Venus 04 p1027 N93-14314
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461
A computational approach to predicting the extent of arc root damage in CFC panels 09 p2642 N93-24890
Integration of design, thermal, structural, and optical analysis, including thermal animation 09 p2814 N93-25601
Space Station Freedom central thermal control system evolution 10 p2972 N93-27845
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583
Thermal control of ice-stream margins 12 p3762 N93-31897
Understanding heat and fluid flow in linear GTA welds
[DE93-012958] 12 p3727 N93-32303

HEAT TREATMENT

NT ANNEALING
NT LASER ANNEALING
NT NITRIDING
NT STRESS RELIEVING
NT TEMPERING
International ADI-Seminar: Austempered Ductile Iron
[PB92-180660] 02 p0256 N93-11244
Dislocation and pores in mullite from diphasic gels
[DE92-040384] 03 p0550 N93-12999
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel
[DE93-001373] 05 p1116 N93-17479
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398
Thermoplastic composites 07 p1845 N93-20625
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
Processing and microstructural development of Ag-clad Bi-Sr-Ca-Cu-O tapes
[DE93-004201] 08 p2500 N93-22078

Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
Effect of lead addition on the formation of superconducting phases in Bi-Sr-Ca-Cu-O ceramics
[DE93-606893] 11 p3339 N93-30773
Thermoforming from a systems viewpoint 11 p3293 N93-30967
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743

HEATERS
Inert gas electric heater for elevated temperature testing of small propulsion components
[DE92-017434] 02 p0221 N93-12317
A guide to automation techniques in calorimetry
[DE92-040948] 05 p1329 N93-15971
Natural convection from a horizontal heater in response to steady and pulsatile input powers
[AD-A257101] 05 p1156 N93-16126
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
Heating head for induction heating apparatus
[NASA-CASE-LAR-14429-1] 11 p3407 N93-29173
Performance of thermal adhesives in forced convection 11 p3293 N93-30974

HEATING
NT AERODYNAMIC HEATING
NT ARC HEATING
NT ATMOSPHERIC HEATING
NT BASE HEATING
NT ELECTRON CYCLOTRON HEATING
NT GAS HEATING
NT GLOBAL WARMING
NT INDUCTION HEATING
NT IONOSPHERIC HEATING
NT KINETIC HEATING
NT LASER HEATING
NT PLASMA HEATING
NT RADIANT HEATING
NT RADIO FREQUENCY HEATING
NT RESISTANCE HEATING
NT SHOCK HEATING
NT SOLAR HEATING
NT SPACE HEATING (BUILDINGS)
NT STRATOSPHERIC WARMING
NT SUPERHEATING
NT TRANSIENT HEATING
NT WATER HEATING
Shortened Test Heating Season (STHS) 01 p0043 N93-10314
Microwave heating of lunar materials. Appendix A 05 p1383 N93-16903
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating 08 p2247 N93-22835
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394
Observational tests of coronal heating models 12 p3877 N93-31403

HEATING EQUIPMENT
NT BOILERS
NT ELECTRIC FURNACES
NT EVAPORATORS
NT FURNACES
NT IMAGE FURNACES
NT SOLAR FURNACES
NT VAPORIZERS
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968

HEAVING
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103

HEAVY COSMIC RAY PRIMARIES
U HEAVY NUCLEI

HEAVY ELEMENTS
Effects of non-crystallographic symmetry on structure factor statistics
[ITN-93-85182] 05 p1321 N93-16734
Molecular orbital studies of the bonding in heavy element organometallics
[DE93-005291] 06 p1658 N93-19756
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Heavy element abundances and massive star formation 10 p3172 N93-26709

HEAVY IONS
Two-photon physics and the coming generation of heavy ion colliders
[DE92-015850] 01 p0156 N93-10732
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
Research in heavy-ion nuclear physics
[DE92-015099] 02 p0443 N93-11521
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Heavy-ion collisions and the nuclear equation of state
[DE92-019364] 03 p0706 N93-12924
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Non-perturbative studies in quantum electrodynamics 03 p0729 N93-13896
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Bevalac ion beam characterizations for single event phenomena
[AD-A257033] 04 p0979 N93-15362
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926
Dynamical approach to pair production from strong fields
[DE92-040224] 05 p1283 N93-16011
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Shielding from space radiations
[NASA-CR-191966] 06 p1655 N93-18567
Strangeness signals in heavy ion collisions
[DE93-002935] 06 p1657 N93-19516
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Research on single event resistance evaluation technology: Research by heavy ion irradiation 07 p1801 N93-20483
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Green's function methods in heavy ion shielding
[NASA-TP-3311] 08 p2485 N93-22488
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Beam position and total current monitor for heavy ion fusion beams
[DE93-007653] 09 p2851 N93-25325
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
HZEFRG1: An energy-dependent semiempirical nuclear fragmentation model
[NASA-TP-3310] 10 p3138 N93-27031
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Theoretical studies in nuclear physics
[DE93-010142] 10 p3139 N93-28215
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
Heavy ion measurement on LDEF 11 p3573 N93-29644
Progress report on the Heavy Ions in Space (HIIS) experiment 11 p3573 N93-29645
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054
Pulse control in an accelerator for heavy-ion fusion
[DE93-009527] 11 p3576 N93-30390
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Solar wind heavy ions and proton/alpha particle relations observed onboard the Prognoz 7 satellite 12 p3879 N93-31414
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407

HEAVY LIFT LAUNCH VEHICLES
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326

Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Analysis of Titan 4 launch responsiveness
[AD-A259021] 06 p1456 N93-18950
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
On-orbit operational scenarios, tools and techniques 08 p2143 N93-22271
Autonomous rendezvous targeting techniques for national launch system application 08 p2145 N93-22284
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
Future of the US Space Launch capability: A task group report
[PB93-139947] 08 p2171 N93-22899
Spacely's rockets: Personnel launch system/family of heavy lift launch vehicles 11 p3234 N93-29752

HEAVY NUCLEI
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
A cosmic ray propagation model 06 p1746 N93-19383
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
Geometric model from microscopic theory for nuclear absorption
[NASA-TP-3324] 12 p3822 N93-32369

HEF (HIGH ENERGY FUELS)
U HIGH ENERGY FUELS

HEIGHT
NT SCALE HEIGHT
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
The comparison of satellite radar altimeter derived heights with global digital terrain model heights 08 p2355 N93-23584
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650

HEISENBERG THEORY
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
Bose realisation of a noncanonical Heisenberg algebra
[PREPRINT-844] 05 p1269 N93-16958
The SU(2) action-angle variables 10 p3129 N93-27316
On the fermionic Heisenberg group and its Q-representations
[NIKHEF-H/92-11] 10 p3117 N93-27542

HELICAL ANTENNAS
Broadband quadrifilar phased array helix
[AD-D015506] 05 p1139 N93-16519

HELICAL FLOW
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154

HELICAL WINDINGS
SPRING2: Helical compression spring geometry generator program manual
[DREA-TC-92-314] 08 p2438 N93-23345
Assessment of torsatrons as reactors
[DE93-006721] 09 p2858 N93-24969

HELICOPTER ATTITUDE INDICATORS
U ATTITUDE INDICATORS
U HELICOPTERS

HELICOPTER CONTROL
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities
[AD-A256921] 05 p1060 N93-16186
Helicopter installations: From motor to rotor
[LR-675] 05 p1061 N93-16345
Developing a control system for ARES 2 05 p1069 N93-16769
Mission oriented investigation of handling qualities through simulation
[MBB-UD-0600-91-PUB] 05 p1063 N93-17567
An investigation of a prototype OASYS effectiveness in maneuvering flight
[AD-A257901] 06 p1439 N93-18339
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation 06 p1443 N93-19909
Fuzzy control of an unmanned helicopter 08 p2455 N93-22366
Fuzzy logic mode switching in helicopters 08 p2455 N93-22367
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
Variable control system limits on Black Hawk and Seahawk helicopters
[AD-A259624] 08 p2132 N93-24153
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Helicopter low-speed yaw control
[NASA-CASE-LAR-14219-1] 09 p2597 N93-25998
Image-based ranging and guidance for rotorcraft
[NASA-CR-177608] 09 p2586 N93-26549
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays 10 p2920 N93-27177
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280
Current projects in Fuzzy Control 12 p3688 N93-31442

HELICOPTER DESIGN
Split torque transmission load sharing
[NASA-TM-105884] 03 p0610 N93-12736
Helicopter installations: From motor to rotor
[LR-675] 05 p1061 N93-16345
Test and integration concept for complex helicopter avionic systems
[MBB-UD-0605-91-PUB] 05 p1065 N93-17547
Modern helicopter technologies at MBB and the application in future programmes
[MBB-UD-0599-91-PUB] 05 p1063 N93-17566
Mission oriented investigation of handling qualities through simulation
[MBB-UD-0600-91-PUB] 05 p1063 N93-17567
Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB] 05 p1057 N93-17568
RPH preliminary design, trend analysis and initial analysis of the NPS hummingbird
[AD-A257854] 06 p1439 N93-18304
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
Helicopters in action 06 p1403 N93-19005
Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191057] 08 p2311 N93-22466
Rotor design optimization using a free wake analysis
[NASA-CR-177612] 09 p2575 N93-25075
Face-gear drives: Design, analysis, and testing for helicopter transmission applications
[NASA-TM-106101] 10 p3050 N93-27133
Robust crossfeed design for hovering rotorcraft
[NASA-CR-193107] 10 p2942 N93-27241

HELICOPTER ENGINES
Measuring risk in single-engine and twin-engine helicopters 04 p0787 N93-15025
Onboard System Evaluation of Rotors Vibration, Engines (OBSERVE) monitoring system
[AD-A255366] 04 p0792 N93-15227
Helicopter installations: From motor to rotor
[LR-675] 05 p1061 N93-16345
Analysis of consolidation of intermediate level maintenance for Atlantic Fleet T700-GE-401 engines
[AD-A257754] 05 p1067 N93-17695
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087

HELICOPTER IMPULSIVE NOISE
U BLADE SLAP NOISE

HELICOPTER PERFORMANCE
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
Helicopter health monitoring: Current practice and future trends 04 p0797 N93-15179
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
The use of ultrasonics for oleo compression measurements on a S-70B-2 (Seahawk) helicopter
[AD-A256315] 04 p0792 N93-15328
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities
[AD-A256921] 05 p1060 N93-16186
Helicopters in action 06 p1403 N93-19005

HELICOPTER PROPELLER DRIVE
Split torque transmission load sharing
[NASA-TM-105884] 03 p0610 N93-12736
Flexible rotorcraft system dynamics with time-variant contact conditions 06 p1441 N93-19034
Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191057] 08 p2311 N93-22466
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Planetary gear train ring gear and support structure investigation 08 p2314 N93-23188
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
Face-gear drives: Design, analysis, and testing for helicopter transmission applications
[NASA-TM-106101] 10 p3050 N93-27133
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268

HELICOPTER ROTORS
U ROTARY WINGS

HELICOPTER TAIL ROTORS
Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB] 05 p1057 N93-17568
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569

HELICOPTER WAKES
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Studies of a flat wake rotor theory
[NASA-CR-190936] 02 p0201 N93-12343
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483

HELICOPTERS
NT AH-64 HELICOPTER
NT BO-105 HELICOPTER
NT CH-47 HELICOPTER
NT H-53 HELICOPTER
NT H-60 HELICOPTER
NT MILITARY HELICOPTERS
NT OH-58 HELICOPTER
NT UH-60A HELICOPTER
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
Rotorcraft health and usage monitoring systems: A literature survey
[DOT/FAA/RD-91/6] 02 p0206 N93-11461
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707

Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
Design guide for the ergonomic aspects of helicopter crew seating
[ISVR-TR-209] 03 p0678 N93-13464
Formulation and validation of high-order mathematical models of helicopter flight dynamics
03 p0501 N93-13821
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Workshop on Aeronautical Decision Making (ADM). Volume 2: Plenary Session With Presentations and Proposed Action Plan
[DOT/FAA/RD-92/14-VOL-2] 04 p0785 N93-15013
Embedded ADM reduces helicopter human error accidents 04 p0787 N93-15024
Measuring risk in single-engine and twin-engine helicopters 04 p0787 N93-15025
Helicopter flight data recorder and health and usage monitoring system 04 p0797 N93-15178
Modeling limits of the EMV analysis program CONCEPT by example of the influence of a helicopter structure on a frame antenna
[MBB-UD-0614-92-PUB] 04 p0863 N93-15487
Helicopter installations: From motor to rotor
[LR-675] 05 p1061 N93-16345
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum
[AD-A256319] 05 p1061 N93-16404
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Modern helicopter technologies at MBB and the application in future programmes
[MBB-UD-0599-91-PUB] 05 p1063 N93-17566
Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
Open airscrew VTOL concepts
[NASA-CR-177603] 06 p1403 N93-17883
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Numerical investigation of swirl-airfoil interactions in transonic area
[MPIS-8/1991] 06 p1407 N93-18627
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Helicopters in action 06 p1403 N93-19005
Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Canadian Forces helicopter ditchings: 1952-1990 06 p1426 N93-19685
Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687
US Army helicopter inertia reel locking failures 06 p1427 N93-19689
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft 06 p1610 N93-19772
CVA, cockpit design and development tool 06 p1611 N93-19780
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation 06 p1443 N93-19909
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Fly-by voice, a technology demonstration 06 p1444 N93-19918
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling 07 p1782 N93-21313
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
Tip-vortex/airframe interactions 08 p2111 N93-23489
The consequence of joint failures 08 p2212 N93-23941
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Structural dynamic analysis of bearingless rotor blade 09 p2590 N93-25719
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Helicopter low-speed yaw control
[NASA-CASE-LAR-14219-1] 09 p2597 N93-25998
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Dynamic System Coupler Program (DYSCO 4.1). Volume 1: Theoretical manual
[AD-B131156L] 10 p3098 N93-27531
Testing a wheeled landing gear system for the TH-57 helicopter
[AD-A262152] 10 p2942 N93-27547
Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589
Dynamic System Coupler Program (DYSCO 4.1). Volume 3: User's manual supplement
[AD-B131158L] 10 p3099 N93-27590
Flight evaluation of a computer aided low-altitude helicopter flight guidance system 11 p3260 N93-28869
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade
[NASA-TM-4264] 11 p3240 N93-29450
External acoustical noise measurements for aviation systems
[AD-A263138] 11 p3562 N93-29480
Models for performance assessment of HF antennas on the CH-135/Twin Huey helicopter 11 p3366 N93-30291
NASA/FAA helicopter simulator workshop
[NASA-CP-3156] 11 p3236 N93-30673
Part 1: Executive summary 11 p3236 N93-30674
Helicopter simulator standards 11 p3236 N93-30675
Helicopter simulation: An aircrew training and qualification perspective 11 p3236 N93-30676
Training effectiveness assessment: Where are we? 11 p3236 N93-30679
Current training: Where are we? 11 p3236 N93-30680
Helicopter simulator qualification 11 p3237 N93-30681
Helicopter simulation: Making it work 11 p3237 N93-30682
Helicopter training simulators: Key market factors 11 p3237 N93-30683
Training effectiveness assessment: Methodological problems and issues 11 p3237 N93-30684
Progress through precedent: Going where no helicopter simulator has gone before 11 p3237 N93-30686
Transfer of training and simulator qualification or myth and folklore in helicopter simulation 11 p3237 N93-30687
Validation and upgrading of physically based mathematical models 11 p3237 N93-30688
Frequency-response techniques for documentation and improvement of rotorcraft simulators 11 p3237 N93-30689
Bandwidth and SIMDUCE as simulator fidelity criteria 11 p3238 N93-30690
Methodology development for evaluation of selective-fidelity rotorcraft simulation 11 p3238 N93-30691
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-193468] 11 p3400 N93-31036
Operation of the helicopter antenna radiation prediction code
[NASA-CR-193259] 12 p3715 N93-31110
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3 12 p3675 N93-31272
Pallet for helicopter test instrumentation 12 p3676 N93-31279

Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225

HELIOCENTRIC ORBITS
U SOLAR ORBITS

HELIOGRAPHS
U SPECTROHELIOGRAPHS

HELIOGRAPHY
U SPECTROHELIOGRAPHS

HELIOMAGNETISM
U SOLAR MAGNETIC FIELD

HELIOMETERS
NT PYROHELIOMETERS

HELIOMETRY
U PYROHELIOMETERS

HELIOS SATELLITES
NT HELIOS 1
NT HELIOS 2

HELIOS 1
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification
12 p3854 N93-31686

HELIOS 2
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification
12 p3854 N93-31686

HELIOSEISMOLOGY
Transition region dynamics 01 p0180 N93-10907
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
Inverse problem with continuous parameters for solar oscillations 09 p2895 N93-25728
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023

HELIOSPHERE
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
Remote sensing of inner heliospheric plasmas
[AD-A260337] 08 p2558 N93-24268
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Heliospheric current sheet effects on the propagation of solar-generated shock waves
12 p3854 N93-31685
Origin of the solar wind and coronal mass ejections
12 p3856 N93-31702

HELIOSTATS
Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Thermal effects testing at the National Solar Thermal Test Facility
[DE93-009825] 11 p3465 N93-30391
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035

HELIOTRONS
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
The 3D MHD study of helias and heliotron
[AD-A257116] 05 p1307 N93-16123
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264
Effects of net toroidal current on Mercier criterion in the Large Helical Device
[NIFS-174] 07 p2072 N93-20543
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Beta-limiting phenomena in high-aspect-ratio toroidal helical plasmas
[NIFS-188] 07 p2072 N93-20546
A role of neutral hydrogen in CHS plasmas with reheat and collapse and comparison with JIPP T-IIU tokamak plasmas
[NIFS-186] 07 p2073 N93-20763
Formation of H-mode like transport barrier in the CHS heliotron/torsatron
[NIFS-198] 07 p2074 N93-21193
Design study on divertor plates of Large Helical Device (LHD)
[NIFS-190] 07 p2074 N93-21361
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362

HELIUM
NT HELIUM ISOTOPES
NT LIQUID HELIUM
NT LIQUID HELIUM 2
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600
Tables of thermodynamic properties of helium magnet coolant, revision A
[DE92-019098] 02 p0471 N93-11656
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Helium transport studies on D3-D
[DE92-016251] 02 p0455 N93-12307
Inert gas electric heater for elevated temperature testing of small propulsion components
[DE92-017434] 02 p0221 N93-12317
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
New high temperature plasmas and sample introduction systems for analytical atomic emission and mass spectrometry
[DE92-040602] 05 p1308 N93-16145
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
Hydrogen leak detection in the Space Shuttle
06 p1457 N93-19392
Overview of helium-like structure measurements: A focus on the N = 2 triplet states
[DE93-002913] 06 p1658 N93-19748
Experimental investigations on converging second-sound shock waves in He 2
[MPIS-103/1991] 07 p2060 N93-20885
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell
[DE93-004519] 08 p2317 N93-24049
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds
09 p2577 N93-25487
Gas storage and recovery system
[NASA-CASE-MSC-22091-1] 10 p3021 N93-28136
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
Helium resources of the United States, 1991
[PB93-189652] 12 p3743 N93-31116

HELIUM ATOMS
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875

HELIUM IONS
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Photoluminescence of silicon nanostructures formed by ion beam implantation
[DE93-006777] 09 p2862 N93-24958
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618

HELIUM ISOTOPES
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842
Cosmological constraints on early-decaying particles
03 p0750 N93-13123
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures
03 p0770 N93-13476
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Thermoconvective instability in the solar core
03 p0771 N93-13849
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Potential of derived lunar volatiles for life support
03 p0680 N93-13998
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment
03 p0766 N93-14007
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
An artificially generated atmosphere near a lunar base
05 p1398 N93-17456
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
Abundance of He-3 and other solar-wind-derived volatiles in lunar soil 10 p3209 N93-26692
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Reaction and reorientation of electronically excited H2(B)
[DE93-010435] 11 p3569 N93-29860

HELIUM PLASMA
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136

HELIUM STARS
U B STARS

HELIUM 2
U HELIUM ISOTOPES
U LIQUID HELIUM

HELIUM 3
U HELIUM ISOTOPES

HELIUM 4
U HELIUM ISOTOPES

HELIUM-NEON LASERS
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702

A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
Parameter studies of helium-neon lasers at 543 nm
03 p0606 N93-13747
Progress towards laboratory frequency standards for the optical communication bands 09 p2687 N93-25069
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Experimental test of hole-coupled FEL resonator designs using a CW-HeNe laser
[DE93-010439] 11 p3440 N93-30530
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

HELIX TUBES
U TRAVELING WAVE TUBES

HELMET MOUNTED DISPLAYS
Advanced technology for portable personal visualization
[AD-A253808] 02 p0388 N93-11783
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Annotating the real world with knowledge-based graphics on a see-through head-mounted display
04 p0954 N93-15543
Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
Helmet-mounted area-of-interest display
[AD-A258275] 06 p1605 N93-18029
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Developing virtual cockpits 06 p1608 N93-19764
Panoramic cockpit displays 06 p1608 N93-19765
A new concept for helmet mounted vision
06 p1609 N93-19767
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Test techniques for evaluating flight displays
[NASA-TM-103947] 07 p1783 N93-21810
Concepts for conformal and body-axis attitude information for spatial awareness presented in a helmet-mounted display
[NASA-TM-4438] 08 p2129 N93-23408
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
Comparative evaluation of a monocular head mounted display device versus a flat screen display device in presenting aircraft maintenance technical data
[AD-A259684] 08 p2427 N93-23660
In-flight field-of-view with ANVIS
[AD-A259905] 08 p2427 N93-23992
Attention factors associated with head-up display and helmet-mounted display systems
[AD-A260204] 08 p2427 N93-24001
Perceptual factors that influence use of computer enhanced visual displays
[NASA-CR-192961] 09 p2811 N93-26150
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays
10 p2920 N93-27177
Low-cost helmet-mounted displays
[AD-A262616] 11 p3501 N93-28479
Head-steered sensor flight test results and implications 11 p3502 N93-28859
The quest for an integrated flying helmet
11 p3502 N93-28860
Oculo-motor responses and virtual image displays
11 p3503 N93-28862
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107

HELMETS
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Multi-function visor 06 p1609 N93-19770
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649
The quest for an integrated flying helmet
11 p3502 N93-28860
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406
Helmet visor support apparatus
[AD-D015684] 11 p3507 N93-29606
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889

HELMHOLTZ EQUATIONS
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry
02 p0373 N93-12002
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951

HELOS (SATELLITE)
U EXOSAT SATELLITE

HEMATITE
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954

HEMATOLOGY
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-022] 09 p2795 N93-25407
Fundamental diagnostic hematology: Anemia (second edition)
[PB93-188662] 12 p3773 N93-31140
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition)
[PB93-188670] 12 p3773 N93-31158

HEMISPHERE CYLINDER BODIES
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
The hemisphere-cylinder at an angle of attack
02 p0196 N93-11250

HEMISPHERICAL SHELLS
Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755

HEMODYNAMICS
NT LOWER BODY NEGATIVE PRESSURE
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400

HEMOGLOBIN
NT CARBOXYHEMOGLOBIN
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293

HEMORRHAGES
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

HEMOSTASIS
U HEMOSTATICS

HEMOSTATICS
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition)
[PB93-188670] 12 p3773 N93-31158

HEMT (ELECTRONICS)
U HIGH ELECTRON MOBILITY TRANSISTORS

HEPATITIS
Clinical types of Hepatitis B 02 p0376 N93-11286
Viral hepatitis in the US Air Force, 1980 - 1989
02 p0377 N93-11287
Hepatitis A and Hepatitis B: Risks compared to other vaccine preventable diseases and immunization recommendations 02 p0377 N93-11288
Vaccination against Hepatitis B: The Italian strategy
02 p0377 N93-11289
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304

HEPTANES
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805

HERBIG-HARO OBJECTS
International Ultraviolet Explorer (IUE)
[NASA-CR-191952] 05 p1359 N93-17029
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770

HERCULES AIRCRAFT
U C-130 AIRCRAFT

HERCULES NOVA
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202

HERMES MANNED SPACEPLANE
Development trends in space transportation systems: From Hermes to Saenger
[MBB-UK-0146-91-PUB] 02 p0223 N93-11007
Flow field calculations around the Hermes spaceplane during reentry phase
[MBB-UK-0148-91-PUB] 02 p0195 N93-11008
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
Structures and materials technologies for hypersonic vehicles: Lessons from Hermes experience
[REPT-921-430-108] 07 p1824 N93-21042
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions
08 p2249 N93-22850
The European astronauts training programme
08 p2156 N93-24346
Training facilities at the Crew Training Complex
08 p2156 N93-24347
European space programme
10 p2920 N93-27174
Constrained motion models for insertion/extraction operations applied to the Hermes robot arm: A feasibility study
[NLR-TP-91485-U] 12 p3736 N93-32204

HERMES SATELLITE
U COMMUNICATIONS TECHNOLOGY SATELLITE

HERMETIC SEALS
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components
07 p1865 N93-20149
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725

HERMITIAN POLYNOMIAL
Hermite interpolation algorithm for 2D fracture mechanics
[DE92-041266] 05 p1184 N93-16097
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872

HERTZSPRUNG-RUSSELL DIAGRAM
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects
[NASA-RP-1285] 03 p0744 N93-13461
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function
09 p2894 N93-25559

HESSIAN MATRICES
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791

HETEROCYCLIC COMPOUNDS
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
NT ASCORBIC ACID
NT AZOLES
NT CAFFEINE
NT HMX
NT INDOLES
NT PHTHALOCYANIN
NT PYRIDINES
NT PYRIDOXINE
NT PYRROLES
NT RDX
NT TETRAHYDROFURAN
NT TETRAZOLES
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834

International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Polybenzoxazoles via aromatic nucleophilic displacement
[NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
Electrical conductivity of ion implanted ladder and semi-ladder polymers
[AD-A261401] 09 p2657 N93-26401
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747

HETERODYNING
NT OPTICAL HETERODYNING
Recent astronomical results from the infrared spatial interferometer and their implications for LOUISA 03 p0745 N93-13585
Appendix: Limits on the use of heterodyning and amplification in optical interferometry 03 p0747 N93-13597
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
Advanced technology development multi-color holography
[NASA-CR-192451] 09 p2711 N93-26154
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
Measurements of the single sideband suppression for a 650 GHz heterodyne receiver 10 p3020 N93-27780
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461
Report of the submillimeter splinter group 12 p3847 N93-31770

HETEROGENEITY
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Wrapping mathematical tools 06 p1648 N93-18504
Microgravity combustion of dust suspensions 07 p1853 N93-20201
Spatial formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20690
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Luminescence probe studies of ionomers. 3: Distribution of decay rate constants for tris bipyridyl ruthenium(2) in Nafion membranes
[AD-A260764] 09 p2645 N93-25916
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Possibilistic measurement and set statistics 11 p3517 N93-29567
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059

HETEROJUNCTION DEVICES
NT HIGH ELECTRON MOBILITY TRANSISTORS
NT MODFETS
GaAs heterojunction device based A/D converter development
[AD-A252644] 02 p0468 N93-12183
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
Simulation of electronic transport in semiconductor heterolayer devices
[AD-A260122] 08 p2502 N93-22548
An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701
Scattering of electrons at heterostructure interfaces
[ETN-93-94044] 12 p3828 N93-31523
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619
Carrier capture in 3-5 semiconductor quantum wells
[ETN-93-94054] 12 p3828 N93-31620

HETEROJUNCTIONS
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Novel engineered compound semiconductor heterostructures for advanced electronics applications
[AD-A255363] 04 p0866 N93-14562
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Electronic transport in 3-5 semiconductors and their lattice matched heterojunctions
[AD-A256904] 05 p1316 N93-16023
Center for High-Frequency Microelectronics
[AD-A257003] 05 p1145 N93-16030
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
New concepts for high efficiency energy conversion: The avalanche heterostructure and superlattice solar cells
[DE92-010592] 09 p2758 N93-25098
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Thermionic emission current in a single barrier varactor 10 p3012 N93-27735
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
Electronic Landau levels in quantum wells with periodically structured interfaces
[DE93-608514] 12 p3828 N93-31664

HEURISTIC METHODS
An iterative method for distributed database design 02 p0474 N93-11255
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Manager's assistant systems for space system planning 02 p0398 N93-11952
Backward assembly planning with DFA analysis
[NASA-CASE-NPO-18817-1-CU] 02 p0278 N93-12202
Measures of user-system interface effectiveness: Assessment of structured judgment evaluation techniques for graphical, direct-manipulation style interfaces
[AD-A254493] 03 p0677 N93-12576
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Automatic programming of arc welding robots 03 p0615 N93-13720
Formal aspects of human-computer interaction 03 p0679 N93-13909
Q-Markov cover identification and integrated MCA-OVC controller design for flexible structures 03 p0695 N93-14045
Query processing in distributed database systems 04 p1001 N93-14218
Intelligent path prediction for vehicular travel 04 p0961 N93-14445
Minimizing conflicts: A heuristic repair method for constraint-satisfaction and scheduling problems
[NASA-TM-108121] 04 p0964 N93-15286
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
A minimalist global user interface 04 p0957 N93-15566
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
Study of an adaptive maintenance strategy for logic systems
[ETN-92-92673] 05 p1252 N93-17640
Membership generation using multilayer neural network 06 p1618 N93-18227
The rudes and the shrewds: An experimental comparison of several evolutionary heuristics applied to the QAP problem
[REPT-91-042] 06 p1620 N93-18325
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
Scheduling of an aircraft fleet 06 p1635 N93-18665
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Iterative refinement scheduling 06 p1635 N93-18669
Experiments with a decision-theoretic scheduler 06 p1636 N93-18674
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems 06 p1638 N93-18687
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Discovery of pathways in science 06 p1689 N93-19718
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
The evaluation and reporting of discovery systems 06 p1691 N93-19734
Evaluating machine discovery systems 06 p1692 N93-19735
Comparison of artificial neural networks with a conventional heuristic technique for optimization problems
[AD-A259207] 07 p2046 N93-20552
Parallel axes gear set optimization in two-parameter space 07 p1917 N93-20637

Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
Algorithms for optimal redundancy allocation
[DE93-005709] 09 p2827 N93-24973
Using a multifrontal sparse solver in a high performance, finite element code
[NASA-CR-192718] 09 p2828 N93-25223
Design and analysis of algorithms for processing queries in database systems 09 p2876 N93-25482
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
Inverse problems: Fuzzy representation of uncertainty generates a regularization 11 p3516 N93-29563
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
ALGODESK: An experimental comparison of eight evolutionary heuristics applied to the QAP problem
[REPT-92-052] 12 p3786 N93-31250
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
Massively parallel support for a case-based planning system 12 p3797 N93-32135
Decision theory for computing variable and value ordering decisions for scheduling problems 12 p3835 N93-32137
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS 12 p3794 N93-32142
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230
Ant system for job-shop scheduling
[REPT-92-066] 12 p3792 N93-32346

HEXAGONS
Hexagonal grid drawings
[RUU-CS-92-06] 07 p2055 N93-21172

HEXANITROSTILBENE
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069

HEXOSES
NT GLUCOSE

HF LASERS
Experimental and theoretical study of cw HF chemical laser overtone performance 09 p2713 N93-25420
Experimental and theoretical study of CW HF chemical laser residual fundamental gain 09 p2714 N93-25721

HFIR
U HIGH FLUX ISOTOPE REACTORS

HFIR (REACTOR)
U HIGH FLUX ISOTOPE REACTORS

HHX HELICOPTER
U H-53 HELICOPTER

HIERARCHIES
Hierarchical structure in polymeric solid and its influence on properties
[AD-A253818] 01 p0041 N93-10825
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Darboux theorems and Wronskian formulas for integrable systems. 1: Constrained KP flows
[MATHS-REPT-A-172] 02 p0424 N93-11126
Exploiting captions in retrieval of multimedia data
[AD-A255184] 02 p0479 N93-12381
Hierarchic models for laminated plates 03 p0528 N93-12629
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices 04 p1000 N93-14205
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
The challenge of a data storage hierarchy 05 p1354 N93-16325
A Petri net controller for distributed hierarchical systems
[NASA-CR-191862] 05 p1276 N93-16675
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
JIGSAW: Preference-directed, co-operative scheduling 06 p1639 N93-18689
Discovery of pathways in science 06 p1689 N93-19718
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
A hierarchical structure for representing and learning fuzzy rules 08 p2454 N93-22358
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
Management of space networks 09 p2672 N93-24671
On the robustness of Herlihy's hierarchy
[NASA-CR-193002] 09 p2808 N93-25107
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
TARGET: Rapid capture of process knowledge 09 p2814 N93-25590
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
Multi-viewpoint clustering analysis 09 p2825 N93-25980
The meta model hierarchy: A framework for information systems concepts and techniques
[TR-92-17] 11 p3611 N93-28481
Fuzzy coordinator in control problems 11 p3515 N93-29552
Hierarchical model of matching 11 p3519 N93-29580
AHP version 5.1 user's manual
[DE93-007050] 11 p3532 N93-30034
A new definition of the subtype relation
[AD-A265548] 12 p3791 N93-32066
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring 12 p3835 N93-32132

HIGH ACCELERATION
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137

HIGH ALTITUDE
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven 06 p1727 N93-19551
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820

HIGH ALTITUDE ENVIRONMENTS
The Environmental Symptoms Questionnaire (ESQ): Development and application
[AD-A264127] 11 p3495 N93-30196

HIGH ALTITUDE FLIGHT
U FLIGHT
U HIGH ALTITUDE

HIGH ASPECT RATIO
Beta-limiting phenomena in high-aspect-ratio toroidal helical plasmas
[NIFS-188] 07 p2072 N93-20546

HIGH ASPECT RATIO WINGS
U SLENDER WINGS

HIGH CURRENT
Long conduction time plasma opening switch experiments at Sandia National Labs
[DE92-015003] 01 p0072 N93-10279
Advanced high-explosive flux compression generator development: The CN-3 series
[DE92-019962] 03 p0713 N93-12809
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778
The RFQ LINAC: A high-current compact ion accelerator for explosive detection 07 p1766 N93-21872
Design of a high current proton accelerator 07 p1766 N93-21873
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809

HIGH DEFINITION TELEVISION
High-speed FPS vidicon camera
[DE92-018989] 02 p0313 N93-12069
An acoustic charge transport imager for high definition television applications
[NASA-CR-191295] 03 p0572 N93-13448
Review of the Year 1991 07 p1886 N93-21558
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Digital audio and video broadcasting by satellite 10 p3023 N93-26645
An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701
Data compression techniques for digital video recording
[ETN-93-93610] 10 p3166 N93-27881

HIGH ECCENTRIC LUNAR OCCULTATION SATELLITE
U EXOSAT SATELLITE

HIGH ELECTRON MOBILITY TRANSISTORS
NT MODFETS
Programme and abstracts. Workshop on Expert Evaluation and Control of Compound Semiconductor Materials and Technologies No. 1: (EXAMTEC 199)
[AD-A254023] 02 p0292 N93-12071
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Study of the compatibility of PIN detector circuits and field effect transistors. Extension to high mobility and one dimensional electron gas transitors
[LAAS-92242] 08 p2283 N93-23863
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Development of Si(1-x)Ge(x) technology for microwave sensing applications
[NASA-TM-106157] 11 p3405 N93-28610
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895

HIGH ENERGY ASTRONOMY OBSERVATORY B
U HEAO 2

HIGH ENERGY ASTRONOMY OBSERVATORY 2
U HEAO 2

HIGH ENERGY ELECTRONS
NT RELATIVISTIC ELECTRON BEAMS
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139

Radiation belt dynamic and quasi-static modeling based on CRRES data: Outer-belt short-term response data base
[AD-A256483] 04 p0916 N93-14899
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
Fundamentals of high energy electron beam generation
[DE93-000745] 05 p1299 N93-17064
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
An experimental test of the LPM effect: Bremsstrahlung suppression at high energies
[DE93-004019] 06 p1660 N93-19495
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
[DE93-007725] 09 p2848 N93-25366
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Hard photon emission from high energy electrons and positrons in single crystals
[DE93-606328] 11 p3600 N93-30770
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

HIGH ENERGY FUELS
What is the progress in propulsion? 06 p1404 N93-19006
Nuclear isomers as ultra-high-energy-density materials
[DE93-009520] 11 p3568 N93-29784

HIGH ENERGY INTERACTIONS
NT STRONG INTERACTIONS (FIELD THEORY)
Research in theoretical particle physics
[DE92-016181] 01 p0154 N93-10605
Research program in experimental and theoretical high energy physics
[DE92-016219] 01 p0156 N93-10618
Particle physics experiments, 1991
[RAL-92-001] 02 p0444 N93-11687
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
Indiana University High Energy Physics Group, task C
[DE92-040458] 03 p0707 N93-13002
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
The global second level trigger for ZEUS
[ETN-92-92816] 05 p1297 N93-16479
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986
Status of QCD
[PREPRINT-842] 05 p1298 N93-16996
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
The b quark polarization at LEP
[PREPRINT-886] 05 p1290 N93-17022
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Research in elementary particle physics
[DE93-003153] 05 p1294 N93-17488
The study of multi-institutional collaborations in high-energy physics
[DE93-002337] 05 p1300 N93-17580
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1
[HU-SEFT-1991-09] 05 p1300 N93-17598
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Search for pp decay to neutral H decay to (neutral Z)(neutral Z) decay to (mu +)(mu -)(mu +)(mu -) at the LHC
[NOTA-INTERNA-970] 05 p1300 N93-17644
High energy physics
[DE93-002411] 06 p1659 N93-17911
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Strangeness signals in heavy ion collisions
[DE93-002935] 06 p1657 N93-19516
Software for parallel processing applications
[DE93-002510] 06 p1627 N93-19744
The electromagnetic calorimeter for the STAR experiment at RHIC
[DE93-002780] 07 p2062 N93-21480
Software engineering: What do experiments need?
[DE93-004767] 08 p2436 N93-22740
Theoretical studies in elementary particle physics
[DE93-005923] 08 p2481 N93-22883
High energy physics program at Texas A and M University
[DE93-005112] 08 p2485 N93-23324
Recent experiments on spin physics in high energy hadron interactions
[DE93-007900] 09 p2851 N93-25301
Topics in CP violation
[DE93-007615] 09 p2847 N93-25323
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
Collaborations among nuclear emulsion groups in Europe during the 1950's
[NOTA-INTERNA-973] 10 p3133 N93-27701
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Studies of high energy phenomena using muons
[DE93-009373] 10 p3140 N93-28367
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103
Elementary particle interactions
[DE93-005113] 11 p3568 N93-29764
Study of heavy-flavored particles
[DE93-011535] 11 p3569 N93-30128
Requirements for a system to analyze HEP events using database computing
[DE93-009960] 11 p3576 N93-30527
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242

HIGH ENERGY PROPELLANTS
High energy cast explosives based on dinitropropylacrylate
[AD-D015340] 02 p0273 N93-11045
Semi-propellants for ducted rockets 05 p1092 N93-17612

HIGH FIELD MAGNETS
Microstructural understanding and critical current optimization of advanced high field superconductors
[DE93-011046] 11 p3592 N93-28643

HIGH FLUX ISOTOPE REACTORS
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601

HIGH FREQUENCIES
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
Computer modeling of tactical high frequency antennas
[AD-A255176] 02 p0286 N93-12377
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
JARE data reports no. 170 (ionosphere 45). HF field strength data measured at Syowa Station, Antarctica from January to December 1988 03 p0652 N93-13432
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies 03 p0567 N93-14042
Preliminary observations of electromagnetic radiation from plasma in presence of a double layer
[TRITA-EPP-91-02] 05 p1312 N93-17636
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
A comparison of viscoelastic damping models 06 p1464 N93-18836
Observation of ionospheric modification using high power oblique HF transmissions
[AD-A258706] 07 p1998 N93-20378
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875
Fully automatic transmission of information via HF and comparison to satellite transmission 08 p2275 N93-23516
Propagation effects on HF direction finding 08 p2265 N93-23602
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
The single-gap hollow spherical dipole in non-conducting media
[AD-A260017] 08 p2273 N93-24460
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
A comparison of ionospheric propagation mode delay predictions from ADVANCED PROPHET 4.3 with measured data
[AD-A261782] 09 p2686 N93-26604
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875

HIGH GAIN
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314

HIGH INTENSITY LASERS
U HIGH POWER LASERS

HIGH LATITUDES
U POLAR REGIONS

HIGH LEVEL LANGUAGES
NT ADA (PROGRAMMING LANGUAGE)
NT C (PROGRAMMING LANGUAGE)
NT C++ (PROGRAMMING LANGUAGE)
Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502
Compiling Prolog to standard ML: Some optimizations
[AD-A256193] 05 p1232 N93-15841
Multiparadigm design environments
[AD-A257149] 05 p1231 N93-16031
Implementing higher-order algebraic specifications
[CWI-CS-R9150] 05 p1265 N93-16368
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
High-level parallel programming
[AD-A257977] 06 p1629 N93-18185

Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
Development of semantic metamodels for object orientation
[REPT-91-83] 07 p2038 N93-21037
Formal verification of a microcoded VIPER microprocessor using HOL
[NASA-CR-4489] 07 p2044 N93-21043
Parallel programming with PCN
[DE93-008087] 10 p3105 N93-26627
DEFMEF predesign document
[NLR-TP-91269-U] 10 p3098 N93-27543
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182
Applying high-level language paradigms to communications software for distributed systems
[AD-A263001] 11 p3528 N93-29463
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Implementation of parallel algorithms
[AD-A263126] 11 p3529 N93-29496
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822

HIGH MELTING COMPOUNDS
U REFRACTORY MATERIALS

HIGH PASS FILTERS
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160
Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473
Dual waveband signal processing system
[AD-D015493] 05 p1139 N93-16438

HIGH POLYMERS
Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203
Fiber development in Japan 07 p1834 N93-21130
Vacuum powder injector and method of impregnating fiber with powder
[NASA-CASE-LAR-14179-1] 09 p2668 N93-26101

HIGH POWER LASERS
NT NOVA LASER SYSTEM
Topics in high-intensity laser plasma interaction 02 p0450 N93-11191
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
The 1989 Scientific Report of the Laboratory for the Use of High Power Lasers
[ETN-92-92175] 02 p0317 N93-12023
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies 02 p0320 N93-12044
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Activity of the technical groups (LULI Palaiseau, France) 02 p0322 N93-12052
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Theory for a high power free electron laser and tactical applications
[AD-A255161] 02 p0323 N93-12405
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
Environmental assessment: OMEGA upgrade project at the Laboratory for Laser Energetics, University of Rochester
[DE92-040410] 04 p0886 N93-14907
Communications: Fiber-coupled external-cavity semiconductor high-power laser
[AD-A257386] 05 p1171 N93-15860
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A257419] 05 p1171 N93-15864
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Adaptive optics for laser power beaming 05 p1305 N93-17307
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Self-collimated unstable resonator semiconductor laser
[NASA-CASE-NPO-18386-1-CU] 06 p1540 N93-18277
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529
Studies of tunable, high power excimer lasers 08 p2309 N93-23597
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
A compact and versatile pulse generation and shaping subsystem for high energy laser systems
[DE93-007114] 09 p2711 N93-24961
Start-up imprinting and shock dynamics in laser-target interaction
[AD-A261384] 09 p2715 N93-26445
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451
All solid-state high power visible laser
[NASA-CR-193163] 11 p3436 N93-28623
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

HIGH PRESSURE
High pressure and synchrotron radiation studies of solid state electronic instabilities
[DE92-015661] 01 p0168 N93-10630
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
Strength-toughness requirements for thick-walled high pressure vessels
[AD-A253756] 01 p0095 N93-10750
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Theoretical studies of high-temperature superconductors and highly compressed hydrogen 02 p0292 N93-11833
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
High-temperature, high-pressure oxygen metering valve
[NASA-CASE-MSC-21823-1] 04 p0891 N93-14843
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
Piezoelectric response of precisely poled PVDF to shock compression greater than 10 GPa
[DE93-002469] 06 p1539 N93-19636
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
High-pressure droplet combustion studies 07 p1854 N93-20216
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316
An impact technique to accelerate flier plates to velocities over 12 km/s
[DE93-002467] 07 p1820 N93-21485
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
Modeling of the WSTF frictional heating apparatus in high pressure systems 09 p2648 N93-26079
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-28360
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882
Constitutive and damage material modeling in a high pressure hydrogen environment 12 p3696 N93-31577

HIGH PRESSURE OXYGEN
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039

HIGH Q
U Q FACTORS

HIGH RESOLUTION
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
High resolution observations: The state of the art and beyond 01 p0177 N93-10902
Planned observations at high resolution from space 01 p0177 N93-10903
Prospects with SIMURIS 01 p0179 N93-10904
Ultra-high observations of the prominence-corona transition region 01 p0180 N93-10908
Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911
Small scale processes in solar and stellar plasmas 01 p0181 N93-10917
Stellar and circumstellar evolution and activity 01 p0181 N93-10918
Prospects in stellar and galactic observations with SIMURIS 01 p0182 N93-10921
Magnetospheres and atmospheres of planets 01 p0182 N93-10922
Observation of solar flares at high resolution 01 p0182 N93-10923
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem 01 p0183 N93-10927
SUN: The Solar Ultraviolet Network 01 p0183 N93-10930
IFTS: The Imaging Fourier Transform Spectrometer 01 p0014 N93-10933

EUV complementary instrumentation for SIMURIS
01 p0014 N93-10938
Obtaining high resolution XUV coronal images
01 p0014 N93-10939
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
Motion errors and compensation possibilities
03 p0563 N93-13052
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
United Kingdom Infrared Telescope
03 p0743 N93-13273
A high-resolution radio survey of the galactic plane
03 p0744 N93-13480
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Method and apparatus for a high resolution, flat panel cathodoluminescent display screen
[AD-D015400] 04 p0868 N93-15107
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Nonlinear optical studies of resonant systems
[AD-A257001] 05 p1302 N93-16235
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
A ground-based search for lunar resources using high-resolution imaging in the infrared
05 p1386 N93-17241
A ROSAT high resolution x ray image of NGC 1068
05 p1360 N93-17402
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Immersion objective lenses in electron optics
[ETN-92-92799] 06 p1662 N93-18442
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
High-resolution observations of the spatial and velocity distribution of cometary hydrogen
06 p1703 N93-19135
Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
High range resolution radar target identification using the Prony model and hidden Markov models
[AD-A259210] 07 p1883 N93-20553
Extension of high-resolution schemes for systems to multiple dimensions
[DE93-003734] 07 p2057 N93-21966
Experimental demonstration of high resolution three-dimensional x ray holography
[DE93-004178] 08 p2302 N93-22072
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals
[DE93-004432] 08 p2228 N93-22724
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
A current assessment of single site locating technology 08 p2267 N93-23608
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates
08 p2270 N93-23626
The SPOT program 08 p2360 N93-23766
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
High resolution stereo imaging and data compression
09 p2753 N93-24867
Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
Prediction of global cloud cover with a very high resolution global spectral model
[AD-A261047] 09 p2785 N93-25777
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
09 p2878 N93-25798
VETA-1 x ray detection system
09 p2854 N93-26185
The x ray reflectivity of the AXAF VETA-I optics
09 p2855 N93-26192
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Quantitative high-resolution electron microscopy and holography
[ISBN-90-6275-752-9/CIP] 10 p3046 N93-27875
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data
11 p3614 N93-29234
Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy
12 p3868 N93-31350
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

HIGH REYNOLDS NUMBER

Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Compressible mixing layers with and without particles
[AD-A254854] 02 p0308 N93-12435
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods
03 p0592 N93-13953
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves
[NASA-TM-105918] 04 p0880 N93-15499
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047
Analysis of fluctuating static pressure measurements in a large high Reynolds number transonic cryogenic wind tunnel
[NASA-TM-108722] 10 p2947 N93-27142
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations
10 p2935 N93-27451
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV)
10 p2935 N93-27454
The development of a mixing layer under the action of weak streamwise vortices
[NASA-TM-106089] 11 p3418 N93-28947
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171
Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583

HIGH SPEED

A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields
01 p0016 N93-10010
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight
01 p0151 N93-10686
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
Multichip module high speed testing
[AD-A254825] 03 p0570 N93-12731
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
The NASA High-Speed Research Program
05 p1064 N93-16761
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Application of railgun principle to high-velocity hydrogen pellet injection for magnetic fusion reactor fueling
[DE93-004563] 06 p1456 N93-19496
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827
Ultrafast dynamics of quantum well lasers: Ultimate potential for high speed modulation
[AD-A258653] 07 p1910 N93-20365
Development of high speed rectifier diodes
07 p1798 N93-20463
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Flexible high speed CODEC 08 p2287 N93-22178
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515

High speed solid state circuit breaker
09 p2694 N93-25598
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
An investigation of photothermal velocimetry for application to transient, high-speed gas flows
09 p2579 N93-25720
Flash x ray system: Techniques and applications
[DE93-011477] 11 p3430 N93-28645
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037

HIGH SPEED CAMERAS
NT FRAMING CAMERAS
Research in the optical sciences
[AD-A253188] 01 p0158 N93-10446
Millisecond readout CCD camera
[DE93-000694] 05 p1167 N93-16359

HIGH SPEED FLIGHT
U FLIGHT
U HIGH SPEED

HIGH SPEED PHOTOGRAPHY
Characterization of deflagrating munitions by rotating prism high speed photography
[MRL-TR-91-43] 02 p0311 N93-11648
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46
[NASA-TM-107552] 02 p0223 N93-12151
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
High-voltage pulse generator capable of 2000 J at 10 kV
[AD-A262034] 11 p3407 N93-28999
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136

HIGH SPEED TRANSPORTATION
U RAPID TRANSIT SYSTEMS

HIGH STRENGTH
Metal alloy and method of preparation thereof
[AD-D015670] 09 p2652 N93-26234
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660

HIGH STRENGTH ALLOYS
NT HIGH STRENGTH STEELS
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699
Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Advanced industrial materials. An overview
07 p1845 N93-20623
Fundamental aspects in the design of passive alloys
[DE93-009028] 11 p3320 N93-28545
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799

HIGH STRENGTH STEELS
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
Prediction of fracture initiation in surface flaws
07 p1935 N93-20678
Transformation plasticity in ductile solids
[DE93-008636] 11 p3321 N93-28902
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069

HIGH TEMPERATURE
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications
01 p0015 N93-10006
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
EUV complementary instrumentation for SIMURIS
01 p0014 N93-10938
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Linear and nonlinear finite element analysis of laminated composite structures at high temperatures
03 p0623 N93-13009
Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
High temperature smart sensors and actuators
[AD-A256985] 05 p1158 N93-16517
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Design and test of a superconducting structure for high-velocity ions
[DE93-000513] 05 p1326 N93-17377
Radiation properties of high-temperature flames
06 p1485 N93-18477
Mechanism of diamond film growth
06 p1678 N93-18479
High temperature component analysis with expert systems
06 p1557 N93-18751
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU]
08 p2235 N93-22033
Three-dimensional laser window formation for industrial application 08 p2310 N93-22197
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
High temperature deformation characteristics of discontinuous fiber reinforced composites
[DE93-004466] 08 p2214 N93-24047
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
SiC microsensor with piezoresistive diamond sensing elements
[AD-A261346] 09 p2868 N93-26312
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics
[AD-A262403] 11 p3329 N93-28495
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190
Progress in speckle-shift strain measurement
12 p3693 N93-31558

HIGH TEMPERATURE AIR
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931

HIGH TEMPERATURE ALLOYS
U HEAT RESISTANT ALLOYS
HIGH TEMPERATURE ENVIRONMENTS
Materials: Toward the non-metallic engine
[PNR-90915] 02 p0209 N93-11019
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Compensated high temperature strain gage
[NASA-CASE-LAR-14776-1] 02 p0313 N93-12205
High temperature rectifiers and MOS devices in 6H-silicon carbide
[AD-A254725] 02 p0295 N93-12340
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
Temperature and heat flux measurements: Challenges for high temperature aerospace application 03 p0598 N93-13662
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat flux microsensor measurements and calibrations 03 p0599 N93-13665
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
Fabrication of thin film heat flux sensors 03 p0599 N93-13667
Gas temperature measurements using the dual-line detection Rayleigh scattering technique 03 p0599 N93-13668
High-temperature strain measurement techniques: Current developments and challenges 03 p0599 N93-13669
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
Palladium-chromium static strain gages for high temperatures 03 p0600 N93-13671
High temperature strain gage apparent strain compensation 03 p0600 N93-13672
Elastic and plastic strain measurement in high temperature environment using laser speckle 03 p0600 N93-13673
Determination of high temperature strains using a PC based vision system 03 p0601 N93-13674
Laser-based strain measurements for high temperature applications 03 p0601 N93-13675
Technology trends in high temperature pressure transducers: The impact of micromachining 03 p0601 N93-13676
SiC device development for high temperature sensor applications 03 p0601 N93-13677
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Very high temperature silicon on silicon pressure transducers 03 p0601 N93-13679
Developments on high temperature fiber optic microphone 03 p0601 N93-13680
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
Study of the different oxidation states of nickel base superalloys
[ETN-92-92555] 05 p1116 N93-17495
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
Principles of gas phase processing of ceramics during combustion 07 p1862 N93-20188
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
High-temperature flexure fixture for advanced ceramics
[PB92-222959] 07 p1860 N93-21030
Advanced lightweight ceramic candle filter module
[DE93-000211] 07 p1860 N93-21252
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
AFTERRISE: Deep body temperature following exercise
[AD-A259887] 08 p2421 N93-23984
Fiber optic microphone having a pressure sensing reflective membrane and a voltage source for calibration purpose
[NASA-CASE-LAR-14402-2-CU] 08 p2478 N93-24602
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Smart microsensors for high temperature applications
[AD-A260747] 09 p2710 N93-25677
Silicon carbide semiconductor technology for high temperature and radiation environments 10 p2978 N93-26928
Power management and distribution technology 10 p2983 N93-26978
Epoxy adhesives for field repair of composite structures 10 p2921 N93-27183
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266
HIGH TEMPERATURE FATIGUE
U THERMAL FATIGUE
HIGH TEMPERATURE FLUIDS
NT HIGH TEMPERATURE AIR
NT HIGH TEMPERATURE GASES
Vibrational spectroscopy of shock-compressed fluids 11 p3318 N93-30072
HIGH TEMPERATURE GAS COOLED REACTORS
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463
HIGH TEMPERATURE GASES
NT HIGH TEMPERATURE AIR
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
The interstellar medium of elliptical galaxies 03 p0757 N93-14071
High-temperature, high-pressure oxygen metering valve
[NASA-CASE-MSC-21823-1] 04 p0891 N93-14843
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2] 05 p1054 N93-16470
On the origin of the x ray background 05 p1374 N93-17149
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102] 06 p1526 N93-18129
Spectroscopic wear detector
[NASA-CASE-LEW-15200-1] 06 p1474 N93-18856
Fundamental processes in partially ionized plasmas
[AD-A259272] 07 p2072 N93-20600
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294
High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements
[NASA-CR-192518] 09 p2631 N93-26057
The ring around SN1987A 10 p3199 N93-26868
Gas in merging galaxies 10 p3202 N93-26886
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction 11 p3347 N93-30084
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184
HIGH TEMPERATURE LUBRICANTS
The development of new, low-cost perfluoroalkylether fluids with excellent low and high-temperature properties
[NASA-CR-190865] 06 p1492 N93-18229
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
HIGH TEMPERATURE MATERIALS
U REFRACTORY MATERIALS
HIGH TEMPERATURE NUCLEAR REACTORS
NT HIGH TEMPERATURE GAS COOLED REACTORS
Flow instability in particle-bed nuclear reactors 10 p2979 N93-26934
HIGH TEMPERATURE PLASMAS
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
Diagnostics of electron-heated solar flares 02 p0488 N93-11877
Atomic structure and spectral perturbations in dense and hot plasmas 02 p0321 N93-12049
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Nonlinear studies of m = 1 modes in high-temperature plasmas
[DE92-019395] 03 p0714 N93-12913
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
Establishment of an Institute for Fusion Studies
[DE92-040014] 03 p0717 N93-13502
Transformation of energy and momentum due to Landau damping in time
[IPPCZ-316] 04 p0988 N93-14813
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
New high temperature plasmas and sample introduction systems for analytical atomic emission and mass spectrometry
[DE92-040602] 05 p1308 N93-16145
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Development of coherent x ray lasers
[DE93-009288] 11 p3437 N93-29104
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
HIGH TEMPERATURE PROPELLANTS
Flow instability in particle-bed nuclear reactors 10 p2979 N93-26934
HIGH TEMPERATURE RESEARCH
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center 02 p0229 N93-12456

Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810
Elevated temperature crack growth
[NASA-CR-189191] 07 p1920 N93-19992
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Nuclear gas core propulsion research program 10 p2979 N93-26933
Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723

HIGH TEMPERATURE SUPERCONDUCTORS
NT BSCCO SUPERCONDUCTORS
NT YBCO SUPERCONDUCTORS
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Model for the reversible magnetization of high-(kappa) type-2 superconductors: Application to high-temperature superconductor
[DE92-016297] 01 p0167 N93-10609
High pressure and synchrotron radiation studies of solid state electronic instabilities
[DE92-015661] 01 p0168 N93-10630
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Development of high temperature superconductors for magnetic field applications
[DE92-015930] 01 p0168 N93-10733
Prototype superconducting planar transformers using high-Tc thin and thick films
[AD-A254230] 01 p0077 N93-10897
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors
[NPL-DES-116] 02 p0289 N93-11393
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Theoretical studies of high-temperature superconductors and highly compressed hydrogen 02 p0292 N93-11833
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691
Electrodeposition of high temperature superconductors
[AD-A255095] 03 p0720 N93-12758
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Bipolaronic charge density waves, polaronic spin density waves and high T(c) superconductivity
[DE92-017403] 03 p0720 N93-12853
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors 03 p0725 N93-13844
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption 04 p0989 N93-14172
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246
Transport in heterostructures and device in microwave and millimeter wave regimes
[AD-A255975] 04 p0858 N93-14408
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films
[AD-A256329] 04 p0869 N93-15194
Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444
Study of the glass formation of high temperature superconductors
[NASA-TM-108389] 04 p0997 N93-15500
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Design aspects of mid-size SMES using high temperature superconductors
[DE92-040723] 05 p1142 N93-15828
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet
[DE93-000448] 05 p1134 N93-15896
Nonlinear characteristics of superconducting transmission lines
[AD-A256388] 05 p1143 N93-15901
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors
[DE92-040760] 05 p1318 N93-16202
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218
Three-terminal devices of high-T(sub c) superconductors: A status report and future challenges
[DE93-000654] 05 p1319 N93-16358
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
Performance measurements of superconducting current leads having low helium boiloff rates
[DE92-040730] 05 p1146 N93-16392
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Process for single crystal growth of high T(c) superconductors
[AD-D015480] 05 p1320 N93-16485
Method of making Tl-Sr-Ca-Cu-Oxide superconductors comprising heating at elevated pressures in sealed container
[AD-D015482] 05 p1321 N93-16489
Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape
[DE92-041314] 05 p1321 N93-16533
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
The local structure of high-temperature superconductors
[DE93-000653] 05 p1324 N93-17177
Apical oxygen ions and the electronic structure of the high T(sub c) cuprates
[PREPRINT-828] 05 p1324 N93-17223
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
High temperature superconductivity
[AD-A257789] 05 p1151 N93-17696
Spacecraft design project: High temperature superconducting infrared imaging satellite
[NASA-CR-192036] 06 p1458 N93-17887
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
High-temperature superconducting electronics 06 p1523 N93-18464
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Study of magnetic bearings with high temperature superconductors, phase 3
[NASA-CR-192229] 06 p1551 N93-19378
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A259441] 07 p1888 N93-20125
Advanced UHV thin-film depcsition facility for research in superconductivity and superconducting electronics
[AD-A259089] 07 p1889 N93-20395
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 8: Aerothermodynamics Automation and Robotics (A/R) systems sensors, high-temperature superconductivity
[NASA-TM-108655] 07 p2085 N93-20775
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
High temperature superconducting bearings for mechanical coolers
[AD-A259316] 07 p1916 N93-21699
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Positron studies of defected metals, metallic surfaces
[DE93-006089] 08 p2499 N93-22051
Midwest Superconductivity Consortium
[DE93-006146] 08 p2276 N93-22054
Processing and microstructural development of Ag-clad Bi-Sr-Ca-Cu-O tapes
[DE93-004201] 08 p2500 N93-22078
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Electron-phonon driven spin frustration in multi-band Hubbard models: MX chains and oxide superconductors
[DE93-003697] 08 p2503 N93-22754
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
Quantum Monte Carlo simulation on Hubbard model for high temperature superconductivity 08 p2507 N93-23395
Low-temperature specific heat of several high-temperature superconductors in the superconducting and mixed states 08 p2507 N93-23397
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Recrystallization of amorphous and nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE93-004469] 08 p2508 N93-23950

High temperature superconductivity
[AD-A259692] 08 p2283 N93-24023
Practical superconductor development for electrical power applications
[DE93-007785] 08 p2286 N93-24519
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219
New ground states in unconventional superconductors 09 p2688 N93-25282
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
Analysis of the gap in high-temperature superconductors using photoemission spectroscopy 09 p2865 N93-25744
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
MSFC nuclear thermal propulsion technology program 10 p2979 N93-26932
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Phase separation and superconductivity in the U equals infinity limit of the extended multiband Hubbard model
[SSCL-PREPRINT-763] 10 p3151 N93-27580
Mean field phase diagram of two band tJ model for CuO2 layers
[SSCL-PREPRINT-764] 10 p3151 N93-27581
Bismuth based ceramic superconductors: An experimental study on crystal growth and vortex dynamics
[ETN-93-93665] 10 p3004 N93-27945
Superconductive fluctuations in the density of states and tunneling resistance in high T(sub c) superconductors
[SSCL-PREPRINT-756] 10 p3153 N93-28141
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-28360
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Symposium on high temperature superconductors: Materials research for emerging technologies
[AD-A263120] 11 p3409 N93-29495
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O
[DE93-010430] 11 p3596 N93-29868
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
The Road to Room Temperature Superconductivity Workshop
[AD-A264633] 11 p3561 N93-30519
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
A dynamical model of structural phase transition in La2CuO4
[DE93-605325] 11 p3602 N93-31025
Microscopic origin of marginal Fermi-liquid in strongly correlated spin systems
[DE93-608697] 12 p3827 N93-31163
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187
On the superconductivity existence within the Hubbard model
[DE93-613987] 12 p3830 N93-32280
BCS universal constants for high-temperature superconductivity
[DE92-642079] 12 p3830 N93-32405

HIGH TEMPERATURE TESTS
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Scanning electron microscopy of the effects of moisture and elevated temperature on the fibre/matrix bond in CFRP
[RAE-TM-MAT/STR-1183] 02 p0240 N93-11905
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
High-temperature flexure fixture for advanced ceramics
[PB92-222959] 07 p1860 N93-21030
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
Evaluation of a Schatz heat battery on a flexible-fueled vehicle. Phase 2
[PB92-204585] 07 p1893 N93-21377
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
An overview of elevated temperature damage mechanisms and fatigue behavior of a unidirectional SCS-6/Ti-15-3 composite
[NASA-TM-106131] 10 p2989 N93-26702
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860

HIGH THRUST
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188

HIGH VACUUM
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
Metals production 10 p3214 N93-27970
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247

HIGH VOLTAGES
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves
[DE92-015974] 02 p0293 N93-12089
Ultra-wideband generators
[DE92-018026] 02 p0293 N93-12113
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034
High performance pulse generator
[AD-D015378] 04 p0869 N93-15269
VLF/LF corona investigation
[AD-A258052] 05 p1141 N93-17709
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
The interaction of high voltage systems with the environments of the Moon and Mars
[NASA-TM-106107] 09 p2618 N93-26148
High-voltage pulse generator capable of 200 J at 5 kV
[AD-A262111] 10 p3031 N93-27673
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995

HIGHER ORDER LANGUAGES
U HIGH LEVEL LANGUAGES

HIGHLANDS
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Mantle plumes on Venus revisited 04 p1032 N93-14334
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Dielectric surface properties of Venus 04 p1039 N93-14360
Cytherean crustal bending at Salme Dorsa 04 p1039 N93-14364
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera 04 p1044 N93-14389
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503 06 p1735 N93-18788
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
The ancient lunar crust, Apollo 17 region 06 p1736 N93-18795
The Apollo 17 region: A compositional overview 06 p1736 N93-18796
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
The Apollo 17 samples: The Massifs and landslide 06 p1738 N93-18809
Impact melt breccias at the Apollo 17 landing site 06 p1739 N93-18810
Last chance at Taurus-Littrow 06 p1740 N93-18817

HIGHLY MANEUVERABLE AIRCRAFT
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

HIGHWAYS
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419

HIJACKING
U AIR PIRACY

HILBERT SPACE
NT SOBOLEV SPACE
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
Measurability of operator fields
[W-9204] 05 p1264 N93-16353
On the sum of accretive operators
[ETN-92-92794] 05 p1265 N93-16566
Supersymmetry in spin glass dynamics
[PREPRINT-843] 05 p1279 N93-16957
The uncertainty principle
[ETN-92-92533] 05 p1331 N93-17589
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Well-posedness and stabilizability of a viscoelastic equation in energy space
[PB93-111920] 07 p2056 N93-21474

The universal propagator 10 p3141 N93-27313
Measurability of operators
[W-9203] 10 p3125 N93-27930
The commutant lifting theorem for contractions on Krein spaces
[W-9107] 10 p3128 N93-28119
Notes on Krein spaces
[W-9109] 10 p3128 N93-28121
The commutant lifting theorem in the Krein space setting: A proof based on the coupling method
[W-9208] 10 p3128 N93-28125
On Radon-Nikodym derivatives of finitely additive measures induced by nonlinear transformations on Hilbert space
[MEMO-1063] 10 p3129 N93-28147
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
Nth roots of normal contractions
[DE92-644725] 11 p3557 N93-30985
Differential inclusions governed by convex and nonconvex perturbation of a sweeping process
[DE92-644668] 12 p3802 N93-31160
The nth roots with Hilbert-Schmidt defect operator of normal contractions
[DE93-608163] 12 p3803 N93-31288
The linear quadratic digital control of infinite-dimensional systems with unbounded input and output operators
[REPT-92-49] 12 p3798 N93-31483
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286

HILBERT TRANSFORMATION
The general theory of convolutional codes
11 p3385 N93-29595

HILLER MILITARY AIRCRAFT
U MILITARY AIRCRAFT

HILSCH TUBES
The interaction of modulated vortex pairs with a free surface 09 p2701 N93-25485
The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625

HIMAT
U HIGHLY MANEUVERABLE AIRCRAFT

HINDRANCE
U CONSTRAINTS

HINGE MOMENTS
U TORQUE

HINGED ROTOR BLADES
U HINGES
U ROTARY WINGS

HINGELESS ROTORS
U RIGID ROTORS

HINGES
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798

HIP (PROCESS)
U HOT ISOSTATIC PRESSING

HIPPARCOS SATELLITE
Status and early results of the Hipparcos astrometry project 08 p2533 N93-23879
The need of very accurate optical astrometry by interferometric techniques 12 p3844 N93-31751
Interferometer concepts for astrometry in space
12 p3691 N93-31788

HIPPOCAMPUS
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594

HISTIDINE
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116

HISTOGRAMS
Enhancement of video imagery by modified intensity-dependent spatial summation
[AD-A255689] 05 p1139 N93-16300
The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Scene segmentation of natural images using texture measures and back-propagation
[NASA-TM-104003] 09 p2803 N93-25235
The large-scale morphology of IRAS galaxies
10 p3176 N93-26733
Estimating scene properties by analyzing color histograms with physics-based models
[AD-A262727] 10 p3111 N93-28399

HISTOLOGY
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges
06 p1429 N93-19696
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697

HISTORIES
NT CASE HISTORIES
The NASA/National Space Science Data Center trapped radiation environment model program, 1964 - 1991
[NASA-TM-107993] 02 p0349 N93-11003
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
Evolution of the scientific paper
[DE92-019696] 03 p0735 N93-12994
The Lunar Roving Vehicle: Historical perspective
03 p0619 N93-14008
The V-22 Osprey: A case analysis
[AD-A256445] 04 p0791 N93-14601
Canada's role in pushing back the frontiers of space
04 p0806 N93-14928
The first particle: The electron
[NOTA-INTERNA-974] 05 p1295 N93-17646
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
History of geodesy 07 p1975 N93-20997
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
The discovery of the tau lepton
[DE93-004013] 07 p2063 N93-21718
GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168
Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799
Aeronautics in NACA and NASA
[NASA-NP-156] 09 p2574 N93-26422
An expert system shell for inferring vegetation characteristics: Changes to the historical cover type database (Task F)
[NASA-CR-193067] 10 p3063 N93-27072
Leonardian fluid mechanics in the manuscript F
[PB93-178853] 10 p3040 N93-27411
The prehistory of ESRO, 1959 - 1960
[ESA-HSR-1] 11 p3660 N93-29500
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009

HIV (VIRUS)
U HUMAN IMMUNODEFICIENCY VIRUS

HLLV
U HEAVY LIFT LAUNCH VEHICLES

HMD (DISPLAYS)
U HELMET MOUNTED DISPLAYS

HMX
Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
High energy cast explosives based on dinitropropylacrylate
[AD-D015340] 02 p0273 N93-11045
Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081
Thermal decomposition of HNIW and HNIW-Based formulations
[AD-A255613] 04 p0854 N93-15011
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708
ADN propellant diffusion flame structure
09 p2629 N93-26036
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Thermal decomposition of nitramines
11 p3318 N93-30065
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069

HNST
U HEXANITROSTILBENE

HODOGRAPHS
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889

HODOSCOPES
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment
[NOTA-INTERNA-994] 06 p1536 N93-17810
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849

HOGBACKS
U RIDGES

HOHLRAUMS
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760

HOHMANN TRAJECTORIES
U ELLIPTICAL ORBITS
U TRANSFER ORBITS

HOHMANN TRANSFER ORBITS
U ELLIPTICAL ORBITS
U TRANSFER ORBITS

HOLDERS
NT FLAME HOLDERS
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288
System for testing bearings
[NASA-CASE-MFS-28589-1] 11 p3445 N93-29618

HOLDING
Efficient visual grasping alignment for cylinders
[NASA-CR-191863] 06 p1663 N93-19346

HOLE BURNING
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895

HOLE DISTRIBUTION (ELECTRONICS)
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489

HOLE DISTRIBUTION (MECHANICS)
Predicting viscosities of aqueous salt mixtures
[DE93-002421] 06 p1483 N93-18523

HOLE GEOMETRY (MECHANICS)
On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates
04 p0901 N93-14587
Apparatus for checking threaded hole perpendicularity
[NASA-CASE-LEW-15444-1] 04 p0882 N93-14840
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591

HOLE MOBILITY
The III-V semiconductor quantum well lasers and related optoelectronic devices (on silicon). Oxide-defined semiconductor quantum well lasers and optoelectronic devices: Al-based III-V nativeoxide s
[AD-A255239] 04 p0885 N93-14667
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150

HOLES (ELECTRON DEFICIENCIES)
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption
04 p0989 N93-14172
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975

Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Study of the model of hole superconductivity in multiple band cases and its application to transition metals
08 p2511 N93-24195
Phase separation and superconductivity in the Kondo-like spin-hole coupled model
[SSCL-PREPRINT-759] 10 p3153 N93-28144
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

HOLES (MECHANICS)
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Open and filled hole static tensile strength characterization of metal matrix composite SCS-9/Beta21s
[AD-A258829] 06 p1480 N93-19091
Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes
07 p1930 N93-20645
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567

HOLLAND
U NETHERLANDS

HOLLOW CATHODES
Extended-testing of xenon ion thruster hollow cathodes
[NASA-CR-189227] 02 p0234 N93-12409
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171

HOLMIUM
NT HOLMIUM ISOTOPES
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films
[AD-A256329] 04 p0869 N93-15194
Holmium quasi-two level laser
[AD-D015706] 11 p3440 N93-30427

HOLMIUM ISOTOPES
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843

HOLOGRAMMETRY
Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096

HOLOGRAPHIC INTERFEROMETRY
Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127
The holographic interferometry: An industrial tool
[REPT-921-430-110] 07 p1906 N93-20932
Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290
Advanced technology development multi-color holography
[NASA-CR-192451] 09 p2711 N93-26154
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces
11 p3255 N93-29944

HOLOGRAPHIC SPECTROSCOPY
Computer-generated gratings
[ISBN-951-22-0785-0] 05 p1252 N93-17599
Imaging spectrometers using concave holographic gratings 11 p3434 N93-28783

HOLOGRAPHY
NT ACOUSTICAL HOLOGRAPHY
NT SPECKLE HOLOGRAPHY
Orientation and pair correlation at high density by superresolution holography
[AD-A254034] 01 p0085 N93-10239
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Geometric optics scaling laws for x-ray laser coherence
[DE92-040402] 05 p1301 N93-16102
Study of FES/CAST/HGS
[NASA-CR-190945] 05 p1114 N93-16711
Development of neural modules based on Si/PLZT technology for opto-electronic implementations of neural networks
[AD-A257937] 06 p1518 N93-18120
Holographic enhanced remote sensing system
[NASA-CR-190867] 06 p1565 N93-18230
Stimulated Brillouin scattering phase conjugation
06 p1664 N93-18471
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
A new concept for helmet mounted vision
06 p1609 N93-19767
Noncontact nondestructive tests
[ETN-93-93060] 07 p1919 N93-20929
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
Experimental demonstration of high resolution three-dimensional x ray holography
[DE93-004178] 08 p2302 N93-22072
Automated rendezvous and capture system
08 p2144 N93-22277
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis
09 p2880 N93-25807
Advanced technology development multi-color holography
[NASA-CR-192451] 09 p2711 N93-26154
Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566
Quantitative high-resolution electron microscopy and holography
[ISBN-90-6275-752-9/CIP] 10 p3046 N93-27875
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Development of coherent x ray lasers
[DE93-009288] 11 p3437 N93-29104
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835

HOLOMORPHISM
U ANALYTIC FUNCTIONS

HOMING DEVICES
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Cross-switched MICRAD seeker
[AD-D015676] 09 p2691 N93-26142
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381

HOMODYNE RECEPTION
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
Mountain top measurements of beta(9.2 microns)
07 p2009 N93-20099

HOMOGENEITY
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies
02 p0320 N93-12044
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique
04 p0995 N93-15312
On homogenization method and large deformations
07 p1845 N93-20634
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921

HOMOGENEOUS TURBULENCE
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
Turbulence modeling and experiments
05 p1153 N93-15796
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586
The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625

HOMOLOGY
Equivariant elliptic homology
[DE92-641338] 11 p3557 N93-30981
BRST cohomology ring in 2D gravity coupled to minimal models
[DE93-608192] 12 p3757 N93-31305

HOMOMORPHISMS
NT AUTOMORPHISMS
NT MONOIDS
NT SUBGROUPS
An isomorphism for algebra of distributions with compact support on Lie groups
[DE92-603605] 02 p0427 N93-12176
Equivariant elliptic homology
[DE92-641338] 11 p3557 N93-30981

HOMOTOPY THEORY
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems
[NASA-CR-4503] 08 p2466 N93-22672
HONEYCOMB CORES
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
HONEYCOMB STRUCTURES
NT HONEYCOMB CORES
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules 10 p3066 N93-27962
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems
[DE93-007610] 11 p3281 N93-30509
Reusable cryogenic liquid rocket propellant tank
[NASA-CASE-LAR-14172-1] 12 p3692 N93-31295
HONG KONG
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
HOOP COLUMN ANTENNAS
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
HORIZON
Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display
[AD-A264401] 11 p3508 N93-30167
HORIZON SCANNERS
TechSAT attitude control 10 p2924 N93-27197
HORIZON SENSING
U HORIZON SCANNERS
HORIZONTAL BRANCH STARS
A study of the structure, evolution and observation of Horizontal Branch stars
[ISBN-0-315-62655-0] 03 p0751 N93-13374
HORIZONTAL FLIGHT
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
HORIZONTAL ORIENTATION
AudiMir: Directional hearing at microgravity 08 p2159 N93-24365
HORIZONTAL SPACECRAFT LANDING
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
HORIZONTAL STABILIZERS
U STABILIZERS (FLUID DYNAMICS)
HORIZONTAL TAIL SURFACES
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
HORIZONTALLY POLARIZED SHEAR WAVES
U SH WAVES
HORMONE METABOLISMS
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133
HORMONES
NT ALDOSTERONE
NT PITUITARY HORMONES
NT PROSTAGLANDINS
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421
HORN ANTENNAS
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Progress in integrated-circuit horn antennas for receiver applications. Part 1: Antenna design 10 p3015 N93-27755
Progress in integrated-circuit horn antennas for receiver applications. Part 2: A 90 GHz quasi-integrated horn antenna receiver 10 p3016 N93-27756
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895
HORSESHOE VORTICES
A study of the wall-pressure fluctuations downstream of a blade-wall junction
[ECL-91-07] 02 p0299 N93-11363
HOSPITALS
Micro-organisms, cytotoxins and radioactive preparation: Risks at rescue operations in hospital environment
[FOA-A-40065-4.5] 12 p3772 N93-32423
HOT AIR
U HIGH TEMPERATURE AIR
HOT CATHODES
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
HOT CORROSION
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
HOT ELECTRONS
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
HOT EXTRUDING
U EXTRUDING
HOT FORMING
U HOT WORKING
HOT GAS SYSTEMS
U HIGH TEMPERATURE GASES
HOT GASES
U HIGH TEMPERATURE GASES
HOT ISOSTATIC PRESSING
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
HIP consolidation of aluminum-rich intermetallic alloys and their composites
[NAWCADWAR-92003-60] 04 p0845 N93-14726
Superstrength metal composite material and process for making the same
[AD-D015379] 04 p0836 N93-15246
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Solid-particle erosion of in-situ reinforced Si3Ni4
[DE92-014868] 08 p2209 N93-22911
Effects of processing parameters on the microstructure of a 30 w/o SiCw-2080 aluminum composite
[NRC-IAR-CR-20] 08 p2216 N93-24651
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Mechanical alloying processing and application to development of structural materials
[AD-A261251] 09 p2652 N93-26264
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
HOT JET EXHAUST
U HIGH TEMPERATURE GASES
U JET EXHAUST
HOT JETS
U JET FLOW
HOT PLASMAS
U HIGH TEMPERATURE PLASMAS
HOT PRESSING
NT HOT ISOSTATIC PRESSING
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929

Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
Some factors influencing the fatigue properties of boron strengthened aluminum based composite materials 07 p1924 N93-20355
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113

HOT STARS
NT A STARS
NT B STARS
NT BLUE STARS
NT O STARS
NT WHITE DWARF STARS
NT WOLF-RAYET STARS
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet 02 p0482 N93-11373
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars 04 p1050 N93-14242
The effects of rotation on the winds from hot stars 09 p2894 N93-25620
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883
UV interferometry of hot stars 12 p3848 N93-31774

HOT SURFACES
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Computer-aided surface regression analysis 10 p2927 N93-27217
Transient cooling of a hot surface by droplets evaporation
[PB93-189421] 12 p3722 N93-31114

HOT WORKING
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396

HOT-FILM ANEMOMETERS
Hot film wall shear instrumentation for compressible boundary layer transition research
[NASA-CR-191360] 06 p1404 N93-17855
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858
The experimental study of transition and leading edge contamination of swept wings
[LIB-TRANS-2197] 10 p2930 N93-27274

HOT-WIRE ANEMOMETERS
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
Single and cross hot wire anemometry in incompressible flow
[LR-663] 05 p1167 N93-16280
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858

HOT-WIRE FLOWMETERS
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface 09 p2705 N93-25746

HOT-WIRE TURBULENCE METERS
U HOT-WIRE FLOWMETERS

HOUSINGS
NT COWLINGS
NT RADOMES
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

HOVERING
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover 03 p0497 N93-14035
Stability of elastically tailored rotor blades 04 p0791 N93-14828
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities
[AD-A256921] 05 p1060 N93-16186
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099
Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle
[NASA-TM-4419] 10 p2928 N93-27032
Current projects in Fuzzy Control 12 p3688 N93-31442

HOVERING ROCKET VEHICLES
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405
Lunar lava tube sensing 05 p1391 N93-17270

HOVERING STABILITY
Stability of elastically tailored rotor systems
[AD-A260550] 08 p2132 N93-24241

HR DIAGRAM
U HERTZSPRUNG-RUSSELL DIAGRAM

HTGR
U HIGH TEMPERATURE GAS COOLED REACTORS

HTPB PROPELLANTS
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
ADN propellant diffusion flame structure 09 p2629 N93-26036
Regression rate mechanism in a solid fuel ramjet 10 p2922 N93-27185
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188
Determination of gas phase species and temperature profiles above solid propellants 11 p3346 N93-30080

HTSC (SUPERCONDUCTORS)
U HIGH TEMPERATURE SUPERCONDUCTORS

HUBBLE DIAGRAM
The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933

HUBBLE SPACE TELESCOPE
Hubble Space telescope thermal cycle test report for large solar array samples with BSFR cells (Sample numbers 703 and 704)
[NASA-TM-108373] 01 p0104 N93-10809
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Support and servicing requirements for large observatories in space 03 p0746 N93-13589
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Performance characteristics of STIS detectors
[NASA-CR-191636] 04 p0888 N93-14915
Hubble space telescope: The GO and GTO observing programs, version 3.0
[NASA-CR-191290] 05 p1359 N93-16949
An algorithm to quantify the performance of the JOVE program 05 p1254 N93-17306
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations 06 p1634 N93-18660
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems 06 p1638 N93-18687
An application of the Observer/Kalman Filter Identification (OKID) technique to Hubble flight data 06 p1462 N93-18825
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
Marshall Space Flight Center battery activity 07 p1983 N93-20494
Charge retention test experiences on Hubble Space Telescope nickel-hydrogen battery cells 07 p1984 N93-20504
Hubble Space Telescope nickel hydrogen battery system briefing 07 p1985 N93-20513
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306
Solar system observations with HST 08 p2534 N93-23889
Archival and analysis of Hubble Space Telescope data 08 p2535 N93-23894
HST imaging of the binary pulsar PSR1913+16 08 p2536 N93-23902
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode 09 p2605 N93-24724
Hubble Space Telescope: The archived exposures catalog, version 2.0
[NASA-CR-192896] 09 p2883 N93-26423
Mergers at z = 1 10 p3192 N93-26832
Digital image compression using artificial neural networks 11 p3624 N93-28811

HUGHES AIRCRAFT
NT AH-64 HELICOPTER
The consequence of joint failures 08 p2212 N93-23941

HUL
U HARDWARE UTILIZATION LISTS

HULLS (STRUCTURES)
NT SHIP HULLS
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV) 10 p2935 N93-27454
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 1
[AD-A263813] 11 p3335 N93-29886

HUMAN BEHAVIOR
The locator system for wandering individuals
[NASA-TM-104754] 02 p0388 N93-11649
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326

Moon Park: A research and educational facility
03 p0519 N93-14015
Information-seeking behavior during the decision-making process: A case study
04 p1000 N93-14206
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
Instructions and advance training measures for the improvement of human reliability
[MBB-FE-313-S-PUB-0500] 07 p2025 N93-21402
Why do we see three-dimensional objects?
[AD-A259892] 08 p2424 N93-23986
Method of encouraging attention by correlating video game difficulty with attention level
[NASA-CASE-LAR-15022-1] 10 p3085 N93-28128
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Visualization techniques for analyzing control of human movement: Affine mappings between multi-dimensional spaces 11 p3508 N93-30204
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255
Personal information management in computer science research
[ISBN-0-315-73783-2] 12 p3842 N93-32325

HUMAN BEINGS
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Absence of protective immunity against diphtheria in a large proportion of young adults
02 p0380 N93-11302
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Environmental health discipline science plan
[NASA-TM-108042] 07 p2024 N93-21369
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Adaptive filters for monitoring localized brain activity from surface potential time series
[DE93-003795] 08 p2420 N93-22774
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
The saturating contact rate in marriage- and epidemic models
[CWI-AM-R9203] 10 p3124 N93-27297
The cumulative formulation of (physiologically) structured population models
[CWI-AM-R9205] 10 p3124 N93-27298
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199
Man, technology, society and development: From the hunters and gatherers to the first industrial revolution 3.5 million years ago into AD1760
[ISBN-9-03-860102-6] 12 p3833 N93-31543

HUMAN BODY
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
A review of models of the human temperature regulation system
[AD-A258023] 06 p1595 N93-17918
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident?
06 p1423 N93-19664
Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667
Improving manikin biofidelity 06 p1424 N93-19668
The design and use of automotive crash test dummies
06 p1424 N93-19669
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
New approach to the interaction of cosmic rays with nuclei in spacecraft shielding and the human body
[DE93-006263] 08 p2559 N93-22544
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

HUMAN CENTRIFUGES
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458

HUMAN ENGINEERING
U HUMAN FACTORS ENGINEERING

HUMAN FACTORS ENGINEERING
NT MOTION SIMULATION
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Design of instrument approach procedure charts: Comprehension speed of missed approach instructions coded in text or icons
[PB92-205673] 02 p0204 N93-11252
A cognitive approach to the design of information graphics
[AD-A252692] 02 p0474 N93-11353
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
System for generating dynamic video imagery for human factors research
[AD-A248675] 02 p0388 N93-11743
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Evaluation of multilayer mask concept for RESPO 21
[AD-A253392] 02 p0389 N93-12079
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
Measures of user-system interface effectiveness: Assessment of structured judgment evaluation techniques for graphical, direct-manipulation style interfaces
[AD-A254493] 03 p0677 N93-12576
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Human perceptual deficits as factors in computer interface test and evaluation
[DE92-019124] 03 p0677 N93-12712
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Occupational ergonomics in space
03 p0680 N93-14013
Moon Park: A research and educational facility
03 p0519 N93-14015
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices
04 p1000 N93-14205
Mapping thoughts: Visual interfaces for information retrieval 04 p1000 N93-14208
Institute for the Study of Human Capabilities
[AD-A256091] 04 p0938 N93-14427
A voyage to Mars: A challenge to collaboration between man and machines 04 p0777 N93-14614
Bibliography of scientific publications of the Naval Biodynamics Laboratory
[AD-A255952] 04 p1051 N93-14657
Compliant walker
[NASA-CASE-GSC-13348-2] 04 p0934 N93-14708
Workshop on Aeronautical Decision Making (ADM). Volume 2: Plenary Session With Presentations and Proposed Action Plan
[DOT/FAA/RD-92/14-VOL-2] 04 p0785 N93-15013
Does cockpit management training reduce aircrew error? 04 p0785 N93-15014
Cockpit decision making 04 p0786 N93-15015
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
A cognitive model for training decision making in aircrews 04 p0786 N93-15020
Elements of a theory of natural decision making
04 p0786 N93-15021
Taxonomy of flight variables 04 p0787 N93-15022
Shared mental models and crew decision making
04 p0787 N93-15023
Embedded ADM reduces helicopter human error accidents 04 p0787 N93-15024
Proposed action plan to improve ADM effectiveness, part 3: Developing a new ADM paradigm on which to build advanced or expert decision making training
04 p0787 N93-15026
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse
04 p0955 N93-15551
Designing video annotation and analysis systems
04 p0955 N93-15552
FAA Technical Center Aeronautical Data Link Research Plan
[DOT/FAA/CT-92/23] 05 p1135 N93-15698
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
Gloved operator performance study
[AD-A256894] 05 p1227 N93-16048
Directory of design support methods
[AD-A256987] 05 p1227 N93-16258
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
Cognitive and affective components of mental workload: Understanding the effects of each on human decision making behavior 05 p1226 N93-16783
Long-duration isolation and confinement: Human factors issues and research requirements
05 p1223 N93-16808
Portable seat lift
[NASA-CASE-MFS-28610-1] 05 p1228 N93-17045

Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Enabler operator station — lunar surface vehicle
[NASA-CR-192067] 06 p1546 N93-18050
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
Cognitive engineering models in space systems
[NASA-CR-192001] 06 p1606 N93-18517
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653
Human factors in aircraft accident investigation 06 p1422 N93-19654
How do we investigate the human factor in aircraft accidents? 06 p1422 N93-19655
A method for investigating human factor aspects of military aircraft accidents 06 p1422 N93-19656
The human factor problem in the Canadian Forces aviation 06 p1422 N93-19657
Underlying causes of accidents: Casual networks 06 p1422 N93-19658
Aid in investigation by figure animation 06 p1422 N93-19659
Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660
Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665
Computer aided methods for simulating occupant response to impact using OASYS DYNA3D 06 p1424 N93-19666
Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667
Improving manikin biofidelity 06 p1424 N93-19668
The design and use of automotive crash test dummies 06 p1424 N93-19669
An improved anthropometric test device 06 p1424 N93-19670
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat 06 p1424 N93-19671
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present 06 p1425 N93-19673
F-16 accidents: The Norwegian experience 06 p1425 N93-19674
Category A F-16 accidents in the Belgian Air Force 06 p1425 N93-19675
Air accidents in the French Air Force 06 p1425 N93-19676
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Underlying causes of human error in US Army rotary wind accidents 06 p1425 N93-19678
Epidemiology of United States Air Force spatial disorientation accidents: 1990-1991 06 p1425 N93-19679
Disorientation and flight safety: A survey of UK Army aircrew 06 p1426 N93-19680
Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case 06 p1426 N93-19681
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface
[AGARD-CP-521] 06 p1607 N93-19757
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts? 06 p1607 N93-19759
Advanced cockpit-mission and image management 06 p1607 N93-19760
Aircrew acceptance of automation in the cockpit 06 p1608 N93-19761
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
Developing virtual cockpits 06 p1608 N93-19764
Panoramic cockpit displays 06 p1608 N93-19765
A new concept for helmet mounted vision 06 p1609 N93-19767
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Multi-function visor 06 p1609 N93-19770
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft 06 p1610 N93-19772
Multimodal dialog system for future cockpits 06 p1610 N93-19773
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
Management of avionics data in the cockpit 06 p1611 N93-19777
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
The integration of advanced cockpit and systems design 06 p1611 N93-19779
CVA, cockpit design and development tool 06 p1611 N93-19780
Man-machine interface with simulated automatic target recognition systems 06 p1611 N93-19781
Liquid crystal displays replacing the CRT and CLE of future cockpits 06 p1447 N93-19783
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Lessons learned from an historical look at flight testing 06 p1442 N93-19904
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm 07 p1823 N93-20167
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition
[NASA-TP-3297] 07 p2026 N93-20319
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Space human factors discipline science plan
[NASA-TM-108023] 07 p2026 N93-21370
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Sampling explosives on airline passengers 07 p1770 N93-21896
The Data Egg: A new solution to text entry barriers 08 p2530 N93-22192
Operator Performance Support System (OPSS) 08 p2429 N93-22195
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 5: Human Support
[NASA-TM-108653] 08 p2518 N93-22465
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561
Controller evaluation of initial terminal data link ATC services: Mini study 3
[DOT/FAA/CT-92/18] 08 p2262 N93-23046
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129
The effects of display and response codes on information processing in an identification task
[AD-A259531] 08 p2427 N93-23451
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Comparative evaluation of a monocular head mounted display device versus a flat screen display device in presenting aircraft maintenance technical data
[AD-A259684] 08 p2427 N93-23660
Total Quality Management: Good enough for government work
[AD-A259847] 08 p2520 N93-23954
An innovative method for hand protection from extreme cold using heat pipe
[AD-A259720] 08 p2428 N93-24128
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
Crashworthiness of composite seats for civil aircraft 09 p2582 N93-24773
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531
A framework for the design of usable electronic text 09 p2877 N93-25754
Measures of user-system interface effectiveness: An encoding scheme and indicators for assessing the usability of graphical, direct-manipulation style user interfaces
[AD-A260606] 09 p2801 N93-25840
Human Factors in Aviation Maintenance, phase 2
[DOT/FAA/AM-93/5] 09 p2802 N93-26089
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495
Comparison of portable crewmember protective breathing equipment (CPBE) designs
[DOT/FAA/AM-93/6] 10 p3086 N93-27121
Man-systems distributed system for Space Station Freedom 10 p2966 N93-27788
EVA/manned systems 10 p2966 N93-27789
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790
Evolving EVA system capability for the evolving Space Station Freedom requirements 10 p2966 N93-27791
EVA and telerobot interaction 10 p2967 N93-27792
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Man-systems integration and the man-machine interface 10 p2967 N93-27795
Manned systems technology discipline 10 p2972 N93-27860
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
Considerations for lunar colony communications systems 10 p3030 N93-27983
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
A new class of mission support for combat air-crew 11 p3501 N93-28854
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Operator and automation capability analysis: Picking the right team 11 p3503 N93-28864
Ergonomic development of digital map displays 11 p3503 N93-28866
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack 11 p3503 N93-28867
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
NASA supporting studies for microgravity research on eye movements
[NASA-CR-193233] 11 p3493 N93-29041
Anthropometric data from launch and entry suited test subjects for the design of a recumbent seating system
[NASA-TM-104769] 11 p3505 N93-29044
Exercise/recreation facility for a lunar or Mars analog 11 p3230 N93-29733
Mars habitat 11 p3233 N93-29747
Selenia: A habitability study for the development of a third generation lunar base 11 p3233 N93-29748
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
Handedness and motor programming effects of manual control and movement
[AD-A264022] 11 p3499 N93-30027
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158

Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659
Probabilistic simulation of the human factor in structural reliability 12 p3696 N93-31573
System engineering concept demonstration, interface standards studies, volume 4
[AD-A265470] 12 p3791 N93-32024
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267
Health maintenance facility system effectiveness testing
[NASA-TM-104737] 12 p3783 N93-32328

HUMAN FACTORS LABORATORIES
Columbus payload requirements in human physiology 08 p2163 N93-24386
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging 10 p3086 N93-27848

HUMAN IMMUNODEFICIENCY VIRUS
HIV infection in the nineties 02 p0377 N93-11290
AIDS/HIV in the US Military 02 p0377 N93-11291
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force 02 p0377 N93-11292
Silent HIV infection 02 p0378 N93-11293
HIV variability and perspectives of a vaccine 02 p0378 N93-11294
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations 02 p0379 N93-11297
Relating cognitive function to military aviator performance in early HIV infection 02 p0379 N93-11298
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function 02 p0379 N93-11299
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736

HUMAN PATHOLOGY
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Growth factor involvement in tension-induced skeletal muscle growth
[NASA-CR-193023] 10 p3083 N93-27113

HUMAN PERFORMANCE
NT ASTRONAUT PERFORMANCE
NT OPERATOR PERFORMANCE
NT PILOT PERFORMANCE
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function 02 p0379 N93-11299
A cognitive approach to the design of information graphics
[AD-A252692] 02 p0474 N93-11353
System for generating dynamic video imagery for human factors research
[AD-A248675] 02 p0388 N93-11743
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
Mission Control Center enhancement opportunities in the 1990's 02 p0396 N93-11942
Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Adaptive automation and human performance. 3: Effects of practice on the benefits and costs of automation shifts
[AD-A254381] 03 p0677 N93-12860
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
Sleep inertia: Is there a worst time to wake up?
[AD-A256602] 04 p0934 N93-14240
Performance of color-dependent tasks of air traffic control specialists as a function of type and degree of color vision deficiency
[AD-A256614] 04 p0788 N93-14275
Institute for the Study of Human Capabilities
[AD-A256091] 04 p0938 N93-14427
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
Elements of a theory of natural decision making 04 p0786 N93-15021
Proposed action plan to improve ADM effectiveness, part 3: Developing a new ADM paradigm on which to build advanced or expert decision making training 04 p0787 N93-15026
The effect of pain on task performance: A review of the literature
[AD-A254336] 04 p0938 N93-15216
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Night vision manual for the flight surgeon
[AD-A257059] 05 p1227 N93-15710
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108
Development and enhancement of a model of performance and decision making under stress in a real life setting
[AD-A255699] 05 p1226 N93-16111
NASA/NSF Workshop on Antarctic Research 05 p1222 N93-16803
Infectious disease 05 p1222 N93-16804
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
Some effects of time usage patterns on the productivity of engineers 05 p1343 N93-17301
Automatic information processing and high performance skills: Individual differences and mechanisms of performance improvement in search-detection and complex tasks
[AD-A257711] 05 p1226 N93-17684
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
Comparing performance on implicit memory tests
[AD-A258168] 06 p1602 N93-17921
Spatio-temporal masking: Hyperacuity and local adaptation
[AD-A257934] 06 p1595 N93-18006
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027
Design requirements for force reflecting master controllers 06 p1605 N93-18035
Cognitive engineering models in space systems
[NASA-CR-192001] 06 p1606 N93-18517
Human performance assessment methods
[AGARD-AG-308-ADD] 06 p1603 N93-18868
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
The effects of iconic presentation on individuals
[AD-A258785] 06 p1603 N93-18949
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Training evaluation final report 06 p1682 N93-19405
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
Underlying causes of human error in US Army rotary wind accidents 06 p1425 N93-19678
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
The influence of individual sensivity to stress on the behavior (attitude and performance) of avoidance of an accident 06 p1430 N93-19705
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts? 06 p1607 N93-19759
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition
[NASA-TP-3297] 07 p2026 N93-20319
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Acquisition and production of skilled behavior in dynamic decision-making tasks
[NASA-CR-192361] 07 p2025 N93-20908
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
3D object recognition: Symmetry and virtual views
[AD-A259738] 08 p2460 N93-23474
Comparative evaluation of a monocular head mounted display device versus a flat screen display device in presenting aircraft maintenance technical data
[AD-A259684] 08 p2427 N93-23660
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations
[AD-A259625] 08 p2422 N93-24021
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067
Training high performance skills using above real-time training
[NASA-CR-192616] 08 p2425 N93-24192
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions 08 p2165 N93-24398
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815

Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
Investigation of the effects of Extra Vehicular Activity (EVA) and Launch and Entry (LES) gloves on performance 09 p2803 N93-26061
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153
Aircraft accident report: Controlled collision with terrain GP Express Airlines, Inc., Flight 861, A Beechcraft C99, N118GP, Anniston, Alabama, 8 June 1992
[PB93-910403] 10 p2940 N93-27035
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
Method of encouraging attention by correlating video game difficulty with attention level
[NASA-CASE-LAR-15022-1] 10 p3085 N93-28128
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
The dynamics of visual representation, attention, encoding, and retrieval processes
[AD-A264674] 11 p3500 N93-30543
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575
The quality assurance liaison: Combined technical and quality assurance support
[DE93-008725] 11 p3450 N93-30636
Probabilistic simulation of the human factor in structural reliability 12 p3696 N93-31573
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011
A decision-theoretic approach to the display of information for time-critical decisions: The Vista project 12 p3784 N93-32152

HUMAN REACTIONS
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Noise emission of low flying military airplanes 01 p0149 N93-10675
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
Modeling human response errors in synthetic flight simulator domain 06 p1612 N93-19464
Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts? 06 p1607 N93-19759
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Armstrong Laboratory space visual function tester program 11 p3267 N93-28739
The meteorological database
[DE93-007289] 11 p3481 N93-29054
Reaction to aircraft noise near general aviation airfields
[DORA-8203] 12 p3817 N93-32377

HUMAN RELATIONS
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417

HUMAN RESOURCES
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
Fiscal Year 1991 highlights
[NSF-92-23] 03 p0731 N93-13702
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
Space education: A self-perservation strategy for the Canadian space industry 04 p0808 N93-14937
EHR directory of awards, FY 1990
[NSF-92-75] 06 p1746 N93-17854
Underrepresented groups 08 p2517 N93-23146
Pipeline issues 08 p2517 N93-23148
Space support forum 08 p2153 N93-23160
Air Force construction automation/robotics 12 p3715 N93-32110

HUMAN TOLERANCES
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
Noise emission of low flying military airplanes 01 p0149 N93-10675
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations
[AD-A259625] 08 p2422 N93-24021
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651

HUMAN WASTES
NT FECES
NT URINE
Development of a pyrolysis waste recovery model with designs, test plans, and applications for space-based habitats 09 p2803 N93-26076

HUMAN-COMPUTER INTERFACE
U MAN-COMPUTER INTERFACE

HUMIDITY
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data 02 p0365 N93-12182
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471

HUMIDITY MEASUREMENT
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Middle atmosphere water vapour 03 p0667 N93-13892

HUNGARY
Remote sensing in Czechoslovakia and Hungary: An analysis of the possible co-operation of The Netherlands with Czechoslovakia and Hungary in the field of remote sensing
[BCRS-92-12] 11 p3461 N93-29466

HURRICANES
Hurricane Research Division fiscal year 1991 programs: Fiscal year 1992 projections
[PB92-138320] 02 p0367 N93-11242
Diagnostic report of the National Hurricane Center: October and November 1990, volume 3, number 3
[PB91-242297] 02 p0370 N93-11888
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach 06 p1588 N93-19411
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
A procedure to reduce northward drift of tropical storms in a numerical model
[PB92-226406] 07 p2013 N93-21290
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
A dynamical theory for hurricane spiral bands 09 p2782 N93-25352
Typhoon prediction (recurvature - 1990 experiment)
[AD-A260673] 09 p2786 N93-25892
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Including maximum sustained wind speed in a time series model to forecast hurricane movement
[AD-A262510] 10 p3078 N93-27663
Rhode Island hurricanes and tropical storms: A fifty-six year summary, 1936-1991
[PB93-162006] 11 p3481 N93-29198
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758

HUYGENS PRINCIPLE
DSD Technology: A detonation reactive Huygens code
[LA-12235-MS] 09 p2706 N93-25987

HYBRID CIRCUITS
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Development of high density hybrid IC 07 p1798 N93-20469
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Analysis of electrothermal interactions in power semiconductor modules
[ETN-93-93800] 11 p3591 N93-28470

HYBRID COMBUSTION
U HYBRID PROPELLANT ROCKET ENGINES

HYBRID COMPOSITES
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Method for producing hybrid graphite composite
[NASA-CASE-LEW-15241-2] 12 p3700 N93-31296

HYBRID COMPUTERS
Coincident pulse techniques for hybrid electronic optical computer systems
[AD-A258692] 07 p2028 N93-20375

HYBRID NAVIGATION SYSTEMS
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786

HYBRID PROPELLANT ROCKET ENGINES
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
Hybrid rocket propulsion 08 p2175 N93-22102
Hybrid rocket fuel combustion study 09 p2626 N93-26019

HYBRID PROPULSION
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Hybrid rocket performance 05 p1095 N93-17295
Research on advanced transportation systems 07 p1789 N93-20414
Hybrid rocket propulsion 08 p2175 N93-22102
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689

Development of test procedures for hybrid/electric vehicles
[DE93-005179] 08 p2316 N93-23336
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311

HYBRIDS (BIOLOGY)
U GENETIC ENGINEERING

HYDRATES
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments
[ITN-93-85183] 05 p1105 N93-16854
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230

HYDRATION
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Comparison of total body water estimates from O-18 and bioelectrical response prediction equations
[NASA-TP-3299] 08 p2421 N93-23734
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars
12 p3864 N93-31948

HYDRAULIC ACTUATORS
U ACTUATORS
U HYDRAULIC EQUIPMENT

HYDRAULIC CONTROL
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
In-line hydraulic dashpot
[AD-D015528] 07 p1914 N93-20776
Pneumatic actuator with hydraulic control
[AD-D015652] 09 p2719 N93-26244
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462

HYDRAULIC EQUIPMENT
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
Three position power cylinder
[AD-D015393] 04 p0894 N93-15461
The design concept of the 6-degree-of-freedom hydraulic shaker at ESTEC 04 p0820 N93-15600
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives
06 p1507 N93-18917
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
Service loading of work attachments of hydraulic excavators 07 p1924 N93-20351
Computer aided planning of laboratory tests of excavator attachments 07 p1924 N93-20352
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
In-line hydraulic dashpot
[AD-D015528] 07 p1914 N93-20776
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model
09 p2678 N93-26119
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112
Siphon breaker design requirements
[DE93-011799] 11 p3425 N93-30132
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581

HYDRAULIC FLUIDS
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
The development of new, low-cost perfluoroalkylether fluids with excellent low and high-temperature properties
[NASA-CR-190865] 06 p1492 N93-18229
Chlorotrifluoroethylene decay in the atmosphere: Controlled-environment chamber studies
[AD-A259902] 08 p2388 N93-23989

HYDRAULIC HEATING SOURCES
U HEAT SOURCES
U HYDRAULIC EQUIPMENT

HYDRAULIC JETS
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121

HYDRAULIC PUMPS
U HYDRAULIC EQUIPMENT
U PUMPS

HYDRAULIC SYSTEMS
U HYDRAULIC EQUIPMENT

HYDRAULIC TEST TUNNELS
Wind tunnel tests and CFD in Fuji Heavy Industries
06 p1416 N93-19323

HYDRAULIC VALVES
U HYDRAULIC EQUIPMENT
U VALVES

HYDRAULICS
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053

HYDRAZINE ENGINES
Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application
01 p0023 N93-10042
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216
Space Station propulsion system
10 p2969 N93-27817

HYDRAZINES
NT METHYLHYDRAZINE
Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application
01 p0023 N93-10042
DSP propulsion system launch configuration and related testing 01 p0024 N93-10048
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
Active Hydrazine Vapor Sampler (AHVS)
08 p2225 N93-22165
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Propulsion technology discipline
10 p2973 N93-27863
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501

HYDRAZINIUM COMPOUNDS
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003

HYDRAZOIC ACID
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Laser-induced dissociation of HN3(DN3) on GaAs(100) K
[AD-A257426] 05 p1315 N93-15865
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652

HYDRIDES
NT AMINO RADICAL
NT BORANES
NT CARBORANE
NT DIHYDRIDES
NT LITHIUM HYDRIDES
NT METAL HYDRIDES
NT NITROGEN HYDRIDES
NT PHOSPHINES
NT POTASSIUM HYDRIDES
NT SILANES
Stability and reactivity of dimethylethoxysilane
10 p2997 N93-28258
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650

HYDROACOUSTICS
U UNDERWATER ACOUSTICS

HYDROAEROMECHANICS
U AERODYNAMICS

HYDROBAROPHONES
U HYDROPHONES

HYDROCARBON COMBUSTION
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Computed Potential Energy Surfaces for Chemical Reactions
[NASA-CR-191804] 05 p1107 N93-17407
Studies of droplet burning and extinction
07 p1854 N93-20212
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099

HYDROCARBON FUEL PRODUCTION
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329

HYDROCARBON FUELS
NT CRUDE OIL
NT DIESEL FUELS
NT FOSSIL FUELS
NT GASOLINE
NT JET ENGINE FUELS
NT JP-4 JET FUEL
NT JP-5 JET FUEL
NT JP-8 JET FUEL
NT LIQUEFIED NATURAL GAS
NT NATURAL GAS
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Fouling and slagging in combustion plant
[ESDU-92012] 06 p1498 N93-18000
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435

HYDROCARBONS
NT ACETYLENE
NT ALIPHATIC HYDROCARBONS
NT ALKANES
NT ALKENES
NT BENZENE
NT BUTANES
NT CHLOROBENZENES
NT CUBANE
NT CYCLIC HYDROCARBONS
NT CYCLOBUTANE
NT CYCLOHEXANE
NT CYCLOPROPANE
NT DIENES
NT DIPHENYL COMPOUNDS
NT ETHANE
NT ETHYLENE
NT HEPTANES
NT LIQUEFIED NATURAL GAS
NT METHANE
NT METHYLENE
NT NAPHTHALENE

NT NATURAL GAS
NT PROPANE
NT PROPYLENE
NT TOLUENE
NT TRIENES
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257
Revelations of a stratospheric circulation: The dynamical transport of hydrocarbons in the stratosphere of Uranus
04 p0913 N93-14211
Computed potential energy surfaces for chemical reactions
[NASA-CR-190741] 04 p0843 N93-15356
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626
Ion produced cometary organic crust
06 p1701 N93-19122
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU]
08 p2235 N93-22033
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2396 N93-23348
Experimental and theoretical studies of reverse micelles in dense gases
[PB93-141901] 08 p2222 N93-24143
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation
09 p2760 N93-24908
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Carborane-(silane or siloxane)-unsaturated hydrocarbon based thermosetting polymers
[AD-D015718] 11 p3338 N93-30580
Carborane-(siloxane or silane)-unsaturated hydrocarbon based polymers
[AD-D015717] 11 p3338 N93-30586
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky
[PB93-182244] 11 p3474 N93-30825
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070

HYDROCHLORIC ACID
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600

HYDROCLIMATOLOGY
Urban climatology in Africa. Special issue of the African urban quarterly, volume 5, numbers 1 and 2, February and May, 1990
[WCASP-19] 06 p1587 N93-18592

HYDROCYANIC ACID
The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN
[DE92-040734] 05 p1285 N93-16268
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations
[DOT/FAA/AM-93/8] 10 p3083 N93-27158
Thermal oxidation of HCN by NO2 in shock waves
11 p3318 N93-30064
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069

HYDRODYNAMIC EQUATIONS
Calculation of elastic-plastic wave propagation on the connection machine
[AD-A252429] 01 p0095 N93-10427
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
On the time dependent hydrodynamic model for semiconductors
[ETN-93-93027] 06 p1518 N93-18098
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124
Gas distribution and starbursts in shell galaxies
10 p3183 N93-26780
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
The basics of weather models
[AD-A263386] 11 p3483 N93-29850
The performance of PAGOSA on several MIMD parallel computers
[DE93-003243] 12 p3786 N93-31183
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
Pulse-beam heating in flare loops
12 p3875 N93-31392

HYDRODYNAMIC RAM EFFECT
Ribless ram air parachute
[AD-D015351] 02 p0195 N93-11050

HYDRODYNAMIC STABILITY
U FLOW STABILITY

HYDRODYNAMICS
NT ELASTOHYDRODYNAMICS
NT ELECTROHYDRODYNAMICS
NT MAGNETOHYDRODYNAMICS
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843
Hydrodynamic efficiencies in implosion experiments
02 p0308 N93-12030
Development of a hydrodynamic code: MINNIE
02 p0318 N93-12031
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A
02 p0321 N93-12046
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy
02 p0254 N93-12050
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
Connection of microscopic with macroscopic dynamics: Towards a hydrodynamical description of quantum mechanics 03 p0729 N93-13957
Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A
03 p0757 N93-13962
Dynamics in neutron stars and the early universe
04 p1014 N93-14112
Diffusing wave spectroscopy
04 p0980 N93-14169
Hydrodynamics of supernova 1987 A
04 p1019 N93-14633
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Impact modeling with smooth particle hydrodynamics
[DE92-017506] 05 p1155 N93-15882
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Lagrangian chaos: Transport, mixing, and diffusion in fluids
[NOTA-INTERNA-988] 06 p1651 N93-17939
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Melting, vaporization, and energy partitioning for impacts on asteroidal and planetary objects
06 p1718 N93-19244
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
A boundary element formulation for thermo-hydrodynamic lubrication problem
07 p1918 N93-20704
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity
08 p2247 N93-22836
Thermodynamic and stochastic theory of hydrodynamic and power-producing processes
[DE93-006891] 08 p2515 N93-23028
The radiation gasdynamics of planetary nebulae
08 p2547 N93-23133
Laser driven hydrodynamic instability experiments
[DE93-005822] 08 p2308 N93-23330
Fluid science users requirements
08 p2163 N93-24385
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758
Numerical simulations of bent, disrupted radio jets
10 p3188 N93-26813

Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
High strain Lagrangian hydrodynamics: A three dimensional SPH code for dynamic material response
[AD-A262798] 10 p3043 N93-28378
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751
Numerical modelling of the cold plasma with time-dependent, magnetohydrodynamic methods
[KFK-5053] 11 p3586 N93-29081
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020
On the verification of a theory for sculling propulsion
[ETN-93-94040] 12 p3725 N93-31519
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186

HYDROELASTICITY
Hydroelastic vibrations in a rectangular container under zero-gravity
[LRT-WE-9-FB-28-1991] 05 p1134 N93-17602

HYDROELECTRIC POWER STATIONS
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001

HYDROELECTRICITY
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
New hydrogen technologies
[DE93-778353] 11 p3343 N93-30042

HYDROFLUORIC ACID
Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire
[DE92-017233] 02 p0262 N93-12487

HYDROFOIL BOATS
U HYDROFOIL CRAFT

HYDROFOIL CRAFT
HMS Speedy: Seakeeping trials, 25 February to 1 March 1982
[ARE-AMTE(H)-R84117] 10 p3021 N93-27853

HYDROFOIL OSCILLATIONS
HMS Speedy: Seakeeping trials, 25 February to 1 March 1982
[ARE-AMTE(H)-R84117] 10 p3021 N93-27853

HYDROFOILS
NT KEELS

HYDROFORMING
Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937
Finite element modeling of the hydroforming press
[KCP-613-4999] 09 p2668 N93-26206

HYDROGEN
NT DEUTERIUM
NT HYDROGEN ISOTOPES
NT LIQUID HYDROGEN
NT METALLIC HYDROGEN
NT TRITIUM
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone 02 p0487 N93-11166
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Study of short-range motion of atomic hydrogen in amorphous silicon by neutron reflectometry
[DE92-016392] 03 p0703 N93-13194
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors 03 p0725 N93-13844
Availability of hydrogen for lunar base activities 03 p0762 N93-13982
On grain boundary transport of hydrogen and mechanism of hydrogen-induced intergranular fracture 03 p0544 N93-14047
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Theory of field adsorption of hydrogen
[AD-A257139] 05 p1102 N93-15996
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Remote hydrogen sensing techniques
[NASA-CR-192416] 05 p1169 N93-17203
Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels 05 p1107 N93-17408
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
Instruction manual for UTEP weld gas hydrogen detector
[NASA-CR-184477] 06 p1537 N93-18034
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys
[NASA-CR-191932] 06 p1674 N93-18593
Lunar resources: Oxygen from rocks and soil 06 p1735 N93-18787
High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135
Velocity distributions of H and OH produced through solar photodissociation of H2O 06 p1720 N93-19266
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Hydrogen leak detection in the Space Shuttle 06 p1457 N93-19392
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051
Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614
A role of neutral hydrogen in CHS plasmas with reheat and collapse and comparison with JIPP T-IIU tokamak plasmas
[NIFS-186] 07 p2073 N93-20763
Bias-annealing experiments for doped a-Si:H layers
[MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Inverse Raman spectroscopy measurements of line-shift coefficients in hydrogen perturbed by argon
[DE93-003906] 07 p1852 N93-21840
Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073
Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908
Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
Experimental and numerical investigation of hydrogen combustion in a supersonic flow 08 p2223 N93-24212
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Lareg area solar cells from lunar materials 10 p3066 N93-26688
High velocity clouds in nearby disk galaxies 10 p3187 N93-26804
A neutral hydrogen survey of the Hydra 1 cluster 10 p3194 N93-26843
Status and integration of the gas generation studies performed for the hydrogen safety program
[DE93-008518] 10 p2994 N93-27105
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403

Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099

KDP 903
[DE93-715539] 12 p3818 N93-31167

SWAN: A study of solar wind anisotropies
12 p3868 N93-31351

Interplanetary hydrogen gas as a monitor of the Sun's corpuscular and radiative output
12 p3878 N93-31412

Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere
12 p3878 N93-31413

The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576

Constitutive and damage material modeling in a high pressure hydrogen environment
12 p3696 N93-31577

Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920

Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

HYDROGEN AIR FUEL CELLS
U HYDROGEN OXYGEN FUEL CELLS

HYDROGEN ATOMS

Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266

Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855

A global potential energy surface for ArH2
04 p0843 N93-15358

Low-energy measurements of electron capture by multicharged ions from excited hydrogen atoms
[DE93-001642] 05 p1292 N93-17345

Effects of delocalization on intrinsic barriers for H-atom transfer: Implications for the radical hydrogen transfer reaction
[DE93-001565] 05 p1107 N93-17461

Mechanism of diamond film growth
06 p1678 N93-18479

Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477

Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614

Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927

Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913

Exotic atoms
[DE93-010242] 11 p3564 N93-28611

HYDROGEN BONDS

The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996

Design and synthesis of molecular systems capable of supporting intracavity chemical reactions
[AD-A251024] 02 p0440 N93-11872

Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677

The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864

Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051

Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054

P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653

The effect of UV light on ir absorption in chemically vapor deposited a-SiN(x):H films
[DE93-004502] 08 p2486 N93-22941

Femtosecond dynamics in hydrogen-bonding solvents: Formamides
[DE93-003476] 09 p2643 N93-25123

Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146

KDP 903
[DE93-715539] 12 p3818 N93-31167

NTO polymorphs
[DE93-005451] 12 p3712 N93-31186

HYDROGEN CHLORIDES
NT HYDROCHLORIC ACID

HYDROGEN CLOUDS
NT H I REGIONS
NT H II REGIONS
NT ORION NEBULA

HYDROGEN COMPOUNDS
NT AMINO RADICAL
NT BORANES
NT CARBORANE
NT DEUTERIDES
NT DEUTERIUM COMPOUNDS
NT DIHYDRIDES
NT HYDRIDES
NT HYDROCYANIC ACID
NT HYDROGEN PEROXIDE
NT HYDROGEN SULFIDE
NT LITHIUM HYDRIDES
NT METAL HYDRIDES
NT NITROGEN HYDRIDES
NT PHOSPHINES
NT POTASSIUM HYDRIDES
NT SILANES

The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996

HYDROGEN CYANIDES
U HYDROCYANIC ACID

HYDROGEN EMBRITTLEMENT

Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699

Spacecraft sustained load fracture control
05 p1077 N93-15724

Damage tolerance checking on Ni/H2 battery cells
05 p1081 N93-15754

Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859

Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566

Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260692] 09 p2651 N93-25895

Low temperature environmental embrittlement in ordered intermetallics
[DE93-009711] 11 p3324 N93-29786

Japan's Sunshine Project
[DE93-768157] 12 p3749 N93-32041

Japan's Sunshine Project
[DE93-768166] 12 p3749 N93-32042

HYDROGEN FLUORIDE LASERS
U HF LASERS

HYDROGEN FLUORIDES
U HYDROFLUORIC ACID

HYDROGEN FUELS

The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394

Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683

Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085

Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237

Technical comparison between Hythane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834

Catalytic combustion of hydrogen
[DE93-752854] 08 p2217 N93-22073

A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256

The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021

New hydrogen technologies
[DE93-778353] 11 p3343 N93-30042

Japan's Sunshine Project
[DE93-768157] 12 p3749 N93-32041

Japan's Sunshine Project
[DE93-768166] 12 p3749 N93-32042

HYDROGEN IONS

Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829

Diagnostics and modeling of H(-) ion sources
[AD-A250864] 02 p0440 N93-11867

Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264

Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928

High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113

Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778

Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743

Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388

Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509

Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903

Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618

Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310

High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809

Partial cross sections in H(-) photodetachment
[DE93-011570] 11 p3569 N93-30130

HYDROGEN ISOTOPES
NT DEUTERIUM
NT METALLIC HYDROGEN
NT TRITIUM

NMR study of triazone compound formation
07 p1839 N93-21165

HYDROGEN MASERS

Hydrogen masers for space 09 p2716 N93-24980

The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks
09 p2832 N93-24983

Basic design of a spaceborne hydrogen maser
09 p2716 N93-25024

The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048

Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049

Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications
09 p2693 N93-25052

HYDROGEN OXYGEN ENGINES

Plug nozzle propulsion system
01 p0017 N93-10013

Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014

Combustion-wave ignition for rocket engines
01 p0017 N93-10016

Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020

Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086

Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350

Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614

SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541

Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714

STME nozzle thermal analysis
05 p1095 N93-17291

Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts
05 p1095 N93-17297

Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419

Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941

Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995

Vulcain: A cryogenic engine for Ariane 5
[ETN-93-93022] 06 p1472 N93-18082

Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330

Flame-front kinetics 06 p1485 N93-18481

Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763

Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991

Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535
Space Station propulsion system 10 p2969 N93-27817
Small hydrogen/oxygen rocket flowfield behavior from heat flux measurements
[NASA-TM-106233] 11 p3286 N93-28619
Advanced Earth-to-orbit propulsion technology information, dissemination and research
[NASA-CR-192561] 11 p3287 N93-28680
Advanced engine study program
[NASA-CR-187217] 11 p3287 N93-28946
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860

HYDROGEN OXYGEN FUEL CELLS
Investigation of hypersonic shock-induced combustion in a hydrogen-air system
[NASA-CR-191239] 03 p0538 N93-13456
SPE (tm) regenerative hydrogen/oxygen fuel cells for extraterrestrial surface and microgravity applications 10 p2969 N93-27813
Fuel cell energy storage for Space Station enhancement 10 p2969 N93-27815
SPE (tm) electrolyzers for space propulsion 10 p2970 N93-27819

HYDROGEN PEROXIDE
The vibrational spectrum of H2O3: An ab initio investigation
[NASA-CR-190968] 03 p0537 N93-12935
Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396

HYDROGEN PLASMA
NT DEUTERIUM PLASMA
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores 10 p2997 N93-26677
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606

HYDROGEN PRODUCTION
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
Oxidation and volatilization of a niobium alloy
[DE93-001927] 05 p1116 N93-17392
Lunar resources: Oxygen from rocks and soil 06 p1735 N93-18787
High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135
Material and method for fast generation of hydrogen gas and steam
[AD-D015559] 07 p1847 N93-20781
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Production of low-cost hydrogen
[DE93-008070] 09 p2643 N93-25305
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores 10 p2997 N93-26677
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Magnetic beneficiation of lunar soils 10 p3213 N93-27968
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
New hydrogen technologies
[DE93-778353] 11 p3343 N93-30042
Japan's Sunshine Project
[DE93-768157] 12 p3749 N93-32041
Japan's Sunshine Project
[DE93-768166] 12 p3749 N93-32042

HYDROGEN SULFIDE
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Environmental effects on iron aluminides
[DE92-016341] 03 p0542 N93-13237
Biological conversion of synthesis gas
[DE92-017673] 03 p0672 N93-13269
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761

HYDROGEN 2
U DEUTERIUM

HYDROGEN 3
U TRITIUM

HYDROGEN-BASED ENERGY
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Phase-change composites TES for nickel-hydrogen batteries 07 p1987 N93-20524
Japan's Sunshine Project
[DE93-768157] 12 p3749 N93-32041
Japan's Sunshine Project
[DE93-768166] 12 p3749 N93-32042

HYDROGENATION
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
A novel process for methanol synthesis
[DE92-019719] 03 p0539 N93-13617
Physics of hydrogen storage in metal-hydrides 04 p0854 N93-14630
Organometallic chemistry of bimetallic compounds
[DE93-002773] 05 p1115 N93-17201
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750

HYDROGENOLYSIS
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
A novel process for methanol synthesis
[DE93-008037] 09 p2659 N93-25118
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188

HYDROGEOLOGY
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky
[PB93-182244] 11 p3474 N93-30825
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865

HYDROGRAPHY
Dredging research program: Feasibility of a kinematic differential Global Positioning System
[AD-A248953] 02 p0205 N93-11419
The North Atlantic circulation: Combining simplified dynamics with hydrographic data 03 p0670 N93-13483
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean 04 p0931 N93-14995
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808
Hydrographic data from Endeavor 214: A study of the Gulf Stream-Deep Western Boundary Current crossover
[AD-A257966] 05 p1221 N93-17737
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
Observations of an intrathermocline vortex 09 p2788 N93-24769
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study 09 p2736 N93-24938
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
Hydrographic observations in the western tropical and subtropical North Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1991
[PB93-184778] 12 p3770 N93-31832

HYDROKINETICS
U HYDROMECHANICS

HYDROLOGICAL CYCLE
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Water on Mars: Inventory, distribution, and possible sources of polar ice 06 p1740 N93-19805
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain
06 p1741 N93-19811
A comparison of intense extratropical cyclone life cycles from diverse geographical locations
07 p2011 N93-20278
CLEOPATRA: A step towards GEWEX on the regional scale 07 p1963 N93-21628
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Remote sensing in hydrology and water management
09 p2744 N93-24816
World Ocean Circulation Experiment
09 p2733 N93-24922
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
HYDROLOGY
NT HYDROGEOLOGY
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
Radiometric calibration of SAR systems
03 p0564 N93-13055
Venusian hydrology: Steady state reconsidered
04 p1028 N93-14318
Geothermal Energy and the Utility Market: The Opportunities and Challenges for Expanding Geothermal Energy in a Competitive Supply Market: Proceedings
[DE92-019090] 04 p0908 N93-15271
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
Urban climatology in Africa. Special issue of the African urban quarterly, volume 5, numbers 1 and 2, February and May, 1990
[WCASP-19] 06 p1587 N93-18592
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584
Expanded user's documentation for SHIMS
[PB93-101905] 07 p2092 N93-21694
Classification of TM data as a contribution to remote sensing for a hydrological run-off model
08 p2341 N93-22448
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model
[ESA-TT-1238] 08 p2342 N93-22461
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques
08 p2355 N93-23581
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Non-local description of pollution transport in random medium 09 p2763 N93-25329
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
BETELGUEUSE '90 campaign
[PREPRINT-751] 10 p3064 N93-27942
BOOTES '90 campaign
[PREPRINT-768] 10 p3064 N93-27943
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829
HYDROLOGY MODELS
A new two-phase flow and transport model with interphase mass exchange
[PB92-206564] 02 p0298 N93-11251
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters
03 p0635 N93-13840
Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Monthly precipitation and runoff data for validation of climate models 07 p1959 N93-21605
Classification of TM data as a contribution to remote sensing for a hydrological run-off model
08 p2341 N93-22448
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model
[ESA-TT-1238] 08 p2342 N93-22461
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data
08 p2351 N93-23558
Remote sensing in hydrology and water management
09 p2744 N93-24816
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
HYDROLYSIS
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB]
08 p2216 N93-22036
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Stability and reactivity of dimethylethoxysilane
10 p2997 N93-28258
Technical bases for precipitate hydrolysis process operating parameters, revision 1
[DE93-009894] 11 p3309 N93-28553
HYDROMAGNETIC FLOW
U MAGNETOHYDRODYNAMIC FLOW
HYDROMAGNETIC STABILITY
U MAGNETOHYDRODYNAMIC STABILITY
HYDROMAGNETIC WAVES
U MAGNETOHYDRODYNAMIC WAVES
HYDROMAGNETICS
U MAGNETOHYDRODYNAMICS
HYDROMAGNETISM
U MAGNETOHYDRODYNAMICS
HYDROMECHANICS
NT ELASTOHYDRODYNAMICS
NT ELECTROHYDRODYNAMICS
NT HYDRODYNAMICS
NT HYDROSTATICS
NT MAGNETOHYDRODYNAMICS
NT MAGNETOHYDROSTATICS
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
Wetting of fibers measured by LPR-90 equipment
07 p1835 N93-21139
HYDROMETEOROLOGY
NT MARINE METEOROLOGY
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics
04 p0918 N93-14115
HYDROPHONES
Statistically calibrated transducer
[AD-D015408] 04 p0882 N93-14878
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
HYDROPLANES (SURFACES)
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Lift coefficient of a randomly oscillating hydroplane
[DRA/MAR-TM(MTH)-91320] 02 p0197 N93-11377
HYDROPONICS
Characterization of the water soluble component of inedible residue from candidate CELSS crops
[NASA-TM-107557] 06 p1605 N93-18111
The dynamics of hydroponic crops for simulation studies of the CELSS initial reference configurations
[NASA-CR-192101] 06 p1570 N93-19943
HYDROPOWER STATIONS
U HYDROELECTRIC POWER STATIONS
HYDROSCIENCE
U HYDROLOGY
HYDROSKIS
U HYDROPLANES (SURFACES)
HYDROSPHERE (EARTH)
U EARTH HYDROSPHERE
HYDROSTATIC PRESSURE
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Hydrostatic pressure testing of graphite/epoxy cylinder C6-1
[DE93-000427] 05 p1185 N93-16240
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Flame spread across liquid pools
07 p1854 N93-20209
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Hydrostatic and uniaxial behavior of a high density polyurethane foam (FR-3720) at various temperatures
[DE93-011486] 11 p3330 N93-28838
An analysis of the 70-meter antenna hydrostatic bearing by means of computer simulation
11 p3386 N93-29601
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598
A universal mass in (2+1)-dimensions
[DE93-609888] 12 p3832 N93-31911
HYDROSTATICS
NT MAGNETOHYDROSTATICS
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations
03 p0655 N93-13757
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543

Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves
07 p2007 N93-20090
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
A three-dimensional study of the influence of mountains on a front
[AD-A261927] 09 p2787 N93-26545
Hybrid bearings for turbopumps and the like
[NASA-CASE-MFS-28491-1] 10 p3052 N93-28326
Hydrostatic and uniaxial behavior of a high density polyurethane foam (FR-3720) at various temperatures
[DE93-011486] 11 p3330 N93-28838
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

HYDROTHERMAL CRYSTAL GROWTH
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality
09 p2838 N93-25025

HYDROTHERMAL STRESS ANALYSIS
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139

HYDROTHERMAL SYSTEMS
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457
Chemical environments of submarine hydrothermal systems
[NASA-CR-191258] 03 p0669 N93-13458
The hydrothermal synthesis of ceramic powders
[ETN-92-92785] 05 p1125 N93-16607
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013
Supply of geothermal power from hydrothermal sources: A study of the cost of power in 20 and 40 years
[DE93-004479] 08 p2382 N93-24036

HYDROX ENGINES
U HYDROGEN OXYGEN ENGINES

HYDROXIDES
NT LITHIUM HYDROXIDES
NT POTASSIUM HYDROXIDES
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497

HYDROXYL COMPOUNDS
NT ALCOHOLS
NT BISPHENOLS
NT ETHYL ALCOHOL
NT GLYCOLS
NT ISOPROPYL ALCOHOL
NT METHYL ALCOHOL
NT PHENOLS
NT POLYVINYL ALCOHOL
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267

HYDROXYL EMISSION
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891
Aeronomy of auroral and airglow emissions
06 p1584 N93-18496
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
The correlation between water production rates and visual magnitudes in comets 06 p1709 N93-19181

HYDROXYL RADICALS
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
The vibrational spectrum of H2O3: An ab initio investigation
[NASA-CR-190968] 03 p0537 N93-12935
Steady state analysis of tropospheric chemistry
03 p0644 N93-13121
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster
03 p0602 N93-13686
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Radical reactions of atmospheric importance
03 p0659 N93-14053
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
Velocity distributions of H and OH produced through solar photodissociation of H2O
06 p1720 N93-19266
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Determination of rates of reaction in the gas-phase in the troposphere. Theory and practice. 5. Rate of indirect photoreaction
[PB93-149334] 08 p2402 N93-24569
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Molecular processes in comets
[NASA-CR-193143] 10 p3204 N93-27537
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146

HYGRAL PROPERTIES
Factors influencing the interlaminar fracture toughness and its evaluation in composites
[FFA-TN-1991-34] 11 p3451 N93-29076

HYGROMETERS
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927

HYPERBARIC CHAMBERS
The Proceedings of the Hypobaric Decompression Sickness Workshop
[AD-A257612] 06 p1597 N93-18362
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705

HYPERBOLIC DIFFERENTIAL EQUATIONS
Hyperbolic conservation laws with umbilic points, 1
[AD-A254431] 03 p0696 N93-12594
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971] 05 p1240 N93-16620
Kernel Optimum Nearly-analytical Discretization (KOND) algorithm applied to parabolic and hyperbolic equations
[NIFS-191] 07 p2033 N93-20548
On essentially non-oscillatory schemes on unstructured meshes: Analysis and implementation
[NASA-CR-191415] 08 p2471 N93-24492
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883
Numerical modelling of the cold plasma with time-dependent, magnetohydrodynamic methods
[KFK-5053] 11 p3586 N93-29081
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525

HYPERBOLIC FUNCTIONS
Discontinuous initial value problem of nonlinear elasticity by similarity approach 01 p0064 N93-10569
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Difference methods for hyperbolic problems with emphasis on space-centered approximations
[ONERA-NT-1990-4] 11 p3550 N93-30136

HYPERBOLIC NAVIGATION
NT LORAN
NT LORAN C
NT SHORAN

HYPERBOLIC SYSTEMS
Time-stable boundary conditions for finite-difference schemes solving hyperbolic systems: Methodology and application to high-order compact schemes
[NASA-CR-191436] 08 p2468 N93-23126

HYPERBOLIC TRAJECTORIES
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem
09 p2603 N93-24718

HYPERCUBE MULTIPROCESSORS
Calculation of elastic-plastic wave propagation on the connection machine
[AD-A252429] 01 p0095 N93-10427
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
Implementation and analysis of NP-complete algorithms on a distributed memory computer
[AD-A256564] 04 p0951 N93-15405
An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364
Exploratory designs for computational experiments
[DE93-002354] 05 p1243 N93-17040
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
Hyperstructures as computer architectures for high performance multiprocessor systems
[ISBN-0-315-58975-2] 08 p2433 N93-24613
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Massively-parallel computational fluid dynamics
[AD-A261815] 09 p2707 N93-26269
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669
Design of a hardware discrete event simulation coprocessor
[AD-A262614] 11 p3537 N93-28478
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Multiprocessing systems: Reliability modelling and analysis using multimode components and dependent failures
[AD-A264230] 11 p3540 N93-30364

HYPERFINE STRUCTURE
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
Ion trap frequency standard research at PTB
09 p2841 N93-25050
Theoretical hyperfine structure constants for transition metal atoms and ions
[DE93-012325] 11 p3566 N93-29183

HYPERGEOMETRIC FUNCTIONS
Introduction to real orthogonal polynomials
[AD-A256448] 04 p0968 N93-14609
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
The Hahn-Exton q-Bessel function
[ISBN-90-9004649-6] 05 p1271 N93-17587
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
On Zeilberger's algorithm and its q-analogue: A rigorous description
[CWI-AM-R9207] 10 p3101 N93-28086

HYPERGEOMETRY
U HYPERSPACES

HYPERGOLIC ROCKET PROPELLANTS
Generic Propellant Transfer Unit
01 p0011 N93-10046
HYPERMEDIA
U MULTIMEDIA
HYPERNUCLEI
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
HYPERONS
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
HYPERPLANES
The power of parallel projection
[RUU-CS-92-17] 10 p3100 N93-27908
Cuttings and applications
[RUU-CS-92-26] 10 p3122 N93-28166
HYPERSONIC AIRCRAFT
Integration of turbo-ramjet engines for hypersonic aircraft 03 p0503 N93-13230
Hypersonic reconnaissance aircraft
[NASA-CR-192049] 05 p1064 N93-17804
A manned hypersonic reconnaissance vehicle which does not require airborne fueling
06 p1434 N93-17888
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093
Hypersonics revisited 10 p2919 N93-27167
ASUR 11 p3228 N93-29720
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374
HYPERSONIC BOUNDARY LAYER
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Stability and transition of hypersonic boundary layer
07 p1763 N93-20687
Total temperature probes for high-temperature hypersonic boundary-layer measurements
[NASA-TM-4407] 07 p1908 N93-21816
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
HYPERSONIC COMBUSTION
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Investigation of hypersonic shock-induced combustion in a hydrogen-air system
[NASA-CR-191239] 03 p0538 N93-13456
HYPERSONIC FLIGHT
Hypersonic inlet efficiency revisited
01 p0005 N93-10012
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
Hypersonic propulsion system force accounting
03 p0503 N93-13229
High-temperature strain measurement techniques: Current developments and challenges
03 p0599 N93-13669
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Trajectory optimization for the National aerospace plane
[NASA-CR-192954] 09 p2589 N93-25670
Information requirements analyses for transatmospheric vehicles
[AD-A261189] 09 p2590 N93-25949
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860
HYPERSONIC FLOW
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser
02 p0245 N93-11135
On the instability of hypersonic flow past a pointed cone: Comparison of theoretical and experimental results of Mach 18
[DLR-FB-92-02] 02 p0196 N93-11141
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
An engineering method for interactive inviscid-boundary layers in three-dimensional hypersonic flows
02 p0203 N93-12529
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Mathematical problems in inviscid hypersonic flow
03 p0493 N93-13451
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow
03 p0495 N93-13746
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
A numerical study of hypersonic flows using the full Navier-Stokes equations with different air models
03 p0594 N93-14061
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2] 05 p1054 N93-16470
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522] 05 p1165 N93-17789
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739] 06 p1525 N93-18093
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102] 06 p1526 N93-18129
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648
Influence of the physical modelling of viscous terms on hypersonic flow computations
[INRIA-RR-1493] 06 p1408 N93-18652
Electron beam probing of blow-down hypersonic flows
[ONERA-NT-1992-7] 06 p1408 N93-18701
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Numerical computations using multi-domain technique
06 p1409 N93-19277
Code development for hypersonic real-gas flow simulations toward the design of space vehicles
06 p1411 N93-19293
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
Assessment of nonequilibrium radiation computation methods for hypersonic flows
[NASA-TM-103994] 06 p1534 N93-19348
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
Computational analysis of hypersonic flows past generalized cone-derived waveriders
07 p1761 N93-20288
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
An assessment of laser velocimetry in hypersonic flow
[NASA-CR-190895] 07 p1762 N93-21556
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Asymptotic analysis of: 1: Wave propagation in dispersive optical media with quadratic nonlinearity. 2: A hypersonic wing with three-dimensional self-similarity
08 p2112 N93-23594
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Instrumentation for hypersonic aerodynamics research with tethered satellites
[NASA-CR-191435] 08 p2442 N93-24539
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Prediction of forces and moments for hypersonic flight vehicle control effectors
[NASA-CR-193033] 09 p2595 N93-24762
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations
09 p2694 N93-24766

An investigation of laser velocimetry measurements within high speed, complex flows
09 p2697 N93-25237
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds
09 p2577 N93-25487
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
Development of a 3-D Implicit Euler Code for Hypersonic and High Supersonic Flows
[ONERA-RSF-23/1123-AY-230A]
11 p3417 N93-28744
Inviscid quasi one-dimensional nonequilibrium flow
[FFA-TN-1992-35] 11 p3418 N93-28993
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004

HYPERSONIC FORCES
Hypersonic propulsion system force accounting
03 p0503 N93-13229

HYPERSONIC HEAT TRANSFER
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Assessment of nonequilibrium radiation computation methods for hypersonic flows
[NASA-TM-103994] 06 p1534 N93-19348
Hypersonics revisited 10 p2919 N93-27167

HYPERSONIC INLETS
Hypersonic inlet efficiency revisited
01 p0005 N93-10012

HYPERSONIC NOZZLES
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681
Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Design of a nozzle for a hypersonic wind tunnel
[AERO-REPT-9113] 05 p1072 N93-16468
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408

HYPERSONIC REENTRY
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078

HYPERSONIC SHOCK
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel
03 p0602 N93-13681
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120

HYPERSONIC SPEED
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers
03 p0590 N93-13826
Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow
08 p2114 N93-24209
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004

HYPERSONIC VEHICLES
NT HYPERSONIC AIRCRAFT
NT X-30 VEHICLE
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow
03 p0495 N93-13746
A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Code development for hypersonic real-gas flow simulations toward the design of space vehicles
06 p1411 N93-19293
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452
Structures research 06 p1447 N93-19453
Controls and guidance research
06 p1451 N93-19454
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
Lumped mass modelling for the dynamic analysis of aircraft structures 06 p1447 N93-19460
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
Structures and materials technologies for hypersonic vehicles: Lessons from Hermes experience
[REPT-921-430-108] 07 p1824 N93-21042
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A]
07 p1783 N93-21479
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Entry systems technology assessment
08 p2177 N93-22118
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Saenger: A space transportation system for the 21st century
[ETN-93-93696] 08 p2126 N93-23363
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle 08 p2126 N93-23505
An extended supersonic combustion model for the dynamic analysis of hypersonic vehicles
[NASA-CR-192716] 08 p2225 N93-24472
Prediction of forces and moments for hypersonic flight vehicle control effectors
[NASA-CR-193033] 09 p2595 N93-24762
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538

HYPERSONIC WIND TUNNELS
NT SHOCK TUNNELS
Design of a nozzle for a hypersonic wind tunnel
[AERO-REPT-9113] 05 p1072 N93-16468
Photoluminescent thermography in hypersonic blowdown wind tunnel: Feasibility study with pinpoint measurement
[ONERA-NT-1992-8] 06 p1407 N93-18617
Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848

HYPERSONICS
Hypersonic panel flutter in a rarefied atmosphere
03 p0505 N93-13928
Materials and structures technologies for hypersonics
08 p2177 N93-22116
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
Numerical simulation of hypersonic aerodynamics and the computational needs for the design of an aerospace plane
[AD-A260681] 09 p2580 N93-25894
Hypersonic panel flutter in a rarefied atmosphere
[NASA-CR-4514] 10 p2929 N93-27084
The Center of Excellence for Hypersonics Training and Research at the University of Texas at Austin
[NASA-CR-193070] 10 p2930 N93-27126
Hypersonics revisited 10 p2919 N93-27167
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer
10 p2937 N93-27462
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Technology transfer: Potential of BMFT concept for hypersonics
[MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848

HYPERSPACES
The power of parallel projection
[RUU-CS-92-17] 10 p3100 N93-27908
Cuttings and applications
[RUU-CS-92-26] 10 p3122 N93-28166

HYPERTENSION
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

HYPERTONIA
U OSMOSIS

HYPERTROPHY
U GROWTH
HYPERVELOCITY
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
HYPERVELOCITY ACCELERATORS
U HYPERVELOCITY GUNS
HYPERVELOCITY CRATERING
U HYPERVELOCITY PROJECTILES
U PROJECTILE CRATERING
HYPERVELOCITY FLOW
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems
05 p1165 N93-16786
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
HYPERVELOCITY GUNS
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
HYPERVELOCITY IMPACT
International Conference on Large Meteorite Impacts and Planetary Evolution
[NASA-CR-190677] 01 p0105 N93-10112
Large meteorite impacts: The K/T model
01 p0107 N93-10120
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Melt production in large-scale impact events: Implications and observations at terrestrial craters
01 p0112 N93-10144
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters
01 p0114 N93-10154
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia
01 p0119 N93-10171
Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary
01 p0122 N93-10188
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana
01 p0122 N93-10191
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Additional results on space environmental effects on polymer matrix composites: Experiment A0180
01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA
01 p0039 N93-10592
A computational study of projectile melt in impact with typical Whipple shields
[DE92-017137] 01 p0092 N93-10635
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces
01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces
01 p0032 N93-10854
RHALE: A MMALE shock physics code written in C++
[DE92-018271] 03 p0684 N93-12795
A Pennsylvania State University/General Electric Get Away Special (GAS) experiment
03 p0511 N93-13177
Characterisation and dynamic modelling of the near-earth space particulate environment
04 p1019 N93-14637
Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Impact modeling with smooth particle hydrodynamics
[DE92-017506] 05 p1155 N93-15882
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
Trade-offs in mass and effectiveness in satellite shielding: A design approach
[AD-A256693] 05 p1087 N93-16112
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Hypervelocity impact effects on solar cells
[NASA-CR-192444] 06 p1571 N93-18601
The Apollo 17 regolith 06 p1737 N93-18799
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221
06 p1738 N93-18807
Optimization techniques applied to passive measures for in-orbit spacecraft survivability
[NASA-CR-184486] 06 p1466 N93-18859
Simulated families: A test for different methods of family identification 06 p1701 N93-19125
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Metallization and insulization during impact
[DE93-004708] 08 p2500 N93-22420
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Repeatability and uncertainty analyses of NASA/MSFC light gas gun test data
[NASA-CR-192496] 08 p2325 N93-23012
Impact experiments into multiple-mesh targets: Concept development of a lightweight collisional bumper
[NASA-TM-104764] 08 p2194 N93-23247
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
High strain Lagrangian hydrodynamics: A three dimensional SPH code for dynamic material response
[AD-A262798] 10 p3043 N93-28378
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Micrometeoroids and debris on LDEF
11 p3638 N93-29356
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey
11 p3638 N93-29361
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
Hypervelocity impact facility for simulating materials exposure to impact by space debris
11 p3283 N93-29365
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2
11 p3318 N93-29367
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment
11 p3638 N93-29370
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF)
11 p3638 N93-29371
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces
11 p3638 N93-29378
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507
HYPERVELOCITY LAUNCHERS
An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
An impact technique to accelerate flier plates to velocities over 12 km/s
[DE93-002467] 07 p1820 N93-21485
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583
Transient simulation of ram accelerator flowfields
[AD-A259767] 08 p2295 N93-23485
ASUR 11 p3228 N93-29720
HYPERVELOCITY PROJECTILES
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies
03 p0536 N93-12636
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
Flash radiographic studies of hypervelocity projectile interactions with explosives
[AD-A258387] 06 p1497 N93-18260
Impact experiments into multiple-mesh targets: Concept development of a lightweight collisional bumper
[NASA-TM-104764] 08 p2194 N93-23247
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Ablative shielding for hypervelocity projectiles
[NASA-CASE-MSC-21884-1] 11 p3331 N93-29088
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2
11 p3318 N93-29367
Interplanetary meteoroid debris in LDEF metal craters
11 p3638 N93-29372
HYPERVELOCITY WIND TUNNELS
NT SHOCK TUNNELS
HYPERVOLEMIA
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men
[NASA-TM-103949] 02 p0374 N93-12014
HYPOGLYCEMIA
Idiopathic Reactive Hypoglycemia in a population of healthy trainees of an Italian Air Force military school
12 p3779 N93-32248
HYPOKINESIA
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651
Protein requirements in hypoxia or hypokinesia
12 p3778 N93-32244
HYPOPHYSIS
U PITUITARY GLAND

HYPOTHALAMUS
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Control and circadian behavior by transplanted suprachiasmatic nuclei
[AD-A264553] 11 p3496 N93-30382
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015

HYPOTHERMIA
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291

HYPOTHESES
NT NULL HYPOTHESIS
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339
Handedness and motor programming effects of manual control and movement
[AD-A264022] 11 p3499 N93-30027

HYPOXIA
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796
Nifedipine for treatment of high altitude pulmonary edema
[AD-A256959] 05 p1225 N93-16187
Properties of aligned YBa2Cu3O(7-delta) superconductor as a function of oxygen deficiency delta
[DE93-001707] 07 p2082 N93-21750
Protein requirements in hypoxia or hypokinesia 12 p3778 N93-32244

HYSTERESIS
A new non-Gausssian approximation technique for random vibration of general hysteresis 01 p0050 N93-10496
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
Damping
[LR-685] 05 p1184 N93-16214
Mathematical models of hysteresis
[DE93-001837] 05 p1281 N93-17034
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
Mathematical models of hysteresis
[DE93-001836] 05 p1281 N93-17530
The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Wetting hysteresis of tin on silica solid surfaces of controlled periodic roughness 08 p2251 N93-22861
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234

I

I BEAMS
Fatigue life prediction for 6261-T6 aluminium alloy I-beams with welded cover plates 07 p1949 N93-21328
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589

IBM COMPUTERS
NT IBM PERSONAL COMPUTERS

IBM PC
U IBM PERSONAL COMPUTERS

IBM PERSONAL COMPUTERS
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635

ICBM (MISSILES)
U INTERCONTINENTAL BALLISTIC MISSILES

ICE
NT GLACIERS
NT ICE FLOES
NT ICEBERGS
NT LAKE ICE
NT LAND ICE
NT SEA ICE
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
Ethane ice haze in the upper atmosphere of Uranus 04 p1023 N93-14212
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation 06 p1709 N93-19183
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers 06 p1710 N93-19189
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
Laboratory studies on cometary crust formation: The importance of sintering 06 p1715 N93-19228
Glaciation in Elysium 06 p1740 N93-19802
Water on Mars: Inventory, distribution, and possible sources of polar ice 06 p1740 N93-19805
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies 06 p1741 N93-19810
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain 06 p1741 N93-19811
Is CO2 ice permanent? 06 p1742 N93-19813
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Heat transfer on accreting ice surfaces
[AIAA PAPER 90-0200] 08 p2106 N93-22565
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil 10 p2933 N93-27440
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
Interaction between ice and propeller
[VTT-TIED-1281] 10 p3051 N93-27832
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588
Dynamic ice structure interaction: Theory and applications
[VTT-PUBS-90] 11 p3353 N93-28632
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193
Basal hydraulic conditions of Ice Stream B 12 p3762 N93-31898

ICE CLOUDS
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique 04 p0923 N93-15088
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19887
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Airborne studies of ocean-particle-cloud interactions
[AD-A259874] 08 p2415 N93-23958
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Scattering by irregular particles in anomalous diffraction and discrete dipole approximations 12 p3817 N93-31154

ICE ENVIRONMENTS
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Data management for the coordinated Eastern Arctic experiment
[AD-A255648] 04 p1000 N93-14182
Antarctic news clips - 1992
[NSF-92-83] 04 p0916 N93-15080
Ice ages and geomagnetic reversals 06 p1580 N93-18968
Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
Radar studies of the West Antarctic ice streams 12 p3760 N93-31891
Mass balance assessment using GPS 12 p3761 N93-31892
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894
Aerogeophysical evidence for active volcanism beneath the West Antarctic Ice Sheet 12 p3761 N93-31895

ICE FLOES
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
SPOT satellite mapping of Ice Stream B 12 p3760 N93-31887

ICE FORMATION
NT AIRCRAFT ICING
NT CLOUD GLACIATION

Developments in icing test techniques for aerospace applications in the RAE Pyestock (England) altitude test facility
[RAE-TM-P-1214] 02 p0207 N93-11485
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Advancements in the LEWICE ice accretion model
[NASA-CR-191019] 04 p0879 N93-15402
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0788 N93-15522
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
A documentation of icing-relevant cloud-physical parameters on vertical soundings of stratiform clouds (continuation)
[DLR-MITT-91-19] 07 p2012 N93-21040
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
Heat transfer on accreting ice surfaces
[AIAA PAPER 90-0200] 08 p2106 N93-22565
Icing research tunnel rotating bar calibration measurement system
[NASA-TM-106010] 08 p2303 N93-22598
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Blade Assessment for Ice Impact (BLASIM). User's manual, version 1.0
[NASA-CR-191075] 08 p2331 N93-24102
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Aircraft ice detectors and related technologies for onground and inflight applications
[DOT/FAA/CT-92/27] 10 p2940 N93-27269
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil
10 p2933 N93-27440
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
Climatic effects of harmful emissions from high altitude air traffic 12 p3752 N93-31926

ICE MAPPING
Report of the International Ice Patrol in the North Atlantic, bulletin no. 77
[AD-A256162] 04 p0925 N93-14452
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Evaluation of the vertical distribution of the ice content in cirrus clouds from combined measurements of lidar and infrared radiometers
[ETN-93-92740] 06 p1587 N93-18631
Satellite monitoring of giant tabular icebergs
07 p1957 N93-21595
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
ERS-1 radar altimetry of ice sheets
07 p1959 N93-21606
Overview of activities of ISY PIE Committee
08 p2335 N93-22129
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk
08 p2336 N93-22131
Microwave remote sensing of ice
08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588

ICE NUCLEI
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816

ICE OBSERVATION
U ICE REPORTING

ICE PACKS
U SEA ICE

ICE PREVENTION
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816
Simulation of two-dimensional icing, de-icing and anti-icing phenomena 03 p0498 N93-13364
Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel
[NASA-TM-105968] 04 p0781 N93-14911
Surface roughness due to residual ice in the use of low power deicing systems
[NASA-TM-105971] 04 p0782 N93-15338
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil
[NASA-TM-105975] 04 p0787 N93-15345
Field demonstration of aviation turbine fuel MIL-T-83133C, grade JP-8 (NATO code F-34), at Fort Bliss, TX
[AD-A256945] 05 p1129 N93-16431
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
FAA international conference on airplane ground deicing
[AD-A263617] 11 p3244 N93-29286

ICE REPORTING
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989
03 p0663 N93-13446
Report of the International Ice Patrol in the North Atlantic, bulletin no. 77
[AD-A256162] 04 p0925 N93-14452
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
ERS-1 radar altimetry of ice sheets
07 p1959 N93-21606
Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121
Overview of activities of ISY PIE Committee
08 p2335 N93-22129
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk
08 p2336 N93-22131
Microwave remote sensing of ice
08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data
08 p2340 N93-22445
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters
08 p2359 N93-23762
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
The Oden real time ice monitoring demonstration
08 p2371 N93-23837
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491

ICE SHELVES
U LAND ICE

ICEBERGS
Satellite monitoring of giant tabular icebergs
07 p1957 N93-21595

ICELAND
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar
09 p2789 N93-25558

ICING
U ICE FORMATION

ICY SATELLITES
NT EUROPA
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304

IDAHO
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305

IDEAL FLUIDS
On the propagation of a gravitational wave in a stiff perfect fluid
[MATHS-REPT-A-178] 08 p2398 N93-24079
The collision of gravitational waves in a stiff perfect fluid
[MATHS-REPT-A-179] 08 p2398 N93-24080
Axisymmetric vortex sheet roll-up
10 p2938 N93-28078
Fourth-rank cosmology
[DE92-641346] 11 p3637 N93-30997

IDEAL GAS
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721
Mathematical problems in inviscid hypersonic flow
03 p0493 N93-13451
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522] 05 p1165 N93-17789
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964

Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768

IDENTIFYING
NT CROP IDENTIFICATION
NT PARAMETER IDENTIFICATION
NT SYSTEM IDENTIFICATION
NT TIMBER IDENTIFICATION
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
A trainable image pattern classification system for detection of damaged soybean seeds 02 p0201 N93-12208
Software stamping
[NPL-DITC-198/92] 04 p0946 N93-15072
Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
RAFALE: Progress of the program 06 p1442 N93-19905
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Prototype for a regional data management system, a step towards a regional land use project 08 p2353 N93-23571
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213

IFR (RULES)
U INSTRUMENT FLIGHT RULES

IGFET
U FIELD EFFECT TRANSISTORS

IGNEOUS ROCKS
NT ANORTHOSITE
NT BASALT
NT DUNITE
NT GABBRO
NT GRANITE
NT PERIDOTITE
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure 01 p0106 N93-10115
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling 01 p0108 N93-10125
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism 01 p0118 N93-10169
Bronzite Granophyre: New insight on Vredefort 01 p0121 N93-10186
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts 06 p1738 N93-18806
On the weathering of Martian igneous rocks 12 p3862 N93-31941

IGNIMBRITE
U IGNEOUS ROCKS

IGNITERS
NT BOOSTERS (EXPLOSIVES)
NT DETONATORS
NT EXPLODING WIRES
NT INITIATORS (EXPLOSIVES)
NT PRIMERS (EXPLOSIVES)
Role of advanced technology within a broad security approach 07 p1765 N93-21860
HERO resistant semiconductor bridge igniter 09 p2627 N93-26024
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188

IGNITION
NT ELECTRIC IGNITION
NT SOLID PROPELLANT IGNITION
NT SPARK IGNITION
Combustion-wave ignition for rocket engines 01 p0017 N93-10016
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
Metal slurry droplet and spray combustion 02 p0245 N93-11138
Impact ignition of liquid propellants
[AD-A252299] 02 p0249 N93-11490
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534
Loads from the detonation of hydrogen-air-steam mixtures
[DE92-019318] 02 p0249 N93-11551
Hot-wire vs laser, is there a difference?
[DE92-019337] 02 p0310 N93-11554
Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Plutonium pyrophoricity
[RFP-4517] 04 p0845 N93-14723
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
Test method for self-ignition of materials
[VTT-PUBS-96] 06 p1483 N93-18697
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
The ignition diffusion concerning contacted and non contacted n(+) emitter interruptions
[ETN-93-92564] 07 p1891 N93-20878
Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
A k-omega-multivariate beta PDF for supersonic combustion
[NASA-CR-191930] 07 p1851 N93-21749
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
HERO resistant semiconductor bridge igniter 09 p2627 N93-26024
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples 09 p2628 N93-26032
ADN propellant diffusion flame structure 09 p2629 N93-26036
Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique 09 p2631 N93-26043
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
Combustion/explosion chemistry of bulk materials 11 p3343 N93-30062
Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077
Pressure dependence of the reaction propagation rate of TATB to 40 GPa 11 p3319 N93-30082

IGNITION SYSTEMS
Hot-wire vs laser, is there a difference?
[DE92-019337] 02 p0310 N93-11554
The railplug: Development of a new ignitor for internal combustion engines
[DE93-003068] 05 p1176 N93-16178
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Proposed system safety design and test requirements for the microlaser ordnance system 07 p1864 N93-20144
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components 07 p1865 N93-20149
Pyrotechnic modeling for the NSI and pin puller 07 p1866 N93-20153
Laser ignition application in a space experiment
[NASA-TM-106133] 09 p2664 N93-25337

IGNITION TEMPERATURE
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser 02 p0245 N93-11135
Test method for self-ignition of materials
[VTT-PUBS-96] 06 p1483 N93-18697

IGOSS
U INTEGRATED GLOBAL OCEAN STATION SYSTEMS

IGY (GEOPHYSICAL YEAR)
U INTERNATIONAL GEOPHYSICAL YEAR

ILLINOIS
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158

ILLUMINATING
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Integration of exterior lighting systems and night vision imaging systems
[AD-A254826] 03 p0677 N93-12732
A two-pass physics-based global lighting model 04 p0957 N93-15570
Endoscopic measurements using a panoramic annular lens
[NASA-CR-184501] 05 p1167 N93-16453
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
Faster Phong shading
[CWI-CS-R9228] 10 p3103 N93-28221

ILLUMINATION
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
Extraterrestrial applications of solar optics for interior illumination 05 p1305 N93-17449

ILLUMINATORS
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327

ILLUSIONS
NT OPTICAL ILLUSION
Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case 06 p1426 N93-19681

ILMENITE
In-situ lunar oxygen extraction
04 p0806 N93-14929
Lunar beneficiation 05 p1381 N93-16887
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Application of manufactured products
05 p1383 N93-16902
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
neoKREEP: A new lunar component at Apollo 17
06 p1737 N93-18797
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores
10 p2997 N93-26677
Beneficiation of ilmenite from lunar analog
10 p2997 N93-26681
Determination of lunar ilmenite abundance from remotely sensed data 10 p3208 N93-26689
Magnetic beneficiation of lunar soils
10 p3213 N93-27968

ILS (LANDING SYSTEMS)
U INSTRUMENT LANDING SYSTEMS

IMAGE ANALYSIS
NT IMAGE CLASSIFICATION
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
Nonlinear resistive grid wavelet transformations for texture feature extraction
[AD-A254705] 02 p0285 N93-12332
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
Sensing and interpretation of 3-D shape and motion
03 p0692 N93-13240
Building and using scene representations in image understanding 03 p0692 N93-13241
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters
03 p0635 N93-13840
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Coherent frame analysis of Synthetic Aperture Radar (SAR) ocean imagery 03 p0568 N93-14050
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
The geology of the Venera/Vega landing sites
04 p1024 N93-14296
Neural nets for scene analysis
[AD-A255976] 04 p0961 N93-14409
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
Neural network architectures for general image recognition
[AD-A256017] 04 p0964 N93-15258
Cloud data set for neural network classification studies
[AD-A256666] 05 p1211 N93-15701
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Method of acoustic processing for acoustic image classification
[AD-D015454] 05 p1282 N93-16460
Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
A metric for line segments
[CWI-BS-R9126] 05 p1268 N93-16832
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Positioning a camera from a photograph and a scene model
[TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision
06 p1618 N93-18225
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Membership generation using multilayer neural network 06 p1618 N93-18227
Possibilistic clustering for shape recognition
06 p1618 N93-18228
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Wavelet image analysis 06 p1628 N93-18506
On corner and vertex detection
[INRIA-RR-1439] 06 p1646 N93-18594
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355
Recognition of partially occluded threat objects using the annealed Hopefield network
06 p1612 N93-19466
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
A system for segmentation and classification of satellite images
[INPE-5291-PRE/1696] 06 p1567 N93-19788
Glaciation in Elysium 06 p1740 N93-19802
Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871
Experience of the Finnish National Scientific Research Center (VTT) in the interpretation of AVIRIS spectrometric image 06 p1570 N93-19879
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Knitted carbon fiber reinforced thermoplastics: Structural characterization with image analysis
07 p1839 N93-21163
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images
07 p1962 N93-21624
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding
08 p2445 N93-22157
Adaptive fuzzy system for 3-D vision
08 p2451 N93-22216
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
Geological applications of space SAR data
08 p2339 N93-22440
Geocoded products of future radar sensors
08 p2340 N93-22441
Prediction of the quality of resistance welds by computer based color image analysis
[DE93-002402] 08 p2312 N93-22818
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
RLE progress report no. 133, 1 January - 31 December 1990
[NASA-CR-192144] 08 p2263 N93-23195
Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
Mapping from SPOT data 08 p2349 N93-23544
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems
08 p2354 N93-23577
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques
08 p2355 N93-23578
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
Towards infrared image understanding
08 p2488 N93-24000
Editing images of text
[PB93-149896] 08 p2443 N93-24576
Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619
Shape-contour recognition using moment invariants
[ISBN-0-315-61036-0] 08 p2444 N93-24624
Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779
Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783
The regional planning and control using the satellite data 09 p2740 N93-24788
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
A method for sequential image analysis of hazard areas 09 p2743 N93-24810
Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817
EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy)
09 p2755 N93-25434
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
Image analysis by integration of disparate information
09 p2824 N93-25973
Image analysis of the AXAF VETA-I x ray mirror
09 p2855 N93-26190
Uncertainty in object pose determination with three light-stripe range measurements
[AD-A261435] 09 p2857 N93-26488
Image-based ranging and guidance for rotorcraft
[NASA-CR-177608] 09 p2586 N93-26549
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
A system for measurement and control of weld pool geometry in automatic arc welding
[ETN-93-93154] 10 p3050 N93-27380
Digital mapping inference mechanism: A process of knowledge extraction and hypotheses evaluation
10 p3063 N93-27504
Gray-scale granulometries compatible with spatial scalings
[CWI-BS-R9212] 10 p3121 N93-28088

Estimating scene properties by analyzing color histograms with physics-based models
[AD-A262727] 10 p3111 N93-28399
Multiscale morphological filtering for analysis of noisy and complex images 11 p3582 N93-28789
A planetary version of PC-MCIDAS 11 p3614 N93-29236
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523
A fuzzy clustering algorithm to detect planar and quadric shapes 11 p3511 N93-29524
Automatic rule generation for high-level vision 11 p3511 N93-29526
Encoding spatial images: A fuzzy set theory approach 11 p3511 N93-29527
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Comparison of crisp and fuzzy character networks in handwritten word recognition 11 p3514 N93-29545
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Mixed limit theorems for pattern analysis
[AD-A263735] 11 p3549 N93-29854
Neural network cloud classification research
[AD-A264628] 11 p3484 N93-30176
Quantization effects in segmentation of range images 11 p3363 N93-30270
Recursive-batch estimation of structure and motion from stereo image sequences 11 p3363 N93-30271
Automatic detection of explosives using x ray imaging 11 p3244 N93-30275
Design and implementation of an interactive isochromatic fringe-analysis system using machine-vision techniques 11 p3369 N93-30305
Morphological and order statistic filters: A comparative study 11 p3375 N93-30345
Qualitative methods in computer vision
[AD-A264335] 11 p3533 N93-30418
Automatic recognition of solar features 12 p3880 N93-31421
Manipulating remotely-sensed data with Khoros
[DE93-012622] 12 p3842 N93-32298

IMAGE CLASSIFICATION
Method of acoustic processing for acoustic image classification
[AD-D015454] 05 p1282 N93-16460
Image classification using Markov random fields with two new relaxation methods: Deterministic pseudo annealing and modified metropolis dynamics
[INRIA-RR-1606] 11 p3553 N93-28510
Manipulating remotely-sensed data with Khoros
[DE93-012622] 12 p3842 N93-32298

IMAGE CONTRAST
Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708
Nuclear magnetic resonance microscopy: New theoretical and technical developments 02 p0313 N93-11907
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
Image enhancement using an analog device neural network 11 p3376 N93-30346

IMAGE CONVERTERS
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327

IMAGE CORRELATORS
A trainable image pattern classification system for detection of damaged soybean seeds 02 p0201 N93-12208
Determination of high temperature strains using a PC based vision system 03 p0601 N93-13674
A system for segmentation and classification of satellite images
[INPE-5291-PRE/1696] 06 p1567 N93-19788
Compression of color-mapped images 07 p1881 N93-20173
Optical correlators for automated rendezvous and capture 08 p2143 N93-22273
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163

IMAGE ENHANCEMENT
Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU] 03 p0711 N93-13711
Enhancement of video imagery by modified intensity-dependent spatial summation
[AD-A255689] 05 p1139 N93-16300
CCD imaging of the inner coma jets of comet P/Halley 06 p1702 N93-19133
Evaluating some computer enhancement algorithms that improve the visibility of cometary morphology 06 p1628 N93-19194
Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
Advanced dual energy x ray for explosives detection 07 p1767 N93-21881
Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Developing a neural network to act as a noise filter
[AD-A259515] 08 p2460 N93-23699
Method for enhancing of the spatial resolution of the passive radiometric systems 08 p2365 N93-23799
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map 09 p2743 N93-24807
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
Resolution-enhanced mapping spectrometer 11 p3434 N93-28794
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483
A new way to use fuzzy sets in image sharpening 11 p3363 N93-30273
Image enhancement using an analog device neural network 11 p3376 N93-30346

IMAGE FILTERS
Multiscale morphological filtering for analysis of noisy and complex images 11 p3582 N93-28789
Filtering interpolators for image comparison algorithms 11 p3463 N93-28797
Cloud classification from satellite imagery using neural computing 11 p3367 N93-30297
Semi-blind restoration of images distorted by random time varying point spread functions 11 p3375 N93-30344
Morphological and order statistic filters: A comparative study 11 p3375 N93-30345
Segmentation of SAR images 11 p3376 N93-30348

IMAGE FURNACES
Correction-free pyrometry in radiant wall furnaces
[NASA-CASE-NPO-18655-1-CU] 10 p3046 N93-28322

IMAGE INTENSIFIERS
Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101
Microchannel plate intensifier gain uniformity improvement in sealed tubes by selective scrubbing
[DE92-041082] 05 p1147 N93-16548
Integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054
Human visual limitations on suprathreshold contrast perception through ANVIS
[AD-A259970] 08 p2425 N93-24431
The detection and amplification processes in low light level cameras with CCD and image intensifier
[FFI-92/7017] 08 p2490 N93-24646
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483

IMAGE MOTION COMPENSATION
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements 04 p0914 N93-14641
Image stabilization performance optimization using an optical reference gyroscope
[AD-A258863] 06 p1538 N93-19371
Multi-window registration algorithm for automatic detection and tracking of moving targets 08 p2255 N93-22022
Studies on dynamism in photogrammetry 08 p2374 N93-24122

IMAGE PROCESSING
NT GEOMETRIC RECTIFICATION (IMAGERY)
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
The development of optical techniques for component inspection in the aerospace industry 01 p0093 N93-10307
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Fringe analysis of in-plane displacements on high speed rotating components
[PNR-90920] 02 p0334 N93-11022
An evidential reasoning approach to the classification of satellite images
[DLR-FB-91-29] 02 p0342 N93-11140
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345
Dynamic programming and image processing on distributed memory parallel machines
[ETN-92-92174] 02 p0409 N93-11478
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
Computational aspects of Gaussian beam migration
[DE92-018641] 02 p0431 N93-11567
Parallel architecture for image processing with optic fiber guided missile
[REPT-921-320-101] 02 p0418 N93-11584
System for generating dynamic video imagery for human factors research
[AD-A248675] 02 p0388 N93-11743
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
A dip-dependent divergence correction
[DE92-016283] 02 p0366 N93-12308
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017

Fundamentals and Special Problems of Synthetic Aperture Radar (SAR)
[AGARD-LS-182] 03 p0563 N93-13049
SAR peculiarities, ambiguities and constraints 03 p0563 N93-13051
Special SAR techniques and applications 03 p0564 N93-13059
Magnetic tape 03 p0737 N93-13135
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40 03 p0509 N93-13163
Impact of Digital Terrain Elevation Data (DTED) resolution on terrain visualization: Simulation versus reality
[AD-A254237] 03 p0634 N93-13333
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
A weighted iterative algorithm for neuromagnetic imaging
[DE92-040244] 03 p0675 N93-13522
Automatic pattern recognition techniques for geometrical correction on satellite data 03 p0687 N93-13913
Adding explanation capability to a knowledge-based system for interpretation of oceanographic images
[AD-A255887] 03 p0671 N93-13943
Coherent frame analysis of Synthetic Aperture Radar (SAR) ocean imagery 03 p0568 N93-14050
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Geographic Resources Analysis Support System (GRASS) version 4.0 user's reference manual
[AD-A255218] 04 p1001 N93-14524
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Dynamics of analog electronic neural networks
[AD-A257019] 04 p0966 N93-15352
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411
Information technologies for global resources management and environmental assessment
[DE92-041107] 04 p0906 N93-15442
An extended cuberille model for identification and display of 3D objects from 3D gray value data 04 p0953 N93-15542
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Performing in-place affine transformations in constant space 04 p0954 N93-15546
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
A structural approach to the photonic processor
[AD-A260688] 04 p0986 N93-15648
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Atomic resolution imaging and analysis with the STEM
[DE92-041304] 05 p1166 N93-16150
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Enhancement of video imagery by modified intensity-dependent spatial summation
[AD-A255689] 05 p1139 N93-16300
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Method of acoustic processing for acoustic image classification
[AD-D015454] 05 p1282 N93-16460
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
An FFT-based method for attenuation correction in fluorescence confocal microscopy
[CWI-AM-R9114] 05 p1174 N93-16848
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
The Prospector mission
[DE93-000656] 05 p1385 N93-17194
Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Holographic enhanced remote sensing system
[NASA-CR-190867] 06 p1565 N93-18230
Navigation of AVHRR/NOAA images: Operational procedure for SUN workstation
[INPE-5354-RPQ/654] 06 p1686 N93-18231
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU] 06 p1502 N93-18284
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Advanced vector quantization techniques 06 p1648 N93-18505
Wavelet image analysis 06 p1628 N93-18506
Formulation and error analysis for a generalized image point correspondence algorithm
[NASA-CR-192005] 06 p1621 N93-18570
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
On the information contained in the motion field of lines and the cooperation between motion and stereo
[INRIA-RR-1453] 06 p1537 N93-18647
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
A user interface to a true 3-D display device
[AD-A258995] 06 p1614 N93-18891
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Evaluating some computer exhancement algorithms that improve the visibility of cometary morphology 06 p1628 N93-19194
Three-dimensional measurement of turbulent shear flows using digital image processing 06 p1415 N93-19319
Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355
Digital signal processing using lapped transforms with variable parameter windows and orthonormal bases
[AD-A258853] 06 p1511 N93-19368
Retinal modeling: Segmenting motion from spatio-temporal inputs using neural networks
[AD-A258854] 06 p1599 N93-19369
Locally adaptive vector quantization: Data compression with feature preservation 06 p1513 N93-19425
Data compression by wavelet transforms 06 p1513 N93-19426
Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Incorporation of orbital imagery into a cartographic data base
[INPE-5300-PRE/1705] 06 p1688 N93-19644
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Advanced cockpit-mission and image management 06 p1607 N93-19760
Adaptive autonomous target cuer 06 p1612 N93-19784
Algorithims and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
Image quality measurement techniques
[INPE-5362-NTC/302] 06 p1664 N93-19794
Airborne imaging spectrometer development tasks 06 p1539 N93-19880
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013
A review of the associated particle imaging technique
[DE93-002238] 07 p2061 N93-20023
A robust coding scheme for packet video 07 p1881 N93-20174
Recursively indexed differential pulse code modulation 07 p1881 N93-20175
An image compression technique for use on token ring networks 07 p1881 N93-20176
A joint source/channel coder design 07 p1881 N93-20177
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
A radiosity approach realistic image synthesis system
[AD-A259082] 07 p2032 N93-20406
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Automatic modeling of nonpolyhedral objects by monocular observation
[ETN-93-92678] 07 p2068 N93-20898
Three dimensional representation and 3D reconstruction using two dimensional sections
[ETN-93-92686] 07 p2039 N93-21063
Progress in the development of the laser-based R/D test-bed system 07 p1811 N93-21127
A novel approach to graphics
[AD-A259337] 07 p2040 N93-21262
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Changing weather information: Roles of meteorological information through meteorological satellites 07 p1979 N93-21545
Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data 07 p1954 N93-21576
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies 07 p1959 N93-21608
Operational cloud classification with Meteosat data 07 p1962 N93-21622
A comparative study of estimation of partial cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
Recognition of partially occluded threat objects based on hybrid Hopfield neural network 07 p1777 N93-21939
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940

Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
System evaluation of a fiber optic guided missile with a simple guidance addition to improve system effectiveness 08 p2255 N93-22025
Experimental demonstration of high resolution three-dimensional x ray holography [DE93-004178] 08 p2302 N93-22072
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding 08 p2445 N93-22157
Knowledge From Pictures (KFP) 08 p2465 N93-22187
The 3-D image recognition based on fuzzy neural network technology 08 p2450 N93-22210
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
A PARC system for terminal docking 08 p2141 N93-22259
Virtual reality applications to automated rendezvous and capture 08 p2141 N93-22261
AR/D image processing system 08 p2152 N93-22321
Robust algebraic image enhancement for intelligent control systems 08 p2454 N93-22361
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR) [ESA-TT-1245] 08 p2339 N93-22436
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Apparatus and method for computer vision measurements [PB93-135077] 08 p2432 N93-22536
High speed, wide area distributed computing for scientific imaging [DE93-004727] 08 p2436 N93-22778
Applications of x ray lasers [DE93-005299] 08 p2308 N93-22953
Asteroid detection and monitoring using a satellite-borne visible scanner [AD-A259797] 08 p2543 N93-23455
A vector signal processing approach to color [AD-A259499] 08 p2487 N93-23465
A Star Pattern Recognition Sensor (SPRS) of high accuracy: A contribution to new possibilities of autonomous attitude determination 08 p2201 N93-23532
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
Precision geocoding demonstrator system 08 p2348 N93-23539
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Mapping from SPOT data 08 p2349 N93-23544
System design for ARTEMIS environmental monitoring 08 p2349 N93-23545
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data 08 p2350 N93-23552
Data for map algebra 08 p2350 N93-23553
A Digital Landscape Model for Europe (DLME) 08 p2351 N93-23554
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563
Multispectral intelligent fusion techniques 08 p2352 N93-23564
Application of remote sensing and GIS. Technology to natural resources management: Selecting rice fields in Vietnam 08 p2353 N93-23569
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
The analysis of remotely sensed data with neural networks 08 p2355 N93-23579
Feature detection using ERS-1 SAR data 08 p2356 N93-23586
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
Localization system based on data merging of images and inertia 08 p2269 N93-23623
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects [AD-A259711] 08 p2440 N93-23638
Recognizing 3D objects for 2D images: An error analysis [AD-A260150] 08 p2469 N93-23707
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
SPOT 4 image ground segment 08 p2360 N93-23768
Space technologies in French education 08 p2369 N93-23824
Computer-based lessons in satellite oceanography: An academic network for teachers and students 08 p2369 N93-23825
Satellite-images in secondary education in Baden-Wuerttemberg (Germany) 08 p2370 N93-23830
Why do we see three-dimensional objects? [AD-A259892] 08 p2424 N93-23986
Towards infrared image understanding 08 p2488 N93-24000
Projective structure from two uncalibrated images: Structure from motion and recognition [AD-A260102] 08 p2470 N93-24056
Studies on dynamism in photogrammetry 08 p2374 N93-24122
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis [AD-A259944] 08 p2273 N93-24243
Distance metric between 3D models and 2D images for recognition and classification [AD-A260069] 08 p2463 N93-24313
Computer based analysis and synthesis of retinal function [AD-A260514] 08 p2423 N93-24420
Neural net architecture for computing structure from motion [AD-A260526] 08 p2463 N93-24421
Control of two- and three-dimensional wake instabilities from bluff-bodies [AD-A260410] 08 p2299 N93-24428
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction [DE93-006796] 08 p2243 N93-24461
The 1993 Space and Earth Science Data Compression Workshop [NASA-CP-3191] 08 p2430 N93-24544
Compression through decomposition into browse and residual images 08 p2430 N93-24546
Applications of wavelet-based compression to multidimensional Earth science data 08 p2430 N93-24547
Wavelet encoding and variable resolution progressive transmission 08 p2431 N93-24548
Fast image decompression for telebrowsing of images 08 p2431 N93-24549
A survey of quality measures for gray-scale image compression 08 p2431 N93-24550
Digital mammography, cancer screening: Factors important for image compression 08 p2424 N93-24551
Proposed data compression schemes for the Galileo S-band contingency mission 08 p2431 N93-24554
Nonlinear dynamics research in the former Soviet Union [PB93-146496] 08 p2333 N93-24571
Editing images of text [PB93-149896] 08 p2443 N93-24576
A parameter-controlled relaxation algorithm for Bayesian restoration of images using the maximum entropy method (design, analysis, Mach band simulation and parallelization) [ISBN-0-315-64776-0] 08 p2444 N93-24608
Image coding by way of wavelets 09 p2671 N93-24665
Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA 09 p2739 N93-24783
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information 09 p2741 N93-24796
Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map 09 p2743 N93-24807
A method for sequential image analysis of hazard areas 09 p2743 N93-24810
Remote sensing geology 09 p2744 N93-24815
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Scene segmentation of natural images using texture measures and back-propagation [NASA-TM-104003] 09 p2803 N93-25235
Progress in imaging microscopy with x ray lasers at LLNL [DE93-007508] 09 p2712 N93-25363
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy) 09 p2755 N93-25434
Real-time construction and rendering of three-dimensional occupancy maps [DE93-007818] 09 p2756 N93-25516
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Very high-speed arithmetic processors (The Gauss Machine) [AD-A260693] 09 p2806 N93-25650
Efficient generation of synthetic terrain imagery for automatic target recognition [AD-A260705] 09 p2756 N93-25653
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data 09 p2878 N93-25798
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 09 p2880 N93-25804
SAVS: A Space Analysis and Visualization System 09 p2881 N93-25812
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system [AD-A260567] 09 p2854 N93-25898
Adjustable lossless image compression based on a natural splitting of an image into drawing, shading, and fine-grained components 09 p2804 N93-25923
Entropy reduction via simplified image contourization 09 p2804 N93-25924
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
High-performance compression of astronomical images 09 p2805 N93-25931
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements 09 p2824 N93-25974
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
US Army evaluation of the Electronic Map Data (EMD) prototype [AD-A261693] 09 p2757 N93-26369
Experiments in multiple-baseline stereo [AD-A261415] 09 p2757 N93-26448
Calibration of a shock wave position sensor using artificial neural networks [NASA-TM-106138] 10 p3045 N93-27001
A system for measurement and control of weld pool geometry in automatic arc welding [ETN-93-93154] 10 p3050 N93-27380
Wavelet local extrema applied to image processing [AD-A262362] 10 p3118 N93-27691
Desktop publishing in remote sensing [BCRS-92-15] 10 p3063 N93-27702
Mathematical morphology as a tool for shape description [CWI-BS-R9216] 10 p3119 N93-27991
Incidence and lattice calculus with applications to stochastic geometry and image analysis [CWI-BS-R9213] 10 p3126 N93-28089
An architecture for interactive raster graphics [CWI-CS-R9229] 10 p3102 N93-28102
Faster Phong shading [CWI-CS-R9228] 10 p3103 N93-28221
Restoration of incomplete contour images using Markov random fields [INRIA-RR-1688] 10 p3126 N93-28445
Progress in optical diagnostic development for the electro-thermal chemical program [DE93-009452] 10 p2997 N93-28452
Coarse image motion for saccade control [OUEL-1916/92] 11 p3523 N93-28485
Image classification using Markov random fields with two new relaxation methods: Deterministic pseudo annealing and modified metropolis dynamics [INRIA-RR-1606] 11 p3553 N93-28510

Clementine sensor processing system
11 p3285 N93-28778
Filtering interpolators for image comparison algorithms
11 p3463 N93-28797
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803
Digital image compression using artificial neural networks 11 p3624 N93-28811
A corner matching and tracking strategy applied to videophony
[OUEL-1933/92] 11 p3380 N93-28896
A modular head/eye platform for real-time reactive vision
[OUEL-1941/92] 11 p3505 N93-28897
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
The German PAF (Processing and Archiving Facilities) for ERS-1 11 p3457 N93-28916
The interferometric SAR technology and its usability in the framework of ERS-1 11 p3457 N93-28919
Forest examination with polarimetric radar image data
11 p3457 N93-28921
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
Atmospheric correction of LANDSAT-TM-data for forest inventory 11 p3459 N93-28929
Model-oriented correction of thematic mapper raw data 11 p3459 N93-28930
Evidence-based classification of satellite image data
11 p3459 N93-28931
SAVS: A Space Data Analysis and Visualization System 11 p3614 N93-29235
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 1: Introduction, user requirements, and feasibility tests
[BCRS-90-40A-PT-1] 11 p3460 N93-29307
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Automated satellite image navigation
[AD-A262868] 11 p3269 N93-29475
Automatic rule generation for high-level vision
11 p3511 N93-29526
Multiple image multipoint matching for automatic aerotriangulation 11 p3461 N93-29615
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Feature segmentation using a multiple-stack based chain coding algorithm 11 p3359 N93-30243
An architecture for an analog VLSI neural network for early computer vision processing
11 p3359 N93-30244
Modelling and simulation of human retinal vision processing 11 p3363 N93-30269
A single band processor for the computation of range from optical absorbance 11 p3363 N93-30272
A new way to use fuzzy sets in image sharpening
11 p3363 N93-30273
On the implementation of the BIRIS range sensor for applications in robotic control and autonomous navigation 11 p3366 N93-30286
Applications of digital 3-D imaging
11 p3366 N93-30287
A robust multi-operator 3-D edge detection approach for range image segmentation 11 p3366 N93-30288
Recognizing partially overlapping objects
11 p3366 N93-30289
Segmentation of SAR images
11 p3376 N93-30348
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370
Multiscale and multigrid information representation, extraction and fusion
[AD-A264623] 11 p3393 N93-30386
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603
Transputers, parallel processing in embedded systems for image compression in space applications
[NLR-TP-89242-U] 11 p3522 N93-30840
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054
A framework for spatio-temporal control in the tracking of visual contours
[OUEL-1961/92] 12 p3785 N93-31055
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
On-board derived flight-path measurement as demonstrated by an ILS measurement system
12 p3677 N93-31282
Testing of an experimental system for image reconnaissance 12 p3677 N93-31283
Fractal image coding techniques and contraction operators
[REPT-92-93] 12 p3789 N93-31632
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171
Manipulating remotely-sensed data with Khoros
[DE93-012622] 12 p3842 N93-32298
Expansion-based passive ranging
[NASA-TM-104025] 12 p3678 N93-32348

IMAGE RECONSTRUCTION
Orientation and pair correlation at high density by superresolution holography
[AD-A254034] 01 p0085 N93-10239
Interferometric imaging with the solar ultraviolet network 01 p0184 N93-10932
The CHARON program 01 p0177 N93-10942
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
Nuclear magnetic resonance microscopy: New theoretical and technical developments
02 p0313 N93-11907
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions
02 p0365 N93-12209
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Off-axis conoscopic holography: Optical and digital reconstruction
[TELECOM-PARIS-90-E-023] 04 p0882 N93-15096
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Computer-generated gratings
[ISBN-951-22-0785-0] 05 p1252 N93-17599
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
Data compression by wavelet transforms
06 p1513 N93-19426
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
Compressing subbanded image data with Lempel-Ziv-based coders
[NASA-TM-105998] 07 p1882 N93-20257
Automatic modeling of nonpolyhedral objects by monocular observation
[ETN-93-92678] 07 p2068 N93-20898
Numerical modeling and optimization for the reconstruction of a polyhedron from its generalized gaussian image
[ETN-93-92683] 07 p2039 N93-21060
Three dimensional representation and 3D reconstruction using two dimensional sections
[ETN-93-92686] 07 p2039 N93-21063
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
The multi-scale veto model: A two-stage analog network for edge detection and image reconstruction
[AD-A259600] 08 p2462 N93-24069
A parameter-controlled relaxation algorithm for Bayesian restoration of images using the maximum entropy method (design, analysis, Mach band simulation and parallelization)
[ISBN-0-315-64776-0] 08 p2444 N93-24608
Self-Referenced Speckle Holography (SRSH) image reconstruction performance
[AD-A262487] 10 p3045 N93-27661
Three dimensional reconstruction of complex shapes based on the Delaunay triangulation
[INRIA-RR-1697] 11 p3547 N93-28616
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483
Quantization effects in segmentation of range images
11 p3363 N93-30270
Recursive-batch estimation of structure and motion from stereo image sequences 11 p3363 N93-30271
Semi-blind restoration of images distorted by random time varying point spread functions
11 p3375 N93-30344
Extracting projective information from single views of 3D point sets
[OUEL-1927/92] 12 p3785 N93-31151
Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779
Study of an optimized configuration for interferometric imaging of complex and extended solar structures
12 p3849 N93-31780

IMAGE RESOLUTION
Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708
Extraction of shape information from predicted irradiance profiles in infrared images
[RSRE-MEMO-4464] 02 p0447 N93-11342
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions
02 p0365 N93-12209
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Motion errors and compensation possibilities
03 p0563 N93-13052
Manned observations technology development, FY 1992 report
[NASA-CR-185704] 03 p0597 N93-13373
High resolution imaging at Palomar
03 p0745 N93-13584
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
Multiresolution analysis by infinitely differentiable compactly supported functions
[AD-A256526] 04 p0969 N93-15398
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
A new ground test for determining the resolution of pushbroom sensors
[AD-A257193] 05 p1189 N93-16002
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
Wavelet-based multiresolution analyses of signals
[AD-A257496] 06 p1500 N93-17904

X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Advanced vector quantization techniques
06 p1648 N93-18505
Theory and implementation of wavelet analyses in rational resolution decompositions
[AD-A259040] 06 p1509 N93-19000
Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020
Image quality measurement techniques
[INPE-5362-NTC/302] 06 p1664 N93-19794
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Wavelet encoding and variable resolution progressive transmission 08 p2431 N93-24548
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
Improved real-time imaging spectrometer
[NASA-CASE-NPO-18410-1-CU]
11 p3578 N93-29086
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410
MR-CDF: Managing multi-resolution scientific data
11 p3618 N93-30456
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
Multiresolution analysis of SAR data
[AD-A264727] 11 p3393 N93-30576
Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

IMAGE TRANSDUCERS
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054

IMAGERY
NT ACOUSTICAL HOLOGRAPHY
NT AERIAL PHOTOGRAPHY
NT ALL SKY PHOTOGRAPHY
NT ANGIOGRAPHY
NT ASTRONOMICAL PHOTOGRAPHY
NT AUTORADIOGRAPHY
NT COLOR INFRARED PHOTOGRAPHY
NT COLOR PHOTOGRAPHY
NT COMPUTER AIDED TOMOGRAPHY
NT ELECTRO-OPTICAL PHOTOGRAPHY
NT HOLOGRAPHY
NT INFRARED IMAGERY
NT INFRARED PHOTOGRAPHY
NT MICROWAVE IMAGERY
NT NEUTRON RADIOGRAPHY
NT PHOTOMICROGRAPHY
NT PHOTORECONNAISSANCE
NT PIXELS
NT RADAR IMAGERY
NT RADIOGRAPHY
NT REPRODUCTION (COPYING)
NT SATELLITE IMAGERY
NT SATELLITE-BORNE PHOTOGRAPHY
NT SCHLIEREN PHOTOGRAPHY
NT SHADOWGRAPH PHOTOGRAPHY
NT SPACEBORNE PHOTOGRAPHY
NT SPECKLE HOLOGRAPHY
NT SPECTROHELIOGRAPHS
NT STEREOPHOTOGRAPHY
NT STEREOSCOPY
NT TOMOGRAPHY
NT ULTRAVIOLET PHOTOMETRY
NT X RAY IMAGERY
Photogrammetric point determination using digital imagery of three-line scanner systems
[SER-C-372] 02 p0309 N93-11346
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12287
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision
[AD-A256059] 04 p0937 N93-14580
Night vision goggle training: Development and production of six video programs
[AD-A258529] 07 p2025 N93-20050
Wavelet encoding and variable resolution progressive transmission 08 p2431 N93-24548
Fast image decompression for telebrowsing of images
08 p2431 N93-24549
A survey of quality measures for gray-scale image compression 08 p2431 N93-24550
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Topography from shading and stereo
09 p2879 N93-25803
Compression of spectral meteorological imagery
09 p2804 N93-25925
Fractal image compression: A resolution independent representation for imagery 09 p2804 N93-25927
The probabilistic neural network architecture for high speed classification of remotely sensed imagery
09 p2824 N93-25972
Image analysis by integration of disparate information
09 p2824 N93-25973
Arc Digital Raster Imagery (ADRI) development
[AD-A261850] 09 p2812 N93-26275
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

IMAGES
NT RETINAL IMAGES
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
Proceedings of the fifth workshop on elementary-particle picture of the universe
[DE92-538746] 05 p1375 N93-17190
The division of a circle or spherical surface into equal-area cells or pixels
[AD-A257770] 05 p1192 N93-17726
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Knowledge From Pictures (KFP)
08 p2465 N93-22187
Planning multiple observations for object recognition
[AD-A259879] 08 p2440 N93-23959
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
What is the center of the image?
[AD-A263550] 11 p3579 N93-29824
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453

IMAGING RADAR
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Polarization effects and multipolarization SAR
03 p0564 N93-13054
Scatterer modeling/calibration study
[AD-A255855] 04 p0856 N93-14107
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment
05 p1386 N93-17240
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
Similarities between synthetic aperature radar and ground probing radar imaging 11 p3376 N93-30347

IMAGING SPECTROMETERS
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
Prospects with SIMURIS 01 p0179 N93-10904
Prospects in stellar and galactic observations with SIMURIS 01 p0182 N93-10921
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926
IFTS: The Imaging Fourier Transform Spectrometer
01 p0014 N93-10933
Polarimetry with an imaging FTS
01 p0014 N93-10934
Fourier transform spectrometer processing: Data reduction and processor design
01 p0014 N93-10935
First results of an imaging FTS with a NICMOS camera 01 p0086 N93-10936
Detectors for the SIMURIS payload
01 p0014 N93-10937
The imaging Fourier transform spectrometer optical design 01 p0159 N93-10951
The imaging Fourier transform spectrometer: Performance and tolerance analysis
01 p0086 N93-10952
A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953
Interferometer optical design for the Imaging Fourier Transform Spectrometer (IFTS)
01 p0159 N93-10955
Mechanical and thermal design of the SUN instrument
01 p0014 N93-10956
Some possible space interferometry applications
01 p0178 N93-10957
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Imaging IR spectrometer, phase 2
[NASA-CR-190848] 03 p0597 N93-13424
Spectral analysis of the shuttle glow: AIS science support
[PL-TR-92-2172] 04 p0815 N93-14698
Performance characteristics of STIS detectors
[NASA-CR-191636] 04 p0868 N93-14915
LISA: A limb imaging spectrograph for airglow
04 p0811 N93-14952
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy
05 p1128 N93-16794
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy
05 p1390 N93-17261
Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871
Business development considerations for the imaging spectrometer project 06 p1569 N93-19873
Present and future imaging spectrometers in telemapping 06 p1570 N93-19877
The use of imaging spectrometers
06 p1570 N93-19878
Experience of the Finnish National Scientific Research Center (VTT) in the interpretation of AVIRIS spectrometric image 06 p1570 N93-19879
Airborne imaging spectrometer development tasks
06 p1539 N93-19880
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685

German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
Medium Resolution Imaging Spectrometer (MERIS) 08 p2363 N93-23785
Broadband imaging spectrometer technology and its use potential for environmental change mission 08 p2364 N93-23791
Design of an imaging spectrometer processing chain for space application 08 p2364 N93-23792
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers 09 p2738 N93-24776
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing 09 p2751 N93-24859
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Imaging spectrometers using concave holographic gratings 11 p3434 N93-28783
Resolution-enhanced mapping spectrometer 11 p3434 N93-28794
Ultraviolet imaging spectrometer 11 p3582 N93-28827
Improved real-time imaging spectrometer [NASA-CASE-NPO-18410-1-CU] 11 p3578 N93-29086
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952

IMAGING TECHNIQUES
NT ACOUSTIC IMAGING
NT ACOUSTICAL HOLOGRAPHY
NT RASTER SCANNING
NT SPECKLE HOLOGRAPHY
Electrical resistance tomography used in environmental restoration [DE92-018003] 01 p0103 N93-10763
Imaging of BL Lac objects 01 p0177 N93-10884
High resolution observations: The state of the art and beyond 01 p0177 N93-10902
Fourier transform spectrometer processing: Data reduction and processor design 01 p0014 N93-10935
Report of the Lunar Interferometry Study Team (LIST) activities 01 p0178 N93-10945
Method of remotely characterizing thermal properties of a sample [NASA-CASE-LAR-13508-3-CU] 02 p0216 N93-11057
The tomographic formulation of spotlight mode synthetic aperture radar extended to three dimensional targets [DE92-013666] 02 p0280 N93-11234
High resolution image processing of geophysical data with diffraction tomography [DE92-014134] 02 p0359 N93-11235
Photogrammetric point determination using digital imagery of three-line scanner systems [SER-C-372] 02 p0309 N93-11346
High energy x ray imaging diagnostic on Nova [DE92-018067] 02 p0451 N93-11495
Magneto-optic imaging inspection of selected corrosion specimens [DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
System for generating dynamic video imagery for human factors research [AD-A248675] 02 p0388 N93-11743
Advanced technology for portable personal visualization [AD-A253808] 02 p0388 N93-11783
High-speed test station for solid-state imagers [DE92-018990] 02 p0312 N93-11822
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Model-based vision for space applications 02 p0398 N93-11955
Effect of microstructure on passive film formation and breakdown on Al alloys [AD-A245863] 02 p0260 N93-12118
Reflection masks for soft x ray projection lithography [DE92-014779] 02 p0293 N93-12121
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions 02 p0365 N93-12209
Final Report, January 1991 - July 1992 [AD-A254659] 02 p0483 N93-12244
Foil optimization for low energy neutral atom imaging [DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging [DE92-013531] 02 p0365 N93-12264
Laser Doppler experiments [AD-A252883] 02 p0287 N93-12461
Thermal imaging of synchrotron beams on silicon crystals [DE92-018182] 03 p0719 N93-12562
Functional MRI studies of human vision on a clinical imager [DE92-017448] 03 p0674 N93-12566
Integration of exterior lighting systems and night vision imaging systems [AD-A254826] 03 p0677 N93-12732
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys [DE92-019587] 03 p0541 N93-12798
Automation of the targeting and reflective alignment concept [NASA-CR-190964] 03 p0709 N93-12985
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Inverse Synthetic Aperture Radar 03 p0564 N93-13058
Digital imaging systems [DE92-019194] 03 p0736 N93-13078
Silicon vision: Elementary functions to be implemented on electronic retinas 03 p0692 N93-13242
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
Infrared image projector utilizing a deformable mirror device spatial light modulator [AD-D015373] 03 p0710 N93-13500
Radio and optical interferometric imaging 03 p0744 N93-13580
The optical very large array and its moon-based version 03 p0745 N93-13583
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster 03 p0602 N93-13686
Finite element study of ultrasonic imaging 03 p0700 N93-13774
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101
A differential equation design method for finite-conjugate, multi-mirror imaging systems 04 p0979 N93-14165
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure 04 p0913 N93-14225
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Magellan stereo images and Venusian geology 04 p1035 N93-14347
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue (joint Canadian/US Coast Guard experiment) [AD-A255525] 04 p0939 N93-14554
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Gamma-ray imaging observations of Supernova 1987A 04 p1012 N93-14628
NMR imaging of elastomeric materials [AD-A256034] 04 p0841 N93-14658
Quasar x-ray spectra revisited 04 p1012 N93-14760
LISA: A limb imaging spectrograph for airglow 04 p0811 N93-14952
Nonuniformity effects in a hybrid platinum silicide imaging device [AD-A256339] 04 p0983 N93-15197
Imaging the sun in hard x rays using Fourier telescopes [NASA-TM-108390] 04 p1013 N93-15203
Three-dimensional nuclear magnetic resonance imaging of green-state ceramics [DE93-000930] 04 p0851 N93-15282
High speed imaging for flash radiography using PIN diodes [DE92-040959] 04 p0882 N93-15381
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Proceedings: Graphics Interface 1992 [ISBN-0-9695338-1-0] 04 p0952 N93-15533
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Object space temporal coherence for ray tracing 04 p0955 N93-15554
Ray tracing polygons using spatial subdivision 04 p0955 N93-15555
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
High speed cineradiography using electronic imaging [DE92-040366] 05 p1166 N93-15662
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms [NASA-CR-184487] 05 p1314 N93-15714
Laser guide stars: Bridge of ground-based lasers entering space [AD-A256649] 05 p1171 N93-15887
Application of scanning tunneling microscopy to electrochemistry [AD-A255680] 05 p1101 N93-15955
Atomic resolution imaging and analysis with the STEM [DE92-041304] 05 p1166 N93-16150
Enhancement of video imagery by modified intensity-dependent spatial summation [AD-A255689] 05 p1139 N93-16300
Endoscopic measurements using a panoramic annular lens [NASA-CR-184501] 05 p1167 N93-16453
Grid free, modular, large screen display [AD-D015474] 05 p1303 N93-16481
Undersea data collection, analysis, and display system [AD-D015476] 05 p1220 N93-16483
Advanced imaging system [NASA-CR-191800] 05 p1303 N93-16712
Multicolor pyrometer for materials processing in space [NASA-CR-190876] 05 p1132 N93-16747
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Hard x ray microimaging techniques based on phase zone plates [DE93-000615] 05 p1304 N93-17176
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft [DE93-000516] 05 p1304 N93-17225
A ground-based search for lunar resources using high-resolution imaging in the infrared 05 p1386 N93-17241
High-resolution elemental mapping of the lunar surface 05 p1387 N93-17244
Lunar resources using moderate spectral resolution visible and near-infrared spectroscopy: Al/Si and soil maturity 05 p1387 N93-17247
Mapping the Moon in soft x rays: Promises and challenges 05 p1388 N93-17252
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis 05 p1170 N93-17338
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared [DE92-041081] 05 p1359 N93-17354
Imaging System (INEL) development software evaluation [DE93-001940] 05 p1246 N93-17484
IR imaging for combustion characteristics and optical properties of boron/boron oxide [AD-A257747] 05 p1108 N93-17693
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue [AD-A257704] 05 p1228 N93-17697
Helmet-mounted area-of-interest display [AD-A258275] 06 p1605 N93-18029
Photoelectric analysis of the solar granulation in IR [AD-A257811] 06 p1744 N93-18334
Study of optical techniques for the Ames unitary wind tunnel, part 7 [NASA-CR-192165] 06 p1452 N93-18520
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6 [NASA-CR-192164] 06 p1452 N93-18766
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report [DE92-041215] 06 p1624 N93-18867
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924
The effect of an adaptive optical system's spatio-temporal response on imaging performance [AD-A258848] 06 p1663 N93-19069
Dark-cycle monitoring of biological subjects on Space Station Freedom [NASA-TM-103976] 06 p1500 N93-19103
Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
CCD imaging of the inner coma jets of comet P/Halley 06 p1702 N93-19133
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
Wake in faint television meteors 06 p1716 N93-19233

Mosaic CCD method: A new technique for observing dynamics of cometary magnetospheres
06 p1698 N93-19236
1991 DA: An asteroid in a bizarre orbit
06 p1718 N93-19247
A CCD search for distant satellites of asteroids 3 Juno and 146 Lucina 06 p1699 N93-19248
Cartography of asteroids and comet nuclei from low resolution data 06 p1718 N93-19249
Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337
Image stabilization performance optimization using an optical reference gyroscope
[AD-A258863] 06 p1538 N93-19371
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering
[NASA-TM-105784] 06 p1539 N93-19651
A new concept for helmet mounted vision
06 p1609 N93-19767
A review of the associated particle imaging technique
[DE93-002238] 07 p2061 N93-20023
Atmospheric electricity/meteorology analysis
07 p2006 N93-20086
ER-2 investigations of lightning and thunderstorms
07 p2006 N93-20088
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Robot motion vision by fixation
[AD-A259456] 07 p2046 N93-20241
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
Optical tracking of charged particle beams
[AD-D015592] 07 p2061 N93-20802
Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917
The acquisition of velocity fields via the automatic analysis of motion, exemplarily demonstrated in a rotating fluid
[MPIS-102/1991] 07 p1902 N93-21023
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images
07 p1962 N93-21624
Planetary astronomy research
[NASA-CR-192134] 07 p2099 N93-21643
Associated particle imaging 07 p1766 N93-21871
New x ray technology for the detection of explosives
07 p1767 N93-21880
Advanced dual energy x ray for explosives detection
07 p1767 N93-21881
Three-dimensional x ray imaging for the detection of contraband 07 p1768 N93-21882
The evolution of Computed Tomography (CT) as an explosives detection modality 07 p1768 N93-21883
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Explosive detection for checked luggage by DETEX, a combined x ray and positron-tomograph system
07 p1768 N93-21886
Explosive detection using microwave imaging
07 p1771 N93-21902
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
Method and apparatus for filtering visual documents
[NASA-CASE-MSC-22093-1] 08 p2522 N93-22017
Off-surface infrared flow visualization
[NASA-CASE-LAR-14568-1] 08 p2486 N93-22037
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
A strongly goal-directed close-range vision system for spacecraft docking 08 p2136 N93-22232
Image based tracking approaches to AR/C at the Johnson Space Center 08 p2140 N93-22256
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Design and manufacture of optical system for use in UV lithography with the free electron laser
[DE93-005440] 08 p2307 N93-22539
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Laser range camera data fusion
[DE93-005159] 08 p2263 N93-23313
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
High resolution computed tomography
[AD-A259728] 08 p2321 N93-23470
3D pose from 3 corresponding points under weak-perspective projection
[AD-A259737] 08 p2460 N93-23473
Mapping from SPOT data 08 p2349 N93-23544
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
Meteosat second generation: A look to the future
08 p2357 N93-23753
Ultrasonic inspection of filament wound graphite epoxy cylinders
[AD-A260361] 08 p2321 N93-24173
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
Human visual limitations on suprathreshold contrast perception through ANVIS
[AD-A259970] 08 p2425 N93-24431
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Scene segmentation of natural images using texture measures and back-propagation
[NASA-TM-104003] 09 p2803 N93-25235
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering
[AD-D015642] 09 p2852 N93-25358
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
Firmware development improves system efficiency
09 p2807 N93-25606
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
An investigation of photothermal velocimetry for application to transient, high-speed gas flows
09 p2579 N93-25720
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
ADN propellant diffusion flame structure
09 p2629 N93-26036
Imaging the magnetosphere in the extreme ultraviolet
[NASA-CR-192218] 09 p2775 N93-26151
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184
New pyro-optic techniques for imaging of long wavelength IR-Radiation (pyro-optic initiation program)
[AD-A260969] 09 p2856 N93-26224
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
Imaging regional changes in the spontaneous activity of the brain: An extension of the minimum-norm least-squares estimate
[AD-A261593] 09 p2798 N93-26436
Experiments in multiple-baseline stereo
[AD-A261415] 09 p2757 N93-26448
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Determination of lunar ilmenite abundance from remotely sensed data 10 p3208 N93-26689
Low surface brightness galaxies
10 p3178 N93-26750
Correlation between low level fluctuations in the x ray background and faint galaxies 10 p3179 N93-26752
Ultraviolet Imaging Telescope (UIT) observations of galaxies 10 p3184 N93-26785
Evolution of luminous IRAS galaxies: Radio imaging
10 p3184 N93-26786
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796
Deep, wide-field, multi-band imaging of z approximately equal to 0.4 clusters and their environs
10 p3195 N93-26848
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging
10 p3086 N93-27848
Quantitative high-resolution electron microscopy and holography
[ISBN-90-6275-752-9/CIP] 10 p3046 N93-27875
A model-based approach for detection of objects in low resolution passive millimeter wave images
[NASA-CR-193161] 10 p2943 N93-28418
Robust and fast computation of edge characteristics in image sequences
[INRIA-RR-1689] 10 p3105 N93-28446
Low-cost helmet-mounted displays
[AD-A262616] 11 p3501 N93-28479
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485
Recognizing parameterized objects from range data
[OUEL-1918/92] 11 p3523 N93-28486
Three dimensional reconstruction of complex shapes based on the Delaunay triangulation
[INRIA-RR-1697] 11 p3547 N93-28616
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
Polarimetric multispectral imaging technology
11 p3434 N93-28774
Clementine sensor processing system
11 p3285 N93-28778
Imaging spectrometers using concave holographic gratings 11 p3434 N93-28783
The Ultraviolet Plume Instrument (UVPI)
11 p3285 N93-28784
Visible imaging on the Pluto fast flyby mission
11 p3646 N93-28799
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528
Quantification of thermographic mapping techniques
[AD-A264020] 11 p3391 N93-30016
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141

The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160
Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
A new tubeless nanosecond streak camera based on optical deflection and direct CCD imaging
[DE93-011893] 11 p3433 N93-30491
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564
3D reconstruction methods of coronal structures by radio observations 12 p3874 N93-31387
Hybrid rendering of scientific data using an h-buffer
[REPT-92-68] 12 p3788 N93-31495
A proposal on the quality of the binary thresholds of a contour detection
[REPT-91-075] 12 p3806 N93-31544
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560
Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561
Computerized tomography and its applications: A guided tour
[CS-9206] 12 p3789 N93-31629
Fractal coding of monochrome images
[REPT-92-99] 12 p3790 N93-31656
Ultraviolet imaging interferometry 12 p3844 N93-31752
Visible and infrared imaging interferometry from space 12 p3844 N93-31753
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
The application of two-dimensional imaging to very high energy gamma ray astronomy
[DE93-012326] 12 p3851 N93-32160
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

IMCC (CONTROL CENTER)
U INTEGRATED MISSION CONTROL CENTER

IMIDES
NT BISMALEIMIDE
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474

IMINES
Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290
Synthetic lubricating oil greases containing metal chelates of Schiff bases
[AD-D015694] 11 p3333 N93-29458

IMMERSION
U SUBMERGING

IMMISCIBILITY
U SOLUBILITY

IMMITTANCE
U ELECTRICAL IMPEDANCE

IMMUNE SYSTEMS
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259

IMMUNITY
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Silent HIV infection 02 p0378 N93-11293
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population 02 p0381 N93-11307
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Cytokines as vaccine adjuvants: Interleukin 1 and its synthetic peptide 163-171 02 p0382 N93-11309
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828

IMMUNOASSAY
NT RADIOIMMUNOASSAY
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting 02 p0382 N93-11312
Phadiatop: A screening test for inhalant allergy 02 p0383 N93-11313
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Allergy screening and follow-up in student pilots of the Belgian Air Force (BAF) 02 p0383 N93-11316
Microparticle-based fluorescence immunoassay
[DE92-040704] 05 p1103 N93-16195

IMMUNOLOGY
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Space flight and immune system 02 p0376 N93-11284
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Clinical types of Hepatitis B 02 p0376 N93-11286
Hepatitis A and Hepatitis B: Risks compared to other vaccine preventable diseases and immunization recommendations 02 p0377 N93-11288
Vaccination against Hepatitis B: The Italian strategy 02 p0377 N93-11289
Silent HIV infection 02 p0378 N93-11293
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations 02 p0379 N93-11297
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
Immunization of personnel traveling to a destination in tropical countries: French position 02 p0380 N93-11304
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits 02 p0381 N93-11305
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population 02 p0381 N93-11307
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Future approaches to vaccine development single-dose vaccines using controlled-release delivery systems 02 p0382 N93-11310
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Immunology presentation at the 1990 NASA/NSF Antarctica Biomedical Science Working Group 05 p1222 N93-16806
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828
Immunoconjugates: Magic bullets for cancer therapy? 09 p2796 N93-25567
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259

IMP-J
U EXPLORER 50 SATELLITE

IMP-8
U EXPLORER 50 SATELLITE

IMPACT
NT ECONOMIC IMPACT
NT ELECTRON IMPACT
NT HYPERVELOCITY IMPACT
NT ION IMPACT
NT PROTON IMPACT
Computation of single solid particle impact on the target of ductile material to study the rebound characteristics of particle 02 p0336 N93-11372
Airblast damage from small asteroids
[DE92-017834] 03 p0749 N93-12956
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Melting, vaporization, and energy partitioning for impacts on asteroidal and planetary objects 06 p1718 N93-19244
The Tapanui region of New Zealand: Site of a Tunguska around 800 years ago? 06 p1718 N93-19246
Gaspra and Ida in families 06 p1720 N93-19263
System for determining the angle of impact of an object on a structure
[NASA-CASE-LAR-14817-1] 07 p1906 N93-20569
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Comparison of impact results for several polymeric composites over a wide range of low impact velocities 11 p3304 N93-30848

IMPACT ACCELERATION
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672

IMPACT DAMAGE
NT METEORITIC DAMAGE
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Large meteorite impacts: The K/T model 01 p0107 N93-10120
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling 01 p0108 N93-10125
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia 01 p0110 N93-10136
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371

Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
Impact response of laminated plates subjected to transverse loading
[NIAR-92-5] 06 p1560 N93-19360
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
System for determining the angle of impact of an object on a structure
[NASA-CASE-LAR-14817-1] 07 p1906 N93-20569
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
[MBB-FE-221-S-PUB-0483] 07 p1840 N93-21462
GARTEUR damage mechanics for composite materials: Analytical/experimental research on delaminations
07 p1841 N93-21513
Mode 2 damage development in carbon fibre reinforced plastics 07 p1842 N93-21523
Barely visible damage threshold in a BMI
07 p1843 N93-21524
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Damage in laminated composites due to low velocity impact 08 p2213 N93-23947
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Value of space defenses
[DE93-003813] 10 p3127 N93-28295
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
LDEF data: Comparisons with existing models
11 p3283 N93-29375
Developments in impact damage modeling for laminated composite structures 11 p3305 N93-30857
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression
11 p3307 N93-30872
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

IMPACT DECELERATION
U IMPACT ACCELERATION

IMPACT FUSION
Computational modeling of MAGO and other magnetized target fusion concepts
[DE93-007354] 09 p2861 N93-26504

IMPACT LOADS
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Geomechanical models of impact cratering: Puchezh-Katunki structure 01 p0114 N93-10151
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
Overview of the vibroimpact damping of packaged particles 01 p0056 N93-10528
Impact ignition of liquid propellants
[AD-A252299] 02 p0249 N93-11490
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
An analytical and experimental study on the design and verification of containment subjected to impact loading
05 p1078 N93-15726
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Shock and impact dynamics 06 p1558 N93-18760
Piezoelectric response of precisely poled PVDF to shock compression greater than 10 GPa
[DE93-002469] 06 p1539 N93-19636
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
A ceramic fracture model for high velocity impact
[AD-A264728] 11 p3454 N93-30545
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Blasim: A computational tool to assess ice impact damage on engine blades
[NASA-TM-106225] 12 p3740 N93-31193

IMPACT MELTS
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence
01 p0107 N93-10124
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling
01 p0108 N93-10125
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence
01 p0108 N93-10128
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
New perspectives on the Popigai impact structure
01 p0110 N93-10138
Melt production in large-scale impact events: Implications and observations at terrestrial craters
01 p0112 N93-10144
The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Search for a meteoritic component at the Beaverhead impact structure, Montana 01 p0116 N93-10156
Impactites from Popigai Crater
01 p0117 N93-10164
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism
01 p0118 N93-10169
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia
01 p0119 N93-10171
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia
01 p0120 N93-10181
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary
01 p0122 N93-10188
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa
01 p0123 N93-10192
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
A computational study of projectile melt in impact with typical Whipple shields
[DE92-017137] 01 p0092 N93-10635
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
The ancient lunar crust, Apollo 17 region
06 p1736 N93-18795
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368

IMPACT PREDICTION
Blade Assessment for Ice Impact (BLASIM). User's manual, version 1.0
[NASA-CR-191075] 08 p2331 N93-24102
Structural impact simulation using program KRASH
[CRANFIELD-AERO-9010] 08 p2333 N93-24639

IMPACT PRESSURES
U IMPACT LOADS

IMPACT RESISTANCE
Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
Impact on ceramic faced armour
[ETN-92-92797] 05 p1124 N93-16569
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
Barely visible damage threshold in a BMI
07 p1843 N93-21524
The characterization of impact properties of composites 08 p2213 N93-23945
Low-velocity impact of composite sandwich plate
09 p2637 N93-25695
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907

The environmental and impact resistance of adhesively bonded thermoplastic fibre composites
[AD-A263202] 10 p2992 N93-28383
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645

IMPACT SENSITIVITY
U IMPACT RESISTANCE

IMPACT STRENGTH
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Effects of high thermal neutron fluences on Type 6061 aluminum
[DE92-040569] 04 p0846 N93-15348
Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Evaluation of the chevron notch fracture toughness test for brittle materials
[NPL-DMM(A)-72] 12 p3742 N93-32384

IMPACT TESTS
NT CHARPY IMPACT TEST
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Stress patterns in the dynamic tear test
01 p0049 N93-10491
A computational study of projectile melt in impact with typical Whipple shields
[DE92-017137] 01 p0092 N93-10635
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery
02 p0327 N93-11887
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Velocity distribution of fragments of catastrophic impacts 06 p1719 N93-19252
Design/development of an enhanced biodynamic manikin 06 p1424 N93-19667
Improving manikin biofidelity 06 p1424 N93-19668
The design and use of automotive crash test dummies
06 p1424 N93-19669
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat
06 p1424 N93-19671
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
Compression-after-impact behavior of ARALL(trade name)-1 laminates
[AD-A259203] 07 p1832 N93-20550
NIST impact test facility
[PB92-226315] 07 p1788 N93-21467
An impact technique to accelerate flier plates to velocities over 12 km/s
[DE93-002467] 07 p1820 N93-21485
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Pyroshock simulation for satellite components using a tunable resonant fixture
[DE93-005338] 08 p2322 N93-22500
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1
[DE93-005382] 08 p2325 N93-22975
Repeatability and uncertainty analyses of NASA/MSFC light gas gun test data
[NASA-CR-192496] 08 p2325 N93-23012
Impact experiments into multiple-mesh targets: Concept development of a lightweight collisional bumper
[NASA-TM-104764] 08 p2194 N93-23247
A new method of impact tension testing of adhesively-bonded joints 08 p2212 N93-23939
The characterization of impact properties of composites 08 p2213 N93-23945
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Axial impact of composites 11 p3297 N93-29078
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
Dislocation roles in energetic crystal responses
11 p3348 N93-30086
Catastrophic collisions: Laboratory impact experiments, hydrocode simulations, and the scaling problem
11 p3635 N93-30411
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507
Comparison of impact results for several polymeric composites over a wide range of low impact velocities
11 p3304 N93-30848
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

IMPACT TOLERANCES
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper)
08 p2150 N93-22311
Low-velocity impact of composite sandwich plate
09 p2637 N93-25695
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Consideration of impact damages by dimensioning CFC (Carbon Fiber Reinforced Composites) components
[MBB-FE-221-S-PUB-0501] 12 p3699 N93-31044

IMPACTORS
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
Axial impact of composites 11 p3297 N93-29078
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
LDEF data: Comparisons with existing models
11 p3283 N93-29375
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces
11 p3638 N93-29378

IMPATT DIODES
U AVALANCHE DIODES

IMPEDANCE
NT ACOUSTIC IMPEDANCE
NT CONTACT RESISTANCE
NT ELECTRICAL IMPEDANCE
NT ELECTRICAL RESISTANCE
NT MECHANICAL IMPEDANCE
NT TRANSCONDUCTANCE
Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0258 N93-11621
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Impedance and voltammetric studies of electrogenerated polyaniline conducting films
[AD-A258328] 06 p1493 N93-18256
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Embedding impedance approximations in the analysis of SIS mixers 10 p3016 N93-27760
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Measurements and analysis of the equivalent circuit of the GEC RF Reference Cell
[DE93-013498] 12 p3718 N93-32425

IMPEDANCE MATCHING
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
Active impedance matching of complex structural systems 10 p3060 N93-28169

IMPEDANCE MEASUREMENT
Sound propagation over rigid porous layers
02 p0432 N93-11179
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835
Plasma diagnostics by antenna impedance measurements 11 p3400 N93-28820

IMPEDANCE PROBES
NT RADIO FREQUENCY IMPEDANCE PROBES
Plasma diagnostics by antenna impedance measurements 11 p3400 N93-28820

IMPELLER BLADES
U ROTOR BLADES (TURBOMACHINERY)

IMPELLERS
NT PUMP IMPELLERS
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
Space propulsion 08 p2174 N93-22092
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
Numerical modelling of viscous turbomachinery flows with a pressure correction method
09 p2594 N93-25702

IMPERFECTIONS
U DEFECTS

IMPINGEMENT
NT JET IMPINGEMENT
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187

Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Automating an orbiter approach to Space Station Freedom to minimize plume impingement
08 p2149 N93-22305
Three-dimensional analysis and verification of fracture growth mechanisms in fiber-reinforced ceramic composites
[AD-A261483] 09 p2641 N93-26355
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases
11 p3255 N93-29943
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

IMPLANTATION
NT ION IMPLANTATION
Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085

IMPLANTED ELECTRODES (BIOLOGY)
Programmable interactive system for cochlear implant electrode stimulation
[AD-A262558] 11 p3494 N93-29421

IMPLICATION
Weak equivalence: Theory and applications
[CT-92-02] 12 p3788 N93-31529

IMPLOSIONS
Hydrodynamic efficiencies in implosion experiments
02 p0308 N93-12030
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
Design and characterization of the Pegasus 1 plasma flow switch
[DE93-003812] 08 p2276 N93-22322
Experimental studies of instabilities in radially imploding plasmas
[DE93-003831] 08 p2492 N93-22427
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
Sensitivity of magnetic flux compression in cylindrical implosions to model parameters
[DE93-003819] 09 p2861 N93-26512
Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812

IMPREGNATING
Production of highly integrated FRP parts in the braiding technology 07 p1835 N93-21136
Continuous fiber reinforced thermoplastic composites
07 p1835 N93-21138
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597
Vacuum powder injector and method of impregnating fiber with powder
[NASA-CASE-LAR-14179-1] 09 p2668 N93-26101

IMPROVEMENT
STARE: A new coherent radar in Scandinavia
06 p1517 N93-19572
The SPOT 4 satellite and beyond
08 p2360 N93-23767

IMPULSES
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231

IMPURITIES
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Instabilities in the rundown phase of the plasma focus
[IPF-90-3] 02 p0449 N93-11030
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys
02 p0259 N93-11895
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Measurement of impurity ion densities and energies in the divertor and edge regions of Alcator C-Mod tokamak
[DE92-040510] 05 p1307 N93-15922
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
The 16th International Conference on Defects in Semiconductors
[AD-A258035] 05 p1328 N93-17754
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
Defects and impurities in amorphous semiconductors and in liquid electrolytes
[MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Plasma edge diagnostics 08 p2495 N93-23261
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys
[DE93-005039] 08 p2232 N93-23980
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Thermionic current measurement in quartz
09 p2840 N93-25045
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
Mean field phase diagram of two band tJ model for CuO2 layers
[SSCL-PREPRINT-764] 10 p3151 N93-27581
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098

IN SITU MEASUREMENT
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data
02 p0365 N93-12182
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264
Modeling energy and mass fluxes from prairie canopies
[NASA-CR-191801] 06 p1566 N93-18232
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
NASA wind shear flight test in situ results
06 p1418 N93-19593
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry
[DE93-003741] 08 p2220 N93-23051
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
[AD-A259616] 08 p2510 N93-24126
A study of high-latitude auroral arcs using radar, optical, and in situ techniques 08 p2399 N93-24183
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010146] 10 p3079 N93-26943
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor
[ONERA-P-1990-3] 11 p3313 N93-30109
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

IN-FLIGHT MONITORING
Flight test progress of the STOL research aircraft ASKA
[NAL-TM-643] 02 p0208 N93-12354
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
Discussion for the ideal AIMS
04 p0793 N93-15153
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154
The Teledyne controls aircraft condition monitoring system 04 p0793 N93-15155
Flight data and flight safety in SAS
04 p0793 N93-15156
Detection of technical states with aircraft
04 p0794 N93-15159
Integrated engine control and monitoring with experiences derived from OLMOS
04 p0795 N93-15168
Real-time in-flight engine performance and health monitoring techniques for flight research application
04 p0795 N93-15169

Monitoring of powerplants in advanced commercial aircraft 04 p0795 N93-15171
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system 04 p0796 N93-15172
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system 04 p0796 N93-15173
A philosophy for integrated monitoring system design 04 p0796 N93-15174
Modelling the engine temperature distribution between shut down and restart for life usage monitoring 04 p0796 N93-15177
Helicopter flight data recorder and health and usage monitoring system 04 p0797 N93-15178
Helicopter health monitoring: Current practice and future trends 04 p0797 N93-15179
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
Neural network based condition monitoring 04 p0797 N93-15183
Monitoring of pilot actions as part of a knowledge-based system for pilot assistance 04 p0797 N93-15184
Personal computer based test- and emulation equipment for maintenance and ground support 04 p0778 N93-15185
Airbus Industrie TCAS experience 04 p0789 N93-15186
Usage monitoring in the RNLN Fleet Air Arm (Marine Luchtvaardienst) [NLR-TP-91070-U] 05 p1062 N93-17394
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device [NLR-TP-91116-U] 05 p1062 N93-17538
Rocket engine monitoring system: Application to the Vulcain engine [ETN-93-93016] 06 p1472 N93-18078
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
High precision navigation for flight testing (AERONAV) 06 p1434 N93-19920
Design and application of electromechanical actuators for deep space missions [NASA-CR-192227] 06 p1551 N93-19946
Nickel-hydrogen CPV battery update 07 p1986 N93-20518
Load experience variability of fighter aircraft [NLR-TP-89172-U] 07 p1781 N93-20742
The Galileo PPS expert monitoring and diagnostic prototype [NASA-CR-191914] 07 p1828 N93-21823
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448
Spurious symptom reduction in fault monitoring [NASA-CR-191453] 11 p3542 N93-29192

INACTIVATION
U DEACTIVATION

INCIDENCE
NT GRAZING INCIDENCE
A new ellipsometry technique for interface analysis: Application to Si-SiO2 [AD-A253143] 01 p0167 N93-10415

INCIDENT RADIATION
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
Geodynamic contributions to global climatic change 06 p1575 N93-18963
Measurement of projectile surface temperature by means of its infrared radiation: A preliminary study [AD-A264053] 11 p3432 N93-30032

INCINERATION
U INCINERATORS

INCINERATORS
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2 [PB92-216043] 02 p0457 N93-12527
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators [PB93-191393] 12 p3754 N93-32088

INCLINATION
Simulated high heat load performance of an inclined crystal monochromator [DE93-000506] 05 p1326 N93-17378
On the distribution of minor planet inclinations 06 p1454 N93-19242
1991 DA: An asteroid in a bizarre orbit 06 p1718 N93-19247
A new activity index for comets 06 p1699 N93-19261
Space Station Freedom assembly and operation at a 51.6 degree inclination orbit [NASA-TM-107731] 09 p2615 N93-25174

INCLUSIONS
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud 01 p0109 N93-10135
Failure processes in elastomeric composites 01 p0046 N93-10475
Silicon on insulator structures in selective epitaxial growth [DE92-017118] 02 p0465 N93-11915
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7 [DE92-009712] 02 p0467 N93-12178
Scattering of elastic waves by a spherical inclusion [AD-A256676] 05 p1206 N93-16093
Fracture of an elliptical inclusion and its implications for the properties of short fiber composites 09 p2634 N93-25333
Differential inclusions governed by convex and nonconvex perturbation of a sweeping process [DE92-644668] 12 p3802 N93-31160
Existence of viable solutions for nonconvex-valued differential inclusions in Banach spaces [DE92-644669] 12 p3803 N93-31285

INCOHERENT SCATTER RADAR
NT EISCAT RADAR SYSTEM (EUROPE)
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Comparison between irregularity motion and bulk plasma drifts at high latitudes [PL-TR-91-2292] 04 p0914 N93-14727
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems 06 p1724 N93-19532
Next generation incoherent scatter radars 06 p1516 N93-19538
Theory of radar scattering from dusty plasmas 06 p1516 N93-19540
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
Proposal for a coordination between EISCAT and INTERBALL 06 p1726 N93-19544
Radio stimulation and diagnostics of space plasmas [NASA-CR-192366] 07 p2072 N93-20760
Theoretical study of topside ionospheric clutter [AD-A260982] 09 p2774 N93-25852
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data [NASA-CR-192224] 09 p2775 N93-26159
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations [NASA-CR-193152] 11 p3476 N93-28842
Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564

INCOHERENT SCATTERING
GUISDAP 06 p1579 N93-18746
On optimization of radar measurements 06 p1516 N93-18747
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
An incoherent scatter experiment for the measurement of particle collisions 06 p1723 N93-19528
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
D-region incoherent scatter spectra: Discrepancies between observations and current theory 06 p1728 N93-19559
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event 06 p1728 N93-19560
A general experiment definition system and its applications 06 p1517 N93-19576
EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar 06 p1732 N93-19582
The effect of different collision operators on the standard data analysis model 06 p1670 N93-19584
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations [PB93-126092] 07 p2064 N93-21828
Meteor impacts, sporadic E layer formation and the incoherent scatter method [IRF-SF-210] 12 p3852 N93-31624

INCOMPRESSIBILITY
Some aspects for the application of a hierarchic family of Herrmann mixed compressible and incompressible finite elements 05 p1077 N93-15723
Optimization of three dimensional meshes [ETN-92-92554] 06 p1647 N93-19008

INCOMPRESSIBLE BOUNDARY LAYER
Computational Fluid Dynamics, volume 1 [VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540
Solution of the time-dependent incompressible Navier-Stokes equations by finite elements 06 p1528 N93-18542
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate [AD-A259923] 08 p2289 N93-22734
Roughness-induced generation of crossflow vortices in three-dimensional boundary layers [NASA-CR-4505] 10 p2929 N93-27096
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432

INCOMPRESSIBLE FLOW
NT STOKES FLOW
Finite difference methods for incompressible viscous flow in scientific computing [AD-A253512] 01 p0079 N93-10220
Improved numerical simulation of Euler equations 01 p0080 N93-10309
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Stream function-vorticity finite element formulations of unsteady incompressible Navier-Stokes equations 01 p0060 N93-10545
A least-squares finite element method for incompressible Navier-Stokes problem 01 p0060 N93-10548
Numerical solution of three-dimensional unsteady viscous flows [AD-A253202] 01 p0083 N93-10793
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements [NASA-TM-105847] 02 p0300 N93-11529
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows [NASA-CR-184441] 02 p0305 N93-12082
Flow in curved ducts of varying cross-section [AD-A254660] 02 p0306 N93-12245
An attempt at a status report on a fast-moving target: CFD --- computational fluid dynamics [DE92-017432] 03 p0576 N93-12839
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
Unsteady shear disturbances within a two dimensional stratified flow [NASA-CR-189121] 04 p0880 N93-15527
Single and cross hot wire anemometry in incompressible flow [LR-663] 05 p1167 N93-16280
On flutter behavior of a 2-D compressor cascade in incompressible flow [DLR-FB-91-26] 05 p1158 N93-16543
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows [NASA-CR-191713] 05 p1163 N93-16939
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow [AD-A258019] 06 p1404 N93-17819
Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates [REPT-92-35] 06 p1524 N93-17847
Direct simulation of external separated flow with the 3-D Navier-Stokes equations [ONERA-NT-1992-6] 06 p1527 N93-18326
Numerical simulation and stability analysis of the absolutely and convectively unstable wake [ESA-TT-1119] 06 p1529 N93-18581
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems [NASA-TM-103912] 06 p1532 N93-19009
A finite-difference multigrid algorithm for the direct numerical simulation of transition and turbulence in incompressible flow 07 p1898 N93-20168

Some 2D test examples for the ISNaS incompressible code
[REPT-91-44] 07 p1901 N93-20752
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces
08 p2290 N93-23110
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180
Operator splitting methods for the Navier-Stokes equations 08 p2292 N93-23226
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method
[DE93-005246] 08 p2293 N93-23299
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations
08 p2294 N93-23402
Instability of flow in a streamwise corner
[NASA-CR-191410] 09 p2576 N93-25153
Incompressible spectral-element method: Derivation of equations
[NASA-TM-106109] 09 p2708 N93-26554
Parallel solution of high-order numerical schemes for solving incompressible flows
[NASA-TM-4451] 10 p3106 N93-27040
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
The numerical solution of low Mach number flow in confined regions by Richardson extrapolation
[TRITA-NA-9207] 11 p3238 N93-29005
An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3418 N93-29009
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
Accuracy of least-squares methods for the Navier-Stokes equations
[NASA-TM-106209] 11 p3421 N93-29208
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
A parallel implicit incompressible flow solver using unstructured meshes
[AD-A263395] 11 p3424 N93-29851
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477
Termination criteria for GMRES-like methods to solve the discretized incompressible Navier-Stokes equations
[REPT-92-50] 12 p3724 N93-31484
Numerical study of a multigrid method with four smoothing methods for the incompressible Navier-Stokes equations in general coordinates
[REPT-93-04] 12 p3725 N93-31547
Galerkin coarse grid approximation in multigrid for the incompressible Navier-Stokes equations
[REPT-92-103] 12 p3726 N93-31658
An incompressible axisymmetric through-flow calculation procedure for design and off-design analysis of turbomachinery
[AD-A264933] 12 p3726 N93-32071
A p-version finite element method for steady incompressible fluid flow and convective heat transfer
[NASA-TM-106260] 12 p3727 N93-32370

INCOMPRESSIBLE FLUIDS
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Fundamental solutions and boundary element formulations for convective fluid flow
02 p0298 N93-11217
Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications
03 p0586 N93-13399
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence
03 p0590 N93-13900
Analytical surface singularity distributions for flow about elliptical cylinders
[AERO-REPT-9202] 06 p1526 N93-18132
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4] 06 p1527 N93-18191
Axial response and pulse behavior of a cylindrical liquid column. Part 2
[LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296
Response of a non-viscous liquid column with anchored liquid surface to axial excitation
[LRT-WE-9-FB-4-1991] 08 p2288 N93-22677
Experimental investigation of developing and fully developed flow in a curved duct of square cross section
[ISBN-0-315-70029-7] 08 p2291 N93-23177
Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
A p-version finite element method for steady incompressible fluid flow and convective heat transfer
[NASA-TM-106260] 12 p3727 N93-32370

INCONEL (TRADEMARK)
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire
[DE92-017233] 02 p0262 N93-12487
Damage tolerance checking on Ni/H2 battery cells
05 p1081 N93-15754
Study of the different oxidation states of nickel base superalloys
[ETN-92-92555] 05 p1116 N93-17495
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151

INCREASING
Fine-grain incremental implementation of algebraic specifications
[CWI-CS-R9159] 05 p1270 N93-17489

INDENTATION
Indentation of a precompressed penny-shaped crack
01 p0048 N93-10486
Contact of orthotropic laminates with a rigid spherical indentor 03 p0533 N93-13778
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Comparison of impact results for several polymeric composites over a wide range of low impact velocities
11 p3304 N93-30848

INDEPENDENT VARIABLES
NT LATTICE PARAMETERS
A surface integral approach to the motion planning of nonholonomic systems
[AD-A254844] 02 p0329 N93-12434
C-integrable nonlinear partial differential equations in N + 1 dimensions
[PREPRINT-833] 05 p1269 N93-16955
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Proper elimination of latent variables
[MEMO-1072] 10 p3121 N93-28164
A closed-form formula for the manipulator regressor
11 p3355 N93-30218
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
Estimation of density functionals
[REPT-92-98] 12 p3807 N93-31655

INDEXES (DOCUMENTATION)
Aeronautical engineering: A continuing bibliography with indexes (supplement 276)
[NASA-SP-7037(276)] 01 p0001 N93-10073
Aeronautical engineering: A continuing bibliography with indexes (supplement 279)
[NASA-SP-7037(279)] 01 p0001 N93-10074
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 274)
[NASA-SP-7037(274)] 01 p0001 N93-10351
Aeronautical engineering: A continuing bibliography with indexes (supplement 281)
[NASA-SP-7037(281)] 01 p0001 N93-10352
Document processing 01 p0174 N93-10600
AGARD index of publications, 1989-1991
[AGARD-INDEX-89-91] 01 p0174 N93-10610
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Indexes of maps of the planets and satellites, 1992
[NASA-TM-4395] 01 p0189 N93-10832
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Abstract and index collection in the Research Information Center of the National Institute of Standards and Technology
[PB92-217587] 03 p0738 N93-13415
Aeronautical engineering: A continuing bibliography with indexes (supplement 282)
[NASA-SP-7037(282)] 04 p0777 N93-14604
Aeronautical engineering: A continuing bibliography with indexes (supplement 284)
[NASA-SP-7037(284)] 04 p0777 N93-14605
Aeronautical engineering: A continuing bibliography with indexes (supplement 283)
[NASA-SP-7037(283)] 04 p0778 N93-14732
Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
Source header list. Volume 2: K through Z
[AD-A256001] 04 p1007 N93-15112
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
Aeronautical engineering: A continuing bibliography with indexes (supplement 285)
[NASA-SP-7037(285)] 06 p1403 N93-18109
USA aviation digest index, 1989, volume 11
[AD-A258673] 07 p2089 N93-20388
Index to USA aviation digest, 1990
[AD-A258678] 07 p2089 N93-20389
Index to USA aviation digest, 1991
[AD-A258679] 07 p2089 N93-20390
Aerospace medicine and biology: A cumulative index to a continuing bibliography (supplement 371)
[NASA-SP-7011(371)] 07 p2024 N93-20889
Toxic substances registry system: Index of material safety data sheets
[NASA-TM-108582] 07 p2024 N93-20998
Aeronautical engineering: A continuing bibliography with indexes (supplement 286)
[NASA-SP-7037(286)] 07 p1759 N93-21026
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
Databases available in the Research Information Center of the National Institute of Standards and Technology
[PB93-114478] 07 p2092 N93-21387
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
Universal Index System 08 p2530 N93-22152
Aeronautical engineering: A cumulative index to a continuing bibliography (supplement 287)
[NASA-SP-7037(287)] 08 p2107 N93-23038
Aeronautical engineering: A continuing bibliography with indexes (supplement 288)
[NASA-SP-7037(288)] 08 p2107 N93-23039
Index to NASA news releases and speeches, 1992
[NASA-TM-109187] 08 p2524 N93-23172
Bibliography of the Biosciences Division: 1986 to present
[DCIEM-92-20] 08 p2419 N93-23343
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204

NASA scientific and technical publications: A catalog of special publications, reference publications, conference publications, and technical papers, 1991-1992
[NASA-SP-7063(06)] 08 p2529 N93-24654
NASA Small Business Innovation Research Program. Composite List of Projects, 1983 to 1989
[NASA-TM-104991] 10 p3164 N93-27639
Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915
Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Index of international publications in aerospace medicine
[AD-A262908] 10 p3084 N93-28306
On the selection of an optimal set of secondary indices
[MEMO-INF-92-68] 12 p3789 N93-31617
European aerospace science and technology, 1992: A bibliography with indexes
[NASA-SP-7105] 12 p3671 N93-32404

INDEXES (RATIOS)
NT LEAF AREA INDEX

INDIA
A history of the Lonar crater, India: An overview
01 p0118 N93-10168

INDIAN OCEAN
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Indian Ocean analyses 09 p2733 N93-24925

INDIANA
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158

INDICATING INSTRUMENTS
NT APPROACH INDICATORS
NT ATTITUDE INDICATORS
NT CLOUD HEIGHT INDICATORS
NT MICROBALANCES
NT POSITION INDICATORS
NT RADIO DIRECTION FINDERS
NT SMOKE DETECTORS
NT SPEED INDICATORS
NT STRAIN GAGE BALANCES
NT WEIGHT INDICATORS

INDIUM
X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095

INDIUM ALLOYS
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Ripening of immiscible liquid droplets in microgravity with constrained Marangoni drift 07 p1810 N93-21122

INDIUM ANTIMONIDES
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172

INDIUM ARSENIDES
NT INDIUM GALLIUM ARSENIDES
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Superlattice barrier varactors
10 p3012 N93-27738
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208

INDIUM COMPOUNDS
NT INDIUM ANTIMONIDES
NT INDIUM ARSENIDES
NT INDIUM GALLIUM ARSENIDES
NT INDIUM PHOSPHIDES
Admittance spectroscopy of copper indium diselenide/cadmium sulfide solar cells
02 p0344 N93-11214
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
[AD-A255242] 04 p0992 N93-14670
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
X ray crystal structure of an organoindium alkoxide dimer, (Ph2InOSiMe3)2
[AD-A257404] 05 p1315 N93-15862
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Research on high efficiency, large-area CuInSe2-based thin-film modules
[DE93-000077] 08 p2513 N93-24433
Non-H2Se, ultra-thin CIS devices
[DE93-000078] 09 p2759 N93-25253
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626

INDIUM GALLIUM ARSENIDES
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Time-resolved optical studies of 3-5 semiconductors
04 p0990 N93-14183
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Investigation of misfit disiocation configurations in MBE-grown InGaAs layers on misaligned GaAs (001) substrates
[DE93-007578] 10 p3151 N93-27522
A study of subterahertz HEMT monolithic oscillators
10 p3011 N93-27732
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781

INDIUM PHOSPHIDES
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Determination of Fe(sup 2+) and Fe(sup 3+) concentrations of semi-insulating InP:Fe
[DE92-017119] 02 p0469 N93-12316
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Indium phosphide photovoltaic technology
06 p1572 N93-18476
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
Defect characterization by means of positron annihilation 07 p1804 N93-21081
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
Modeling, design, fabrication, and testing of InP Gunn devices in the D-band (110 GHz - 170 GHz)
10 p3018 N93-27767
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Fundamental studies of the morphology, chemistry, and electrical properties of metals on GaAs and other III-V semiconductor compounds
[AD-A264417] 11 p3597 N93-30120
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201

INDOLES
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166

INDONESIA
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659

INDONESIAN SPACE PROGRAM
Space program in Indonesia 07 p1975 N93-21273

INDOOR AIR POLLUTION
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Indoor ozone concentrations: Ventilation rate impacts and mechanisms of outdoor concentration attenuation
[DE93-000633] 05 p1205 N93-17576
Survey of protocols for conducting indoor air quality investigations in large buildings
[PB93-119865] 07 p2026 N93-21215

INDUCED DRAG
Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip
03 p0496 N93-13822
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447

INDUCED FLUID FLOW
U FLUID FLOW

INDUCTANCE
An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331
A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors
[NPL-DES-116] 02 p0289 N93-11393
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290

INDUCTION
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Discovery of pathways in science 06 p1689 N93-19718
An annotated bibliography of inductive learning since 1985
[REPT-92-74] 12 p3833 N93-31507
INDUCTION (MATHEMATICS)
Using conceptual clustering to learn about function, structure, and behavior in design
[INRIA-RR-1401] 06 p1633 N93-18573
INDUCTION HEATING
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem
[NASA-TP-3272-PT-1B] 09 p2776 N93-26421
Heating head for induction heating apparatus
[NASA-CASE-LAR-14429-1] 11 p3407 N93-29173
INDUCTION MOTORS
Three-phase inverter for small high speed motors
[NASA-CR-191331] 06 p1523 N93-19860
Characterization and snubbing of a bidirectional MCT in a resonant ac link converter
[NASA-CR-192230] 07 p1889 N93-20258
Fuzzy efficiency optimization of AC induction motors 08 p2454 N93-22363
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
INDUCTION SYSTEMS
U INTAKE SYSTEMS
INDUCTORS
Transducer circuit
[AD-D015376] 03 p0572 N93-13472
Distortion measurements on bandpass filters with powdered iron toroidal inductors
[AD-A260790] 09 p2675 N93-25689
INDUSTRIAL ENERGY
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
INDUSTRIAL MANAGEMENT
NT ENGINEERING MANAGEMENT
NT INVENTORY CONTROLS
NT INVENTORY MANAGEMENT
NT PERSONNEL MANAGEMENT
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
An analysis of the field service function of selected electronics firms
[AD-A255003] 03 p0570 N93-12868
Performance measurement for information systems: Industry perspectives
[NASA-CR-191369] 03 p0738 N93-13737
The airline quality report, 1992
[NIAR-92-11] 06 p1418 N93-18036
Manufacturing innovations and small business: How flexible manufacturing systems affect tooling and machining enterprises
[PB92-216258] 07 p2086 N93-21743
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Designing and implementing a state quality award
[PB93-154458] 09 p2722 N93-26546
Business reengineering in information intensive organizations
[ISBN-90-9005061-2] 10 p3164 N93-27937
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545
INDUSTRIAL PLANTS
NT FOUNDRIES
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
An analysis of the field service function of selected electronics firms
[AD-A255003] 03 p0570 N93-12868
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
CABINS: Case-based interactive scheduler 06 p1635 N93-18670
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Constraint monitoring in TOSCA 06 p1639 N93-18693
Three-dimensional laser window formation for industrial application 08 p2310 N93-22197
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods 09 p2741 N93-24798
Pollution prevention 1991: Progress on reducing industrial pollutants
[PB93-157725] 09 p2766 N93-25875
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961
INDUSTRIAL SAFETY
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2884 N93-26568
Near miss reporting in the chemical process industry
[ISBN-9-03-860181-6] 12 p3714 N93-31539
INDUSTRIAL WASTES
Trip report: Marshall Space Center computed tomography
[DE92-018139] 02 p0437 N93-11597
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718
Workshop on noninvasive geophysical site characterization
[LA-12311-C] 04 p0914 N93-14724
Management and minimization of photographic wastes at Pantex Plant
[MHSMP-92-01] 04 p0910 N93-14739
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Pollution prevention 1991: Progress on reducing industrial pollutants
[PB93-157725] 09 p2766 N93-25875
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
RCRA implementation plan, FY 1993
[PB93-176956] 12 p3752 N93-31877
INDUSTRIES
NT AEROSPACE INDUSTRY
NT AIRCRAFT INDUSTRY
NT CONSTRUCTION INDUSTRY
NT DEFENSE INDUSTRY
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
An analysis of the field service function of selected electronics firms
[AD-A255003] 03 p0570 N93-12868
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Scientists, engineers, and technicians in manufacturing industries: 1989. Detailed statistical tables
[NSF-92-312] 03 p0730 N93-13437
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
Metrication report to the Congress
[NASA-TM-108602] 06 p1499 N93-18356
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
The German national industry as a source of logistic support for armed forces facing new requirements
[MBB-UL-0002-91-PUB] 07 p1877 N93-21463
NASA SBIR abstracts of 1990 phase 1 projects
[NASA-TM-108145] 07 p2087 N93-21794
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Assessment of future natural gas vehicle concepts
[PB93-138923] 08 p2317 N93-24145
Technology transfer from NASA to targeted industries, volume 1
[NASA-CR-192757] 08 p2532 N93-24482
Technology transfer from NASA to targeted industries, volume 2
[NASA-CR-192758] 08 p2533 N93-24484
Small business profiles, 1992: Region 1
[PB93-110922] 08 p2521 N93-24556
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Space business indicators 09 p2886 N93-26158
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Science, Technology, and Industrial Policy in the Former Soviet Union
[DE93-006528] 09 p2887 N93-26499
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
The role of the University Licensing Office in transferring intellectual property to industry 11 p3626 N93-30698
High performance computing and communications program 11 p3627 N93-30715
National Media Laboratory 11 p3628 N93-30717
A research experiment on facilitation and formation of joint research and development programs between government, industry, and universities: Overview, preliminary findings, and observations 11 p3628 N93-30725
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179
End users: New products and services 12 p3837 N93-31220
The technology base for agile manufacturing 12 p3715 N93-32104
INELASTIC BODIES
U RIGID STRUCTURES
INELASTIC COLLISIONS
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509

INELASTIC SCATTERING
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
Nucleon structure functions from deep inelastic muon scattering
[NIKHEF-H+K/92-01] 02 p0442 N93-11130
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
The spin of the nucleon in deep inelastic lepton scattering experiments
[DE92-018854] 03 p0702 N93-13073
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Weak-electromagnetic interference in polarized eD scattering
[DE93-001763] 04 p0978 N93-15486
A spectator model for deep inelastic electron scattering
[ETN-92-92539] 05 p1293 N93-17396
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
Infrared sensor technology and applications 06 p1664 N93-18474
Measurement of the cross-section ratio sigma(sub n)/sigma(sub p) in inelastic muon-nucleon scattering at very low x and Q(sup 2)
[DE93-002916] 06 p1658 N93-19749
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
PFNA technique for the detection of explosives 07 p1765 N93-21865
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Neutron-proton bremsstrahlung experiments
[DE93-003737] 07 p2065 N93-21968
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
[DE93-007725] 09 p2848 N93-25366
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Theory of deep-inelastic scattering reactions and x-rescaling model
[DE93-604519] 12 p3820 N93-31821
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407
INELASTIC STRESS
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
INEQUALITIES
Projection with a minimal system of inequalities
[AD-A257237] 05 p1263 N93-15961
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
Nonlinear H(infinity) control and Hamilton-Jacobi inequalities
[MEMO-1042] 05 p1268 N93-16843
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391
A group-theoretical setting for some intersecting Sperner families
[MEMO-1060] 10 p3120 N93-28011
INERT GASES
U RARE GASES
INERTIA
Dynamics of systems with time-varying inertial properties 01 p0054 N93-10517
Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573
US Army helicopter inertia reel locking failures 06 p1427 N93-19689
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373
INERTIA MOMENTS
U MOMENTS OF INERTIA
INERTIA WHEELS
U REACTION WHEELS
INERTIAL CONFINEMENT FUSION
NT IMPACT FUSION
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Applications of group-invariant analytic solutions to inertial confinement fusion
[DE92-040347] 03 p0715 N93-13047
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Recent diagnostic development for the Los Alamos Inertial Fusion Program
[DE92-040362] 05 p1306 N93-15849
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Two-stream instability for a light ion beam-plasma system with external magnetic field
[NIFS-204] 09 p2859 N93-25248
Summary of progress in laser fusion; advanced technology developments: National Laser Users Facility news; and a laser system report --- laser fusion and laser energetics
[DE93-009054] 10 p3047 N93-27120
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053
SIRIUS-P: An inertially confined direct drive laser fusion power reactor
[DE93-012433] 11 p3439 N93-30186
INERTIAL FORCES
U INERTIA
INERTIAL FUSION (REACTOR)
Recent diagnostic development for the Los Alamos Inertial Fusion Program
[DE92-040362] 05 p1306 N93-15849
INERTIAL GUIDANCE
NT STRAPDOWN INERTIAL GUIDANCE
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
Burn phase corrections of maneuver ballistic missiles with star light
[AD-A254105] 01 p0012 N93-10814
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Localization system based on data merging of images and inertia 08 p2269 N93-23623
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
INERTIAL MEASURING UNITS
U INERTIAL PLATFORMS
INERTIAL NAVIGATION
Burn phase corrections of maneuver ballistic missiles with star light
[AD-A254105] 01 p0012 N93-10814
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574
Correction of inertial measurements using GPS updates for underwater navigation
[AD-A257329] 05 p1058 N93-15988
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
Flight testing of GPS and GPS-aided systems 06 p1445 N93-19919
SSG 1.77: Utilization of inertial techniques for geodesy and surveying 07 p1969 N93-20964
SSG 1.105: GPS kinematic positioning methods and applications 07 p1970 N93-20967
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 07 p1780 N93-21426
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22028
Optimization of the integration of inertia and GPS 08 p2120 N93-22787
Integrated precision navigation system 08 p2120 N93-22789
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
An hierarchic alliance of filters for fault tolerant navigation using two inertial systems with aiding sensors 08 p2121 N93-22793
Precise flight navigation by integration of global positioning system and inertial measurement units 08 p2124 N93-23523
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument 09 p2711 N93-25614
Flight evaluation of a computer aided low-altitude helicopter flight guidance system 11 p3260 N93-28869
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
High reliability, maintenance-free INS battery development
[AD-A264521] 11 p3412 N93-30406
On-board derived flight-path measurement as demonstrated by an ILS measurement system 12 p3677 N93-31282
INERTIAL PLATFORMS
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
INERTIAL REFERENCE SYSTEMS
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Apparatus for determining the attitude of a vehicle
[AD-D015667] 09 p2710 N93-26092
INFECTIONS
U INFECTIOUS DISEASES
INFECTIOUS DISEASES
NT ACQUIRED IMMUNODEFICIENCY SYNDROME
NT CHOLERA
NT DIPHTHERIA
NT HEPATITIS
NT MENINGITIS
NT PARASITIC DISEASES

NT POLIOMYELITIS
NT TUBERCULOSIS
NT TYPHOID
NT VIRAL DISEASES
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
Cytokines as vaccine adjuvants: Interleukin 1 and its synthetic peptide 163-171 02 p0382 N93-11309
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941
Infectious disease 05 p1222 N93-16804

INFERENCE
A model-based reasoning approach to sensor placement for monitorability 02 p0391 N93-11923
Design of an Ada expert system shell for the VHSIC avionic modular flight processor 02 p0397 N93-11947
Research in statistical inference
[AD-A252928] 02 p0429 N93-12429
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
Probabilistic inference
[AD-A255471] 04 p0963 N93-14786
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509
Semantics and comparative logic
[LP-91-09] 05 p1272 N93-17713
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
Experiments with a decision-theoretic scheduler 06 p1636 N93-18674
Machine discovery by model driven analogy 06 p1629 N93-19724
Anytime declarativism
[AD-A258698] 07 p2032 N93-20376
Fast theorem proving in intuitionistic propositional logic
[CWI-CS-R9157] 07 p2051 N93-20840
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
Maximal Kripke-type semantics for modal and superintuitionistic predicate logics
[ML-92-02] 07 p2054 N93-21009
Truth-Valued-Flow Inference (TVFI) and its applications in approximate reasoning 08 p2452 N93-22223
Structure identification in fuzzy inference using reinforcement learning 08 p2456 N93-22371
Change PP plot and continuous sample quantile function
[AD-A259833] 08 p2472 N93-23460
Interpretation as abduction
[AD-A259608] 08 p2425 N93-24227
Statistical inference procedures for probability selection functions in long-term monitoring programs
[PB93-163012] 10 p3123 N93-26631
Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915
Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929
On modeling of if-then rules for probabilistic inference
[AD-A262789] 10 p3126 N93-28404
Study on various problems in statistical planning and inference
[AD-A262484] 11 p3554 N93-29411
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
How to select combination operators for fuzzy expert systems using CRI 11 p3510 N93-29521
Evaluation of fuzzy inference systems using fuzzy least squares 11 p3513 N93-29539
Comparison between the performance of two classes of fuzzy controllers 11 p3517 N93-29566
Inference in fuzzy rule bases with conflicting evidence 11 p3519 N93-29583
Some statistical inference problems in linear models and variance components models and their applications
[AD-A264062] 11 p3555 N93-29923
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037
Mixed data/goal driven intelligent real-time assessment and control 12 p3794 N93-32140

INFILTRATION
NT CHEMICAL VAPOR INFILTRATION
Processing of ceramic matrix composites
[PNR-90914] 02 p0263 N93-11018
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Polymer infiltration studies
[NASA-CR-191652] 04 p0852 N93-15431
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures 11 p3303 N93-30843
Preferential flow effects on chemical transport and retardation in soils
[PB93-190668] 12 p3723 N93-31204

INFINITE SPAN WINGS
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865

INFLATABLE DEVICES
U INFLATABLE STRUCTURES

INFLATABLE SPACECRAFT
NT BEACON SATELLITES

INFLATABLE STRUCTURES
NT AIR BAG RESTRAINT DEVICES
NT BALLOONS
NT BEACON SATELLITES
NT GAS BAGS
NT TETHERED BALLOONS
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
The numerical simulation of the inflation process of space rigidized antenna structures 05 p1083 N93-15771
Inflatable habitation for the lunar base 05 p1229 N93-17442
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
A preliminary structural analysis of space-based inflatable tubular frame structures 10 p3086 N93-27849
In-step inflatable antenna experiment 11 p3263 N93-28701
Developing an inflatable solar array 11 p3264 N93-28714

INFLATING
A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119

INFORMATION
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
The informed citizen: Technology and responsibility in the information age 03 p0742 N93-14049
A study regarding information-seeking behavior, valuation of information including perceptions of information attributes, and associated correlates pertaining to information usage 03 p0740 N93-14088
Information-seeking behavior during the decision-making process: A case study 04 p1000 N93-14206
How scientific must technical editors be?
[DE92-040741] 04 p1010 N93-15655
Databases available in the Research Information Center of the National Institute of Standards and Technology
[PB93-114478] 07 p2092 N93-21387
Method and apparatus for filtering visual documents
[NASA-CASE-MSC-22093-1] 08 p2522 N93-22017
Eye movements and visual information processing
[AD-A259955] 08 p2425 N93-24297
Information requirements analyses for transatmospheric vehicles
[AD-A261189] 09 p2590 N93-25949
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Comparison of specificity and information for fuzzy domains 11 p3510 N93-29519
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications 11 p3510 N93-29520
Automatic rule generation for high-level vision 11 p3511 N93-29526
Information compression in the context model 11 p3514 N93-29549
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158
Publication catalogue of VTT in 1991
[VTT-TIED-1340] 12 p3838 N93-31535
The technology base for agile manufacturing 12 p3715 N93-32104
Information for the user in design of intelligent systems 12 p3801 N93-32149

INFORMATION DISSEMINATION
NT MESSAGES
NT SELECTIVE DISSEMINATION OF INFORMATION
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK) 01 p0173 N93-10594
Documentation practices: The national scene (Greece) 01 p0173 N93-10595
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Establishing a scientific and technical information program: Planning and resource management 01 p0173 N93-10597
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres 01 p0173 N93-10598
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
The technology advantage: A guide to science, technology, and innovation in Manitoba
[CTN-92-60571] 01 p0192 N93-10654
Information dissemination: Case studies on electronic dissemination at four agencies. Fact sheet for the Chairman, Committee on Governmental Affairs, US Senate
[GAO/IMTEC-92-6FS] 02 p0474 N93-11274
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
Brazilian remote sensing community: Historical, geographical and economic aspects
[INPE-5421-PRE/1763] 03 p0634 N93-13412
A study regarding information-seeking behavior, valuation of information including perceptions of information attributes, and associated correlates pertaining to information usage 03 p0740 N93-14088
The 7th World Conference on Titanium
[AD-A255674] 04 p0844 N93-14132
The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
The information age as a work in progress: Implications for technical communicators
[DE92-019780] 04 p1008 N93-15275
International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
INFOTECH 1992: DOE Technical Information (TI) Meeting
[DE93-000467] 05 p1352 N93-16151
Environmental Quality Information Analysis Center multi-year plan
[DE92-040850] 05 p1204 N93-17352
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160

Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
Modernization of the NASA scientific and technical information program
[NASA-TM-108964] 06 p1693 N93-19936
NASA scientific and technical program: User survey
[NASA-TM-108979] 06 p1693 N93-19937
Total quality management: It works for aerospace information services
[NASA-TM-108980] 06 p1684 N93-19938
Global change information support: A north-south coalition
[NASA-TM-108983] 06 p1575 N93-19940
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 27: Knowledge diffusion and US government technology policy: Issues and opportunities for sci/tech librarians
[NASA-TM-108680] 07 p2088 N93-20110
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111
Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366
Computer Security Bulletin Board System: User's guide
[PB93-113553] 07 p2029 N93-21255
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
Public Access: A How To Guide
[PB93-111029] 07 p1990 N93-21378
Information dissemination: Innovative ways agencies are using technology
[PB93-108462] 07 p2091 N93-21380
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data
07 p1960 N93-21610
Generation and distribution of remotely-sensed sea surface temperature images 07 p1964 N93-21637
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Access EPA
[PB92-147438] 07 p1994 N93-21811
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Department of Energy new technology
[DE92-041170] 08 p2522 N93-22058
Newly available technologies present expanding opportunities for scientific and technical information exchange
[NASA-CR-4494] 08 p2261 N93-22470
National security and national competitiveness: Open source solutions; NASA requirements and capabilities
[NASA-TM-4458] 08 p2523 N93-23030
Technology utilization and American competitiveness
08 p2153 N93-23158
Outlook for the U.S. Space Program
08 p2153 N93-23159
Public libraries in the US, 1990
[PB93-127926] 08 p2525 N93-23285
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept
08 p2344 N93-23512
Delivery of information from Earth observation satellites 08 p2350 N93-23549
Advanced information processing
[AD-A260245] 08 p2529 N93-24258
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
The General Information Programme (PGI) and developing countries: A case study of Iraq
09 p2874 N93-25209
A usage and maintenance of meteorological satellite data 10 p3076 N93-26996
The NASA Scientific and Technical Information Program: Exploring challenges, creating opportunities
[NASA-SP-7103] 10 p3166 N93-27426
Handbook for users
[AD-A260738] 10 p3166 N93-27605
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
National collaboratories: Applying information technology for scientific research
[LC-93-63795] 11 p3612 N93-29129
The 9th FLICC Forum on Federal Information Policies
[PB93-184687] 11 p3624 N93-29668
LDEF archival system plan 11 p3624 N93-29704
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 29: The US government technical report and the transfer of federally funded aerospace R and D
[NASA-TM-109221] 11 p3615 N93-29709
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 30: The electronic transfer of information and aerospace knowledge diffusion
[NASA-TM-109223] 11 p3616 N93-30036
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 31: The information-seeking behavior of engineers
[NASA-TM-109224] 11 p3616 N93-30037
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
High-speed data duplication/data distribution: An adjunct to the mass storage equation
11 p3619 N93-30459
National Media Laboratory media testing results
11 p3620 N93-30465
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
Technology transfer 11 p3626 N93-30699
Technology transfer needs and experiences: The NASA Research Center perspective 11 p3626 N93-30703
Technology transfer and space science missions
11 p3626 N93-30705
Technology transfer within NASA
11 p3627 N93-30708
Technology transfer and Rockwell International
11 p3627 N93-30712
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
Automating multilingual communication
12 p3837 N93-31219
The modern research environment
12 p3837 N93-31221
The management of change: Implications for the information professional 12 p3838 N93-31222
Science Information Systems Newsletter, issue 28
[NASA-TM-108266] 12 p3834 N93-31589
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796

INFORMATION FLOW
Unifying information flow policies
[RSRE-90020] 01 p0175 N93-10801
Lattices for security policies
[RSRE-90005] 01 p0139 N93-10823
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Fault tolerant systems practitioner's workshop
[AD-A255376] 04 p0944 N93-14563
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
Applications of living systems theory to life in space
05 p1229 N93-16865
Logic and the flow of information
[LP-91-10] 05 p1357 N93-17714
Lambek grammar: An information-based categorical grammar
[LP-92-01] 05 p1273 N93-17715
A model for security and distribution of management information systems
[ETN-93-93029] 06 p1685 N93-18107
Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442
Management of avionics data in the cockpit
06 p1611 N93-19777
Demonstration plan for real time receiving and processing of flight data from the space transportation system
[NASA-TM-107725] 08 p2152 N93-22468
Fault-tolerant onboard digital information switching and routing for communications satellites
[NASA-TM-4471] 10 p2956 N93-26895
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU]
11 p3449 N93-30413
A note on dynamic arrow logic
[LP-92-11] 12 p3788 N93-31532
A blueprint for a parallel parser generator
[MEMO-INF-92-65] 12 p3795 N93-31616
Performance analysis of a large-grain dataflow scheduling paradigm
[NASA-TP-3323] 12 p3796 N93-32213

INFORMATION MANAGEMENT
NT RECORDS MANAGEMENT
Analysis of observation report databases/knowledge bases
[AD-A252636] 01 p0172 N93-10428
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK)
01 p0173 N93-10594
Documentation practices: The national scene (Greece)
01 p0173 N93-10595
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Establishing a scientific and technical information program: Planning and resource management
01 p0173 N93-10597
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
Document processing 01 p0174 N93-10600
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey
01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Security considerations within military information systems 01 p0174 N93-10603
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012
Managing data: From vision to reality
[PB92-191212] 02 p0474 N93-11215
An iterative method for distributed database design
02 p0474 N93-11255
Analysis of methods — information systems evolution environment
[NASA-CR-190278] 02 p0407 N93-11368
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
Laboratory information management system proposal
[DE92-018243] 02 p0478 N93-11796
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Principles of information resource management: A foundation for the future
[AD-A254447] 03 p0733 N93-12597
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660

Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
Engineering Design Information System (EDIS) Information Services Division (ISD) index function: User's manual
[DE92-041242] 03 p0736 N93-13048
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Enterprise storage report for the 1990's
03 p0736 N93-13132
The long hold: Storing data at the National Archives
03 p0737 N93-13139
The protection of the Facsimile (FAX) machine against the insider threat
[DE92-019424] 03 p0565 N93-13506
Identifying and describing Federal information inventory/locator systems: Design for networked-based locators, volume 1
[PB93-111037] 03 p0738 N93-13884
Coordinating Council. Ninth Meeting: Total Quality Management
[NASA-TM-108106] 03 p0738 N93-13885
Information for management, planning, and decision-making in nonprofit organizations: Toward a comprehensive model 04 p1000 N93-14209
Source hierarchy list. Volume 1: A through D
[AD-A256100] 04 p1001 N93-14265
EOSDIS/DADS requirements
04 p1003 N93-14776
Enterprise storage report for the 1990's
04 p1004 N93-15028
The long hold: Storing data at the National Archives
04 p1004 N93-15031
The National Space Science Data Center: An operational perspective 04 p1006 N93-15045
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Information technologies for global resources management and environmental assessment
[DE92-041107] 04 p0906 N93-15442
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567
Development of a faculty research and publication database system
[AD-A257107] 05 p1352 N93-16115
Analysis, design, and implementation of a database management system for the Naval Postgraduate School Alumni Association
[AD-A257109] 05 p1352 N93-16116
INFOTECH 1992: DOE Technical Information (TI) Meeting
[DE93-000467] 05 p1352 N93-16151
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991
[NASA-TM-108156] 05 p1353 N93-16233
Department of Defense Directive (DODD) 8000.1 defense Information Management (IM) program
[AD-A256988] 05 p1353 N93-16259
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
Technical reference model for information management, version 1.2
[AD-A253476] 05 p1357 N93-17773
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
Data management: Implementation and lessons learned from Department of the Army data management program
[AD-A257858] 06 p1686 N93-18307
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Corporate information management and business process improvement under the unit cost program: An analysis of a system for the Air Force Institute of Technology
[AD-A258984] 06 p1687 N93-19098
Information access: A research agenda
06 p1692 N93-19798
The organization and transfer of information
06 p1692 N93-19799
The AGARD tip research agenda for Scientific and Technical Information (STI) 06 p1692 N93-19800
University research: Controlling inappropriate access to federally funded research results. Report to the Chairman, Human Resources and Intergovernmental Relations Subcommittee, Committee on Government Operations, House of Representatives
[GAO/RCED-92-104] 06 p1684 N93-19844
Global change information support: A north-south coalition
[NASA-TM-108983] 06 p1575 N93-19940
HOPE information system review
07 p1791 N93-20425
The next revolution in computer-aided engineering
07 p1943 N93-20722
Reflections on segmentation
[RR-873-I] 07 p2034 N93-20791
User's guide to the on-line bibliographic reference system for the NIST process planning testbed
[PB92-226307] 07 p2091 N93-21012
Public Access: A How To Guide
[PB93-111029] 07 p1990 N93-21378
Expanded user's documentation for SHIMS
[PB93-101905] 07 p2092 N93-21694
US Global Change Data and Information Management Program Plan: A report by the Committee on Earth and Environmental Sciences
[PB93-101293] 07 p1993 N93-21695
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
Access EPA
[PB92-147438] 07 p1994 N93-21811
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
An application protocol for CAD to CAD transfer of electronic information 08 p2530 N93-22154
Concentration and diversity in informetric research
08 p2524 N93-23185
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Public libraries in the US, 1990
[PB93-127926] 08 p2525 N93-23285
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
Ocean colour programmes for the European marine environment 08 p2366 N93-23808
Information handling as task layer of Columbus user support 08 p2163 N93-24383
Management of space networks
09 p2672 N93-24671
The role of the World Data Centers in handling ocean climate data 09 p2732 N93-24919
Distributed information storage
09 p2877 N93-25722
Department of Energy: Better information resources management needed to accomplish missions. Report to the Secretary of Energy
[GAO/IMTEC-92-53] 09 p2882 N93-26096
Strategic information planning: Framework for designing and developing system architectures
[GAO/IMTEC-92-51] 09 p2882 N93-26097
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
Proceedings of the 33rd Annual Military LibrariansWorkshop
[AD-A261071] 09 p2882 N93-26242
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
NASA'S information technology activities for the 90's
10 p3165 N93-27046
White paper on science operations
10 p3165 N93-27047
The NASA Scientific and Technical Information Program: Exploring challenges, creating opportunities
[NASA-SP-7103] 10 p3166 N93-27426
Man-systems integration and the man-machine interface 10 p2967 N93-27795
Business reengineering in information intensive organizations
[ISBN-90-9005061-2] 10 p3164 N93-27937
Security classification of information
[DE93-012416] 11 p3612 N93-28840
The 9th FLICC Forum on Federal Information Policies
[PB93-184687] 11 p3624 N93-29668
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
The future role of the Director of Information Management (DOIM) organization within the DOD corporate information management initiative
[AD-A264118] 11 p3616 N93-30193
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
Manual for data administration
[PB93-182053] 12 p3834 N93-31431
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
Automated Assembly Center (AAC)
12 p3686 N93-32123
Automation and hypermedia technology applications
12 p3843 N93-32155
Personal information management in computer science research
[ISBN-0-315-73783-2] 12 p3842 N93-32325

INFORMATION PROCESSING (BIOLOGY)

Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
Auditory processing of complex sounds across frequency channels
[AD-A253612] 01 p0131 N93-10650
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Effective neurons and attractor neural networks in cortical environment
[PREPRINT-829] 05 p1223 N93-17214
The effects of display and response codes on information processing in an identification task
[AD-A259531] 08 p2427 N93-23451
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
Quantification of human responses
11 p3500 N93-29564
The dynamics of visual representation, attention, encoding, and retrieval processes
[AD-A264674] 11 p3500 N93-30543

Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
High level cognitive information processing in neural networks
[NASA-CR-193296] 12 p3800 N93-32341

INFORMATION RETRIEVAL

A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Document processing 01 p0174 N93-10600
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
A probabilistic approach to information retrieval in heterogeneous databases
[DE92-016993] 02 p0473 N93-11151
Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector
[AD-A247266] 02 p0475 N93-11465
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
LINK user manual
[DE92-017987] 02 p0479 N93-12143
ERS-1 user handbook
[ESA-SP-1148] 02 p0344 N93-12280
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12267
Exploiting captions in retrieval of multimedia data
[AD-A255184] 02 p0479 N93-12381
Assessing repository technology: Where do we go from here? 02 p0415 N93-12391
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Using DIALOG CIP at Winona State University to educate end-users 03 p0686 N93-13338
A study of traditional information access models applied in a hypertext information system 03 p0739 N93-14076
A study regarding information-seeking behavior, valuation of information including perceptions of information attributes, and associated correlates pertaining to information usage 03 p0740 N93-14088
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Mapping thoughts: Visual interfaces for information retrieval 04 p1000 N93-14208
Information resource utilisation: Accessibility based on concerns 04 p1001 N93-14216
Query processing in distributed database systems 04 p1001 N93-14218
The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
Source header list. Volume 2: K through Z
[AD-A256001] 04 p1007 N93-15112
User's guide for SearchMAESTRO
[AD-A256422] 04 p1008 N93-15335
A framework for classifying and resolving semantic conflicts using the enhanced entity-relationship model
[AD-A257452] 05 p1351 N93-15870
International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
Stratified hypermedia structures for information disclosure
[TR-91-27] 05 p1355 N93-16370
Using an object-oriented database management system to enhance the reusability of class definitions
[AD-A257559] 06 p1685 N93-17981
Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179
Automated documentation generator for advanced protein crystal growth
[NASA-CR-192452] 06 p1673 N93-18425
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB] 06 p1624 N93-18858
DROLS workbook
[AD-A259033] 06 p1687 N93-19017
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
Discovery of regularities in databases 06 p1688 N93-19714
A Research Agenda for Scientific and Technical Information
[AGARD-AR-316] 06 p1692 N93-19796
Establishing a research agenda for Scientific and Technical Information (STI): Focus on the user 06 p1692 N93-19797
Information access: A research agenda 06 p1692 N93-19798
The AGARD tip research agenda for Scientific and Technical Information (STI) 06 p1692 N93-19800
An operational system for subject switching between controlled vocabularies
[NASA-CR-192333] 06 p1693 N93-19935
Modernization of the NASA scientific and technical information program
[NASA-TM-108984] 06 p1693 N93-19936
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939
NASA thesaurus combined file postings statistics
[NASA-CR-192259] 07 p2090 N93-20602
Databases available in the Research Information Center of the National Institute of Standards and Technology
[PB93-114478] 07 p2092 N93-21387
Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
An integrated information retrieval and document management system 08 p2530 N93-22156
A proposal of fuzzy connective with learning function and its application to fuzzy retrieval system 08 p2450 N93-22211
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
An electronic stroll through the global village
[DE93-005962] 08 p2446 N93-22763
The nature of relevance in information retrieval: An empirical study 08 p2524 N93-23184
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279
Comparison of four-cursor buttons versus joystick to access computerized technical information from an integrated maintenance information system
[AD-A259967] 08 p2526 N93-23462
Intelligent information retrieval for a multimedia database using captions
[AD-A260438] 08 p2528 N93-24113
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Advanced information processing
[AD-A260245] 08 p2529 N93-24258
Fast image decompression for telebrowsing of images 08 p2431 N93-24549
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
Use of fuzzy relational information retrieval technique for generating control strategies in resolution-based automated reasoning 09 p2874 N93-25258
Agreement in naming objects and concepts for information retrieval 09 p2881 N93-25826
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
Machine aided indexing from natural language text
[NASA-CR-4512] 10 p3164 N93-26901
Knowledge-based machine indexing from natural language text: Knowledge base design, development, and maintenance
[NASA-CR-4523] 10 p3164 N93-26902
Information technologies for astrophysics circa 2001 10 p3165 N93-27045
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
The performance of cited references as an approach to information retrieval 10 p3166 N93-27503
Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915
Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929
Materials And Processes Technical Information System (MAPTIS) LDEF materials data base 10 p3168 N93-28286
On the evaluation of fuzzy quantified queries in a database management system 11 p3517 N93-29569
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Electron trapping data storage system and applications 11 p3622 N93-30474
End users: New products and services 12 p3837 N93-31220
The modern research environment 12 p3837 N93-31221
Neural nets and their relevance for information retrieval
[CL-91-02] 12 p3798 N93-31469
The computer integrated documentation project: A merge of hypermedia and AI techniques 12 p3801 N93-32148
Knowledge based document retrieval in office environments: The Kabiria system
[REPT-92-032] 12 p3843 N93-32389
Coordinating Council. Tenth Meeting: Information retrieval: The role of controlled vocabularies
[NASA-TM-108764] 12 p3843 N93-32403

INFORMATION SYSTEMS

NT EARTH RESOURCES INFORMATION SYSTEM
NT GEOGRAPHIC INFORMATION SYSTEMS
NT INTEGRATED LIBRARY SYSTEMS
NT MANAGEMENT INFORMATION SYSTEMS
NT NUMERICAL DATA BASES
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Gridded Model Information Support System (GMISS) user's guide. Volume 3: Model concentration data retrieval subsystem
[PB92-190263] 01 p0171 N93-10257
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK) 01 p0173 N93-10594
Documentation practices: The national scene (Greece) 01 p0173 N93-10595
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Establishing a scientific and technical information program: Planning and resource management 01 p0173 N93-10597
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
Document processing 01 p0174 N93-10600
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Security considerations within military information systems 01 p0174 N93-10603
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104

Information dissemination: Case studies on electronic dissemination at four agencies. Fact sheet for the Chairman, Committee on Governmental Affairs, US Senate
[GAO/IMTEC-92-6FS] 02 p0474 N93-11274
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Information systems planning leading to performance support systems
[DE92-018745] 02 p0475 N93-11441
Engineering Information System (EIS)
[AD-A254013] 02 p0476 N93-11508
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
LINK user manual
[DE92-017987] 02 p0479 N93-12143
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12287
Assessing repository technology: Where do we go from here? 02 p0415 N93-12391
The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
Coordinating Council. Third Meeting: STI Strategic Plans
[NASA-TM-108016] 03 p0733 N93-12670
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795] 03 p0734 N93-12703
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
Increasing the end user's productivity through seamless integration of applications with the database
[DE92-019599] 03 p0735 N93-12824
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
Engineering Design Information System (EDIS) Information Services Division (ISD) index function: User's manual
[DE92-041242] 03 p0736 N93-13048
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131
Mass storage system experiences and future needs at the National Center for Atmospheric Research
03 p0737 N93-13138
The long hold: Storing data at the National Archives
03 p0737 N93-13139
Using DIALOG CIP at Winona State University to educate end-users 03 p0686 N93-13338
Performance measurement for information systems: Industry perspectives
[NASA-CR-191369] 03 p0738 N93-13737
Application of information system technology to K-12 education
[AD-A255223] 03 p0731 N93-13834
Identifying and describing Federal information inventory/locator systems: Design for networked-based locators, volume 1
[PB93-111037] 03 p0738 N93-13884
Learning and using methodologies in information systems analysis and design 03 p0739 N93-14058
A study of traditional information access models applied in a hypertext information system
03 p0739 N93-14076
Information resource utilisation: Accessibility based on concerns 04 p1001 N93-14216
Information system constraint language (ISyCL)
[AD-A256268] 04 p0976 N93-14438
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Vendor Information System (VIS) systems manual
[AD-A256174] 04 p1002 N93-14650
Air Force Office of Scientific Research
[AD-A255361] 04 p1051 N93-14673
Air Force Office of Scientific Research
[AD-A255370] 04 p1051 N93-14674
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
EOSDIS/DADS requirements
04 p1003 N93-14776
Data management in NOAA 04 p1003 N93-14779
EMASS (trademark): An expandable solution for NASA space data storage needs 04 p1005 N93-15033
SIDR Relative Weighted Product (RWP) assignment process
[AD-A255801] 04 p0946 N93-15068
Source header list. Volume 2: K through Z
[AD-A256001] 04 p1007 N93-15112
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
Technical data management at the Yucca Mountain Site Characterization Project
[DE92-018115] 04 p1008 N93-15229
Information technologies for global resources management and environmental assessment
[DE92-041107] 04 p0906 N93-15442
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing
04 p0954 N93-15549
Feasibility study for an integrated data processing system
[PB92-214287] 04 p1009 N93-15644
A framework for classifying and resolving semantic conflicts using the enhanced entity-relationship model
[AD-A257452] 05 p1351 N93-15870
CD-ROM applications in Professional Military Education (PME)
[AD-A256662] 05 p1231 N93-15914
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
International energy subject categories and scope
[DE92-018520] 05 p1352 N93-16021
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108
Development of a faculty research and publication database system
[AD-A257107] 05 p1352 N93-16115
Analysis, design, and implementation of a database management system for the Naval Postgraduate School Alumni Association
[AD-A257109] 05 p1352 N93-16116
INFOTECH 1992: DOE Technical Information (TI) Meeting
[DE93-000467] 05 p1352 N93-16151
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991
[NASA-TM-108156] 05 p1353 N93-16233
Environmental Quality Information Analysis Center (EQIAC) operating procedures handbook
[DE92-041391] 05 p1201 N93-16271
Integrated automation for support of research and development
[NLR-MP-88063-U] 05 p1235 N93-16290
EMASS (tm): An expandable solution for NASA space data storage needs 05 p1353 N93-16323
Stratified hypermedia structures for information disclosure
[TR-91-27] 05 p1355 N93-16370
Data modelling in complex application domains
[TR-92-01] 05 p1355 N93-16371
MODIS algorithm development and data visualization using ACTS
[NASA-CR-191940] 05 p1191 N93-16759
Updating and expanding the library of materials on NASA Spacelink electronic information system
05 p1340 N93-17282
Environmental Quality Information Analysis Center multi-year plan
[DE92-040850] 05 p1204 N93-17352
On implementation (World Weather Watch)
[WMO-753] 05 p1217 N93-17597
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
Technical reference model for information management, version 1.2
[AD-A253476] 05 p1357 N93-17773
A framework for classifying and resolving semantic heterogeneity in object-oriented databases
[AD-A257597] 05 p1357 N93-17790
Data modelization for manufacturing planning and scheduling: Aggregation and disaggregation mechanisms
[LAAS-92263] 06 p1682 N93-17813
A concept study for a national software engineering database
[AD-A258254] 06 p1614 N93-17823
Repository-based software engineering program
[NASA-CR-191653] 06 p1616 N93-17885
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
TUNS/TCIS information model/process model
[NASA-CR-191654] 06 p1617 N93-18112
Paradigm shift: Can TQM save DOD's procurement process?
[AD-A258319] 06 p1552 N93-18253
Data management: Implementation and lessons learned from Department of the Army data management program
[AD-A257858] 06 p1686 N93-18307
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB]
06 p1624 N93-18858
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Aids to Navigation Service Force Mix 2000 Project. Volume 1: Development and application of an Aids to Navigation Service Force Mix decision support system
[AD-A259065] 06 p1433 N93-19344
Aids to Navigation Service Force Mix 2000 Project: Overview
[AD-A259064] 06 p1433 N93-19386

TRADOC Library and Information Network (TRALINET). Union list of periodicals (TULIP)
[AD-A258935] 06 p1688 N93-19451
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
Man-machine interface with simulated automatic target recognition systems 06 p1611 N93-19781
A Research Agenda for Scientific and Technical Information
[AGARD-AR-316] 06 p1692 N93-19796
Establishing a research agenda for Scientific and Technical Information (STI): Focus on the user 06 p1692 N93-19797
Information access: A research agenda 06 p1692 N93-19798
The organization and transfer of information 06 p1692 N93-19799
Earth observing system: Information on NASA's selection of data centers. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-91-67] 06 p1569 N93-19842
NASA scientific and technical information program multimedia initiative
[NASA-TM-108982] 06 p1693 N93-19900
Modernization of the NASA scientific and technical information program
[NASA-TM-108984] 06 p1693 N93-19936
NASA scientific and technical program: User survey
[NASA-TM-108979] 06 p1693 N93-19937
Total quality management: It works for aerospace information services
[NASA-TM-108980] 06 p1684 N93-19938
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939
Global change information support: A north-south coalition
[NASA-TM-108983] 06 p1575 N93-19940
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 27: Knowledge diffusion and US government technology policy: Issues and opportunities for sci/tech librarians
[NASA-TM-108680] 07 p2088 N93-20110
CASE/simulation systems 07 p2088 N93-20165
Study and simulation of low rate video coding schemes
[NASA-CR-191908] 07 p1880 N93-20170
Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366
ATKIS: The introduction phase at IfAG 07 p1967 N93-20533
Documentation and bibliographic analysis in the framework of the ATKIS generalization 07 p1968 N93-20537
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
Einstein Slew Survey: Data analysis innovations 07 p2095 N93-20795
User's guide to the on-line bibliographic reference system for the NIST process planning testbed
[PB92-226307] 07 p2091 N93-21012
Computer Security Bulletin Board System: User's guide
[PB93-113553] 07 p2029 N93-21255
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
Open forum on recommendations of the White House Conference on Library and Information Services
[PB93-107639] 07 p2091 N93-21379
Information dissemination: Innovative ways agencies are using technology
[PB93-108462] 07 p2091 N93-21380
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500
Report to Congress on the restructuring of the Earth Observing System
[PB93-108587] 07 p1978 N93-21506
Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575
Expert system verification and validation study: Workshop and presentation material
[NASA-CR-192176] 07 p2041 N93-21661
Access EPA
[PB92-147438] 07 p1994 N93-21811
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
The development of a natural language interface to a geographical information system 08 p2530 N93-22153
An application protocol for CAD to CAD transfer of electronic information 08 p2530 N93-22154
Development of interactive multimedia applications 08 p2530 N93-22171
Operator Performance Support System (OPSS) 08 p2429 N93-22195
A PARC system for terminal docking 08 p2141 N93-22259
Exploratory research for the development of a computer aided software design environment with the software technology program
[NASA-CR-192821] 08 p2434 N93-22385
Terrain Referenced Information and Guidance Systems (TRIGS)
[MBB-FE-315-S-PUB-0494] 08 p2119 N93-22390
Earth sensing data service 08 p2339 N93-22439
The use of remote sensing data in a statistical ground utilization information system 08 p2341 N93-22447
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
An electronic stroll through the global village
[DE93-005962] 08 p2446 N93-22763
Technology and the 21st Century government organization
[DE93-002506] 08 p2519 N93-22982
National security and national competitiveness: Open source solutions; NASA requirements and capabilities
[NASA-TM-4458] 08 p2523 N93-23030
The nature of relevance in information retrieval: An empirical study 08 p2524 N93-23184
Concentration and diversity in informetric research 08 p2524 N93-23185
Assessing federal and commercial information security needs
[PB93-138956] 08 p2525 N93-23228
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Automated tools for testing computer system vulnerability
[PB93-146025] 08 p2433 N93-23273
Engineering data integration: Problems and solutions
[PNR-90999] 08 p2525 N93-23370
An object-oriented database approach to the storage and use of medical data 08 p2526 N93-23382
Comparison of four-cursor buttons versus joystick to access computerized technical information from an integrated maintenance information system
[AD-A259967] 08 p2526 N93-23462
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept 08 p2344 N93-23512
System design for ARTEMIS environmental monitoring 08 p2349 N93-23545
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia 08 p2352 N93-23561
Prototype for a regional data management system, a step towards a regional land use project 08 p2353 N93-23571
Executive summary of information systems plans: Fiscal years 1994 to 1998
[PB93-146330] 08 p2527 N93-23646
1993 Earth Observing System reference handbook
[NASA-NP-202] 08 p2356 N93-23737
NASDA's Earth observation satellite program 08 p2357 N93-23751
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
Integrated global environmental (global change) data activities support researchers and educators 08 p2370 N93-23834
Mission to Planet Earth 08 p2372 N93-23845
Modernization and unification: Strategic goals for NASA STI program
[NASA-TM-109186] 08 p2528 N93-24117
Architecture for human-computer design, management and coordination in a collaborative AEC environment 08 p2528 N93-24186
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Information handling as task layer of Columbus user support 08 p2163 N93-24383
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Data compression opportunities in EOSDIS 08 p2430 N93-24545
Compression through decomposition into browse and residual images 08 p2430 N93-24546
Activities of the Institute for Information Technology
[NRC-35023] 08 p2571 N93-24648
Management of space networks 09 p2672 N93-24671
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677
Land cover, an essential component of the CORINE information system on the environment: GIS implications 09 p2740 N93-24787
The role of the World Data Centers in handling ocean climate data 09 p2732 N93-24919
AQUIS: A PC-based air inventory and permit manager
[DE93-003006] 09 p2761 N93-25143
Trends '91: A compendium of data on global change. Highlights
[DE93-003112] 09 p2761 N93-25144
The General Information Programme (PGI) and developing countries: A case study of Iraq 09 p2874 N93-25209
Striped tape arrays
[NASA-CR-192914] 09 p2806 N93-25267
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
A distributed heterogeneous client-server environment
[DE93-007496] 09 p2875 N93-25319
An experimental examination of the effects of expertise and problem-solving cues on the identification of ideas for strategic information systems 09 p2875 N93-25395
Factors associated with perceptions of productivity and usage of information technology in a service organization 09 p2875 N93-25421
Earth observing system. Output data products and input requirements, version 2.0. Volume 2: Analysis of IDS input requirements
[NASA-TM-108771] 09 p2755 N93-25461
Earth observing system. Output data products and input requirements, version 2.0. Volume 3: Algorithm summary tables and non-EOS data products
[NASA-TM-108769] 09 p2756 N93-25462
The database Query Support Processor (QSP) 09 p2807 N93-25577
Digital Nautical Chart
[AD-A260810] 09 p2756 N93-25694
A framework for the design of usable electronic text 09 p2877 N93-25754
Integrated Development Support Environment (IDSE)
[AD-A261088] 09 p2877 N93-25763
Applied Information Systems Research Program (AISRP). Workshop 2: Meeting Proceedings
[NASA-CR-193096] 09 p2877 N93-25792
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data 09 p2878 N93-25798
Knowledge-based assistance for science visualization and analysis using large distributed databases 09 p2879 N93-25801
Experimenter's laboratory for visualized interactive science 09 p2879 N93-25802
The Space and Earth Science Data Compression Workshop
[NASA-CP-3183] 09 p2803 N93-25921
The use of multiple models in case-based diagnosis 09 p2823 N93-25969
In search of meta-knowledge 09 p2826 N93-25983
Strategic information planning: Framework for designing and developing system architectures
[GAO/IMTEC-92-51] 09 p2882 N93-26097
Deep Space Network information system architecture study 09 p2679 N93-26126
Task 2A: UNIS requirements and concepts
[MCR-92-5006-PT-A] 09 p2610 N93-26180
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
Proceedings of the 33rd Annual Military LibrariansWorkshop
[AD-A261071] 09 p2882 N93-26242
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
EnviroNET 09 p2886 N93-26398
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430

A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2884 N93-26568
Task Type E report for National Launch Demonstration Center (NLDC) (Task 32)
[MCR-91-5010] 09 p2610 N93-26591
A prototype climate information system
[AD-A261799] 10 p3075 N93-26630
The Steward Observatory asteroid relational database
10 p3168 N93-26698
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043
Astrophysics science operations in the Great Observatories era 10 p3165 N93-27044
Information technologies for astrophysics circa 2001
10 p3165 N93-27045
NASA'S information technology activities for the 90's
10 p3165 N93-27046
White paper on science operations
10 p3165 N93-27047
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
The NASA Scientific and Technical Information Program: Exploring challenges, creating opportunities
[NASA-SP-7103] 10 p3166 N93-27426
Handbook for users
[AD-A260738] 10 p3166 N93-27605
Validated fault tolerant architectures for Space Station
10 p2964 N93-27707
Data management standards in Computer-Aided acquisition and Logistic Support (CALS)
10 p2964 N93-27714
An overview of MCC and its research
10 p2965 N93-27717
Evolving information systems: Beyond temporal information systems
[TR-92-04] 10 p3167 N93-27886
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Materials And Processes Technical Information System (MAPTIS) LDEF materials data base
10 p3168 N93-28286
Data bases for LDEF results
10 p3168 N93-28287
The meta model hierarchy: A framework for information systems concepts and techniques
[TR-92-17] 11 p3611 N93-28481
Natural language generation
[AD-A262578] 11 p3524 N93-28579
The Backgrounds Data Center
11 p3624 N93-28814
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
Applied Information Systems Research Program Workshop
[NASA-TM-108773] 11 p3613 N93-29222
Applied Information Systems Research Program Workshop 11 p3613 N93-29223
Program plan for an experimenter's laboratory for visualized interactive science 11 p3613 N93-29224
A distributed system for visualizing and analyzing multivariate and multidisciplinary data
11 p3613 N93-29226
Data reduction expert assistant
11 p3613 N93-29227
Overview of the System of Experts for Intelligent Data Management (SEIDAM) 11 p3613 N93-29228
The scientific modeling assistant: An advanced software tool for scientific model building
11 p3613 N93-29229
National Center for Supercomputer Applications
11 p3614 N93-29232
Colorado Center for Astrodynamics Research (CCAR)
11 p3614 N93-29233
SAVS: A Space Data Analysis and Visualization System 11 p3614 N93-29235
A planetary version of PC-McIDAS
11 p3614 N93-29236
Interactive interface to NCAR graphics
11 p3614 N93-29237
VIEWCACHE: An incremental database access method for autonomous interoperable databases
11 p3614 N93-29238
Introduction to cadet center for advanced data evaluation technology 11 p3614 N93-29240
Flight Projects Office Information Systems Testbed (FIST) 11 p3615 N93-29241
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 1: Introduction, user requirements, and feasibility tests
[BCRS-90-40A-PT-1] 11 p3460 N93-29307
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
Information technology: A force for organizational change
[AD-A261986] 11 p3615 N93-29439
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465
EnviroNET: On-line information for LDEF
11 p3624 N93-29625
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
The 9th FLICC Forum on Federal Information Policies
[PB93-184687] 11 p3624 N93-29668
Decision maker's guide to international space
[ANSER-STDN-93-4] 11 p3669 N93-29710
Storage systems for national information assets
[DE93-009303] 11 p3615 N93-29783
Energy efficient drivepower, volume 2
[DE93-012437] 11 p3410 N93-29814
Activities report of PTT Research
[ISBN-9-07-212514-2] 11 p3392 N93-30025
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 30: The electronic transfer of information and aerospace knowledge diffusion
[NASA-TM-109223] 11 p3616 N93-30036
Meteorological information for aviation: A systems approach 11 p3367 N93-30298
Application and integration of diverse technology in an aviation system: The National Aeronautical Information Processing System 11 p3247 N93-30339
Introduction to the National Information Display Laboratory 11 p3628 N93-30718
Minimum security requirements for multi-user operating systems
[PB93-185999] 11 p3522 N93-30832
Office of Water Environmental and Program Information Systems Compendium, FY 1992
[PB93-186203] 11 p3462 N93-30833
A prototype of a faculty and staff executive information system
[AD-A264852] 11 p3623 N93-30907
Scientific research abstracts in the Republic of China, 1991 (science and technology)
11 p3670 N93-30911
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
The modern research environment
12 p3837 N93-31221
Forecasting and planning for changing patterns of Scientific and Technical Communication (STC)
12 p3838 N93-31223
A catalog of landscape features. A modeling instrument for the ATKIS information system
12 p3745 N93-31264
Access and content of the EDBS topographic-cartographic information system (ATKIS)
12 p3745 N93-31267
A searching method in a declarative city map
12 p3746 N93-31270
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
Information systems as coalgebras
[ML-92-08] 12 p3838 N93-31481
Design and implementation strategies
[MEMO-INF-92-57] 12 p3788 N93-31511
Science Information Systems Newsletter, issue 28
[NASA-TM-108266] 12 p3834 N93-31589
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968
Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236
Is time a real time? An overview of time ontology in informatics
[REPT-92-046] 12 p3842 N93-32383

INFORMATION THEORY

Digital signal processing
[AD-A254870] 02 p0287 N93-12436
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Computation and communication constraints for distributed estimation systems
[AD-A256287] 04 p0970 N93-14456
How scientific must technical editors be?
[DE92-040741] 04 p1010 N93-15655
Logic and the flow of information
[LP-91-10] 05 p1357 N93-17714
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
Optimum design of experiments in composite reliability
[AD-A257574] 06 p1477 N93-18178
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB]
06 p1624 N93-18858
Modeling the performance of the human (pilot) interaction in a synthetic flight domain: Information theoretic approach 06 p1612 N93-19465
Metadata in archives: The Atmospheric Radiation Measurement (ARM) Archive experience
[DE93-003011] 06 p1574 N93-19628
Information transmission using CHAOS
[AD-A261519] 09 p2883 N93-26377
Elicitation of expert knowledge and assessment of imprecise prior densities for lifetime distributions
[MEMO-COSOR-92-12] 10 p3123 N93-27231
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Theory and applications of random fields
[AD-A262829] 11 p3555 N93-29454
Multiscale and multigrid information representation, extraction and fusion
[AD-A264623] 11 p3393 N93-30386
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096

INFORMATION TRANSFER

Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734

The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Communications 08 p2517 N93-23153
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS) 08 p2372 N93-23844
United Kingdom Earth observation programme 08 p2373 N93-23848
US data policy for Earth observation from space 08 p2373 N93-23852
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
The impact of computer instruction on the near transfer and far transfer of a general problem-solving strategy 08 p2527 N93-24094
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
EMAP monitor: February 1993 edition
[PB93-163020] 10 p3067 N93-26632
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 29: The US government technical report and the transfer of federally funded aerospace R and D
[NASA-TM-109221] 11 p3615 N93-29709
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 30: The electronic transfer of information and aerospace knowledge diffusion
[NASA-TM-109223] 11 p3616 N93-30036
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 31: The information-seeking behavior of engineers
[NASA-TM-109224] 11 p3616 N93-30037
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
The effect of changes in markets and trade barriers on the exchange of scientific and technical information 12 p3836 N93-31216
Automating multilingual communication 12 p3837 N93-31219
The modern research environment 12 p3837 N93-31221
The management of change: Implications for the information professional 12 p3838 N93-31222
Forecasting and planning for changing patterns of Scientific and Technical Communication (STC) 12 p3838 N93-31223
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109

INFORMATION TRANSMISSION
U DATA TRANSMISSION

INFRARED ABSORPTION
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Interaction of hydrogen and water with diamond (100): Infrared spectroscopy
[AD-A258535] 07 p1846 N93-20052
Infrared tunable difference frequency laser source
[DE93-005128] 07 p1912 N93-21709
The effect of UV light on Ir absorption in chemically vapor deposited a-SiN(x):H films
[DE93-004502] 08 p2486 N93-22941
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201

INFRARED ASTRONOMY
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
The Comet Halley archive: Summary volume
[NASA-CR-190358] 02 p0484 N93-11243
United Kingdom Infrared Telescope 03 p0743 N93-13273
H I shells and supershells: Observations and theory 03 p0751 N93-13360
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations 04 p1022 N93-14146
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
Groundbased near-IR observations of the surface of Venus 04 p1035 N93-14346
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
Planetary astronomy research
[NASA-CR-192134] 07 p2099 N93-21643
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud 08 p2549 N93-23722
The Infrared Space Observatory (ISO) 08 p2170 N93-23912
Mid-infrared spectroscopy of solids in relation to the composition of interstellar and intergalactic dust 08 p2550 N93-24179
Telescience Testbed Program: A study of software for SIRTF instrument control
[NASA-CR-192764] 08 p2442 N93-24476
An atlas of selected calibrated stellar spectra
[NASA-CR-177604] 09 p2888 N93-25135
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289
Optical and infrared studies of distant galaxies 09 p2890 N93-25712
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
The large-scale morphology of IRAS galaxies 10 p3176 N93-26733
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
Starburst models of merging galaxies 10 p3183 N93-26778
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838
Infrared coronal emission lines and the possibility of their maser emission in Seyfert nuclei 10 p3196 N93-26853
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414
Near-infrared spectroscopy as an astrophysical tool 11 p3632 N93-28607
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers)
[NASA-RP-1295] 11 p3629 N93-29156
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419
Activities report for the Laboratory for Space Research Groningen (Netherlands)
[ETN-93-93688] 11 p3631 N93-30638
Near-infrared line imaging of NGC 6240: Global shock and nuclear starburst
[MPE-PREPRINT-226] 11 p3631 N93-30641
Infrared spectroscopy and imaging of starburst galaxies and AGNs
[MPE-PREPRINT-229] 11 p3632 N93-30643
The 1st International Conference on Millimeter Wave and Far-Infrared Technology
[AD-A264268] 12 p3715 N93-31096

INFRARED ASTRONOMY SATELLITE
Zodiacal emission 03 p0772 N93-13147
Infrared studies of star-forming regions 06 p1696 N93-18497
Spectroscopy of D-type asteroids 06 p1697 N93-19158
The nature of comet nuclei 06 p1718 N93-19250
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data 06 p1699 N93-19257
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289
The structure of the nearby universe traced by theIRAS galaxies
[NASA-CR-192809] 09 p2889 N93-25331
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
The large-scale morphology of IRAS galaxies 10 p3176 N93-26733
IRAS studies of galactic supershells 10 p3183 N93-26776
Evolution of luminous IRAS galaxies: Radio imaging 10 p3184 N93-26786
The environments of Seyfert and Markarian galaxies 10 p3185 N93-26789
Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802
Luminosities of H alpha emitting regions in a pair of interacting galaxies in the Bootes void 10 p3188 N93-26812
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563

INFRARED DETECTORS
NT FLIR DETECTORS
NT INFRARED RADIOMETERS
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Effect of space exposure on pyroelectric infrared detectors 01 p0038 N93-10582
Quantum 1/f noise in high technology applications including ultrasmall structures and devices
[AD-A253922] 01 p0074 N93-10751
A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU] 02 p0458 N93-11056
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
ISOCAM experiment cryogenic test results
[REPT-921-440-104] 04 p0825 N93-15140
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
A new ground test for determining the resolution of pushbroom sensors
[AD-A257193] 05 p1189 N93-16002
Infrared fiber-optical temperature sensor
[AD-D015495] 05 p1167 N93-16492
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172
Track-before-declare methods in IR image sequences
[AD-A257517] 06 p1661 N93-18174
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Advanced electronic structures
[AD-A258401] 06 p1519 N93-18261
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
Infrared sensor technology and applications 06 p1664 N93-18474
Infrared studies of star-forming regions 06 p1696 N93-18497
Dark-cycle monitoring of biological subjects on Space Station Freedom
[NASA-TM-103976] 06 p1500 N93-19103
Long wavelength infrared detector
[NASA-CASE-NPO-17543-2-CU] 06 p1538 N93-19387
Flight test operations 06 p1418 N93-19592
Flight test of an infrared wind shear detector 06 p1419 N93-19596
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
Data analysis for bark and leaf reflectance measurements
[AD-A258598] 07 p1966 N93-19983
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Introduction to lead salt infrared detectors
[AD-A260781] 09 p2710 N93-25686

Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
New pyro-optic techniques for imaging of long wavelength IR-Radiation (pyro-optic initiation program)
[AD-A260969] 09 p2856 N93-26224
Investigation of a background suppression transimpedance amplifier for photovoltaic detectors
[AD-A261828] 09 p2691 N93-26272
Algorithms for space-based infrared surveillance
[AD-A261891] 09 p2857 N93-26542
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
Electrical and infrared properties of thin niobium microbolometers near T(sub c)
10 p3020 N93-27779
Fractional brownian motion, wavelets, and infrared detector noise
[AD-A262956] 10 p3129 N93-28290
Miniature long-life space cryocoolers
11 p3378 N93-28825
The infrared measurement for the reentry-body-translation
[AD-A263100] 11 p3278 N93-29134
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Measurement of projectile surface temperature by means of its infrared radiation: A preliminary study
[AD-A264053] 11 p3432 N93-30032
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Development of ultra-low noise, high sensitivity planar metal grating coupled 3-5 multiquantum well infrared detectors for focal plane array staring IR sensor systems
[AD-A264465] 11 p3599 N93-30536

INFRARED FILTERS

IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911

INFRARED HORIZON SCANNERS

U HORIZON SCANNERS
U INFRARED SCANNERS

INFRARED IMAGERY

Volcanology from space: Applications of infrared remote sensing 02 p0343 N93-11213
Near-infrared imaging polarimetry of bipolar nebulae
02 p0481 N93-11248
Extraction of shape information from predicted irradiance profiles in infrared images
[RSRE-MEMO-4464] 02 p0447 N93-11342
Infrared image projector utilizing a deformable mirror device spatial light modulator
[AD-D015373] 03 p0710 N93-13500
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Groundbased near-IR observations of the surface of Venus 04 p1035 N93-14346
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
Cloud data set for neural network classification studies
[AD-A256666] 05 p1211 N93-15701
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755
Spacecraft design project: High temperature superconducting infrared imaging satellite
[NASA-CR-192036] 06 p1458 N93-17887
Track-before-declare methods in IR image sequences
[AD-A257517] 06 p1661 N93-18174
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data
06 p1699 N93-19257
Retinal modeling: Segmenting motion from spatio-temporal inputs using neural networks
[AD-A258854] 06 p1599 N93-19369
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
Off-surface infrared flow visualization
[NASA-CASE-LAR-14568-1] 08 p2486 N93-22037
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
Automatic feature extraction and localization using data fusion of radar and infrared images
08 p2270 N93-23628
Towards infrared image understanding
08 p2488 N93-24000
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
Algorithms for space-based infrared surveillance
[AD-A261891] 09 p2857 N93-26542
Two protogalaxy candidates in one night
10 p3173 N93-26717
Near-IR imaging of moderate redshift galaxy clusters
10 p3177 N93-26741
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
The relationship between satellite-derived cloud parameters and measured maximum wind speed in the typhoon genesis stage 10 p3075 N93-26993
A comparison of GMS low-level cloud motion winds with sea surface winds observed by ships over western part of the North Pacific Ocean 10 p3076 N93-26995
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Multiscale morphological filtering for analysis of noisy and complex images 11 p3582 N93-28789
Quantification of thermographic mapping techniques
[AD-A264020] 11 p3391 N93-30016
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563
Surface winds over West Antarctica
12 p3763 N93-31903
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

INFRARED INSPECTION

Infrared imaging of fibre reinforced plastic composites
07 p1838 N93-21162
Sampling explosives on airline passengers
07 p1770 N93-21896
Logarithmic time scale in thermographic Non Destructive Evaluation (NDE) of materials 11 p3359 N93-30246

INFRARED INSTRUMENTS

NT FLIR DETECTORS
NT INFRARED DETECTORS
NT INFRARED INTERFEROMETERS
NT INFRARED RADIOMETERS
NT INFRARED SCANNERS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
IRCCD research 07 p1790 N93-20417
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177

INFRARED INTERFEROMETERS

Recent astronomical results from the infrared spatial interferometer and their implications for LOUISA
03 p0745 N93-13585
Science objectives for ground- and space-based optical/IR interferometry 03 p0746 N93-13590
IASI (Infrared Atmospheric Sounding Interferometer): Programme objectives and status
08 p2364 N93-23794
Visible and infrared imaging interferometry from space
12 p3844 N93-31753
IR single-mode fiber optics for double Fourier interferometry 12 p3824 N93-31784

INFRARED LASERS

An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Research on stimulated Raman scattering with applications to atmospheric lidar
02 p0322 N93-12163
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
Tunable infrared and visible solid-state laser
06 p1543 N93-18473
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
Infrared tunable difference frequency laser source
[DE93-005128] 07 p1912 N93-21709
An infrared free electron laser system for the proposed Chemical Dynamics Research Laboratory at LBL based on a 500 MHz superconducting linac
[DE93-004723] 08 p2307 N93-22346
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Experimental test of hole-coupled FEL resonator designs using a CW-HeNe laser
[DE93-010439] 11 p3440 N93-30530

INFRARED MASERS

U INFRARED LASERS

INFRARED PHOTOGRAPHY

NT COLOR INFRARED PHOTOGRAPHY
The use of thermal infrared remote sensing for water management: Report of the operational research
[BCRS-91-34] 07 p1969 N93-20954

INFRARED PHOTOMETRY

Towards infrared image understanding
08 p2488 N93-24000
Optical and infrared studies of distant galaxies
09 p2890 N93-25712
Far-infrared emission, gas, and ultraluminous HII regions in M101
[NASA-CR-192791] 09 p2890 N93-25755
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838

Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
The galactic center stellar population in the near infrared 10 p3204 N93-28080
The faintest stars 11 p3630 N93-30493
Visible and infrared investigations of planet-crossing asteroids and outer solar system objects
[NASA-CR-193511] 12 p3844 N93-31604

INFRARED RADAR
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Mountain top measurements of beta(9.2 microns) 07 p2009 N93-20099
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
CO2 lidar backscatter experiment 07 p2009 N93-20103

INFRARED RADIATION
NT FAR INFRARED RADIATION
NT NEAR INFRARED RADIATION
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Multispectral observations of the Jovian aurora 02 p0487 N93-11167
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
Zodiacal emission 03 p0772 N93-13147
Appendix: Limits on the use of heterodyning and amplification in optical interferometry 03 p0747 N93-13597
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Infrared radiative properties of clouds 04 p0919 N93-14196
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
Two micron laser development for atmospheric remote sensing at NASA Langley Research Center 04 p0784 N93-14845
Spacecraft thermal design verification in Canada 04 p0808 N93-14940
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Definition of the sea surface infrared sun glitter corridor
[AD-A257100] 05 p1220 N93-16125
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
A ground-based search for lunar resources using high-resolution imaging in the infrared 05 p1386 N93-17241
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
Infrared-induced photoconductivity and electroluminescence in forward-biased a-Si:H pin-diodes
[MBB-Z-0376-91-PUB] 06 p1671 N93-18092
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
Infrared backscatter climatology and MACAWS 07 p2009 N93-20098
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Off-surface infrared flow visualization
[NASA-CASE-LAR-14568-1] 08 p2486 N93-22037
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package 08 p2305 N93-22203
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
Possible power sources for the Jovian polar infrared hot spots 08 p2554 N93-23221
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Infrared vacuum soldering process for thick-film hybrid microcircuits
[DE93-007483] 08 p2285 N93-24451
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
A correlated K-distribution model of the heating rates for H2O and a molecular mixture in the 0-2500 cm(exp -1) wavelength region in the atmosphere between 0 and 60 km
[DE93-005741] 09 p2762 N93-25147
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
Infrared fiber optic diagnostic for solid propellant combustion 09 p2628 N93-26031
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Algorithms for space-based infrared surveillance
[AD-A261891] 09 p2857 N93-26542
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds 10 p3201 N93-26878
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Infrared rugates by molecular beam epitaxy 11 p3582 N93-28808
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
The infrared measurement for the reentry-body-translation
[AD-A263100] 11 p3278 N93-29134
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers)
[NASA-RP-1295] 11 p3629 N93-29156
A program to determine the pointing angle to a specular point
[AD-A262777] 11 p3630 N93-29460
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111

INFRARED RADIOMETERS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
Remote sounding of the Martian atmosphere 01 p0189 N93-10378
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830
Evaluation of the vertical distribution of the ice content in cirrus clouds from combined measurements of lidar and infrared radiometers
[ETN-93-92740] 06 p1587 N93-18631
Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636
Upper-air circulation systems 08 p2337 N93-22138
Meteosat second generation: A look to the future 08 p2357 N93-23753
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential 08 p2362 N93-23780
Aspects of the design of a satellite borne infra-red radiometer 09 p2620 N93-25474

INFRARED REFLECTION
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318

INFRARED SCANNERS
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46
[NASA-TM-107552] 02 p0223 N93-12151
Asteroid detection and monitoring using a satellite-borne visible scanner
[AD-A259797] 08 p2543 N93-23455
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

INFRARED SIGNATURES
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Basic research in the measurement, analysis, and modeling of atmospheric emissions
[AD-A256708] 05 p1200 N93-16137
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
Contamination signatures observed during the CIRRIS-1A mission
[AD-A258596] 07 p1820 N93-19982
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682

Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
A program to determine the pointing angle to a specular point
[AD-A262777] 11 p3630 N93-29460

INFRARED SOURCES (ASTRONOMY)
NT INFRARED STARS
Studies of extra-solar Oort Clouds and the Kuiper disk
[NASA-CR-190958] 03 p0769 N93-12669
Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284
ROSAT all sky survey observations of IRAS galaxies 05 p1362 N93-17133
The x ray properties of warm IRAS galaxies 05 p1371 N93-17134
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
IRAS galaxies in the ROSAT survey 08 p2536 N93-23897
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731

INFRARED SPACE OBSERVATORY (ISO)
ISOCAM experiment cryogenic test results
[REPT-921-440-104] 04 p0825 N93-15140
Service module structure of ISO spacecraft testing and design qualification 05 p1080 N93-15747
The Infrared Space Observatory (ISO) 08 p2170 N93-23912
Activities report for the Laboratory for Space Research Groningen (Netherlands)
[ETN-93-93688] 11 p3631 N93-30638

INFRARED SPECTRA
Infrared investigations of pristine polypyrrole. Is the polymer called polypyrrole really Poly (Pyrrole-Co-Hydroxypyrrole)?
[AD-A249746] 01 p0036 N93-10243
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Imaging IR spectrometer, phase 2
[NASA-CR-190848] 03 p0597 N93-13424
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass 03 p0758 N93-14091
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations 04 p1022 N93-14146
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV 04 p1045 N93-14397
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
Homogeneous-heterogeneous combustion: Thermal and chemical coupling
[DE93-002881] 05 p1100 N93-15840
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Characterization of semi-insulating gallium arsenide
[AD-A257295] 05 p1316 N93-16081
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334
ARM Fourier transform spectrometer data analysis tools
[DE93-004648] 06 p1586 N93-18454
Infrared studies of star-forming regions 06 p1696 N93-18497
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships 06 p1698 N93-19210
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Infrared tunable difference frequency laser source
[DE93-005128] 07 p1912 N93-21709
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
An atlas of selected calibrated stellar spectra
[NASA-CR-177604] 09 p2888 N93-25135
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230
Commercial applications multispectral sensor system 09 p2758 N93-25615
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples 09 p2628 N93-26032
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Silazine to silica 10 p2997 N93-28257
Optical characterization of LDEF contaminant film 10 p3149 N93-28274
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Far infrared supplement. Third edition: Catalog of infrared observations (lambda greater than or equal to 4.6 micrometers)
[NASA-RP-1295] 11 p3629 N93-29156
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
The faintest stars 11 p3630 N93-30493
Visible and infrared investigations of planet-crossing asteroids and outer solar system objects
[NASA-CR-193511] 12 p3844 N93-31604
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312

INFRARED SPECTROMETERS
On-line analysis of chemical composition using an FT-Raman spectrometer in the near-IR
[DE92-016503] 02 p0253 N93-12311
Imaging IR spectrometer, phase 2
[NASA-CR-190848] 03 p0597 N93-13424
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
ARM Fourier transform spectrometer data analysis tools
[DE93-004648] 06 p1586 N93-18454
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Transcutaneous analyte measuring methods
[AD-A262861] 11 p3494 N93-29509

INFRARED SPECTROPHOTOMETERS
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041

INFRARED SPECTROSCOPY
Remote sounding of the Martian atmosphere 01 p0189 N93-10378
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces
[AD-A252544] 02 p0250 N93-11808
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
The deposition characteristics of copper(I) compounds for CVD by FT-IR spectroscopy
[DE92-010778] 02 p0467 N93-12134
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
Infrared spectroscopy of size resolved fine aerosol 03 p0647 N93-13758
Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Lunar resources using moderate spectral resolution visible and near-infrared spectroscopy: Al/Si and soil maturity 05 p1387 N93-17247
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
Radiation properties of high-temperature flames 06 p1485 N93-18477
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Interaction of hydrogen and water with diamond (100): Infrared spectroscopy
[AD-A258535] 07 p1846 N93-20052
Infrared tunable difference frequency laser source
[DE93-005128] 07 p1912 N93-21709
Fourier-transform infrared spectroscopy applied to explosive vapor detection 07 p1773 N93-21913
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095
Mid-infrared spectroscopy of solids in relation to the composition of interstellar and intergalactic dust 08 p2550 N93-24179
High-resolution free-electron laser spectroscopy 08 p2309 N93-24191

Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Distant radio galaxies in the near IR
10 p3177 N93-26742
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers
10 p3201 N93-26882
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Near-infrared spectroscopy as an astrophysical tool
11 p3632 N93-28607
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526
Activities report for the Laboratory for Space Research Groningen (Netherlands)
[ETN-93-93688] 11 p3631 N93-30638
Advanced infrared spectroscopy for improved characterization of chemical systems
[PB93-174977] 12 p3703 N93-31875
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

INFRARED STARS
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414

INFRARED TELESCOPES
NT LARGE DEPLOYABLE REFLECTOR
NT SPACE INFRARED TELESCOPE FACILITY
United Kingdom Infrared Telescope
03 p0743 N93-13273
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass
03 p0758 N93-14091
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE93-009543] 11 p3630 N93-29785
An auto-guiding system for mid-sized telescopes
11 p3375 N93-30340

INFRARED TRACKING
Track-before-declare methods in IR image sequences
[AD-A257517] 06 p1661 N93-18174
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823

INGESTION (BIOLOGY)
NT DRINKING
NT EATING
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893

INGESTION (ENGINES)
Transient performance of fan engine with water ingestion
[NASA-CR-190778] 09 p2573 N93-25134

INGOTS
Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932

INHABITANTS
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228

INHALATION
U RESPIRATION

INHIBITORS
NT WEAR INHIBITORS
Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257

INHOMOGENEITY
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media
03 p0568 N93-14044
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
Ultrametricity in an inhomogeneous simplest spin glass model
[PREPRINT-819] 07 p2055 N93-21181
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards
09 p2694 N93-25066
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522

INITIAL VALUE PROBLEMS
U BOUNDARY VALUE PROBLEMS

INITIATION
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Representation and readability of logic diagrams and aspects of their automatic generation
[ETN-93-92559] 07 p1890 N93-20751
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035

INITIATORS
Laser diode initiated detonators for space applications
07 p1865 N93-20147
Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169

INITIATORS (EXPLOSIVES)
NT BOOSTERS (EXPLOSIVES)
NT DETONATORS
NT EXPLODING WIRES
NT PRIMERS (EXPLOSIVES)
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
NASA pyrotechnically actuated systems program
07 p1863 N93-20133
Development of a NASA standard gas generator
07 p1863 N93-20135
Small ICBM Laser Firing Unit (LFU)
07 p1864 N93-20138

INJECTION
NT CARRIER INJECTION
NT FLUID INJECTION
NT FUEL INJECTION
NT GAS INJECTION
NT ION INJECTION
NT LIQUID INJECTION
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
Tracking sharp interface of two fluids by the CIP (Cubic-Interpolated Propagation) scheme
[NIFS-206] 09 p2698 N93-25277
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931

INJECTION CARBURETORS
U FUEL INJECTION

INJECTION GUIDANCE
The effect of missions and payload performance on the configuration of an orbital injection system design
08 p2156 N93-24349

INJECTION LASERS
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers
03 p0607 N93-13773
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298

INJECTION LOCKING
Millimeter-wave quasi-optical and spatial power combining techniques
[AD-A255438] 03 p0574 N93-13865
Development of simplified external control techniques for broad area semiconductor lasers
[NASA-CR-192223] 06 p1541 N93-18584
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

INJECTION MOLDING
Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983
Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988
Gapwise density distributions in injection-moulded polymethylmethacrylate 02 p0270 N93-11990
Analysis of the birefringence distributions in compact discs of polycarbonate 02 p0270 N93-11991
Flow behavior in liquid molding
04 p0833 N93-14747
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451
Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438
Wetting and dispersion in ceramic/polymer melt injection molding systems
[DE93-013240] 11 p3338 N93-30601

INJECTORS
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts
05 p1095 N93-17297
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
A summary of the JANNAF workshop on liquid rocket atomization 09 p2625 N93-26014
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
Liquid fuel injection elements for rocket engines
[NASA-CASE-MFS-28547-1] 11 p3289 N93-29847

Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069
Innovative instrument design and applications in super-critical fluid chromatography and extraction 12 p3704 N93-32327

INJURIES
NT BACK INJURIES
NT BRAIN DAMAGE
NT BURNS (INJURIES)
NT CRASH INJURIES
NT EJECTION INJURIES
NT FROSTBITE
NT LESIONS
NT RADIATION INJURIES
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Development and enhancement of a model of performance and decision making under stress in a real life setting
[AD-A255699] 05 p1226 N93-16111
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
Can injury scoring techniques provide additional information for crash investigators? 06 p1423 N93-19663
Is axial loading a primary mechanism of injury to the lower limb in an impact aircraft accident? 06 p1423 N93-19664
The design and use of automotive crash test dummies 06 p1424 N93-19669
An improved anthropometric test device 06 p1424 N93-19670
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat 06 p1424 N93-19671
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
An epidemiological study in SAF's pilots ejections 06 p1429 N93-19699
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199

INLAND WATERS
NT GROUND WATER
Applications of remote sensing for tidal waters, coastal areas and inland waters 09 p2745 N93-24819

INLET AIRFRAME CONFIGURATIONS
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862

INLET FLOW
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
Non-dimensional conceptual design of radial inflow turbines. Part B: Application of empirical correlations 01 p0077 N93-10054
An experimental investigation of the flow in a diffusing S-duct
[NASA-TM-105809] 02 p0213 N93-12077
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods 03 p0592 N93-13953
Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets
[NASA-TM-105935] 05 p1055 N93-16625
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Nozzle diffuser for use with an open test section of a wind tunnel
[NASA-CASE-LAR-14424-1-SB] 09 p2598 N93-25996
Gas storage and recovery system
[NASA-CASE-MSC-22091-1] 10 p3021 N93-28136
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions 11 p3421 N93-29177
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585

INLET NOZZLES
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
Nozzle diffuser for use with an open test section of a wind tunnel
[NASA-CASE-LAR-14424-1-SB] 09 p2598 N93-25996

INLET PRESSURE
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679

INLET TEMPERATURE
Measurements and computations of external heat transfer and film cooking in turbines
[RAE-TM-P-1223] 09 p2592 N93-25455
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

INLETS (DEVICES)
U INTAKE SYSTEMS

INNER RADIATION BELT
CRRES: The combined release and radiation effects satellite program directory
[NASA-CR-184504] 05 p1076 N93-15713
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280

INORGANIC CHEMISTRY
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816

INORGANIC COATINGS
NT ANODIC COATINGS
NT CERAMIC COATINGS

INORGANIC COMPOUNDS
NT AMMONIA
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
Carborane-(silane or siloxane)-unsaturated hydrocarbon based thermosetting polymers
[AD-D015718] 11 p3338 N93-30580
Carborane-(siloxane or silane)-unsaturated hydrocarbon based polymers
[AD-D015717] 11 p3338 N93-30586
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830

INORGANIC NITRATES
NT AMMONIUM NITRATES
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511

INORGANIC PEROXIDES
NT HYDROGEN PEROXIDE
An investigation of transient atmospheric inorganic peroxides: A theoretical and experimental study 04 p0912 N93-14117

INORGANIC SULFIDES
NT CADMIUM SULFIDES
NT HYDROGEN SULFIDE
NT LEAD SULFIDES
NT MOLYBDENUM DISULFIDES
NT POLYSULFIDES
NT WURTZITE
NT ZINC SULFIDES

INPUT
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164
Implementation of input command shaping to reduce vibration in flexible space structures 10 p3059 N93-27901

INPUT/OUTPUT ROUTINES
Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
The ASCIS data flow graph semantics and textual format
[EUT-91-E-251] 10 p3093 N93-27243
Concurrent clean language manual, version 0.8
[TR-92-18] 11 p3522 N93-28482
A parallel processing system for intensive I/O 11 p3362 N93-30262
RAID 7 disk array 11 p3537 N93-30462
Using Transparent Informed Prefetching (TIP) to reduce file read latency 11 p3522 N93-30480
New architectures to reduce I/O bottlenecks in high-performance systems
[DE93-009059] 12 p3795 N93-31985
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049

INSECTICIDES
NT URETHANES
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941

INSECTS
NT BEETLES
NT MOTHS
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941

INSENSITIVITY
U SENSITIVITY

INSERTION
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790

INSERTION LOSS
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
Determination of the dissipative loss of a two-port network from noise temperature measurements 06 p1505 N93-18904

Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493

INSERTS
NT NOZZLE INSERTS
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 08 p2108 N93-22487

INSHORE ZONES
U BEACHES

INSOLATION
Precessional quantities for the Earth over 10 Myr
06 p1579 N93-18964
Modeling orbital changes on tectonic time scales
06 p1581 N93-18971
Chemical and physical effects in the bulk of cometary analogs 06 p1716 N93-19234
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships
08 p2411 N93-24578

INSPECTION
NT INFRARED INSPECTION
NT X RAY INSPECTION
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46
[NASA-TM-107552] 02 p0223 N93-12151
Functional system design document for the Intelligent Inspection System (IIS)
[DE92-018240] 03 p0619 N93-12794
Development and applications of a new computer-controlled magnetic inspection system
[DE92-040579] 05 p1181 N93-15664
Monitoring limits on sea-launched cruise missiles
[OTA-ISC-513] 05 p1061 N93-16632
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Usage monitoring in the RNLN Fleet Air Arm (Marine Luchtvaaridienst)
[NLR-TP-91070-U] 05 p1062 N93-17394
Manufacturing and inspection of artificial delaminations in composite materials
[NLR-TP-91085-U] 05 p1099 N93-17582
High temperature component analysis with expert systems 06 p1557 N93-18751
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
Redundant drive current imbalance problem of the Automatic Radiator Inspection Device (ARID)
06 p1552 N93-19398
Recognition of partially occluded threat objects using the annealed Hopefield network
06 p1612 N93-19466
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
Measurement process error determination and control
[DE93-002948] 06 p1553 N93-19753
Aviation safety: Problems persist in FAA's inspection program. Report to the Chairman, Subcommittee on Aviation, Committee on Public Works and Transportation, House of Representatives
[GAO/RCED-92-14] 06 p1431 N93-19841
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Electron optical defect inspection in x ray lithography masks
[ETN-93-92570] 07 p1919 N93-20884
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
Automated connector force testing
[DE93-004634] 07 p1907 N93-21704
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques
07 p1767 N93-21875
A general protocol for operational testing and evaluation of bulk explosive detection systems
07 p1769 N93-21888
Explosive detection using microwave imaging
07 p1771 N93-21902
Consideration of untried magnetic resonance techniques for possible baggage analysis 07 p1771 N93-21903
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Reentry systems: Material technology needs
08 p2176 N93-22108
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping
08 p2259 N93-22174
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
Reliability assessment at airline inspection facilities. Volume 1: A generic protocol for inspection reliability experiments
[DOT/FAA/CT-92/12-VOL-1] 09 p2582 N93-25110
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
NDT standards from the perspective of the Department of Defense
[MTL-TR-92-68] 09 p2722 N93-26434
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56
[NASA-TM-107560] 10 p2956 N93-27538
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
Calibration system for testing laboratory
[VTT-TIED-1401] 12 p3738 N93-31172
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835
Remote surface inspection system
12 p3739 N93-32099
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124

INSTABILITY
U STABILITY

INSTALLATION
U INSTALLING

INSTALLATION MANUALS
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937

INSTALLING
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
Automatic system for installation and replacement of Space Station components
[NASA-CASE-LEW-14906-1] 02 p0329 N93-12203
Requirements for soldered electrical connections
[NHB-5300.4(3A-2)] 03 p0570 N93-12674
Fires on board aircraft: Toxicological risk in flight
06 p1428 N93-19694
Development and flight testing of a surface pressure measurement installation on the EAP demonstrator aircraft 06 p1446 N93-19927
Retrofitting of GPS into existing navigation suites
08 p2120 N93-22788
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
FDDI installation and performance analysis
[AD-A263263] 11 p3529 N93-29497
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992

INSTANTONS
Solitons and instantons in string theory
03 p0728 N93-13753
The N equals 2 topological gauge theory, the Euler characteristic of moduli spaces, and the Casson invariant
[NIKHEF-H/91-28] 10 p3156 N93-27509

INSTITUTIONS
Activities report of the Institute of Space Physics
[ETN-93-93360] 06 p1665 N93-17947
ATKIS: The introduction phase at IfAG
07 p1967 N93-20533

INSTRUCTION SETS (COMPUTERS)
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341
Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386
Applying algebraic techniques to microcode compilation
[RSRE-MEMO-4568] 02 p0409 N93-11392
The WEB approach to ELLA
[RSRE-MEMO-4549] 02 p0409 N93-11407
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808
The ASCIS data flow graph semantics and textual format
[EUT-91-E-251] 10 p3093 N93-27243
A comparison of OBJ3 and ASF+SDF
[CWI-CS-R9223] 10 p3094 N93-27363
Associative matching for linear terms
[CWI-CS-R9224] 10 p3094 N93-27377
A predicate transformer for unification
[CWI-CS-R9227] 10 p3096 N93-27391

INSTRUCTIONS
U EDUCATION

INSTRUCTORS
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
Prologue to Action. Life Sciences Education and Science Literacy
[PB93-107514] 07 p2021 N93-21230
Development of interactive multimedia applications
08 p2530 N93-22171
Earth's mysterious atmosphere. ATLAS 1: Teachers guide with activities
[NASA-EP-282] 08 p2396 N93-23733
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148
Proposal to develop guides for high school teachers on global systems science
[DE93-008759] 11 p3624 N93-29100
Summer Faculty Research Program (SFRP), volume 1
[AD-A261988] 11 p3608 N93-29440
Filling the gaps: An overview of data on education in grades K through 12
[PB93-176550] 11 p3608 N93-30821

INSTRUMENT APPROACH
Design of instrument approach procedure charts: Comprehension speed of missed approach instructions coded in text or icons
[PB92-205673] 02 p0204 N93-11252
Human factors design principles for instrument approach procedure charts. Volume 1: Readability
[AD-A257234] 05 p1227 N93-15968
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
The dependent converging instrument approach procedure: An analysis of its safety and applicability
[DOE/FAA/RD-93/6] 09 p2585 N93-25456

An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888

INSTRUMENT COMPENSATION
NT TEMPERATURE COMPENSATION
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
High temperature strain gage apparent strain compensation 03 p0600 N93-13672

INSTRUMENT DRIFT
U DRIFT (INSTRUMENTATION)

INSTRUMENT ERRORS
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
Principles and applications of measurement and uncertainty analysis in research and calibration
[DE93-000034] 07 p1907 N93-21251
Techniques for improving the accuracy of cyrogenic temperature measurement in ground test programs
[NASA-TM-105996] 08 p2302 N93-22484
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827
Applications of inertial-sensor high-inheritance instruments to DSN precision antenna pointing 09 p2621 N93-26112
A break-down of sting interference effects
[NLR-TP-91220-U] 12 p3684 N93-31042
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
Measurement uncertainty considerations for coordinate measuring machines
[PB93-189819] 12 p3714 N93-31196
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

INSTRUMENT FLIGHT RULES
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855

INSTRUMENT LANDING SYSTEMS
NT ALL-WEATHER LANDING SYSTEMS
NT AUTOMATIC LANDING CONTROL
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY
[DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Terrain Referenced Information and Guidance Systems (TRIGS)
[MBB-FE-315-S-PUB-0494] 08 p2119 N93-22390
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico
[DOT/FAA/CT-TN93/10] 10 p2941 N93-27017
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888
On-board derived flight-path measurement as demonstrated by an ILS measurement system 12 p3677 N93-31282

INSTRUMENT PACKAGES
NT EREP
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover 05 p1386 N93-17236
A lunar penetrator to determine solar-wind-implanted resources at depth in the lunar regolith 05 p1386 N93-17239
Development of a flight instrument package
[AD-A260830] 09 p2591 N93-25783

INSTRUMENTAL ANALYSIS
U AUTOMATION

INSTRUMENTATION
U INSTRUMENTS

INSTRUMENTS
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Field screening for environmental pollutants: Defining user instrumentation needs
[PB93-117885] 07 p1993 N93-21791
Activities of the Industrial Materials Institute
[NRC-34380] 08 p2207 N93-24288
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804

INSULATING MATERIALS
U INSULATION

INSULATION
NT ELECTRICAL INSULATION
NT MULTILAYER INSULATION
NT THERMAL INSULATION
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Superplastic forming of ceramic insulation 02 p0228 N93-12452
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
A variable current bypass shunt for electromagnets
[DE93-004273] 08 p2278 N93-22686
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
ASRM test report: Autoclave cure process development
[NASA-CR-192535] 10 p2986 N93-27157
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
Spacecraft glow and the EISG/skirt experiment 11 p3266 N93-28728
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Postflight hardware evaluation 360T025 (RSRM-25, STS-46)
[NASA-CR-192562] 11 p3272 N93-30617
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix A: Insulation PFORs
[NASA-CR-192563] 11 p3272 N93-30618
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix E: Insulation postfire data
[NASA-CR-192566] 11 p3272 N93-30621
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636

INSULATORS
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications 01 p0015 N93-10006
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Silicon on insulator structures in selective epitaxial growth
[DE92-017118] 02 p0465 N93-11915
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Electronic phenomena in polyanilines
[AD-A254803] 03 p0545 N93-12749
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc 04 p0988 N93-14138
Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Microwave heating of lunar materials. Appendix A 05 p1383 N93-16903
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Feasibility of silicon nitride films by vapor deposition at low temperature: Comparison of dichlorsilane-ammonia and disilane gaseous systems
[LAAS-92249] 06 p1490 N93-17812
Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303

INSULIN
Tagging insulin in microgravity 03 p0510 N93-13172
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393

INSURANCE (CONTRACTS)
Insurance cover for space ventures 08 p2344 N93-23510

INTAKE SYSTEMS
NT AIR INTAKES
NT ENGINE INLETS
NT HYPERSONIC INLETS
NT INLET AIRFRAME CONFIGURATIONS
NT SUPERSONIC INLETS
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087

INTEGERS
From totally unimodular to balanced O, +/- 1 matrices: A family of integer polytopes
[AD-A254552] 03 p0696 N93-12640
Using an interior point cutting plane method to solve integer programming problems
[AD-A256041] 04 p0945 N93-14659
Characterizations of linear independence and stabiiity of the shifts of a univariate refinable function in terms of its refinement mask
[AD-A256527] 04 p0969 N93-15399
Fast algorithms for rendering cubic curves 04 p0953 N93-15536
Linear-programming tools in integer programming: The traveling salesman
[AD-A261398] 09 p2812 N93-26290
Factorizations of a(sub n) +/- 1, 13 less than or equal to a less than 100
[CWI-NM-R9212] 10 p3114 N93-27366
Packing odd paths
[CWI-BS-R9207] 11 p3549 N93-29849
Nth roots of normal contractions
[DE92-644725] 11 p3557 N93-30985
Smallest regular graphs with given diameter
[MEMO-1092] 12 p3810 N93-32399

INTEGRAL CALCULUS
Stochastic quantization, stochastic calculus and path integrals: Selected topics
[PREPRINT-837] 05 p1279 N93-16992
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
Spatial formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20690
Case studies in the numerical solution of oscillatory integrals
[DE92-642554] 12 p3801 N93-31067

INTEGRAL EQUATIONS
NT FREDHOLM EQUATIONS
NT J INTEGRAL
NT SINGULAR INTEGRAL EQUATIONS
NT VOLTERRA EQUATIONS
The class of the paths in the Feynman path integral on the phase space
[DE92-630205] 01 p0170 N93-10386
Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Random quadratic forms and the bootstrap for U-statistics
[W-9207] 05 p1275 N93-16356
C-integrable nonlinear partial differential equations in N + 1 dimensions
[PREPRINT-833] 05 p1269 N93-16955

Stochastic quantization, stochastic calculus and path integrals: Selected topics
[PREPRINT-837] 05 p1279 N93-16992
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions
[PREPRINT-851] 05 p1270 N93-17071
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Some remarks upon fracture mechanics
[VTT-PUBS-100] 06 p1556 N93-18700
A boundary element formulation for thermo-hydrodynamic lubrication problem 07 p1918 N93-20704
Well-posedness and stabilizability of a viscoelastic equation in energy space
[PB93-111920] 07 p2056 N93-21474
A class of hybrid finite element methods for electromagnetics: A review
[NASA-CR-192631] 08 p2260 N93-22467
Solution of the Helmholtz-Poincare Wave Equation using the coupled boundary integral equations and optimal surface eigenfunctions
[DE93-005300] 08 p2470 N93-24038
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
A surface integral algorithm for the motion planning of nonholonomic mechanical systems
[AD-A261746] 09 p2720 N93-26249
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Integrable symplectic maps
[SSCL-PREPRINT-744] 10 p3122 N93-28387
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
Scattering through apertures and by three-dimensional structures. Application to the measurement of the surface impedance of conductive materials
[ONERA-P-1990-2] 11 p3392 N93-30018
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141
Convergence rates and finite-dimensional approximations for nonlinear ill-posed problems involving monotone operators in Banach spaces
[DE93-619670] 12 p3809 N93-32287

INTEGRAL FUNCTIONS
U ENTIRE FUNCTIONS

INTEGRAL ROCKET RAMJETS
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187

INTEGRAL TRANSFORMATIONS
NT FAST FOURIER TRANSFORMATIONS
NT FOURIER TRANSFORMATION
NT HILBERT TRANSFORMATION
NT LAPLACE TRANSFORMATION
Integral transform approach to an inertial viscoelastic problem involving moving singularities 01 p0049 N93-10490
Inverse spectral transform for the 2 + 1-dimensional Gardner equation
[MATHS-REPT-A-138] 02 p0425 N93-11323
Chaotic behaviour of x ray lightcurves of AGN?
05 p1366 N93-17101
Integrable nonlinear evolution equations with constraints: 1
[PREPRINT-824] 05 p1270 N93-17220
The Hahn-Exton q-Bessel function
[ISBN-90-9004649-6] 05 p1271 N93-17587
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
An efficient method for analyzing microstrip antennas with a dielectric cover using a spectral domain moment method
[EUT-91-E-255] 10 p3026 N93-27228

INTEGRALS
NT CONVOLUTION INTEGRALS
On the evaluation of derivatives of Gaussian integrals 02 p0439 N93-11853
Stochastic integrals and goodness-of-fit tests
[ISBN-90-9003836-1] 05 p1275 N93-16223
Distribution of photons in squeezed polymode light 10 p3143 N93-27325
Integral solution to systems Ax less than or equal to b
[CWI-BS-R9217] 10 p3119 N93-27992
Hyperasymptotics and the Stokes' phenomenon
[CWI-AM-R9206] 10 p3120 N93-28085
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
A simple formula for reducing Feynman diagrams to scalar integrals
[DE92-644717] 11 p3607 N93-30916
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
Case studies in the numerical solution of oscillatory integrals
[DE92-642554] 12 p3801 N93-31067

INTEGRATED CIRCUITS
NT APPLICATION SPECIFIC INTEGRATED CIRCUITS
NT LARGE SCALE INTEGRATION
NT LINEAR INTEGRATED CIRCUITS
NT TTL INTEGRATED CIRCUITS
NT VERY LARGE SCALE INTEGRATION
NT VHSIC (CIRCUITS)
Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916
Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
Development of large-area monolithically integrated silicon-film photovoltaic modules
[DE92-010600] 03 p0637 N93-12838
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Novel engineered compound semiconductor heterostructures for advanced electronics applications
[AD-A255363] 04 p0866 N93-14562
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
A new device to aid in the conception and optimization of monolithic millimeter circuits: A distributed and nonliner model of a field effect transistor 04 p0807 N93-14932
A temperature tracking SPICE2G.6 macromodel of the 6N134 optocoupler
[DE92-040093] 04 p0983 N93-15223
Thermal fixture for testing an integrated circuit
[AD-D015380] 04 p0882 N93-15247
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Integrated test and package methods for integrated photonics
[DE93-000748] 05 p1145 N93-16230
Three-terminal devices of high-T(sub c) superconductors: A status report and future challenges
[DE93-000654] 05 p1319 N93-16358
TOPICS: A contribution to analog design automation
[ISBN-90-9004786-7] 05 p1238 N93-16471
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Accurate and efficient layout extraction
[ISBN-90-9004806-5] 05 p1147 N93-16499
The unofficial AMPLEX owner's manual
[DE93-001437] 05 p1148 N93-16651
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
Optimal dynamic range integrated continuous-time filters
[ISBN-90-6275-755-3] 05 p1150 N93-17395
Generation of integrated circuit tests based on functional models
[ETN-92-92674] 05 p1151 N93-17628
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Development of neural modules based on Si/PLZT technology for opto-electronic implementations of neural networks
[AD-A257937] 06 p1518 N93-18120
Theoretical analysis of microwave and millimeter wave integrated circuits based on magnetic films
[AD-A257512] 06 p1518 N93-18173
Wire assembly for electrically conductive circuits
[AD-D015535] 06 p1519 N93-18317
Novel interconnect deposition technology 06 p1523 N93-18465
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Analysis and measurement of thermal resistance in a 3-dimensional silicon multichip module populated with assembly test chips
[DE93-000743] 07 p1888 N93-20029
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A259441] 07 p1888 N93-20125
An extended length digital correlator threshold circuit
[AD-D015610] 07 p1889 N93-20328
Development of radiation resistant HCMOSIC 07 p1798 N93-20467
Development of high density hybrid IC 07 p1798 N93-20469
Development of 256 kbit PROM 07 p1799 N93-20470
Development of 256 kbit SRAM 07 p1799 N93-20471
Industrial IC evaluation test: 256 kbit EEPROM 07 p1800 N93-20481
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
GGADS: A library independent layout synthesis system for user adaptive gate array master structures
[ETN-93-92571] 07 p1892 N93-21021
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Guided wave phenomena in millimeter wave integrated circuits and components
[AD-A260407] 08 p2262 N93-22946

A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU] 08 p2464 N93-24599
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
Two- and three-dimensional high performance, patterned overlay multi-chip module technology 09 p2694 N93-25581
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596
Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
VLSI for high-speed digital signal processing
[AD-A260754] 09 p2690 N93-25678
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Advanced HTS S-N-S devices
[AD-A261552] 09 p2869 N93-26381
Internal current probing of integrated circuits using magnetic force microscopy
[DE93-006752] 09 p2692 N93-26501
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A262377] 10 p3147 N93-27695
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732
Progress in integrated-circuit horn antennas for receiver applications. Part 1: Antenna design 10 p3015 N93-27755
Progress in integrated-circuit horn antennas for receiver applications. Part 2: A 90 GHz quasi-integrated horn antenna receiver 10 p3016 N93-27756
Intelligent structures technology 10 p3061 N93-28176
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
A maskless flip-chip solder bumping technique
[DE93-009631] 10 p3021 N93-28372
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381
Digital parallel processor array for optimum path planning
[NASA-CASE-NPO-18727-1-CU] 10 p3108 N93-28427
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
Instrumental neutron activation analysis developed for silicon integrated circuit technology
[ETN-93-93581] 11 p3408 N93-29271
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
New developments in vacuum microelectronics
[AD-A263103] 11 p3410 N93-29798
Wavelength-division multiplexed optical integrated circuit with vertical diffraction grating
[NASA-CASE-NPO-18357-1-CU] 11 p3579 N93-29848
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
A single chip high-speed CMOS Viterbi decoder 11 p3358 N93-30238
Fault tolerance and testing for WSI systems 11 p3361 N93-30258
Generation of configurable self-synchronizing synchronous CMOS static RAMs 11 p3361 N93-30259
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Effects of device scaling and geometry on MOS radiation hardness assurance
[DE93-009832] 11 p3413 N93-30516
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962
Design and integration of high bit rate four phase monolithic demodulators and modulators at X band
[LAAS-92354] 11 p3414 N93-31030
Synthesis and realization of a monolithic active bandpass filter for the Ku band
[LAAS-92365] 12 p3719 N93-31173
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560

INTEGRATED ENERGY SYSTEMS
Discussion for the ideal AIMS 04 p0793 N93-15153
Communications and control for electric power systems
[NASA-CR-192794] 08 p2261 N93-22477

INTEGRATED GLOBAL OCEAN STATION SYSTEMS
International ocean services: Is it time - will it ever be time? 09 p2737 N93-24941

INTEGRATED LIBRARY SYSTEMS
Data archiving 04 p1005 N93-15035
ATL Products Division's entries into the computer mass storage marketplace 04 p1005 N93-15038

INTEGRATED MISSION CONTROL CENTER
Mission Control Center enhancement opportunities in the 1990's 02 p0396 N93-11942
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498

INTEGRATED OPTICS
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Architecture of low cost, large scale neural networks
[MEMO-INF-92-16] 04 p0941 N93-15089
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518
Integrated test and package methods for integrated photonics
[DE93-000748] 05 p1145 N93-16230
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295
Development of simplified external control techniques for broad area semiconductor lasers
[NASA-CR-192223] 06 p1541 N93-18584
Smart materials 07 p1845 N93-20624
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
Wavelength-division multiplexed optical integrated circuit with vertical diffraction grating
[NASA-CASE-NPO-18357-1-CU] 11 p3579 N93-29848
Integrated optics for an interferometric link 12 p3824 N93-31783

INTEGRATION (REAL VARIABLES)
U MEASURE AND INTEGRATION

INTEGRATORS
NT DIGITAL INTEGRATORS
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
IMP: A performance code 08 p2139 N93-22245
A sparse architecture low power gated integrator for use with germanium gamma ray spectrometers in remote geochemistry measurements
[DE93-004769] 08 p2303 N93-22491
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
High-frequency BiCMOS transconductance integrators
[ISBN-0-315-60484-0] 08 p2286 N93-24612
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Grand challenges in mass storage: A system integrator's perspective 12 p3840 N93-31973

INTEGRITY
NT COMPUTER PROGRAM INTEGRITY
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018

INTEGRODIFFERENTIAL EQUATIONS
U DIFFERENTIAL EQUATIONS
U INTEGRAL EQUATIONS

INTELLIGENCE
NT ARTIFICIAL INTELLIGENCE
NT EXPERT SYSTEMS
NT EXTRATERRESTRIAL INTELLIGENCE
Intelligent flight control systems 08 p2107 N93-22576
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Science, technology, and national security 09 p2886 N93-25232
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160
Centralized maintenance evaluation
[AD-A264400] 11 p3544 N93-30886

INTELLIGENCE TESTS
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582

INTELLIGENT STRUCTURES
U SMART STRUCTURES

INTELLIGIBILITY
NT SPEECH RECOGNITION
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
Upside-down meta-interpretation of the model elimination theorem-proving procedure for deduction and abduction
[AD-A259436] 07 p2046 N93-20012

INTELSAT SATELLITES
Prospects of two-way international time scale comparisons 09 p2832 N93-24988

INTENSIFICATION
U AMPLIFICATION

INTENSIFIER TUBES
U IMAGE INTENSIFIERS

INTENSIFIERS
NT IMAGE INTENSIFIERS

INTERACTING GALAXIES
Study of tidal interactions in M81-M82-NGC3077 system 04 p1010 N93-14195
Globular cluster systems as clues to galaxy evolution 10 p3175 N93-26728
Low surface brightness galaxies and tidally triggered star formation 10 p3178 N93-26745
Starburst models of merging galaxies 10 p3183 N93-26778
Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781
Luminosities of H alpha emitting regions in a pair of interacting galaxies in the Bootes void 10 p3188 N93-26812
The case of missing CO-13 in mergers 10 p3189 N93-26819
Formation of massive clouds and dwarf galaxies during tidal encounters 10 p3190 N93-26822
Models of the Cartwheel ring galaxy: Spokes and starbursts 10 p3190 N93-26823

Deep H alpha images of interacting galaxies
10 p3191 N93-26826
Dissipative merging of galaxies
10 p3191 N93-26827
Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828
Declining rotation curves in interacting galaxies
10 p3192 N93-26829
A new observational and numerical study of tidal interactions in M81-M82-NGC3077 system
10 p3192 N93-26830
The nature of the evolution of galaxies by mergers
10 p3192 N93-26831
Mergers at z = 1 10 p3192 N93-26832
A numerical simulation of galaxy subcluster mergers
10 p3192 N93-26833
Luminosity segregation in galaxy clusters as an indication of dynamical evolution
10 p3192 N93-26834
Kinematics of compact groups and morphologies of the member galaxies 10 p3193 N93-26835
The dynamics of Abell 2634 10 p3193 N93-26836
Mergers, cooling flows, and evaporation
10 p3194 N93-26842
Models of star formation in interacting and merging disk galaxies 11 p3635 N93-30148

INTERACTIONAL AERODYNAMICS
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Contributions to the experimental investigation of rotor/body aerodynamic interactions
01 p0005 N93-10877
Unsteady propeller/wing aerodynamic interactions
02 p0201 N93-12190
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover
03 p0497 N93-14035
A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
Mean flow interactions of a counter-rotating propeller
07 p1899 N93-20289
Tip-vortex/airframe interactions
08 p2111 N93-23489

INTERACTIONS
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Interaction between ice and propeller
[VTT-TIED-1281] 10 p3051 N93-27832
Dynamic ice structure interaction: Theory and applications
[VTT-PUBS-90] 11 p3353 N93-28632

INTERACTIVE CONTROL
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Micro-video display with ocular tracking and interactive voice control 08 p2433 N93-22172
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
Architecture of autonomous systems
[NASA-CR-192974] 09 p2601 N93-26047
Interaction dynamics and control for orbital assembly
09 p2669 N93-26407
Controls of interaction dynamics of orbital assembly
11 p3275 N93-29111
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108

INTERACTIVE GRAPHICS
U COMPUTER GRAPHICS

INTERACTIVE MULTIMEDIA
U MULTIMEDIA

INTERATOMIC FORCES
The binary collision approximation: Background and introduction
[DE92-040887] 05 p1285 N93-16276
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083

INTERCALATION
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
Apparatus for intercalating large quantities of fibrous structures
[NASA-CASE-LEW-15077-2] 11 p3298 N93-29609

INTERCEPTION
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Minimum effort interception of multiple targets
10 p2925 N93-27205
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206

INTERCEPTOR AIRCRAFT
U FIGHTER AIRCRAFT

INTERCEPTORS
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403

INTERCONNECTION
U JOINING

INTERCONTINENTAL BALLISTIC MISSILES
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Report to Congress on the strategic defense initiative, 1992
[AD-A258449] 06 p1650 N93-17992
Small ICBM Laser Firing Unit (LFU)
07 p1864 N93-20138

INTERDIGITAL TRANSDUCERS
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009

INTERFACE STABILITY
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

INTERFACES
NT FLUID BOUNDARIES
NT JET BOUNDARIES
NT LIQUID-LIQUID INTERFACES
NT LIQUID-SOLID INTERFACES
NT LIQUID-VAPOR INTERFACES
NT SOLID-SOLID INTERFACES
A portable multiprocessor interface for standard ML of New Jersey
[AD-A255639] 04 p0958 N93-14151
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
Integration of CAD tools in space vehicle design
05 p1079 N93-15739
Potential modulation of equilibrium and excitation phenomena at the electrolyte-solid interface
[DE93-001685] 05 p1103 N93-16163
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Reference model for the description of graphic data processing and for the integration of graphic systems with other data processing fields
[ETN-93-93417] 07 p2039 N93-21066
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
A survey of network interface designs
[MEMO-INF-92-59] 11 p3379 N93-28502
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
The prominence-corona interface: Models and observations 12 p3873 N93-31378
Scattering of electrons at heterostructure interfaces
[ETN-93-94044] 12 p3828 N93-31523

INTERFACIAL ENERGY
Slow crack growth in vacuum
02 p0338 N93-11909
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373

INTERFACIAL STRAIN
U INTERFACIAL TENSION

INTERFACIAL TENSION
Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10085
Structure of thermocapillary flow in narrow cavities
01 p0061 N93-10552
The effects of chemistry on weld profiles in partial and full penetration welds
[DE92-016865] 02 p0327 N93-11679
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Transient response of a viscous liquid bridge of finite length and anchored edges
[LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3
[CTN-93-60611] 05 p1158 N93-16544
Response of a rotating anchored finite annular liquid layer to axial excitation
[LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Response of a viscous liquid column with anchored edges to axial excitations
[LRT-WE-9-FB-7-1991] 05 p1164 N93-17550
Response of an annular cylindrical liquid layer with anchored edges in zero-gravity
[LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
Hydroelastic vibrations in a rectangular container under zero-gravity
[LRT-WE-9-FB-28-1991] 05 p1134 N93-17602
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Liquid oscillations under strong surface tension in a circular cylindrical container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
Response of a non-viscous liquid column with anchored liquid surface to axial excitation
[LRT-WE-9-FB-4-1991] 08 p2288 N93-22677
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating
08 p2247 N93-22835
Fluid mechanics applications for the design and test of the surface tension tank OST-2
08 p2248 N93-22841
The study of surface tension tanks from the neutral buoyancy to the space flight 08 p2248 N93-22842

Oscillations of finite liquid columns
08 p2250 N93-22855
Surface tension and buoyancy driven Stokes flow in cavities
08 p2250 N93-22856
A method of measuring the interfacial tension of two liquids of the same mass volume: The cylindrical method
08 p2251 N93-22860
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
On the solution of fluid flow and solid deformation interaction problems
08 p2291 N93-23178
Experimental and theoretical studies of dense fluid mixtures
[DE93-006070] 09 p2695 N93-24976
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Interaction of vorticity with a free surface
[AD-A261524] 09 p2707 N93-26360
Heat pipe performance experiment
11 p3265 N93-28722
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014

INTERFERENCE
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites
09 p2679 N93-26127

INTERFERENCE IMMUNITY
Carrier wave signals interfering with Loran-C
[ETN-92-92528] 05 p1059 N93-17584

INTERFERENCE MONOCHROMATIZATION
U DIFFRACTION

INTERFEROGRAMS
U INTERFEROMETRY

INTERFEROMETERS
NT ETALONS
NT FABRY-PEROT INTERFEROMETERS
NT INFRARED INTERFEROMETERS
NT MACH-ZEHNDER INTERFEROMETERS
NT MICHELSON INTERFEROMETERS
NT MICROWAVE INTERFEROMETERS
NT RADIO INTERFEROMETERS
New developments in atom interferometry
[AD-A254094] 01 p0158 N93-10659
SUN: The Solar Ultraviolet Network
01 p0183 N93-10930
Phase-stepping fiber-optic projected fringe system for surface topography measurements
[NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
The Mount Wilson optical interferometer: The first automated instrument and the prospects for lunar interferometry
03 p0745 N93-13582
The optical very large array and its moon-based version
03 p0745 N93-13583
High resolution imaging at Palomar
03 p0745 N93-13584
Shot noise limits to sensitivity of optical interferometry
03 p0745 N93-13586
HARDI: A high angular resolution deployable interferometer for space
03 p0745 N93-13588
Report of the Working Group on Space/Lunar Tradeoffs
03 p0747 N93-13599
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
An interferometer having fused optical fibers, and apparatus and method using the interferometer
[NASA-CASE-LAR-14640-1-CU]
05 p1304 N93-17052
Lunar UV-visible-IR mapping interferometric spectrometer
05 p1390 N93-17265
Lunar lava tube sensing
05 p1391 N93-17270
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239
The JPL Phase B interferometer testbed
06 p1464 N93-18834
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
Forward-scatter radiant mapping
06 p1697 N93-19178
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-002625] 06 p1676 N93-19617
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
SSG 1.79: Optical interferometry and short range distance measurement (EDM)
07 p1969 N93-20965
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
A current assessment of single site locating technology
08 p2267 N93-23608
Commercialization of atom interferometers for borehole gravity gradiometry
[DE93-006889] 08 p2398 N93-24018
Fiber optic interferometer configuration with pump-induced phase carrier
[AD-D015617] 08 p2489 N93-24156
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Atom wave interferometer
[AD-A260082] 08 p2484 N93-24410
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode
09 p2605 N93-24724
MIT's interferometer CST testbed
09 p2609 N93-25836
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Measurements of the single sideband suppression for a 650 GHz heterodyne receiver
10 p3020 N93-27780
Interferometer testbed: Overview and hardware summary
10 p3058 N93-27889
Optical interferometer testbed
10 p3060 N93-28168
Precision optical interferometry in space
[NASA-CR-193264] 11 p3630 N93-29163
Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510
A self-aligning interferometer suitable for white or monochromatic light consisting solely of a mirror and a reflection grating, part 2
[DE93-609517] 12 p3823 N93-31246
Plasma waves interferometry on Cluster
12 p3827 N93-31714
Submillimeter interferometry
12 p3845 N93-31754
Prospects for Earth-based interferometry
12 p3845 N93-31755
Interferometry from the Moon
12 p3845 N93-31757
Space-based astrometric optical interferometry with POINTS
12 p3845 N93-31758
The SUN/SIMURIS interferometer
12 p3845 N93-31759
The VLT interferometer: Current status and expectations for the next 20 years
12 p3846 N93-31763
SISTERS: A space interferometer for the search for terrestrial exo-planets by rotation shearing
12 p3846 N93-31764
The lunar interferometer for solar physics
12 p3847 N93-31768
Advanced lunar-based interferometer for solar observations
12 p3847 N93-31769
Report of the submillimeter splinter group
12 p3847 N93-31770
Study of an optimized configuration for interferometric imaging of complex and extended solar structures
12 p3849 N93-31780
Exploring the limits of adaptive wavefront compensation for ground based astronomical interferometers
12 p3849 N93-31782
Interferometry at the vacuum ultra-violet limit
12 p3850 N93-31785
HARDI: A High Angular Resolution Deployable Interferometer
12 p3850 N93-31786
A concept of deployable tethered interferometer
12 p3691 N93-31787
Interferometer concepts for astrometry in space
12 p3691 N93-31788

INTERFEROMETRY
NT ASTRONOMICAL INTERFEROMETRY
NT HOLOGRAPHIC INTERFEROMETRY
NT LASER INTERFEROMETRY
NT MOIRE INTERFEROMETRY
NT SPECKLE INTERFEROMETRY
NT VERY LONG BASE INTERFEROMETRY
GPS azimuth determination using short baseline carrier wave interferometry
[AD-A254257] 01 p0006 N93-10265
New developments in atom interferometry
[AD-A254094] 01 p0158 N93-10659
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
Prospects with SIMURIS
01 p0179 N93-10904
Yellow hypergiant interferometry: A clue to understanding evolutionary instability
01 p0182 N93-10919
Tomographic/interferometric studies of active stars and binaries
01 p0182 N93-10920
Prospects in stellar and galactic observations with SIMURIS
01 p0182 N93-10921
Interferometric imaging with the solar ultraviolet network
01 p0184 N93-10932
Detectors for the SIMURIS payload
01 p0014 N93-10937
The CHARON program
01 p0177 N93-10942
Interferometry with the Very Large Telescope
01 p0178 N93-10943
Towards an ESA strategy for optical interferometry in space. Recommendations of the ESA Space Interferometry Study Team (SIST)
01 p0178 N93-10944
Ground/space co-operation for interferometry
01 p0178 N93-10946
Rotational aperture synthesis: A proposal for ground-based observations
01 p0178 N93-10947
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers
01 p0178 N93-10948
A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953
Interferometer optical design for the Imaging Fourier Transform Spectrometer (IFTS)
01 p0159 N93-10955
Some possible space interferometry applications
01 p0178 N93-10957
Geostationary-satellite beacon-receiver array for studies of ionospheric irregularities
[DE92-018979] 02 p0362 N93-11535
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
Shot noise limits to sensitivity of optical interferometry
03 p0745 N93-13586
Science objectives for ground- and space-based optical/IR interferometry
03 p0746 N93-13590
Telescopes on the Moon or pie in the sky?
03 p0746 N93-13591
Lunar interferometric astronomy: Some basic questions
03 p0746 N93-13592
Lunar optical telescopes: An historical perspective
03 p0746 N93-13593
An optical VLA on the Moon
03 p0747 N93-13596
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
Modeling and measurement of a micro-optic beam deflector
04 p0985 N93-15514
Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239
GPS Interferometry
[NASA-CR-192301] 06 p1432 N93-18873
Subnanosecond GPS-based clock synchronization and precision deep-space tracking
06 p1434 N93-18898

Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414
Interferometric JFTOT tube deposit measuring device [AD-D015599] 07 p1866 N93-20247
Interferometric optical fiber data link [AD-D015581] 07 p2067 N93-20797
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry [DE93-003741] 08 p2220 N93-23051
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation [NASA-TM-104002] 08 p2128 N93-23175
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
The influence of propagation on high frequency radiogoniometry and single station location 08 p2266 N93-23607
Evaluation of the Bathyscan sweep survey system [AD-A260162] 08 p2415 N93-23708
Fiber optic interferometer configuration with pump-induced phase carrier [AD-D015617] 08 p2489 N93-24156
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
Interferometric fiber-optic radiation sensor [DE93-003841] 09 p2852 N93-25127
Temperature dependent sensor response caused by polymer-solvent interactions [DE93-005368] 09 p2655 N93-25444
Polarizing Michelson interferometer for measuring thermospheric winds [ISBN-0-315-70442-X] 09 p2784 N93-25731
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Interferometric measurement with squeezed light [AD-A260910] 09 p2856 N93-26457
Calibration of a shock wave position sensor using artificial neural networks [NASA-TM-106138] 10 p3045 N93-27001
Limitations of the ideal phase-Doppler system: Extension to spatially and temporally inhomogeneous particle flows with an application to diesel sprays [DE93-009447] 11 p3416 N93-28595
The interferometric SAR technology and its usability in the framework of ERS-1 11 p3457 N93-28919
Development of coherent x ray lasers [DE93-009288] 11 p3437 N93-29104
Precision optical interferometry in space [NASA-CR-193264] 11 p3630 N93-29163
Interferometric tracking system for the tracking and data relay satellite [NASA-CR-193274] 11 p3382 N93-29217
Precise tracking of the Magellan and Pioneer Venus orbiters by Same-Beam Interferometry. Part 2: Orbit determination analysis 11 p3270 N93-29589
Targets for Space-Based Interferometry [ESA-SP-354] 12 p3844 N93-31750
Wavefront reconstruction from three dimensional intensity measurements [DE93-609881] 12 p3832 N93-31909
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen [AD-A265544] 12 p3829 N93-31921

INTERFERON
Cytokines and immune surveillance in humans [NASA-CR-192726] 08 p2447 N93-22828

INTERGALACTIC MEDIA
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium? [SSCL-PREPRINT-776] 05 p1365 N93-16386
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe [MPE-238] 07 p2096 N93-20856
Nearby dwarf galaxies: Dust masses and their implications 08 p2540 N93-23928
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
Can quasars photoionize the intergalactic medium at high redshift? 10 p3179 N93-26756
Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758
The evolution of the intergalactic medium and the origin of the galaxy luminosity function 10 p3180 N93-26759
Testing the pressure-confined Ly alpha cloud model 10 p3181 N93-26764
On the evolution of Lyman alpha clouds based upon the Minihalo model 10 p3181 N93-26765
The reionization of the universe: The feedback of galaxy formation on the intergalactic medium 10 p3182 N93-26771
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880

INTERGRANULAR CORROSION
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy [AD-A253967] 01 p0033 N93-10717
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys [DE93-003126] 05 p1114 N93-16927
Irradiation-assisted stress corrosion cracking of austenitic alloys [DE92-040988] 05 p1116 N93-17341
Study of the different oxidation states of nickel base superalloys [ETN-92-92555] 05 p1116 N93-17495
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels [DE93-003005] 07 p1857 N93-21985
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys [DE93-005039] 08 p2232 N93-23980
Overview of piping issues and trends [DE93-006628] 11 p3354 N93-28893

INTERIOR BALLISTICS
Measurement of acceleration using an instrumented railgun projectile [AD-A253366] 01 p0012 N93-10106
The 29th JANNAF Combustion Subcommittee Meeting, volume 1 [CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
The effects of small changes in the input data on the determination of closed-bomb burning rates and surface area [AD-A261969] 10 p3156 N93-27952
The XNOVAKTC rheological model [AD-A263298] 11 p3342 N93-29762
A survey of codes for modeling electromagnetic launch [AD-A264946] 12 p3687 N93-32074

INTERLACING DRAINAGE
U DRAINAGE PATTERNS

INTERLAMINAR STRESS
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 2: Reliability and failure analyses of 2-D carbon-carbon structural components [AD-A257460] 05 p1089 N93-15838
Debonding/Delamination of Composites [AGARD-CP-530] 07 p1840 N93-21507
Delamination and fatigue of composite materials: A review 07 p1840 N93-21509
Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510
Edge delamination of composite laminates 07 p1842 N93-21519
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate [VTT-PUBS-105] 08 p2208 N93-22815
Analysis of delamination related fracture processes in composites [NASA-CR-192632] 08 p2209 N93-23073
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory 09 p2636 N93-25661
Influence of ply waviness on stiffness and strength reduction of composite laminates [AD-A263224] 11 p3294 N93-28559
Factors influencing the interlaminar fracture toughness and its evaluation in composites [FFA-TN-1991-34] 11 p3451 N93-29076
Design of multiple-ply laminated composite tapered beams [NASA-TM-108411] 12 p3700 N93-31650

INTERLAYERS
NT MULTILAYER INSULATION
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Silicide layer growth rates in Mo/Si multilayers [DE92-019581] 03 p0721 N93-12972
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187
Diffusion bonding of silicon nitride to austenitic stainless steel [ETN-92-92789] 05 p1113 N93-16488
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel [NASA-CR-192177] 06 p1476 N93-17920
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices [DE93-004191] 08 p2499 N93-22062
Advanced reinforcement systems for intermetallic applications [NASA-CR-4488] 08 p2209 N93-22875
Diamond composite films for protective coatings on metals and method of formation [NASA-CASE-NPO-18501-1-CU] 10 p3006 N93-28426
A transient FGM interlayer based approach to joining ceramics [DE93-010415] 11 p3331 N93-29248

INTERLOCKING
U LOCKING

INTERMEDIA
U MULTIMEDIA

INTERMETALLICS
The third Workshop on Non-Crystalline Solids, programme and abstracts [AD-A250739] 01 p0036 N93-10244
Reliability of sublattice occupancies determined by ALCHEMI [DE92-014592] 01 p0168 N93-10623
Plasticity of single crystalline Al3X intermetallic compounds [AD-A254282] 01 p0040 N93-10766
Mechanical properties of semiconductors and their alloys [AD-A253908] 02 p0462 N93-11727
Fatigue and fracture of intermetallic alloys [AD-A254543] 03 p0540 N93-12603
HIP consolidation of aluminum-rich intermetallic alloys and their composites [NAWCADWAR-92003-60] 04 p0845 N93-14726
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds [DE92-040377] 04 p0998 N93-14905
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion [DE92-040520] 04 p0846 N93-15059
Melt spinning of intermetallic alloys: Heat transfer and microstructure [AD-A257455] 05 p1109 N93-15877
Deformation twinning in ordered alloys transformation induced ductility in intermetallics [DE93-002879] 05 p1111 N93-16148
The influence of microgravity on the microstructure and properties of eutectics, phase 2 [CTN-93-60627] 05 p1131 N93-16427
The energetics of ordered intermetallic alloys (of the transition metals) [DE93-001968] 05 p1117 N93-17753
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature [ONERA-NT-1992-5] 06 p1486 N93-18192
Corrosion resistance of metal matrix composites [AD-A258370] 06 p1478 N93-18266
Ductility and fracture in L1(sub 2) intermetallic alloys [DE93-001644] 06 p1487 N93-18534
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems [DE93-002558] 06 p1489 N93-19486
High temperature alloys 07 p1858 N93-20626
Non-equilibrium structures induced by ion irradiation in Ni4Mo [DE93-004193] 07 p2063 N93-21720
The behavior of intermetallic compounds at large plastic strains [DE93-003820] 07 p1857 N93-21772
Fracture properties of 7010 and 7050 aluminium alloys under inert and aggressive environmental conditions [DLR-FB-91-35] 08 p2228 N93-22658
Characterization of doped NiAl by atom probe field ion microscopy [DE93-005932] 08 p2228 N93-22692
Synthesis, processing, and properties of Ti5Si3 [DE93-004465] 08 p2229 N93-22820
Advanced reinforcement systems for intermetallic applications [NASA-CR-4488] 08 p2209 N93-22875
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2 [DE93-005558] 08 p2230 N93-22977
Characterization of SAES St198 zirconium-iron-tin alloy [DE93-005697] 08 p2230 N93-23036
Copper/solder intermetallic growth studies [AD-A259856] 08 p2232 N93-23955

Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
Pressure dependence of conductivity
[DE93-008466] 09 p2687 N93-25113
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
Aerospace applications of metal combustion
10 p2920 N93-27175
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
A maskless flip-chip solder bumping technique
[DE93-009631] 10 p3021 N93-28372
Refractory metal disilicides research
[AD-A262416] 11 p3320 N93-28499
Transformation toughening
[DE93-011805] 11 p3321 N93-28631
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Low temperature environmental embrittlement in ordered intermetallics
[DE93-009711] 11 p3324 N93-29786
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668

INTERMITTENCY
Mode interaction models in near-wall turbulence
02 p0303 N93-11856
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990

INTERMODULATION
NPR and intermodulation in mobile satellite systems
04 p0806 N93-14931
Analytical predictions of the intermodulation noise of semiconductor laser diode 11 p3361 N93-30256

INTERMOLECULAR FORCES
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
Intermolecular potential functions from spectroscopic properties of weakly bound complexes
[DE92-018643] 03 p0701 N93-12745
Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407] 05 p1306 N93-15670
Inverse Raman spectroscopy measurements of line-shift coefficients in hydrogen perturbed by argon
[DE93-003906] 07 p1852 N93-21840
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448

INTERMONTANE FLOORS
U VALLEYS

INTERNAL COMBUSTION ENGINES
NT DIESEL ENGINES
NT DUCTED FAN ENGINES
NT GAS TURBINE ENGINES
NT HELICOPTER ENGINES
NT INTEGRAL ROCKET RAMJETS
NT J-52 ENGINE
NT JET ENGINES
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Utilization of compressed natural gas in medium- and heavy-duty engine route vehicles
[PB92-217546] 03 p0611 N93-12908
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine
03 p0613 N93-13331
The railplug: Development of a new ignitor for internal combustion engines
[DE93-003068] 05 p1176 N93-16178
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
Assessment of future natural gas vehicle concepts
[PB93-138923] 08 p2317 N93-24145
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Evaluation of the Migrating Combustion Chamber (MCC) engine
[AD-A260780] 09 p2718 N93-25682
Center for Advanced Propulsion Systems (fellowship)
[AD-A260571] 09 p2632 N93-26216
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Notes on the KIVA-2 software and chemically reactive fluid mechanics
[DE93-008850] 10 p3043 N93-28430

INTERNAL ENERGY
Local-equilibrium formalism applied to mechanics of solids
[DE92-016852] 01 p0170 N93-10787
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Cooperative control of multiple space manipulators
04 p0805 N93-14923
Damping
[LR-685] 05 p1184 N93-16214

INTERNAL FRICTION
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Attenuation and source studies in Northern Eurasia
[AD-A259323] 07 p2000 N93-21700
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796

INTERNAL PRESSURE
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
04 p0897 N93-14251
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
Reliability study of the NiH2 strain gage
07 p1908 N93-20515
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Research and development of carbon black anodes for lithium secondary cells
[DE93-781331] 11 p3406 N93-28746

INTERNAL STRESS
U RESIDUAL STRESS

INTERNAL WAVES
NT PLANETARY WAVES
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
Internal gravity waves in the equatorial Pacific
[DE93-001517] 05 p1211 N93-17653
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Modelling of interfacial and thermocline waves
[AERO-REPT-9211] 06 p1525 N93-18105
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121
Observations of turbulence, internal waves, and background flows: An inquiry into the relationships between scales of motion
[AD-A259361] 07 p2019 N93-21244
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
Selected results from LLNL-Hughes RAR for West Coast Scotland Experiment 1991
[DE93-006972] 09 p2788 N93-24960
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
ARI: Internal gravity waves at abrupt topography
[AD-A263795] 11 p3477 N93-29879
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983

INTERNATIONAL COMETARY EXPLORER
U INTERNATIONAL SUN EARTH EXPLORER 3

INTERNATIONAL COOPERATION
NT OUTER SPACE TREATY
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Lessons drawn from 2 existing satellite networks: ARABSAT and EUTELSAT. Application to the Pacific basin projects
[REPT-921-440-101] 02 p0282 N93-11591

Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
United States/Canada Air Quality Agreement
[PB92-226030] 02 p0356 N93-12525
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Coordinating Council. Fourth Meeting: NACA Documents Database Project
[NASA-TM-108017] 03 p0734 N93-12671
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Introduction to the International Asteroid Mission
03 p0513 N93-13549
Legal and political issues raised by the International Asteroid Mission 03 p0514 N93-13555
Horizon 2000: Seven years on
[ESA-BR-37-B] 03 p0516 N93-13855
Moon Park: A research and educational facility
03 p0519 N93-14015
The 7th World Conference on Titanium
[AD-A255674] 04 p0844 N93-14132
The use of International Standards Organization ISO 9000 quality assurance standards in place of military standards
[AD-A256203] 04 p0894 N93-14500
International Space University
04 p0808 N93-14938
World energy: Building a sustainable future
[DE93-001598] 04 p0909 N93-15467
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16388
National Aeronautics and Space Administration
05 p1358 N93-17090
Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
IAG commission 8 and COSPAR ISSC B2: International Coordination of Space Techniques for Geodesy and Geodynamics (CSTG). Introduction
07 p1970 N93-20968
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS)
07 p1971 N93-20971
Space science overview 07 p1802 N93-21071
Space station user development program: Future prospects 07 p1802 N93-21072
PARTNERS 07 p1978 N93-21287
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Science and technology in US international affairs
[ISBN-1-881054-00-4] 07 p2094 N93-21758
Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Use of remote sensing as part of the technical co-operation with developing countries
08 p2339 N93-22438
CORECT: Committee On Renewable Energy Commerce and Trade, 1991
[DE92-016436] 08 p2377 N93-22890
Industry perspectives 08 p2154 N93-23162
NASA reports 08 p2154 N93-23163
International cooperation and commitments in the ISY and beyond 08 p2154 N93-23164
European Telecommunications Standards Institute. Apreliminary analysis
[PB93-138824] 08 p2263 N93-23271
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507
Financial alternatives for global satellite navigation
08 p2124 N93-23519
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
Meteosat operational programme current missions and services 08 p2357 N93-23752
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
Italian Space Agency activities in Earth observation
08 p2358 N93-23756
The scientific program of the Priroda project
08 p2360 N93-23771
Priroda project: Optical sensors for environment research 08 p2362 N93-23782
The International Space Year programme
08 p2366 N93-23803
COSPAR/SAFISY panel of experts on space science scientific program for the ISY 08 p2366 N93-23804
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
German contributions to the International Space Year ISY 1992 08 p2366 N93-23806
The Swedish ISY projects: A joint national contribution
08 p2366 N93-23807
GeoEnvironment Carpathes project
08 p2368 N93-23816
Centres for space science and technology education: A United Nations initiative 08 p2369 N93-23826
The tropical school for atmospheric and space sciences: An international project proposal
08 p2369 N93-23828
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs
08 p2372 N93-23846
Canadian Earth observation program
08 p2373 N93-23847
The contribution of the Italian Space Agency to the establishment of space services for the changing Earth
08 p2373 N93-23849
Columbus programme overview
08 p2155 N93-24337
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
Final report on the first step in distributed remote sensing
[DE93-007936] 08 p2375 N93-24520
CEOS Committee on Earth Observations Satellites consolidated report, 1992
[NASA-TM-108776] 09 p2615 N93-25217
Former Soviet Republic capabilities in space and science
[DE93-007613] 09 p2598 N93-25322
Space research in Sweden, 1990-1991
09 p2888 N93-25887
AGARD membership, 1993
[AGARD-MEMB-93] 09 p2873 N93-26428
Dual use of distributed remote sensing satellites
[DE93-008852] 10 p3062 N93-26615
SOVCAN STAR: An international satellite system
10 p3023 N93-26647
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658
Collaborations among nuclear emulsion groups in Europe during the 1950's
[NOTA-INTERNA-973] 10 p3133 N93-27701
Mars exploration mission 10 p2953 N93-28045
Earth observation from space: Competition or cooperation?
[AD-A262044] 11 p3459 N93-29000
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
Remote sensing in Czechoslovakia and Hungary: An analysis of the possible co-operation of The Netherlands with Czechoslovakia and Hungary in the field of remote sensing
[BCRS-92-12] 11 p3461 N93-29466
Decision maker's guide to international space
[ANSER-STDN-93-4] 11 p3669 N93-29710
Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science
12 p3852 N93-31675
Japan's Sunshine Project
[DE93-768309] 12 p3748 N93-31811
International Energy Agency's Heat Pump Centre (IEA-HPC) Annual National Team Working Group Meeting
[DE93-009932] 12 p3750 N93-32281

INTERNATIONAL GEOPHYSICAL YEAR
Data archaeology at ICES 09 p2734 N93-24931

INTERNATIONAL GEOSPHERE-BIOSPHERE PROGRAM
Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575

INTERNATIONAL LAW
NT SPACE LAW
Legal and political issues raised by the International Asteroid Mission 03 p0514 N93-13555
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data
08 p2374 N93-23855
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154

INTERNATIONAL PRACTICAL TEMPERATURE
U TEMPERATURE SCALES

INTERNATIONAL RELATIONS
NT INTERNATIONAL COOPERATION
NT OUTER SPACE TREATY
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
A post cold war assessment of US space policy
05 p1073 N93-17218
Strategic factors in the development of the National Technology Transfer Network
[NASA-TM-108594] 06 p1694 N93-18169
Activities of the Seibersdorf Research Center
[ETN-93-92597] 07 p2103 N93-20857
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Science, technology, and national security
09 p2886 N93-25232
The Impact of Changing International Relations on the Scientific and Technical Community
[AGARD-CP-523] 12 p3836 N93-31215
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216

INTERNATIONAL SATELLITE CLOUD CLIMATOLOGY
U ISCCP PROJECT

INTERNATIONAL SATS FOR IONOSPHERIC STUDY
U ISIS SATELLITES

INTERNATIONAL SOLAR POLAR MISSION
U ULYSSES MISSION

INTERNATIONAL SPACE YEAR
International Space Year in China
07 p1975 N93-21272
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
International cooperation and commitments in the ISY and beyond 08 p2154 N93-23164
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
The International Space Year programme
08 p2366 N93-23803
COSPAR/SAFISY panel of experts on space science scientific program for the ISY 08 p2366 N93-23804
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
German contributions to the International Space Year ISY 1992 08 p2366 N93-23806
The Swedish ISY projects: A joint national contribution
08 p2366 N93-23807
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics
[ESA-ISY-3] 08 p2533 N93-23878

Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
Columbus precursor Spacelab missions
08 p2155 N93-24341

INTERNATIONAL SUN EARTH EXPLORER 1
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081

INTERNATIONAL SUN EARTH EXPLORER 2
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081

INTERNATIONAL SUN EARTH EXPLORER 3
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196

INTERNATIONAL SUN EARTH EXPLORERS
NT INTERNATIONAL SUN EARTH EXPLORER 1
NT INTERNATIONAL SUN EARTH EXPLORER 2
NT INTERNATIONAL SUN EARTH EXPLORER 3
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion?
12 p3855 N93-31693
Mirror mode and other compressive ULF modes
12 p3719 N93-31711

INTERNATIONAL SYSTEM OF UNITS
Recommended agency procedures for implementing federal metric policy
[PB92-205467] 02 p0277 N93-11901
A metric America: A decision whose time has come - for real
[PB92-205459] 02 p0277 N93-11902
Metrication report to the Congress
[NASA-TM-108600] 06 p1499 N93-18281
Metrication report to the Congress
[NASA-TM-108602] 06 p1499 N93-18356
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
NASA metric transition plan
[NASA-TM-108606] 08 p2258 N93-23209
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Metrication: An economic wake-up call for US industry
[PB93-188969] 12 p3714 N93-31109

INTERNATIONAL TRADE
Aerospace industry profile, 1990-1991
[CTN-92-60513] 01 p0001 N93-10651
Aerospace and defence-related industries statistical survey report, 1991
[CTN-92-60514] 01 p0002 N93-10652
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
Space business indicators 09 p2886 N93-26158
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822

INTERNATIONAL ULTRAVIOLET EXPLORER
U IUE

INTERORBITAL TRAJECTORIES
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428

INTERPERSONAL RELATIONS
U HUMAN RELATIONS

INTERPLANETARY DUST
NT ZODIACAL DUST
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces
01 p0032 N93-10853
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley
03 p0753 N93-13602
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
Cosmic dust 06 p1592 N93-18554
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
A Southern Hemisphere radar meteor orbit survey
06 p1701 N93-19121
Modeling of asteroidal dust production rates
06 p1705 N93-19150
Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165
Lightcurve of comet Austin(1989c1) and its dust mantle development 06 p1707 N93-19167
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
H2O(+) structures in the inner plasma tail of comet Austin 06 p1708 N93-19174
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
Particle emission from artificial cometary materials
06 p1710 N93-19188
Polarimetric observations of comet Levy 1990c and of other comets: Some clues to the evolution of cometary dust 06 p1711 N93-19196
Carbon petrology in cometary dust
06 p1716 N93-19232
The role of organic polymers in the structure of cometary dust 06 p1719 N93-19256
Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477
Volatiles in interplanetary dust particles: A comparison with CI and CM chondrites 09 p2896 N93-26062
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF
11 p3283 N93-29362
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF)
11 p3638 N93-29371
Interplanetary meteoroid debris in LDEF metal craters
11 p3638 N93-29372
Long Duration Exposure Facility (LDEF) attitude measurements of the Interplanetary Dust Experiment
11 p3638 N93-29377
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces
11 p3638 N93-29378
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime
11 p3638 N93-29379

INTERPLANETARY FLIGHT
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766

INTERPLANETARY GAS
A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132
Gas in merging galaxies 10 p3202 N93-26886
Interplanetary hydrogen gas as a monitor of the Sun's corpuscular and radiative output
12 p3878 N93-31412

INTERPLANETARY MAGNETIC FIELDS
Statistics of IMF B(z) events
[DE92-018372] 02 p0488 N93-11696
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Venus internal magnetic field and its interaction with the interplanetary magnetic field
04 p1032 N93-14336
Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail
06 p1704 N93-19147
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
The solar wind control of reconnection at the dayside magnetopause 08 p2556 N93-23236
Long period pulsation events in electron precipitation and magnetic fields at the South Pole
08 p2394 N93-23387
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562
On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688
Plasma transport through magnetic boundaries
12 p3827 N93-31692
Magnetospheric convection and current system in the dayside polar cap 12 p3856 N93-31700
Model of a rotating magnetic cloud
12 p3857 N93-31707
Viking observations of electric fields
12 p3858 N93-31712
Three-dimensional numerical simulation of interplanetary magnetic field changes at 1 AU as a consequence of simulated solar flares
12 p3860 N93-31723

INTERPLANETARY MEDIUM
NT INTERPLANETARY DUST
NT INTERPLANETARY GAS
NT ZODIACAL DUST
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
SWAN: A study of solar wind anisotropies
12 p3868 N93-31351
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
Detecting and tracking changes in solar wind conditions using interplanetary scintillation
12 p3857 N93-31703

INTERPLANETARY NAVIGATION
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario
06 p1454 N93-18899
Application of high-precision two-way ranging to Galileo Earth-1 encounter navigation 06 p1454 N93-19415
The goldstone real-time connected element interferometer 06 p1512 N93-19417
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy
06 p1512 N93-19418
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422

INTERPLANETARY PROPULSION
U INTERPLANETARY SPACECRAFT
U ROCKET ENGINES

INTERPLANETARY SPACE
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-006] 03 p0508 N93-13151
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 3: Programmer's manual
[NASA-CR-189653-VOL-3-REV]
04 p0815 N93-14730
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121

Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO
08 p2540 N93-23929
Project WISH: The Emerald City
11 p3232 N93-29744

INTERPLANETARY SPACECRAFT
NT GALILEO SPACECRAFT
NT MAGELLAN SPACECRAFT (NASA)
NT MARS OBSERVER
NT MARS PROBES
NT PIONEER VENUS SPACECRAFT
NT PIONEER VENUS 1 SPACECRAFT
NT PIONEER 10 SPACE PROBE
NT VENERA SATELLITES
NT VENUS PROBES
NT VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
NT VIKING ORBITER SPACECRAFT
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Conceptual design of a Mars transportation system
[NASA-CR-192039] 06 p1545 N93-18047
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 2: Draft final
[NASA-CR-192489] 08 p2178 N93-22959
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle
[NASA-CR-192492] 08 p2178 N93-22993
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters
09 p2676 N93-26106
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034

INTERPLANETARY TRAJECTORIES
NT EARTH-MARS TRAJECTORIES
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766

INTERPOLATION
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Low sensitivity interpolation using feed-forward neural networks with one hidden layer
[AD-A257306] 05 p1258 N93-16006
Hermite interpolation algorithm for 2D fracture mechanics
[DE92-041266] 05 p1184 N93-16097
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Robust control of systems with real parameter uncertainty and unmodelled dynamics
[NASA-CR-192008] 06 p1633 N93-18582
The development of the Navy's multivariate optimum interpolation analysis system
[AD-A258569] 07 p2058 N93-20358
Regional-scale analysis and forecasting
[AD-A259894] 08 p2403 N93-22733
Comparison of operational and standard methods for data in rectangular array
[DE93-007783] 08 p2471 N93-24574
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Technical description LAM and OI: Limited area model and optimum interpolation analysis, second edition
[KNMI-TR-134A] 10 p3078 N93-27636
The identification of analytical device models
[ISBN-90-6275-764-2/CIP] 10 p3100 N93-27874
Finite interpolation of random fields
[CWI-BS-R9210] 10 p3126 N93-28087
Faster Phong shading
[CWI-CS-R9228] 10 p3103 N93-28221
Filtering interpolators for image comparison algorithms
11 p3463 N93-28797
Time-interpolation method for digital beamformers
[AD-D015709] 11 p3383 N93-29275
Curve interpolation with constrained length
[MEMO-1079] 12 p3804 N93-31467
Tests on semi-Lagrangian transport and interpolation
[CWI-NM-R921M] 12 p3756 N93-32393

INTERPRETATION
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
Quantification of human responses
11 p3500 N93-29564

INTERPROCESSOR COMMUNICATION
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
High performance interconnection between high data rate networks 02 p0279 N93-11118
Dynamic programming on a ring of processors
02 p0410 N93-11479
Path planning on a ring of processors
02 p0410 N93-11480
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Scattering on a ring of processors
02 p0410 N93-11482
Reduction operations on a distributed memory machine with a reconfigurable interconnection network
02 p0410 N93-11484
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Lazy checkpoint coordination for bounding rollback propagation
[NASA-CR-191281] 03 p0565 N93-13375
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
Progammable connection parallel architecture: Design and routing
[ETN-92-92676] 04 p0958 N93-15124
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364
Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478
An algebraic foundation for FORTRAN 90 communication intrinsics
[DE92-040393] 05 p1269 N93-16990
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
A static view of localities
[INRIA-RR-1483] 06 p1622 N93-18650
Explicit probabilities for the symmetric coupled processor
[REPT-91-43] 07 p2058 N93-20809
Study and development of a multiprocessor interface circuit, volume 1
[ECL-91-11-VOL-1] 07 p2044 N93-21000
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Reducing communication inefficiencies for a flexible programming paradigm
[DE93-005670] 08 p2438 N93-23327
Splash 2 09 p2814 N93-25575
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
An OSI architecture for the Deep Space Network
09 p2679 N93-26121
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
Specification of MANIFOLD, version 1.0
[CWI-CS-R9220] 10 p3095 N93-27388
The impact of communication style on machine resource usage for the iWarp parallel processor
[AD-A262425] 10 p3107 N93-27657
Efficient communication for parallel computing
[AD-A261966] 10 p3108 N93-27951
A theory of processes with localities
[INRIA-RR-1632] 10 p3108 N93-28438
A survey of network interface designs
[MEMO-INF-92-59] 11 p3379 N93-28502
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
A parallel processing system for intensive I/O
11 p3362 N93-30262
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS)
11 p3364 N93-30278
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

INTERROGATION
A note on interrogatives and adverbs of quantification
[LP-92-07] 06 p1615 N93-17830

INTERRUPTION
The ignition diffusion concerning contacted and non contacted n(+) emitter interruptions
[ETN-93-92564] 07 p1891 N93-20878

INTERSECTIONS
A study of the wall-pressure fluctuations downstream of a blade-wall junction
[ECL-91-07] 02 p0299 N93-11363
Ray tracing polygons using spatial subdivision
04 p0955 N93-15555
Parametric height field ray tracing
04 p0955 N93-15556
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
An interval refinement technique for surface intersection 04 p0956 N93-15561
Sojourns, extremes, and self-intersections of stochastic processes
[AD-A257251] 05 p1274 N93-15820
Distributed traffic signal control using fuzzy logic
11 p3513 N93-29543
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
A method for intersection line calculation between parametric surfaces
[ETN-93-94178] 11 p3551 N93-30572

INTERSTELLAR CHEMISTRY
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
Spectroscopic observations of comet Austin (1989c)
06 p1697 N93-19169
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287

INTERSTELLAR COMMUNICATION
Engineering planetary lasers for interstellar communication 03 p0608 N93-14010

INTERSTELLAR EXTINCTION
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626
Multiwavelength analysis of starburst galaxies 08 p2539 N93-23920
X raying the interstellar dust 08 p2540 N93-23925
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
INTERSTELLAR GAS
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272
H I shells and supershells: Observations and theory 03 p0751 N93-13360
The interstellar medium of elliptical galaxies 03 p0757 N93-14071
Molecular clouds in the distant outer galaxy 03 p0758 N93-14095
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
The formation of giant molecular clouds 04 p1021 N93-15086
Investigation of a possible galactic chimney
[AD-A257133] 05 p1364 N93-16077
The kinematics of stars and gas in the galactic disk 08 p2550 N93-23991
The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180
Far-infrared emission, gas, and ultraluminous HII regions in M101
[NASA-CR-192791] 09 p2890 N93-25755
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
Interstellar Mg II and C IV absorption by 1 1/2 galaxies along the sightline to MrK 205 10 p3182 N93-26770
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796
The disk-halo interface in edge-on spirals 10 p3198 N93-26865
Gas in merging galaxies 10 p3202 N93-26886
Evolution of molecular clouds 10 p3203 N93-26892
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
INTERSTELLAR MAGNETIC FIELDS
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
INTERSTELLAR MASERS
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9
[ETN-93-94203] 12 p3851 N93-31050
INTERSTELLAR MATTER
NT DARK MATTER
NT INTERSTELLAR GAS
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars 03 p0755 N93-13828
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions 03 p0756 N93-13853
Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A 03 p0757 N93-13962
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
Optical signatures of cooling flows in isolated early-type galaxies 04 p1017 N93-14243
Investigation of a possible galactic chimney
[AD-A257133] 05 p1364 N93-16077
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752
Manifestations of electric currents in interstellar molecular clouds
[TRITA-EPP-91-05] 05 p1376 N93-17638
Cosmic dust 06 p1592 N93-18554
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
Stellar lyman alpha emission and the local interstellar medium
[NASA-CR-192635] 08 p2541 N93-22381
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
The Boston University-Arecibo galactic HI survey: The galaxy at 4 arcminute resolution 08 p2543 N93-23720
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud 08 p2549 N93-23722
ROSAT observations of supernova remnants and the interstellar medium 08 p2534 N93-23884
X raying the interstellar dust 08 p2540 N93-23925
Nearby dwarf galaxies: Dust masses and their implications 08 p2540 N93-23928
Mid-infrared spectroscopy of solids in relation to the composition of interstellar and intergalactic dust 08 p2550 N93-24179
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue 08 p2164 N93-24394
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Heavy element abundances and massive star formation 10 p3172 N93-26709
The hot interstellar medium in NGC 1399 10 p3179 N93-26753
Evidence for a multiphase, inhomogeneous interstellar medium in damped Ly alpha systems 10 p3180 N93-26760
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
Numerical simulations of galactic wakes 10 p3189 N93-26818
Influence of the active nucleus on the multiphase interstellar medium in NGC 1068 10 p3196 N93-26854
Static galactic halo and galactic wind 10 p3198 N93-26862
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
The disk-halo interface in edge-on spirals 10 p3198 N93-26865
Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
The ring around SN1987A 10 p3199 N93-26868
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
The ISM in the M82 starburst 10 p3202 N93-26887
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane 10 p3204 N93-26894
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
CO lines toward NGC 2024 and other star forming regions: A closer look at the warm gas component
[MPE-PREPRINT-223] 11 p3637 N93-30639
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
Study of ISM turbulence using radiointerferometers (new method) 12 p3847 N93-31767
Atomic and molecular line observations of galaxies 12 p3847 N93-31771
INTERSTELLAR MICROWAVE SPECTRA
U INTERSTELLAR RADIATION
U MICROWAVE SPECTRA
INTERSTELLAR RADIATION
A cosmic ray propagation model 06 p1746 N93-19383
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
INTERSTELLAR REDDENING
U INTERSTELLAR EXTINCTION
INTERSTELLAR SPACE
Comets: Role and importance to exobiology 06 p1592 N93-18556
INTERSTITIALS
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Method for preparation of a microporous structure with layered interstitial surface treatment
[NASA-CASE-MSC-21487-2] 11 p3296 N93-29023
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291
INTERTROPICAL CONVERGENT ZONES
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
INTERVALS
An interval refinement technique for surface intersection 04 p0956 N93-15561
Stochastic orderings on partial sums of random variables and on counting measures of random intervals
[INRIA-RR-1422] 07 p2052 N93-20860
Forcing colorations, intervals and the perfect graph conjecture (an extended abstract)
[RR-867-M] 07 p2053 N93-20945
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Synopsis of timing measurement techniques used in telecommunications 09 p2687 N93-25064
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
Efficient estimation of the mean for interval censoring, case 2
[REPT-92-83] 12 p3811 N93-31491
INTESTINES
Hierarchical structure in polymeric solid and its influence on properties
[AD-A253818] 01 p0041 N93-10825
INTOXICATION
Fires on board aircraft: Toxicological risk in flight 06 p1428 N93-19694
Safety study: Alcohol and other drug involvement in fatal general aviation accidents, 1983 through 1988
[PB92-917008] 08 p2117 N93-23187
INTRAMOLECULAR STRUCTURES
Applications of molecular modeling to transition state energies and conformations
[AD-A257130] 05 p1284 N93-16074
INTRAVEHICULAR ACTIVITY
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153
INTRUDER AIRCRAFT
U A-6 AIRCRAFT
INTRUSION
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence 01 p0108 N93-10128
INVALIDITY
U ERRORS
INVARIANCE
NT GAUGE INVARIANCE
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
Geometric invariants and object recognition
[AD-A255317] 04 p0943 N93-14546
Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
CP violation in the decays B(sup 0) yields (psi)K(sub s) and B(sup 0) yields (pi)(+)(pi)(-): A probe for new physics
[DE93-002413] 05 p1331 N93-17364
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-810] 07 p2062 N93-20923

Conformal length of graphs
[ETN-93-93419] 07 p2054 N93-21068
Local and global properties of curve congruencies in Euclidean three dimensional space
[ETN-93-93411] 07 p2055 N93-21174
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
On positive invariance and constrained control of linear multivariable systems
[LAAS-92223] 08 p2462 N93-23862
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986

INVENTIONS
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 1 through 300
[PB92-226265] 03 p0637 N93-12987
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 301-563
[PB92-226273] 03 p0637 N93-12988
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Patent write-ups: Patents available for licensing
[AD-A256694] 05 p1402 N93-16113
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Quick acting gimbal joint
[NASA-CASE-MSC-21918-1] 08 p2314 N93-23076
Technology utilization and American competitiveness
08 p2153 N93-23158
Polyimides containing the cyclobutene-3,4-dione moiety
[NASA-CASE-LAR-14753-1] 09 p2656 N93-25999
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
Separation tool for multipin electrical connectors
[NASA-CASE-NPO-18786-1-CU]
10 p3052 N93-28131
Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU]
10 p3048 N93-28132
Motion-sensitive optical correlator
[NASA-CASE-NPO-18769-1-CU]
10 p3148 N93-28133
Full complex modulation using two one-parameter spatial light modulators
[NASA-CASE-MSC-22255-1] 10 p3148 N93-28135

INVENTORIES
NT CROP INVENTORIES
NT TIMBER INVENTORY
ONR basic research program: Summary and bibliographies, FY 1990 and 1991
[AD-A253038] 03 p0774 N93-12696
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
The IGAC activity for the development of global emissions inventories: Description and initial results
[DE92-016010] 03 p0644 N93-13270
Identifying and describing Federal information inventory/locator systems: Design for networked-based locators, volume 1
[PB93-111037] 03 p0738 N93-13884
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790
Toxic substances registry system: Index of material safety data sheets
[NASA-TM-108582] 07 p2024 N93-20998
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
The ESA ISY initiatives for forest inventory in Europe
09 p2748 N93-24840
Estimating spares requirements for Space Station Freedom using the M-SPARE model
[AD-A260878] 09 p2617 N93-25630
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943
World jet airplane inventory at year-end 1992
[PB93-174324] 10 p2928 N93-27405
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
World commercial aircraft accidents
[DE93-010892] 11 p3243 N93-28571
The MICRO-BOSS scheduling system: Current status and future efforts 12 p3835 N93-32133

INVENTORY CONTROLS
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337

INVENTORY MANAGEMENT
NT INVENTORY CONTROLS
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
Minimizing total inventory cost on a single machine in just-in-time manufacturing
[MEMO-COSOR-92-20] 10 p3093 N93-27247

INVERSE KINEMATICS
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU]
02 p0420 N93-11174
Numerical analysis of right-half plane zeros for a single-link manipulator
[NASA-CR-190966] 02 p0426 N93-11547
Nonholonomic motion of free-flying space robots
03 p0615 N93-13638
Manipulation strategies for redundant manipulators
04 p0960 N93-14203
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
Predesign of a simulator for inverse robot kinematics
[NLR-TP-91098-U] 05 p1180 N93-17583
Inverse kinematics problem in robotics using neural networks
[NASA-TM-105869] 06 p1558 N93-18876
Kinematic analysis of the ARID manipulator
06 p1552 N93-19393
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Comparison of the efficiency of the various methods for rigid-body displacement analyses
07 p1941 N93-20709
Efficient and accurate on-line computation of motor torques for robotic manipulators
07 p1918 N93-20710
The linear invariants of the composition of two rotations 07 p1941 N93-20711
On the formulation of linear homogeneous velocity constraints in mechanical systems
07 p1941 N93-20712
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Polynomial solution of the direct geometric problem of a parallel spherical manipulator
07 p1918 N93-20718
Grasp admittance center. A concept
07 p1918 N93-20720
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension
08 p2318 N93-24184
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
Dual arm generalized compliant motion with shared control
[NASA-CASE-NPO-18738-1-CU]
11 p3443 N93-28954
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771

INVERSE SCATTERING
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187
Activity report
[AD-A261933] 09 p2829 N93-26199
On the method of determining relations
[DE93-606041] 11 p3551 N93-30765

INVERSIONS
NT MAGNETIC FIELD INVERSIONS
NT POPULATION INVERSION
NT TEMPERATURE INVERSIONS
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring
03 p0664 N93-13643
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Inverse problems for orthogonal matrices, Toda flows, and signal processing
[AD-A258810] 06 p1647 N93-18987
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468
Identification of delamination by eigenfrequency degradation: An inverse problem
07 p1843 N93-21526
Attenuation and source studies in Northern Eurasia
[AD-A259323] 07 p2000 N93-21700
Inverting sets and the packing problem
[DE93-003822] 08 p2466 N93-22075
A systematic study of the effects of crust and upper mantle structure on regional seismograms
[AD-A260231] 08 p2399 N93-24086
Elastic modeling and migration in Earth models
09 p2771 N93-25433
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
Some inverse problems for Jacobi and arrow matrices
[AD-A262336] 10 p3118 N93-27644
Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044

INVERTEBRATES
NT ARTEMIA
NT BEETLES
NT INSECTS
NT MOTHS

INVERTED CONVERTERS (DC TO AC)
A PWM current-source inverter for interconnection between a photovoltaic array and the utility line
[EUT-91-E-253] 10 p3065 N93-27227

INVERTERS
Three-phase inverter for small high speed motors
[NASA-CR-191331] 06 p1523 N93-19860
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935

INVESTIGATION
NT ACCIDENT INVESTIGATION
NT AIRCRAFT ACCIDENT INVESTIGATION

INVESTMENT CASTING
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526

Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192

INVISCID FLOW
NT STAGNATION FLOW
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
Fundamental solutions and boundary element formulations for convective fluid flow 02 p0298 N93-11217
Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
An engineering method for interactive inviscid-boundary layers in three-dimensional hypersonic flows 02 p0203 N93-12529
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
Mathematical problems in inviscid hypersonic flow 03 p0493 N93-13451
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Numerical investigation of non-spherical droplet dynamics in viscous convective flows 03 p0591 N93-13918
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods 03 p0592 N93-13953
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
The stability of a trailing-line vortex in compressible flow
[NASA-CR-189738] 06 p1408 N93-18771
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method 06 p1410 N93-19281
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme 06 p1414 N93-19308
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
On the stability of nonlinear viscous vortices in three-dimensional boundary layers
[NASA-CR-189637] 07 p1899 N93-20254
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Unstructured viscous grid generation by advancing-front method
[NASA-CR-191449] 10 p2929 N93-27067
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method 10 p2935 N93-27455
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer 10 p2937 N93-27462
A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations 10 p2937 N93-27465
Mesh adaption for compressible flows
[INRIA-RR-1683] 10 p3043 N93-28443
Inviscid quasi one-dimensional nonequilibrium flow
[FFA-TN-1992-35] 11 p3418 N93-28993
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions 11 p3421 N93-29177
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
NLR inviscid transonic unsteady loads prediction methods in aeroelasticity
[NLR-TP-91410-U] 12 p3674 N93-32358

INVISIBILITY
U VISIBILITY

IO
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403
Solar system observations with HST 08 p2534 N93-23889
Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793

IODIDES
NT CESIUM IODIDES
NT SILVER IODIDES
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430

IODINE
NT IODINE ISOTOPES
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Regenerable biocide delivery unit
[NASA-CASE-MSC-21763-1-SB] 06 p1590 N93-18351
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122

IODINE COMPOUNDS
NT CESIUM IODIDES
NT IODIDES
NT SILVER IODIDES
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395

IODINE ISOTOPES
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654

IODINE LASERS
A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum 04 p0884 N93-14141
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967

ION ACCELERATORS
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source) 01 p0160 N93-10353
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191
The ORNL radioactive ion beam project with the ORIC accelerator
[DE92-040027] 03 p0708 N93-13574
Bevalac ion beam characterizations for single event phenomena
[AD-A257033] 04 p0979 N93-15362
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
The RFQ LINAC: A high-current compact ion accelerator for explosive detection 07 p1766 N93-21872
An H(-) ion source for resonant gamma production 07 p1766 N93-21874
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU] 10 p2987 N93-28424
Accelerator research studies
[DE93-009353] 11 p3573 N93-28522
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317

Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002

ION ACOUSTIC WAVES

Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580
EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar 06 p1732 N93-19586
Plasma diffusion through multidipole magnetic fields
[DE93-608548] 11 p3591 N93-31007

ION ATOM INTERACTIONS

Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Experimental study of interactions of highly charged ions with atoms at keV energies
[DE92-019512] 02 p0436 N93-11541
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Experimental investigations of electron capture from atomic hydrogen and deuterium by alpha particles
[DE93-002654] 05 p1295 N93-17655
Differential electron emission in multi-charged ion atom collisions: Systematics for distant and close collisions
[DE93-004324] 07 p2064 N93-21851
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 06 p2478 N93-22050
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects
[DE93-004524] 08 p2494 N93-22942
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310

ION BEAMS

Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source)
01 p0160 N93-10353
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Corrosion protection of materials for aircraft using ion beam processes. Corrosion and bonding strength examinations. Physical analysis of laser composition
[MBB-Z-0405-91-PUB] 02 p0255 N93-11026
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Divergence in intense ion beams caused by incomplete charge neutralization
[DE92-016891] 02 p0445 N93-12103
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Ion beams as a means of deposition and in-situ characterization of thin films and thin film layered structures
[DE92-016397] 02 p0469 N93-12310
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Study of heliumlike neon using an electron beam ion trap
[DE92-019544] 03 p0753 N93-13536
The ORNL radioactive ion beam project with the ORIC accelerator
[DE92-040027] 03 p0708 N93-13574
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812
Bevalac ion beam characterizations for single event phenomena
[AD-A257033] 04 p0979 N93-15362
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Transverse phase-space evolution in non-stationary charged particle beams
[DE93-000618] 05 p1296 N93-15673
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
Ion-beam modification of Gd2Ti2O7
[DE93-001514] 05 p1328 N93-17652
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627
Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Two-stream instability for a light ion beam-plasma system with external magnetic field
[NIFS-204] 09 p2859 N93-25248
Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324
Beam position and total current monitor for heavy ion fusion beams
[DE93-007653] 09 p2851 N93-25325
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171
Overview of charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-007898] 10 p3131 N93-26626
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Accelerator Mass Spectrometry facility (AMS)
[AD-A262458] 10 p3134 N93-27829
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Pulse control in an accelerator for heavy-ion fusion
[DE93-009527] 11 p3576 N93-30390
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798

ION CHAMBERS

U IONIZATION CHAMBERS

ION CHARGE
Observations of solar wind ion charge exchange in the comet Halley coma
03 p0752 N93-13467
ION CONCENTRATION
On the role of water growth in atmospheric aerosol
04 p0922 N93-14875
ION CURRENTS
NT ION BEAMS
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Silicon neuron
[AD-A255091] 03 p0674 N93-12756
Investigation of ring current/storm dynamics: Preliminary results
[AD-A256704] 05 p1207 N93-16155
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
Multiply charged ions from laser driven plasma sources 08 p2495 N93-23242
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
Thermionic current measurement in quartz
09 p2840 N93-25045
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU]
10 p2987 N93-28424
NPB cesium space experiment
11 p3267 N93-28733
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure
12 p3688 N93-31157
ION CYCLOTRON RADIATION
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives
07 p1774 N93-21921
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
Fundamental studies of fusion plasmas
[DE93-013144] 11 p3589 N93-30189
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032
ION DENSITY (CONCENTRATION)
NT IONOSPHERIC ION DENSITY
NT MAGNETOSPHERIC ION DENSITY
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment
03 p0752 N93-13469
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Measurement of impurity ion densities and energies in the divertor and edge regions of Alcator C-Mod tokamak
[DE92-040510] 05 p1307 N93-15922
Experimental observations of anomalous potential drops over ion density cavities
[TRITA-EPP-91-04] 05 p1312 N93-17637
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533
X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Modelling of plasmaspheric flows
10 p3150 N93-28412
ION DISTRIBUTION
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region
06 p1727 N93-19552
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region
06 p1727 N93-19553
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Ion ring distribution produced by a magnetosonic wave
[DE93-754311] 11 p3590 N93-30533
ION EMISSION
Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Scanning ionic microscopy with high spatial resolution: Parallel acquisition of elementary images by high resolution mass spectrometry
[ONERA-NT-1990-7] 11 p3314 N93-30139
ION ENGINES
Electric propulsion applications
01 p0020 N93-10029
Extended-testing of xenon ion thruster hollow cathodes
[NASA-CR-189227] 02 p0234 N93-12409
Particle simulation of grid erosion in an ion thruster
03 p0527 N93-13927
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
The 100-500 kWe NEP systems
10 p2983 N93-26984
Thruster models for NEP system analysis
10 p2984 N93-26988
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU]
10 p2987 N93-28424
The Thermionic Fuel Element Verification Program: Technical progress and future plans
[DE93-003797] 12 p3691 N93-31185
ION EXCHANGE MEMBRANE ELECTROLYTES
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Fuel cell technology for lunar surface operations
10 p3067 N93-27965
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064
Electrical relaxation in acid-form nafion
[AD-A263558] 11 p3410 N93-29826
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828
ION EXCHANGE RESINS
Regenerable biocide delivery unit
[NASA-CASE-MSC-21763-1-SB]
06 p1590 N93-18351
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122
ION EXCHANGING
Optical waveguides by ion exchange
[AD-D015564] 07 p2068 N93-21248
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316
ION EXTRACTION
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
ION IMPACT
Theory of electron ejection from surfaces by highly charged ion impact
[DE93-004109] 08 p2479 N93-22070
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
ION IMPLANTATION
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Preparation of silicon oxynitride thin films by plasma chemical vapor deposition for chemical implantation. Application to a pH ISFET
[ECL-91-12] 02 p0291 N93-11574
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Study of high energy particles and protective layers for materials
[CTN-93-60613] 05 p1124 N93-16545
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
Dependence of buried CoSi2 resistivity on ion implantation and annealing conditions
[DE92-010080] 05 p1322 N93-16930
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Heteroepitaxial diamond growth
[AD-A257510] 06 p1671 N93-18079
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508

Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Photoluminescence of silicon nanostructures formed by ion beam implantation
[DE93-006777] 09 p2862 N93-24958
Colloid formation in implanted glasses
[DE93-006763] 09 p2653 N93-24971
Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors
09 p2865 N93-25715
Electrical conductivity of ion implanted ladder and semi-ladder polymers
[AD-A261401] 09 p2657 N93-26401
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436
Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301

ION INJECTION
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310

ION IRRADIATION
NT PROTON IRRADIATION
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Ion produced cometary organic crust
06 p1701 N93-19122
Chemical and physical effects in the bulk of cometary analogs 06 p1716 N93-19234
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Aerospace devices for magnetic replicas
[NASA-CR-192958] 09 p2865 N93-25667
State-selected studies of atoms and molecules ejected from ion bombarded surfaces
[AD-A261275] 09 p2850 N93-26267
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

ION MICROSCOPES
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Scanning ionic microscopy with high spatial resolution: Parallel acquisition of elementary images by high resolution mass spectrometry
[ONERA-NT-1990-7] 11 p3314 N93-30139

ION MOTION
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
Cross field ion motion at sawtooth crash
[NIFS-189] 07 p2072 N93-20547
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099

ION OSCILLATION
U PLASMA OSCILLATIONS

ION PLATING
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation: and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365

ION PROBES
Construction and evaluation of a metal ion biosensor
[AD-A259775] 08 p2304 N93-23452

ION PRODUCTION RATES
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Diagnostics and modeling of H(-) ion sources
[AD-A250664] 02 p0440 N93-11867

ION PROPULSION
Advanced electric propulsion research, 1991
[NASA-CR-190761] 02 p0232 N93-11608
Extended-testing of xenon ion thruster hollow cathodes
[NASA-CR-189227] 02 p0234 N93-12409
Particle simulation of grid erosion in an ion thruster
03 p0527 N93-13927
Ion thruster development at NASA Lewis Research Center
[NASA-TM-105983] 04 p0827 N93-15429
Electric propulsion 05 p1095 N93-16916
Development of arcjet and ion propulsion for spacecraft stationkeeping
[NASA-TM-106102] 08 p2204 N93-23747
Nuclear electric propulsion for planetary science missions: NASA technology program planning
[NASA-TM-106139] 09 p2632 N93-26210
NEP technology: FY 1992 milestones (NASA LeRC)
10 p2983 N93-26977
The 100-500 kWe NEP systems
10 p2983 N93-26984
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU]
10 p2987 N93-28424
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188

ION RECOMBINATION
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A
02 p0321 N93-12046

ION SCATTERING
Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers
12 p3880 N93-31423
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407

ION SELECTIVE ELECTRODES
Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644

ION SOURCES
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source)
01 p0160 N93-10353
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Divergence in intense ion beams caused by incomplete charge neutralization
[DE92-016891] 02 p0445 N93-12103
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198
Above-surface neutralization of highly charged ions: The formation of hollow atoms
[DE93-001371] 05 p1288 N93-16603
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
Associated particle imaging 07 p1766 N93-21871
An H(-) ion source for resonant gamma production
07 p1766 N93-21874
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
NPB cesium space experiment
11 p3267 N93-28733
A high field optical-pumping spin-exchange polarized deuterium source
[DE93-009208] 11 p3574 N93-28970

An RF driven H(-) source and a low energy beam injection system for RFQ operation
[DE93-010438] 11 p3575 N93-29302
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
Measurement of work function of a plasma grid in a cesium seeded negative ion source
[DE93-764153] 11 p3589 N93-30190
Proceedings of the Workshop on Spin-Charge Transfer Reaction in Atomic Collision Process for planning of next period of cascade project
[DE93-704290] 12 p3821 N93-31834

ION SPECTROMETERS
U MASS SPECTROMETERS

ION STORAGE
Ion trap frequency standard research at PTB
09 p2841 N93-25050
Controlling an optical frequency by a single ion
09 p2841 N93-25051

ION TEMPERATURE
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Edge ion dynamics in H-mode discharges in D3-D
[DE92-016255] 01 p0162 N93-10619
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245
Diagnostics and modeling of H(-) ion sources
[AD-A250664] 02 p0440 N93-11867
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535
Recent Nova experimental results
[DE92-019783] 03 p0715 N93-13105
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence
06 p1726 N93-19548
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554
A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
Ion temperature measurements in the Maryland Spheromak 09 p2859 N93-25290
Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910

ION TRAPS (INSTRUMENTATION)
Study of heliumlike neon using an electron beam ion trap
[DE92-019544] 03 p0753 N93-13536
Laser-based studies with an ion-trap mass spectrometer: Ion tomography and analytical applications
[DE92-017529] 04 p0887 N93-15135
Spectroscopy of highly charged multi-electron ions
[DE93-001617] 05 p1291 N93-17181
The design and construction of an ion trap based system for laser pyrolysis/mass spectrometry of single organic aerosol particles
[AD-A260455] 08 p2222 N93-24115
Laser desorption in an ion trap mass spectrometer
[DE93-007330] 09 p2712 N93-25150
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618
An improved linear ion trap physics package
11 p3384 N93-29587

ION-GAS INTERACTIONS
U GAS-ION INTERACTIONS

IONIC COLLISIONS
Two-photon physics and the coming generation of heavy ion colliders
[DE92-015850] 01 p0156 N93-10732
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Heavy-ion collisions and the nuclear equation of state
[DE92-019364] 03 p0706 N93-12924
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839
Low-energy measurements of electron capture by multicharged ions from excited hydrogen atoms
[DE93-001642] 05 p1292 N93-17345
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Strangeness signals in heavy ion collisions
[DE93-002935] 06 p1657 N93-19516
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region
06 p1727 N93-19553
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Angular distributions of charge exchange collisions at very low energies
[DE93-002338] 07 p2064 N93-21751
Differential electron emission in multi-charged ion atom collisions: Systematics for distant and close collisions
[DE93-004324] 07 p2064 N93-21851
Electron impact excitation cross section measurements of highly charged heliumlike and lithiumlike ions
[DE93-003478] 08 p2478 N93-22031
Theory of electron ejection from surfaces by highly charged ion impact
[DE93-004109] 08 p2479 N93-22070
Strangeness production in S + Pb and p + Pb collisions at 200 GeV/c per nucleon nucleon
[DE93-007654] 09 p2847 N93-25326
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Momentum transport through the chromosphere
12 p3852 N93-31677
Theoretical investigation of electron-positive ion/atom interactions
[DE93-012933] 12 p3822 N93-32162

IONIC CONDUCTIVITY
U ION CURRENTS

IONIC CRYSTALS
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

IONIC DIFFUSION
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879

IONIC MOBILITY
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Shielding from space radiations
[NASA-CR-191966] 06 p1655 N93-18567
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170
Advanced signal processing requirement in an ion mobility explosives detector 11 p3320 N93-30277

IONIC PROPELLANTS
U ION ENGINES

IONIC REACTIONS
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Novel gas phase ion molecule reactions of C60(+ +) with O2
[AD-A262821] 10 p3136 N93-28225
A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143
Interactions between tetraalkylammonium ions and silicates
[ETN-93-94057] 12 p3703 N93-31622

IONIC WAVES
Stimulated Brillouin backscattering for nonlinear ionic sound waves in laser plasmas
[ETN-93-93415] 07 p2074 N93-21208

IONIZATION
NT ATMOSPHERIC IONIZATION
NT AURORAL IONIZATION
NT AUTOIONIZATION
NT FLAME IONIZATION
NT GAS IONIZATION
NT ION PRODUCTION RATES
NT NONEQUILIBRIUM IONIZATION
NT PHOTOIONIZATION
NT SURFACE IONIZATION
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Electron temperature of Gd plasma produced by laser resonance ionization
[DE91-017785] 03 p0718 N93-13732
CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
Lunar and asteroid composition using a remote secondary ion mass spectrometer
05 p1387 N93-17245
Relativistic calculations of excitation and ionization of highly charged ions by electron impact
[DE93-002129] 05 p1296 N93-17783

Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
Cation production and reactions induced by electron impact on tetraethoxysilane
[AD-A258830] 06 p1675 N93-19064
X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266
Modifications to the ionization process to enhance the detection of explosives by API/MS/MS
07 p1774 N93-21918
Modification to the ionization process to enhance the detection of explosives by IMS
07 p1774 N93-21920
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives
07 p1774 N93-21921
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 08 p2478 N93-22050
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Studies of the formation chemical reactivity and properties of small clusters application to an understanding of aerosol formation and heterogeneous chemistry
[DE93-005920] 08 p2221 N93-23309
New methods and instrumentation for the characterization of biopolymers using electrospray ionization-mass spectrometry
[DE93-005100] 08 p2239 N93-23323
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646
The formation and characteristics of E-region thin ionization layers at high latitudes
09 p2861 N93-25829
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614
Quasiclassical approach to ionization of atoms by strong laser pulses: The comparison with the simpleman's models and Newtonian dynamics
[DE93-008738] 10 p3137 N93-28463
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
The emulsion chamber technology experiment
11 p3268 N93-28743
One-dimensional numerical simulations of the low-frequency electric fields in the CRIT1 and CRIT2 rocket experiments
[TRITA-ALP-1992-01] 12 p3758 N93-31625
Possible manifestation of the critical ionization velocity phenomenon in the solar corona
12 p3861 N93-31726

IONIZATION CHAMBERS
NT BUBBLE CHAMBERS
NT CLOUD CHAMBERS
NT GEIGER COUNTERS
NT PROPORTIONAL COUNTERS

Measurement of absorbed dose to water for medium energy x rays
[NPL-RSA(EXT)-33] 02 p0436 N93-11412
Explaining cloud chamber tracks
[DE92-040502] 04 p0972 N93-15057
Liquid xenon time projection chamber for gamma rays in the MeV region: Development status
04 p1014 N93-15592
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849
Charge to frequency converter for ionization chambers belonging to the radiation protection system of AmPS/MEA
[DIGEL-1991-6] 11 p3577 N93-30837
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335

IONIZATION COUNTERS
U RADIATION COUNTERS

IONIZATION CROSS SECTIONS

Cation production and reactions induced by electron impact on tetraethoxysilane
[AD-A258830] 06 p1675 N93-19064
Differential electron emission in multi-charged ion atom collisions: Systematics for distant and close collisions
[DE93-004324] 07 p2064 N93-21851
Electron impact ionization of highly charged lithiumlike ions
[DE93-002895] 07 p2065 N93-21954
Electron impact excitation cross section measurements of highly charged heliumlike and lithiumlike ions
[DE93-003478] 08 p2478 N93-22031
Negative ion detachment cross sections
[DE93-005679] 08 p2483 N93-23328
HZEFRG1: An energy-dependent semiempirical nuclear fragmentation model
[NASA-TP-3310] 10 p3138 N93-27031
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
The production and destruction of negative ions
[DE93-010527] 11 p3564 N93-28665

IONIZATION POTENTIALS

The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Energetic particle observations and the abundances of elements in the solar corona 12 p3878 N93-31410
First ionization potential fractionation
12 p3878 N93-31411
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere
12 p3878 N93-31413

IONIZED GASES

The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions
03 p0756 N93-13853
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc
04 p0988 N93-14138
The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180
The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
The disk-halo interface in edge-on spirals
10 p3198 N93-26865
Gas in merging galaxies 10 p3202 N93-26886
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

IONIZED PLASMAS
U PLASMAS (PHYSICS)

IONIZERS

Characterization of electric discharge in air produced by an environmental ionizator
[INPE-5310-NTC/299] 03 p0651 N93-13310
The 80 kV electrostatic wire septum for AmPS
10 p3139 N93-28340

IONIZING RADIATION
NT ALPHA PARTICLES
NT BETA PARTICLES
NT COSMIC RAY SHOWERS
NT COSMIC RAYS
NT COSMIC X RAYS
NT EXTREME ULTRAVIOLET RADIATION
NT GALACTIC COSMIC RAYS
NT GAMMA RAY BURSTS
NT GAMMA RAYS
NT SECONDARY COSMIC RAYS
NT SOLAR COSMIC RAYS
NT SOLAR X-RAYS
NT X RAYS

DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660
AFRRI Reports — Radiobiology
[AD-A257231] 05 p1221 N93-15965
HI in galaxy outskirts and the extragalactic ionizing flux 05 p1372 N93-17139
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371
Searching for Lyman alpha emission from a possible Zel'dovich pancake 10 p3179 N93-26755
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Radiation monitoring equipment dosimeter experiment
11 p3266 N93-28730
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments
11 p3573 N93-29640
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641
Future directions for LDEF ionizing radiation modeling and assessments 11 p3573 N93-29642
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179

IONOGRAMS

High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283

IONOPAUSE

Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer
03 p0752 N93-13468
Model of Venus ionopause formation
08 p2554 N93-23354

IONOSONDES

Geostationary-satellite beacon-receiver array for studies of ionospheric irregularities
[DE92-018979] 02 p0362 N93-11535
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530

IONOSPHERE-MAGNETOSPHERE COUPLING
U MAGNETOSPHERE-IONOSPHERE COUPLING

IONOSPHERES

Ionospheric processes 06 p1584 N93-18498
Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141
Momentum transport through the chromosphere
12 p3852 N93-31677
Distinct ion population in the polar cusp: Possible signature of transient reconnection
12 p3766 N93-31680

IONOSPHERIC ABSORPTION
U ELECTROMAGNETIC ABSORPTION
U IONOSPHERIC PROPAGATION

IONOSPHERIC COMPOSITION

Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Ion composition in the auroral F region: Comparison of EISCAT data and ionospheric model predictions
06 p1726 N93-19547
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven
06 p1727 N93-19551
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region
06 p1727 N93-19552

Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region
06 p1727 N93-19553
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events
06 p1732 N93-19583
The formation and characteristics of E-region thin ionization layers at high latitudes
09 p2861 N93-25829

IONOSPHERIC CONDUCTIVITY
A numerical model of ionospheric convection derived from field-alignment currents and the corresponding conductivity
[TRITA-EPP-91-03-REV] 04 p0916 N93-15252
Simulation of ionosphere-magnetosphere mesoscale coupling: Letting ionospheric conductivities depend on upward field-aligned currents 06 p1578 N93-18742
Radiolocation of a satellite-borne LOVHF beacon
08 p2268 N93-23613
ELF propagation highlights 11 p3395 N93-30730
Studies of the propagation of Low Frequency (LF) radio waves 11 p3396 N93-30738

IONOSPHERIC CURRENTS
NT AURORAL ELECTROJETS
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
A numerical model of ionospheric convection derived from field-alignment currents and the corresponding conductivity
[TRITA-EPP-91-03-REV] 04 p0916 N93-15252
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
The flow of plasma in the solar terrestrial environment
[NASA-CR-192106] 06 p1744 N93-18780
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials
[NIFS-195] 07 p2073 N93-20764
Latitudinally period-dependent pulsations: A model of the distributed perturbation ionospheric Hall current. The resultant ground field and a study of 3 intervals
08 p2547 N93-23194

IONOSPHERIC DISTURBANCES
NT IONOSPHERIC STORMS
NT SUDDEN IONOSPHERIC DISTURBANCES
NT TRAVELING IONOSPHERIC DISTURBANCES
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Experimental studies of ionospheric irregularities and related plasma processes
[NASA-CR-191271] 03 p0652 N93-13460
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
The ionosphere as a gamma ray burst detector
05 p1211 N93-17312
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations
06 p1584 N93-19568
Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar
06 p1732 N93-19586
Observation of ionospheric modification using high power oblique HF transmissions
[AD-A258706] 07 p1998 N93-20378
Latitudinally period-dependent pulsations: A model of the distributed perturbation ionospheric Hall current. The resultant ground field and a study of 3 intervals
08 p2547 N93-23194
Source mechanisms and radio effects of ionospheric plasma
[AD-A259743] 08 p2395 N93-23480
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
A long wave TE/TM noise prediction model
11 p3397 N93-30742
Performance statistics builetin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

IONOSPHERIC DRIFT
Comparison between irregularity motion and bulk plasma drifts at high latitudes
[PL-TR-91-2292] 04 p0914 N93-14727
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region
06 p1727 N93-19552

IONOSPHERIC ELECTRON DENSITY
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence
02 p0360 N93-11269
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions
02 p0365 N93-12209
Atmospheric dynamics and coupling
06 p1584 N93-18495
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence
06 p1726 N93-19548
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567
Radiolocation of a satellite-borne LOVHF beacon
08 p2268 N93-23613
Systematic bearing errors of HF signals observed over a North-South propagation path
08 p2268 N93-23614
Large bearing errors observed at a high latitude DF site 08 p2268 N93-23615
Measurements of the direction of arrival of an oblique chirp sounder signal 08 p2268 N93-23616
GPS L1-L2 bias determination
[AD-A262141] 10 p2941 N93-27544
Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343

IONOSPHERIC F-SCATTER PROPAGATION
On the hierarchy of processes contributing to equatorial spread F 08 p2395 N93-23595

IONOSPHERIC HEATING
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Electron energization in the topside auroral ionosphere: On the importance of ion-acoustic turbulence
02 p0360 N93-11269
A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Introduction to ionospheric heating at Tromsoe (Norway). Part 1: Experimental overview
06 p1724 N93-19531
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems
06 p1724 N93-19532
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events
06 p1732 N93-19583
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746

IONOSPHERIC ION DENSITY
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525
The formation and characteristics of E-region thin ionization layers at high latitudes
09 p2861 N93-25829

IONOSPHERIC NOISE
NT WHISTLERS

IONOSPHERIC PROPAGATION
NT IONOSPHERIC F-SCATTER PROPAGATION
ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Obtaining medians and other quantiles with limited memory space
[AD-A254506] 03 p0683 N93-12722
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344
Propagation characteristics of the ionospheric transmission window relating to long wave radio location issues 08 p2265 N93-23600
Propagation effects on HF direction finding
08 p2265 N93-23602
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606
Theoretical study of topside ionospheric clutter
[AD-A260982] 09 p2774 N93-25852
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388
A comparison of ionospheric propagation mode delay predictions from ADVANCED PROPHET 4.3 with measured data
[AD-A261782] 09 p2686 N93-26604
GPS L1-L2 bias determination
[AD-A262141] 10 p2941 N93-27544
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. A: Multiband dipole antenna
[AD-A262010] 10 p3027 N93-27668
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
A comparison of trans-equatorial ionosphere propagation predictions from AMBCOM with measured data
[AD-A264006] 11 p3391 N93-29987
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734
Studies of the propagation of Low Frequency (LF) radio waves 11 p3396 N93-30738
A long wave TE/TM noise prediction model
11 p3397 N93-30742

IONOSPHERIC REFLECTION
U IONOSPHERIC PROPAGATION

IONOSPHERIC SOUNDING
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518

A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems 06 p1724 N93-19532
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements? 06 p1724 N93-19533
Measurements of the direction of arrival of an oblique chirp sounder signal 08 p2268 N93-23616
Angle of arrival characteristics of ionospheric skywave signals 08 p2268 N93-23618
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732

IONOSPHERIC STORMS
NT SUDDEN IONOSPHERIC DISTURBANCES
Plasma flow bursts in the auroral zone 06 p1726 N93-19550

IONOSPHERIC TEMPERATURE
Main ionospheric trough: Preliminary results from the 1990 Finnish-French EISCAT campaign 06 p1726 N93-19545
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence 06 p1726 N93-19548
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989 06 p1728 N93-19557
D-region incoherent scatter spectra: Discrepancies between observations and current theory 06 p1728 N93-19559
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data [NASA-CR-192224] 09 p2775 N93-26159

IONOSPHERIC TILTS
Propagation effects on HF direction finding 08 p2265 N93-23602

IONOSPHERICS
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
The possibilities of observing plasma and gyro lines with the EISCAT polar cap radar 06 p1724 N93-19534
STARE: A new coherent radar in Scandinavia 06 p1517 N93-19572
The EISCAT Svalbard (Arctic) radar 06 p1517 N93-19574

IONS
NT ANIONS
NT CATIONS
NT CESIUM IONS
NT DEUTERONS
NT HEAVY IONS
NT HELIUM IONS
NT HYDROGEN IONS
NT LIGHT IONS
NT METAL IONS
NT MOLECULAR IONS
NT NEGATIVE IONS
NT NITROGEN IONS
NT OXYGEN IONS
NT POSITIVE IONS
NT RECOIL IONS
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity [DE91-015264] 02 p0441 N93-12117
Fast ion-driven Bernstein instabilities [DE92-019393] 03 p0705 N93-12713
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites [DE92-040359] 03 p0542 N93-12998
Cross sections and rate coefficients for the electron-impact excitation of He-like ions [ISAS-RN-647] 03 p0703 N93-13095
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Photodissociation dynamics of cluster ions [AD-A256375] 04 p0917 N93-15463
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions [DE93-000970] 05 p1285 N93-16217
The FNAS Gamma Ray Observatory [NASA-CR-192423] 05 p1399 N93-16944
Spectroscopy of highly charged multi-electron ions [DE93-001617] 05 p1291 N93-17181
Design and test of a superconducting structure for high-velocity ions [DE93-000513] 05 p1326 N93-17377
Relativistic calculations of excitation and ionization of highly charged ions by electron impact [DE93-002129] 05 p1296 N93-17783
Discrimination of ionic species from broad-beam ion sources [NASA-CR-4483] 06 p1654 N93-18140
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Overview of helium-like structure measurements: A focus on the N = 2 triplet states [DE93-002913] 06 p1658 N93-19748
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron [NIFS-160] 07 p2069 N93-20112
Ion trapping in dusty plasmas [MPE-PREPRINT-219] 07 p2075 N93-21405
Stable clusters in the condensed state and some possibilities for gas phase clusters [DE93-004446] 07 p2064 N93-21846
Theory of electron ejection from surfaces by highly charged ion impact [DE93-004109] 08 p2479 N93-22070
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method [DE93-006095] 08 p2479 N93-22525
Design of a large-scale plasma source ion implantation experiment [DE93-005438] 08 p2493 N93-22746
Spectroscopy of highly-ionized atoms using position-sensitive detection [DE93-002914] 08 p2482 N93-22985
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6 [DE93-004815] 08 p2230 N93-22991
Multiply charged ions from laser driven plasma sources 08 p2495 N93-23242
Computer simulation of atomic collision processes in solids [DE93-005106] 08 p2483 N93-23310
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation [AD-A260284] 08 p2483 N93-24234
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate [AD-A260309] 08 p2234 N93-24237
Laser excitation and chemi-ionization of combustion species [AD-A260120] 08 p2224 N93-24414
Collisional energy transfer in biomolecular ion-molecule dynamics [AD-A260911] 09 p2849 N93-25659
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732
Particle simulation of auroral double layers 09 p2774 N93-25830
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges [AD-A261230] 09 p2851 N93-26518
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications [AD-A261596] 09 p2851 N93-26525
Liquid and solid ion plasmas [AD-A261888] 09 p2862 N93-26528
Strong-field dissociation dynamics [DE93-006671] 10 p3136 N93-28310
Moment approach to fast ion neoclassical transport and viscous forces [DE93-753305] 11 p3585 N93-28979
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper [AD-A263421] 11 p3323 N93-29259
Molecular dynamics modeling of electric double layers with spectroscopic applications [AD-A263168] 11 p3568 N93-29489
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate [AD-A264220] 11 p3597 N93-30146
Conjugated substituted ionic polyacetylenes [AD-A264702] 11 p3337 N93-30497
Studies in Lewis acid and superacid ionic liquids [AD-A264683] 11 p3316 N93-30551
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers 12 p3880 N93-31423

IOWA
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska [PB93-110989] 08 p2521 N93-24285

IP (IMPACT PREDICTION)
U COMPUTERIZED SIMULATION

IR LASERS
U INFRARED LASERS

IRAN
Zohreh: The Iranian domestic satellite system 10 p3023 N93-26649

IRAQ
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
The General Information Programme (PGI) and developing countries: A case study of Iraq 09 p2874 N93-25209

IRAS
U INFRARED ASTRONOMY SATELLITE

IRASERS
U INFRARED LASERS

IRIDIUM
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket [NASA-CR-191014] 07 p1829 N93-20114

IRIDIUM ALLOYS
Improvements in manufacture of iridium alloy materials [DE92-017126] 05 p1298 N93-16932

IRIS SATELLITES
Italian Space Agency activities in Earth observation 08 p2358 N93-23756

IRISES (MECHANICAL APERTURES)
Video camera as a visual sensor [NAL-TR-1132] 02 p0314 N93-12373

IRON
NT IRON ISOTOPES
Alternate spectrometric oil analysis techniques [AD-A253355] 01 p0029 N93-10101
Determination of Fe(sup 2+) and Fe(sup 3+) concentrations of semi-insulating InP:Fe [DE92-017119] 02 p0469 N93-12316
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces [NASA-CR-191363] 03 p0539 N93-13763
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
A system approach to archival storage 04 p1006 N93-15040
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu [DE92-041109] 05 p1108 N93-15674
Magnetic flux-load current interactions in ferrous conductors [AD-A256632] 05 p1143 N93-15906
An empirical approach to predicting long term behavior of metal particle based recording media 05 p1170 N93-16330
Iron and alloys of iron --- lunar resources 05 p1382 N93-16899
Application of manufactured products 05 p1383 N93-16902
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001) [DE93-001305] 05 p1327 N93-17651
Recent progress on astrophysical opacity [DE93-002892] 06 p1722 N93-19513
OPAL opacities [DE93-002891] 06 p1733 N93-19828
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3 [AD-A259378] 06 p1485 N93-19854
Electron impact ionization of highly charged lithiumlike ions [DE93-002895] 07 p2065 N93-21954
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers [DE93-004204] 08 p2499 N93-22064
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers [DE93-004203] 08 p2502 N93-22523
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films 08 p2505 N93-23100
Iron fertilization of the austral ocean: A model assessment [MPIM-84] 08 p2415 N93-23860
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates [DE93-006732] 09 p2725 N93-25373

Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938

IRON ALLOYS
NT AUSTENITIC STAINLESS STEELS
NT CARBON STEELS
NT CHROMIUM STEELS
NT FERRITIC STAINLESS STEELS
NT HIGH STRENGTH STEELS
NT LOW CARBON STEELS
NT MARTENSITIC STAINLESS STEELS
NT NICKEL STEELS
NT STAINLESS STEELS
NT STEELS
International ADI-Seminar: Austempered Ductile Iron
[PB92-180660] 02 p0256 N93-11244
Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
Environmental effects on iron aluminides
[DE92-016341] 03 p0542 N93-13237
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
Iron and alloys of iron --- lunar resources 05 p1382 N93-16899
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
First-principles approach to alloy phase stability
[DE93-001323] 05 p1115 N93-17031
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys
[DE93-005039] 08 p2232 N93-23980
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037
Acceptable aluminum additions for minimal environmental effect in iron-aluminum alloys
[DE93-006738] 08 p2234 N93-24329
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907
Material analysis of austempered ductile iron
[AD-A261953] 10 p3000 N93-27921
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265

IRON CHLORIDES
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742

IRON COMPOUNDS
NT CORDIERITE
NT FERRITES
NT FERROCENES
NT HEMATITE
NT ILMENITE
NT IRON CHLORIDES
NT IRON OXIDES
NT PYRITES
The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665

IRON ISOTOPES
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807

IRON ORES
NT HEMATITE

IRON OXIDES
NT HEMATITE
NT ILMENITE
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260
The Apollo 17 regolith 06 p1737 N93-18799
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films 08 p2505 N93-23100
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals 12 p3862 N93-31935
Low-temperature formation of magnetic iron oxides 12 p3863 N93-31946

IRRADIANCE
NT SOLAR CONSTANT
Measurements and modeling of laser irradiance in the high-power third-harmonic Nova focus. Volume A: Report
[DE92-016746] 01 p0090 N93-10739
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991] 08 p2558 N93-24637
Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015

IRRADIATION
NT AURORAL IRRADIATION
NT ELECTRON IRRADIATION
NT ION IRRADIATION
NT NEUTRON IRRADIATION
NT PROTON IRRADIATION
NT X RAY IRRADIATION
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163
Excimer laser irradiation of metal surfaces 04 p0884 N93-14175
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133
AFRRI Reports --- Radiobiology
[AD-A257231] 05 p1221 N93-15965
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Indium phosphide photovoltaic technology 06 p1572 N93-18476
Characterization of radiation damage in solids 06 p1659 N93-18478
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation 06 p1709 N93-19183
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films
[DE93-005367] 08 p2507 N93-23326
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Radiation effects in germanium doped quartz 09 p2837 N93-25021

Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335
Electron-microscopic investigations of irradiated and naturally aged aluminum alloy
[DE93-606752] 12 p3706 N93-31660
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

IRREGULAR GALAXIES
What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
Far-infrared line images of dwarf galaxies 10 p3186 N93-26797

IRREGULARITIES
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A259943] 08 p2401 N93-24322

IRREVERSIBLE PROCESSES
Connection of microscopic with macroscopic dynamics: Towards a hydrodynamical description of quantum mechanics 03 p0729 N93-13957

IRRIGATION
Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS 09 p2751 N93-24855

IRRITATION
NT TOXICITY AND SAFETY HAZARD

IRROTATIONAL FLOW
U POTENTIAL FLOW

ISCCP PROJECT
Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346

ISCHEMIA
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness
[AD-A255485] 04 p0935 N93-14789

ISEE
U INTERNATIONAL SUN EARTH EXPLORERS

ISENTROPIC PROCESSES
NT NONISENTROPICITY
Adiabatic two-phase flow in a test section with partial flow blockages
[DE92-016360] 04 p0877 N93-14816

ISING MODEL
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
The method of minimal representations in 2D Ising model calculations
[AD-A256581] 04 p0967 N93-14270
Analysis of projections of the transfer matrix in 2D Ising models
[AD-A256583] 04 p0967 N93-14271
The direct Monte Carlo method for calculating alloy phases
[DE93-000436] 05 p1113 N93-16450
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
Number of saddle points of the energy surface in SK spin-glass
[SSCL-PREPRINT-726] 10 p3134 N93-28099
Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232

ISIS SATELLITES
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371

ISLANDS
NT ATOLLS
NT BERMUDA
NT GREENLAND
NT HAWAII
NT ICELAND
NT INDONESIA
NT JAPAN
NT NEW ZEALAND
NT PACIFIC ISLANDS
NT PHILIPPINES
Atoll Research Bulletin numbers 355-364: 40th anniversary issue
[PB93-169654] 10 p3062 N93-27421
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662

ISOBARS
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400

ISOBUTANE
U BUTANES

ISOCHORIC PROCESSES
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871

ISOCYANATES
Energy and global warming impacts of CFC alternative technologies for foam building insulations
[DE92-019477] 05 p1200 N93-16085

ISOELECTRONIC SEQUENCE
Direct radiative recombination of atomic ions 02 p0321 N93-12048
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers 03 p0607 N93-13773
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986

ISOLATION
NT SOCIAL ISOLATION
A core facility for the study of neurotoxins of biological origin
[AD-A254359] 03 p0674 N93-12945
Nutrition 05 p1222 N93-16805
Long-duration isolation and confinement: Human factors issues and research requirements 05 p1223 N93-16808
Applications of living systems theory to life in space 05 p1229 N93-16865
Isolation and analysis of key components of seafloor relief
[AD-A261635] 09 p2790 N93-26170

ISOLATORS
NT VIBRATION ISOLATORS

ISOMERIZATION
NT ORTHO PARA CONVERSION
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Thermal isomerization and decomposition of ethynyldisilanes
[DE92-040578] 05 p1102 N93-16012
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098

ISOMERS
NT ISOPROPYL ALCOHOL
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
An investigation of transient atmospheric inorganic peroxides: A theoretical and experimental study 04 p0912 N93-14117
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
The use of 2D NMR spectroscopy in the analysis of isomeric polyamides 07 p1839 N93-21166
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
Nuclear isomers as ultra-high-energy-density materials
[DE93-009520] 11 p3568 N93-29784
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

ISOMORPHISM
An isomorphism for algebra of distributions with compact support on Lie groups
[DE92-603605] 02 p0427 N93-12176
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
On a fundamental notion of equivalence in linear systems theory
[MATHS-REPT-A-162] 07 p2053 N93-20890
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 2
[RR-875-M] 07 p2056 N93-21395
Beyond data parallelism: The advantages of multiple parallelizations in combinatorial search
[AD-A265008] 12 p3796 N93-32080

ISOPARAMETRIC FINITE ELEMENTS
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774

ISOPHOTES
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131

ISOPLETHS
U NOMOGRAPHS

ISOPROPYL ALCOHOL
Development of a replacement for trichloroethylene in the two-stage cleaning process
[KCP-613-4941] 09 p2669 N93-26207

ISOPROPYL COMPOUNDS
NT ISOPROPYL ALCOHOL

ISOPYCNIC PROCESSES
Isopycnic systems as models for the behavior of liquids in a microgravity environment 07 p1805 N93-21089

ISOSTASY
Isostatic mounting platform 05 p1080 N93-15745

ISOSTERIC PROCESSES
U ISOPYCNIC PROCESSES

ISOTHERMAL FLOW
Using NEKTON to solve systems of discrete Boltzmann equations
[DE92-018272] 02 p0303 N93-11799
Three-dimensional isothermal flow simulations of an MHD secondary combustor
[DE93-006631] 08 p2497 N93-24035

ISOTHERMAL LAYERS
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
ISOTHERMAL PROCESSES
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection
01 p0051 N93-10502
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Isothermal and shock compression of high density ammonium nitrate and ammonium perchlorate
[DE93-000682] 11 p3315 N93-30209
ISOTHERMS
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
ISOTOPE EFFECT
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834
The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta"-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
ISOTOPE SEPARATION
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Stable isotope enrichment: Current and future potential
[DE92-041258] 05 p1326 N93-17368
Growth and characterization of isotopically enriched Ge-70 and Ge-74 single crystals
[DE93-004697] 08 p2510 N93-24050
Development of laser guide stars and adaptive optics for large astronomical telescopes
[DE93-007511] 09 p2888 N93-25320
High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
ISOTOPE SHIFT
U ISOTOPE EFFECT
ISOTOPES
NT ALUMINUM ISOTOPES
NT AMERICIUM 241
NT ARGON ISOTOPES
NT BERYLLIUM 10
NT BORON ISOTOPES
NT BORON 10
NT CALCIUM ISOTOPES
NT CALIFORNIUM ISOTOPES
NT CARBON ISOTOPES
NT CARBON 12
NT CARBON 13
NT CARBON 14
NT CESIUM 137
NT CHROMIUM ISOTOPES
NT COBALT 60
NT DEUTERIUM
NT ERBIUM ISOTOPES
NT FERMIUM
NT FLUORINE ISOTOPES
NT GALLIUM ISOTOPES
NT GERMANIUM ISOTOPES
NT GOLD ISOTOPES
NT HAFNIUM ISOTOPES
NT HELIUM ISOTOPES
NT HOLMIUM ISOTOPES
NT HYDROGEN ISOTOPES
NT IODINE ISOTOPES
NT IRON ISOTOPES
NT KRYPTON ISOTOPES
NT KRYPTON 85
NT LANTHANUM ISOTOPES
NT LEAD ISOTOPES
NT LITHIUM ISOTOPES
NT MAGNESIUM ISOTOPES
NT MERCURY ISOTOPES
NT METALLIC HYDROGEN
NT NEODYMIUM ISOTOPES
NT NEPTUNIUM ISOTOPES
NT NICKEL ISOTOPES
NT NITROGEN ISOTOPES
NT OXYGEN ISOTOPES
NT OXYGEN 18
NT PLUTONIUM
NT PLUTONIUM 239
NT POLONIUM 210
NT RADIOACTIVE ISOTOPES
NT RADON ISOTOPES
NT RUBIDIUM ISOTOPES
NT SCANDIUM ISOTOPES
NT SILICON ISOTOPES
NT STRONTIUM ISOTOPES
NT TELLURIUM ISOTOPES
NT THULIUM ISOTOPES
NT TIN ISOTOPES
NT TRANSURANIUM ELEMENTS
NT TRITIUM
NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135
NT YTTERBIUM ISOTOPES
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups
[DE93-002942] 06 p1484 N93-19752
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance
11 p3646 N93-28798
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830
ISOTOPIC ENRICHMENT
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
ISOTOPIC LABELING
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947
ISOTOPIC SPIN
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400
Particle physics
[DE93-006894] 08 p2482 N93-22992
Study of heavy-flavored particles
[DE93-011535] 11 p3569 N93-30128
ISOTROPIC MEDIA
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials
02 p0339 N93-12194
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids
02 p0340 N93-12199
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading
03 p0628 N93-13728
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves
03 p0718 N93-13750
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si
[PB93-152098] 08 p2225 N93-24632
Biharmonic pattern selection
[DE93-608186] 12 p3803 N93-31303
Some aspects of invariant theory in plasticity. Part 2: Constitutive relations for perfectly locking materials. Comments on perfectly plastic solids
12 p3742 N93-32321
ISOTROPIC TURBULENCE
Interaction of isotropic turbulence with a shock wave
03 p0590 N93-13898
Renormalization group methods for the Reynolds stress transport equations 05 p1154 N93-15800
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence
06 p1726 N93-19548
The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625
ISOTROPY
NT ISOTROPIC MEDIA
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Contact of orthotropic laminates with a rigid spherical indentor 03 p0533 N93-13778
Renormalization group methods for the Reynolds stress transport equations 05 p1154 N93-15800
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252

Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509

ISRAEL
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity
[ITN-93-85180] 05 p1208 N93-16744
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836

ISRAELI SPACE PROGRAM
The Israel Space Agency 1993
12 p3883 N93-31590

ISY
U INTERNATIONAL SPACE YEAR

ITALIAN SPACE PROGRAM
System test approach for the SAX satellite
04 p0824 N93-15622
Italian Space Agency activities in Earth observation
08 p2358 N93-23756
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
The contribution of the Italian Space Agency to the establishment of space services for the changing Earth
08 p2373 N93-23849
Italian payload development status for Columbus
08 p2164 N93-24392

ITALY
Vaccination against Hepatitis B: The Italian strategy
02 p0377 N93-11289
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
The great asteroid nomenclature controversy of 1801
06 p1704 N93-19145
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques
08 p2355 N93-23581

ITERATION
NT CONJUGATE GRADIENT METHOD
NT ITERATIVE SOLUTION
NT NEWTON METHODS
NT PREDICTOR-CORRECTOR METHODS
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations
03 p0589 N93-13825
Application of partition matrix methods to solve large eigenproblems in structural dynamics
04 p0896 N93-14188
Manipulation strategies for redundant manipulators
04 p0960 N93-14203
Iterative software testing
[AD-A255953] 04 p0943 N93-14420
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
Escape-time visualization method for language-restricted iterated function systems
04 p0956 N93-15558
The object instancing paradigm for linear fractal modeling 04 p0956 N93-15559
Propagation of high frequency jet noise using geometric acoustics
[NASA-TM-106013] 04 p0975 N93-15575
Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989
On increasing the effective blocking factor of a matrix for a given cache organization
[AD-A257342] 05 p1351 N93-15995
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU]
05 p1261 N93-17276
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
Monte Carlo approach to the approximation of invariant measures
[PB93-159069] 09 p2830 N93-26317
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
Boundedness and asymptotics of the generalized theodorus iteration
[AD-A261427] 09 p2829 N93-26452
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
Stability of parallel Volterra-Runge-Kutta methods
[CWI-NM-R9207] 10 p3106 N93-27304
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers
11 p3518 N93-29573
Iterated quantifiers
[LP-92-13] 12 p3806 N93-31534
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

ITERATIVE SOLUTION
Parallel sparse Cholesky factorization algorithms for shared-memory multiprocessor systems
[DE92-016829] 01 p0141 N93-10334
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
An iterative method for distributed database design
02 p0474 N93-11255
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Implementation details of the coupled QMR algorithm
[NASA-CR-191213] 03 p0684 N93-12801
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
Trim analysis by shooting and finite elements and Floquet eigenanalysis by QR and subspace iterations in helicopter dynamics 03 p0501 N93-13914
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
The covariance matrix of derived quantities and their combination
[DE92-019066] 04 p0969 N93-15212
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Preconditioned time-difference methods for solving advective-diffusive systems
[DE92-014790] 05 p1262 N93-15879
Domain decomposition as a mechanism for using asymptotic methods
[DE92-040759] 05 p1263 N93-16201
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Domain decomposition: A blowup problem and the Ginzburg-Landu equations
[DE92-040736] 05 p1266 N93-16587
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Preconditioned conjugate gradient techniques for the solution of time-dependent differential equations
[REPT-92-19] 06 p1643 N93-17844
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
Iterative refinement scheduling
06 p1635 N93-18669
Rescheduling with iterative repair
06 p1637 N93-18679
A discrete ordinate response matrix method for massively parallel computers
[DE93-003463] 06 p1631 N93-19621
Variational iterative method for the calculation of heat flux and mean energy balance
[INPE-5236-RPQ/648] 06 p1583 N93-19824
Recursively indexed differential pulse code modulation
07 p1881 N93-20175
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
Ultimate strength of geometrically imperfect angle columns
[PB93-111771] 07 p1947 N93-21235
Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Improved deterministic calculational methods for irregularly shaped shields
[DE93-004955] 08 p2467 N93-22795
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
A comparative study of preconditioned Lanczos methods for nonsymmetric linear system
[DE93-006453] 08 p2436 N93-22979
Development of iterative techniques for the solution of unsteady compressible viscous flows
[NASA-CR-192636] 08 p2296 N93-23724
PCG: A software package for the iterative solution of linear systems on scalar, vector and parallel computers
[DE93-007366] 09 p2809 N93-25315
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
Multidimensional spectral load balancing
[DE93-006362] 10 p3106 N93-26669
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
Diffusion-accelerated solution of the 2-D S(sub n) equations with bilinear-discontinuous differencing
[DE93-008793] 10 p3117 N93-27621
The Monte Carlo/S(sub N) hybrid method with orthogonal interface basis vectors
[DE93-005462] 10 p3104 N93-28299
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913

Fixed point iterations for quasi-contractive maps in uniformly smooth Banach spaces
[DE92-641348] 11 p3552 N93-30942
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141
Termination criteria for GMRES-like methods to solve the discretized incompressible Navier-Stokes equations
[REPT-92-50] 12 p3724 N93-31484
On waveform multigrid method
[NASA-CR-191455] 12 p3808 N93-31843
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286

IUE
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects
[NASA-RP-1285] 03 p0744 N93-13461
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
Ultraviolet spectra of stars and stellar systems
04 p1011 N93-14593
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
International Ultraviolet Explorer (IUE)
[NASA-CR-191952] 05 p1359 N93-17029
UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data
05 p1368 N93-17113
ROSAT-IUE All Sky Survey (RIASS): First results on active galaxies 05 p1369 N93-17117
The quasar 1821+643 during the ROSAT survey
05 p1361 N93-17119
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
IUE-ULDA access guide no. 3: International Ultraviolet Explorer-Uniform Low Dispersion Archive: Normal galaxies
[ESA-SP-1152] 07 p2094 N93-20541
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015
The IUE archive(s) 08 p2535 N93-23895
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
IUE observations of cataclysmic variable
[NASA-CR-193188] 11 p3629 N93-28634
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

IZSAK ELLIPSOID
U ELLIPSOIDS
U GEODESY

J

J INTEGRAL
Dynamic measurement of the J integral in ductile metals using the optical method of caustics
01 p0049 N93-10492
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Predicting the failure load of adhesive joints
07 p1932 N93-20655
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147

J-52 ENGINE
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
An analysis of the correlation between the J52 engine component improvement program and improved maintenance parameters
[AD-A262062] 11 p3251 N93-28984

JACKETS
Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221

JACKS (ELECTRICAL)
U ELECTRIC CONNECTORS

JACOBI MATRIX METHOD
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Some inverse problems for Jacobi and arrow matrices
[AD-A262336] 10 p3118 N93-27644
Transformation of the Kepler problem
10 p3156 N93-28068
A functional implementation of the Jacobi eigen-solver
[DE93-007349] 11 p3549 N93-29769
Parallel Jacobi iteration in implicit step-by-step methods
[CWI-NM-R9218] 12 p3810 N93-32394

JACOBI POLYNOMIALS
U HYPERGEOMETRIC FUNCTIONS

JAHN-TELLER EFFECT
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341

JAMMERS
Evaluation of radar performance degradation due to standoff jamming
[AD-A257316] 05 p1137 N93-15983
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
Detection of active emitters using triangulation and trilateration techniques: Theory and practice
08 p2267 N93-23612

JAMMING
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Evaluation of radar performance degradation due to standoff jamming
[AD-A257316] 05 p1137 N93-15983
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
Communication interference/jamming and propagation analysis system and its application to radio location
08 p2269 N93-23621
Modified Acousto-Optic Adaptive Processor (Mod-AOAP)
[AD-A261983] 11 p3381 N93-28997
Coarse synchronization in an EHF frequency-hopped satellite communications system
11 p3365 N93-30281
Adaptive jammer nulling in EHF communications satellites 11 p3365 N93-30284
Performance of frequency hopped M-ary FSK in Rayleigh fading and partial-band jamming
11 p3368 N93-30303
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514

JAPAN
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
JARE data reports no. 179 (meteorology 29). Meteorological data at Asuka Station, Antarctica in 1990
03 p0663 N93-13287
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Report of the Kakioka Magnetic Observatory, geomagnetism, Kakioka Memambetsu Kanoya, Chichijima, 1991
[JMA-159] 07 p2000 N93-21746
Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013
Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892
Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan
[PB93-165249] 09 p2641 N93-26589
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects
[PB93-181261] 11 p3410 N93-29671
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810

JAPANESE SPACE PROGRAM
Spacelab J: Microgravity and life sciences
[NASA-CR-191353] 03 p0516 N93-13564
Japanese space activities 07 p1976 N93-21274
Overview of ISY plan 08 p2334 N93-22120
Japanese plan for SSF utilization
08 p2184 N93-22616
NASDA's Earth observation satellite program
08 p2357 N93-23751
NASDA's Earth observing programs and the contribution to resolving global environment programs
08 p2372 N93-23846
JEM program status 08 p2155 N93-24339
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
Mars exploration mission 10 p2953 N93-28045

JAPANESE SPACECRAFT
NT GINGA SATELLITE

Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on Earth observing satellite system: Conceptual study of Advanced Earth Observing Satellite-2 (ADEOS-2) 07 p1790 N93-20415
Research on HOPE 07 p1791 N93-20423
HOPE information system review 07 p1791 N93-20425
Research on heat-resistance technology for HOPE 07 p1791 N93-20426
Research on HOPE flight control technology 07 p1787 N93-20427
Research on combined HOPE navigation technology 07 p1792 N93-20428
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Research on HOPE actuator power unit 07 p1792 N93-20430
Research on HOPE heat sink device 07 p1792 N93-20431
Orbit re-entry experiment vehicle development 07 p1792 N93-20432
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6 07 p1793 N93-20434
Development of satellite borne nickel hydrogen battery experiment equipment for ETS-6 07 p1793 N93-20435
Conceptual study of ETS-7 07 p1793 N93-20437
Research on rendezvous and docking technology 07 p1794 N93-20438
Research on docking mechanism system test 07 p1794 N93-20439
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
Research on advanced spacecraft testing technology 07 p1796 N93-20452
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
Japanese space activities 07 p1976 N93-21274
Report on microgravity experiment by TR-1A rocket [NASDA-EG-920021] 07 p1875 N93-21950
Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121
MOS-1 08 p2340 N93-22442
NASDA's Earth observation satellite program 08 p2357 N93-23751
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Manned engineering test satellites 10 p2948 N93-28016
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Artificial gravity experiment satellites 10 p2949 N93-28018
Linearly connected solar power satellite 10 p2949 N93-28019
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Conceptual study of debris observation and arresting experiment satellite 10 p2950 N93-28024
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025
Conceptual study of fly-back booster 10 p2950 N93-28026
Fly-back booster 10 p2950 N93-28027
Conceptual study of fly-back booster 10 p2950 N93-28028
Conceptual study of manned lunar transportation system 10 p2951 N93-28030
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover 10 p2951 N93-28032
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites 10 p2952 N93-28037
Moon revolving observation satellite 10 p2952 N93-28038
Conceptual study of lunar roving explorer 10 p2952 N93-28040
Lunar surface roving explorer 10 p2952 N93-28041
Lunar surface roving explorer 10 p2952 N93-28042
Conceptual study of lunar landing modules 10 p2952 N93-28043
Mars revolving observation satellite 10 p2953 N93-28047

JARRING
U MECHANICAL SHOCK

JC-130 AIRCRAFT
U C-130 AIRCRAFT

JEEPS
U AUTOMOBILES

JET AIRCRAFT
NT A-6 AIRCRAFT
NT A-7 AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 747 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT C-130 AIRCRAFT
NT C-135 AIRCRAFT
NT C-160 AIRCRAFT
NT CL-84 AIRCRAFT
NT CONCORDE AIRCRAFT
NT E-2 AIRCRAFT
NT EUROPEAN AIRBUS
NT F-4 AIRCRAFT
NT F-14 AIRCRAFT
NT F-15 AIRCRAFT
NT F-16 AIRCRAFT
NT F-18 AIRCRAFT
NT F-104 AIRCRAFT
NT F-117A AIRCRAFT
NT MIRAGE AIRCRAFT
NT P-3 AIRCRAFT
NT T-38 AIRCRAFT
NT TURBOFAN AIRCRAFT
NT TURBOPROP AIRCRAFT
NT U-2 AIRCRAFT
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
Calculation of noise emission caused by jet aircraft during takeoff, approach and horizontal flyover
[DLR-MITT-91-15] 07 p2061 N93-21368
Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives. Intelligence programs: New RC-135 aircraft engines can reduce cost and improve performance
[AD-A259283] 08 p2105 N93-22397
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
World jet airplane inventory at year-end 1992
[PB93-174324] 10 p2928 N93-27405

JET AIRCRAFT NOISE
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction 01 p0149 N93-10674
Noise emission of low flying military airplanes 01 p0149 N93-10675
Combat aircraft noise 01 p0149 N93-10676
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Combat aircraft jet engine noise studies 01 p0150 N93-10679
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Audibility-based annoyance prediction modeling 01 p0151 N93-10683
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Combat aircraft noise reduction by technical measures 01 p0152 N93-10689
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft 01 p0152 N93-10690
Study results on combat aircraft source noise reduction 01 p0152 N93-10691
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
Propagation of high frequency jet noise using geometric acoustics
[NASA-TM-106013] 04 p0975 N93-15575
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Jet mixer noise suppressor using acoustic feedback
[NASA-CASE-LEW-15170-1] 11 p3561 N93-28953
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975
Engine exhaust characteristics evaluation in support of aircraft acoustic testing
[NASA-TM-104263] 12 p3682 N93-32220
Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221
The prediction of noise from co-axial jets
[ISVR-TR-215] 12 p3817 N93-32339

JET AIRSTREAMS
U JET STREAMS (METEOROLOGY)

JET AUGMENTED WING FLAPS
U JET FLAPS
U WING FLAPS

JET BOUNDARIES
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473

JET CONTROL
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079

JET DAMPING
U DAMPING
U SPIN REDUCTION

JET DRIVE
U JET PROPULSION

JET ENGINE FUELS
NT JP-4 JET FUEL
NT JP-5 JET FUEL
NT JP-8 JET FUEL
Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247
Exhaust emissions from diesel engines
[DE93-752852] 08 p2384 N93-22805
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902
Influence of supercritical conditions on pre-combustion chemistry and transport behavior of jet fuels
[AD-A261813] 09 p2661 N93-26268
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402

JET ENGINES
NT DUCTED FAN ENGINES
NT INTEGRAL ROCKET RAMJETS
NT J-52 ENGINE
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087

Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
The Trent family of engines
[PNR-90974] 02 p0211 N93-11063
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Development of an engine/airframe performance matching scheme for jet engine retrofit
[AD-A258822] 06 p1449 N93-18997
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Conceptual design study of a variable cycle engine for a supersonic business jet
[ETN-93-93486] 08 p2130 N93-23371
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

JET EXHAUST
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124

JET FLAMES
U FLAMES
U JET FLOW

JET FLAPS
Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503

JET FLIGHT
U JET AIRCRAFT

JET FLOW
NT AIR JETS
NT SUPERSONIC JET FLOW
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields 01 p0016 N93-10010
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2 02 p0304 N93-11881
Chaotic vortical motion in the near region of a plane jet 03 p0493 N93-13493
Dynamics of vortex rings in cross-flow 03 p0496 N93-13917
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
An investigation of the near and induced flow fields of an axially symmetric jet, issuing normal to a plane surface, into a quiescent medium 06 p1533 N93-19041
CCD imaging of the inner coma jets of comet P/Halley 06 p1702 N93-19133
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Study of multi jet burner for gases
[INPE-5416-TDI/480] 07 p1846 N93-20320
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
An experimental investigation of a round turbulent jet in a cross-flow 07 p1905 N93-20689
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Spatial development of chaos in an open flow system 08 p2515 N93-24293
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds 09 p2577 N93-25487
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
Plasma/particle interaction in subsonic argon/helium thermal plasma jets
[DE93-010808] 11 p3589 N93-30181
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124
Time accurate simulations of compressible shear flows
[NASA-CR-193410] 12 p3728 N93-32371

JET FUELS
U JET ENGINE FUELS

JET IMPINGEMENT
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
The +vbar breakout during approach to Space Station Freedom
[NASA-TM-104772] 11 p3269 N93-30135

JET LAG
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
The effects of an antijet lag diet 12 p3781 N93-32263

JET MIXING FLOW
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Combat aircraft noise reduction by technical measures 01 p0152 N93-10689
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer 03 p0593 N93-14057
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds 09 p2577 N93-25487
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Experimental investigation of crossflow jet mixing in a rectangular duct
[NASA-TM-106152] 10 p2943 N93-27026
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160
Experimental study of cross flow mixing in cylindrical and rectangular ducts
[NASA-CR-187141] 10 p2945 N93-27680
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
On the development of a film cooling layer 11 p3258 N93-29959
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672
The prediction of noise from co-axial jets
[ISVR-TR-215] 12 p3817 N93-32339
Time accurate simulations of compressible shear flows
[NASA-CR-193410] 12 p3728 N93-32371

JET NOISE
U JET AIRCRAFT NOISE

JET NOZZLES
Supersonic confined jet nozzles 01 p0016 N93-10009
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400

JET PILOTS
U AIRCRAFT PILOTS

JET PROPULSION
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671

JET PUMPS
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956

JET STREAMS (METEOROLOGY)
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-191365] 03 p0654 N93-13719
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
Intraseasonal relationships between tropical heating and extratropical jets
[AD-A260212] 08 p2408 N93-24004
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284

JET THRUST
Supersonic confined jet nozzles 01 p0016 N93-10009
Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416

JET VANES
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046

JETAVATORS
U GUIDE VANES
JETTISONING
Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report
[NASA-CR-167698] 04 p0815 N93-15474
JFET
A novel charge sensitive preamplifier without the feedback resistor
[DE92-015842] 01 p0074 N93-10731
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
JIGS
Research on space coolers 07 p1794 N93-20442
JITTER
U VIBRATION
JOBS
U TASKS
JOINED WINGS
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
Structural and aerodynamic optimization of joined-wing aircraft 09 p2588 N93-25526
JOINING
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
JOINTS (ANATOMY)
NT ELBOW (ANATOMY)
NT KNEE (ANATOMY)
NT WRIST
JOINTS (JUNCTIONS)
NT BOLTED JOINTS
NT BONDED JOINTS
NT BUTT JOINTS
NT LAP JOINTS
NT METAL JOINTS
NT RIVETED JOINTS
NT SEAMS (JOINTS)
NT SOLDERED JOINTS
NT SPOT WELDS
NT WELDED JOINTS
Vibration of a damped double-beam system 01 p0056 N93-10527
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
The theoretical background to BS7167: 1990 - specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
The technical background to standards for shackles
[NPL-DMM(A)-51] 02 p0325 N93-11325
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
Fracture analyses of thin films, interfaces, and joints 04 p0897 N93-14215
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Design of joints for damped structures 05 p1084 N93-15776
Calibration of the Aronson 6-DOF robotic platform
[NASA-CR-191856] 05 p1087 N93-16661
Double-V block fingers with cruciform recess
[NASA-CASE-GSC-13356-2] 05 p1180 N93-17625
An experimental examination of the thermal and acoustic environments on runway joint seals
[AD-A257965] 05 p1073 N93-17734
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
Kinematic analysis of the ARID manipulator 06 p1552 N93-19393
Redundant drive current imbalance problem of the Automatic Radiator Inspection Device (ARID) 06 p1552 N93-19398
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Structural shape optimization of robotic links 07 p1918 N93-20717
Numerical finite element analysis of damage using Monte Carlo techniques 07 p1842 N93-21522
Robot friendly probe and socket assembly
[NASA-CASE-MSC-22028-1] 07 p1917 N93-22007
Quick acting gimbal joint
[NASA-CASE-MSC-21918-1] 08 p2314 N93-23076
The consequence of joint failures 08 p2212 N93-23941
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements
[NASA-CR-192518] 09 p2631 N93-26057
The fatigue behaviour of T- and X-joints made of square hollow sections
[ETN-93-93598] 10 p3058 N93-27872
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix B: Case, seals, and joints PFORs
[NASA-CR-192564] 11 p3272 N93-30619
Development of an experimental method to determine the axial rigidity of a strut-node joint 11 p3290 N93-30950
JORDAN FORM
Calculation of the Jordan form of a matrix with rational coefficients (using the formal computation system Axiom)
[RR-882-M] 07 p2051 N93-20782
JOSEPHSON JUNCTIONS
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151
Dynamical properties of Josephson Junctions arrays
[AD-A255464] 04 p0995 N93-15351
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
High temperature superconductivity
[AD-A259692] 08 p2283 N93-24023
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes 09 p2889 N93-25440
Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194
Advanced HTS S-N-S devices
[AD-A261552] 09 p2869 N93-26381
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz 10 p3014 N93-27749
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies 10 p3016 N93-27758
Noise in Josepson effect mixers and the RSJ model 10 p3016 N93-27762
Fabrication and characterization of high current-density, submicron, NbN/MgO/NbN tunnel junctions 10 p3017 N93-27763
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Source conductance scaling for high frequency superconducting quasiparticle receivers 10 p3018 N93-27771
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-010416] 11 p3594 N93-29249
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190
Homoclinic twist bifurcations with Z2 symmetry
[W-9215] 12 p3807 N93-31627
JOULE HEATING
U OHMIC DISSIPATION
U RESISTANCE HEATING
JOURNAL BEARINGS
An experimental technique for performing 3-D LDA measurements inside whirling annular seals 01 p0093 N93-10894
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
High temperature superconducting bearings for mechanical coolers
[AD-A259316] 07 p1916 N93-21699
Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
JOURNALS (DOCUMENTS)
U PERIODICALS
JOURNALS (SHAFTS)
U SHAFTS (MACHINE ELEMENTS)
JP-4 JET FUEL
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors
[AD-A258020] 06 p1496 N93-17917
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
JP-5 JET FUEL
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
JP-8 JET FUEL
Field demonstration of aviation turbine fuel MIL-T-83133C, grade JP-8 (NATO code F-34), at Fort Bliss, TX
[AD-A256945] 05 p1129 N93-16431
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels data sets
[AD-A260220] 08 p2220 N93-22917
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
JUDGMENTS
Measures of user-system interface effectiveness: Assessment of structured judgment evaluation techniques for graphical, direct-manipulation style interfaces
[AD-A254493] 03 p0677 N93-12576
The formal use of expert judgments in environmental management
[DE92-019481] 05 p1199 N93-15852
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
Decision paths in complex tasks
[NASA-CR-192121] 06 p1603 N93-18359
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Quantification of human responses 11 p3500 N93-29564

JUNCTION DIODES
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
High speed imaging for flash radiography using PIN diodes
[DE92-040959] 04 p0882 N93-15381
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962

JUNCTION FIELD EFFECT TRANSISTORS
U JFET

JUNCTION TRANSISTORS
NT JFET
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893

JUNGLES
U TROPICAL REGIONS

JUPITER (PLANET)
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
Multispectral observations of the Jovian aurora
02 p0487 N93-11167
The time variability of Jupiter's synchrotron radiation
04 p0973 N93-14227
An algorithm to quantify the performance of the JOVE program
05 p1254 N93-17306
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception
06 p1458 N93-18910
Asteroid-type orbit evolution near the 5:2 resonance
06 p1708 N93-19171
Evolution of the Quadrantid meteor stream
06 p1708 N93-19177
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358
Numerical simulation of the Jovian torus-driven plasma transport
08 p2554 N93-23403
Solar system observations with HST
08 p2534 N93-23889

JUPITER ATMOSPHERE
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
The role of proton precipitation in Jovian aurora: Theory and observation
02 p0487 N93-11165
Multispectral observations of the Jovian aurora
02 p0487 N93-11167
The Jovian ionosphere 03 p0758 N93-13337
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude
03 p0759 N93-13625
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn
04 p1022 N93-14179
Numerical simulation of baroclinic Jovian vortices
04 p1046 N93-14865
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
The vicinity of Jupiter: A region to look for comets
06 p1719 N93-19253
Laboratory and theoretical models of planetary-scale instabilities and waves
07 p2004 N93-20074
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
Possible power sources for the Jovian polar infrared hot spots
08 p2554 N93-23221

JUPITER PROBES
NT GALILEO SPACECRAFT

JUPITER RED SPOT
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations
04 p1022 N93-14146

JUPITER SATELLITES
NT EUROPA
NT GALILEAN SATELLITES
NT IO

K

K BAND
U EXTREMELY HIGH FREQUENCIES

K LINES
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies
05 p1360 N93-17095
Global solar intensity oscillations near solar maximum
08 p2557 N93-23492

K-EPSILON TURBULENCE MODEL
Turbulence modeling of the flow field in combustors using the non-linear k-epsilon model
[DE92-014745] 01 p0080 N93-10330
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
On the prediction of turbulent secondary flows
[NASA-CR-189722] 03 p0575 N93-12717
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14758
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
Analysis of film cooling in rocket nozzles
[NASA-CR-192003] 06 p1473 N93-18518
On the numerical approximation of the k-epsilon turbulence model for two dimensional compressible flows
[INRIA-RR-1526] 06 p1530 N93-18622
Study of a turbulent boundary layer modified by the insertion of a Large Eddy Break Up (LEBU) device
[ECL-92-11] 07 p1898 N93-20061
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Navier-Stokes computation of compressible turbulent flows with a second order closure, part 1
[NASA-CR-192287] 08 p2288 N93-22604
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Predictive modeling of particle-laden, turbulent flows
[DE93-008208] 09 p2698 N93-25309
Studies in air/air supersonic mixing layers
09 p2582 N93-26007
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
Calculations of turbulent separated flows
[NASA-TM-106154] 10 p3039 N93-27161
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
The numerical simulation of circulation controlled airfoil flowfields 11 p3243 N93-30947
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200

K-MESONS
U KAONS

K-T BOUNDARY
U CRETACEOUS-TERTIARY BOUNDARY

KA BAND
U EXTREMELY HIGH FREQUENCIES

KALMAN FILTERS
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Accuracy improvement of linear estimated motion using differential type sensors
[NAL-TR-1135] 02 p0314 N93-12365
Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
Two-stage target tracking system and method
[AD-D015412] 04 p0982 N93-14880
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
Correction of inertial measurements using GPS updates for underwater navigation
[AD-A257329] 05 p1058 N93-15988
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Discrete time system piecewise linear filtering with small observation noise
[INRIA-RR-1451] 06 p1633 N93-18611
An application of the Observer/Kalman Filter Identification (OKID) technique to Hubble flight data
06 p1462 N93-18825
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
Failure identification using multiple model adaptive estimation for the LAMBDA flight vehicle
[AD-A259137] 07 p1787 N93-20596
Multivariable frequency response methods for optimal Kalman-Bucy filters with applications to radar tracking systems 08 p2255 N93-22024
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
08 p2151 N93-22316
Optimization of the integration of inertia and GPS
08 p2120 N93-22787
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
An hierarchic alliance of filters for fault tolerant navigation using two inertial systems with aiding sensors
08 p2121 N93-22793
Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377
Precise flight navigation by integration of global positioning system and inertial measurement units
08 p2124 N93-23523
Localization system based on data merging of images and inertia 08 p2269 N93-23623
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
Testing of the on-board attitude determination and control algorithms for SAMPEX
09 p2600 N93-24698
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709

Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Rate determination from vector observations 09 p2603 N93-24713
Scalar gain interpretation of large order filters 09 p2606 N93-24729
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Orbital parameter estimation using an extended Kalman filter
[AD-A260618] 09 p2608 N93-25636
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
System for calibrating a gyro navigator
[AD-D015668] 09 p2586 N93-26093
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
PDE: Differential, geometric and algebraic methods in nonlinear filtering
[AD-A260967] 09 p2829 N93-26222
More rain compensation results 09 p2686 N93-26486
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911
Filtering, statistical signal processing and variational problems
[AD-A262276] 10 p3028 N93-28238
Using pseudo Kalman-filters in the presence of constraints application to sensing behaviors
[INRIA-RR-1669] 10 p3122 N93-28442
An autonomous vision-based mobile robot 11 p3443 N93-29082
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
Optimal filtering and LQR theory with constraints on system and control matrices 11 p3357 N93-30234
Estimation and control in discrete-time nonlinear systems 12 p3797 N93-31071
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085

KAMPUCHEA
U CAMBODIA

KANSAS
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285

KAONS
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
On a possible non-Lorentzian energy-dependence of the K neutral(sub S)
[PREPRINT-807] 07 p2053 N93-20903
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Topics in CP violation
[DE93-007615] 09 p2847 N93-25323
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
Leading non-logarithmic contribution to the electropenguin diagram and phenomenology of kaon decays
[SSCL-PREPRINT-745] 10 p3137 N93-28388

KAPPA-EPSILON TURBULENCE MODEL
U K-EPSILON TURBULENCE MODEL

KAPTON (TRADEMARK)
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings 07 p1849 N93-20821
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
An XPS study of space-exposed polyimide film 10 p3007 N93-28267
An explosively actuated electrical switch using Kapton insulation
[AD-A263835] 11 p3411 N93-30021

KARHUNEN-LOEVE EXPANSION
Frequency domain speech compression using the Karhunen-Loeve Transform
[AD-A262613] 11 p3379 N93-28476

KARMAN VORTEX STREET
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242

KC-130 AIRCRAFT
U C-130 AIRCRAFT

KC-135 AIRCRAFT
U C-135 AIRCRAFT

KEELS
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials 11 p3303 N93-30845

KELVIN-HELMHOLTZ INSTABILITY
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
Structure and dynamics of the magnetopause 08 p2400 N93-24296
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Plasma transport through magnetic boundaries 12 p3827 N93-31692

KENTUCKY
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286

KENYA
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population 02 p0381 N93-11307
The extent and status of mangroves in Mombasa district, Kenya: A case study based on remote sensing 09 p2746 N93-24826

KEPLER LAWS
Transformation of the Kepler problem 10 p3156 N93-28068

KERNEL FUNCTIONS
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
On ascertaining inductively the dimension of the joint kernel of certain commuting linear operators
[AD-A254748] 03 p0696 N93-12847
Identification of parametric finite element models using experimental modal data
[PB92-217819] 03 p0558 N93-12976
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
Mathematical software under UNICOS at LCC
[DE93-001828] 04 p0952 N93-15493
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves
[NASA-TM-105918] 04 p0880 N93-15499
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
Calculate categorically
[CWI-CS-R9132] 05 p1268 N93-16850
Fixed and data adaptive kernels in Cohen's class of time-frequency distributions
[AD-A257979] 06 p1649 N93-18195
Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Well-posedness and stabilizability of a viscoelastic equation in energy space
[PB93-111920] 07 p2056 N93-21474
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389
Asynchronous communication in process algebra (extended abstract)
[CWI-CS-R9206] 10 p3098 N93-27551
Some new results for chain-sequence polynomials
[MEMO-1081] 12 p3806 N93-31515

KERR MAGNETOOPTICAL EFFECT
Optical instrumentation and characterization for magneto-optical recording media 04 p0980 N93-14168
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media 04 p0984 N93-15509
Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling
[DE93-000607] 05 p1319 N93-16278
Femtosecond dynamics in hydrogen-bonding solvents: Formamides
[DE93-003476] 09 p2643 N93-25123

KETONES
NT ACETONE
Synthesis and conductivity of copolymer of 4,4'-diaminodiphenylamine and terephthaloyl chloride
[AD-A254880] 02 p0273 N93-12440

KEVLAR (TRADEMARK)
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
ASRM case insulation design and development
[NASA-CR-191947] 05 p1090 N93-16605
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651

KEYING
NT BINARY PHASE SHIFT KEYING
NT FREQUENCY SHIFT KEYING
NT PHASE SHIFT KEYING
NT QUADRATURE PHASE SHIFT KEYING

KIMBERLITE
U PERIDOTITE

KINEMATIC EQUATIONS
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices 01 p0066 N93-10577
Enhanced accuracy for closed-loop robot 03 p0617 N93-13808
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode 11 p3280 N93-29992

KINEMATICS
NT BODY KINEMATICS
NT INVERSE KINEMATICS
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks 02 p0330 N93-11967
Nonholonomic motion of free-flying space robots 03 p0615 N93-13638
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Modern methods in meteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496

Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU] 05 p1261 N93-17275
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
Motion planning for rigid body robots
[AD-A257557] 06 p1544 N93-17980
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Nonlinear magnetohydrodynamics
[DE93-003241] 06 p1665 N93-18407
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
On the information contained in the motion field of lines and the cooperation between motion and stereo
[INRIA-RR-1453] 06 p1537 N93-18647
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
Computational kinematics of multi-arm manipulators 06 p1549 N93-19033
Calibration of the ARID robot 06 p1552 N93-19394
Development and flight testing of the multi-source integration algorithms in the F/A-18 mission computer software 06 p1445 N93-19923
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
SSG 1.105: GPS kinematic positioning methods and applications 07 p1970 N93-20967
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
A study of four-jet events and search for double parton interactions at square root of s = 1.8 TeV
[DE93-005973] 08 p2480 N93-22693
Kinematics and dynamics of robotic systems with multiple closed loops 08 p2318 N93-24218
Rate determination from vector observations 09 p2603 N93-24713
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis 09 p2724 N93-25273
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
Studies in air/air supersonic mixing layers 09 p2582 N93-26007
The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem 10 p3188 N93-26810
Kinematics of compact groups and morphologies of the member galaxies 10 p3193 N93-26835
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging 10 p3086 N93-27848
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210

KINESCOPES
U PICTURE TUBES

KINESTHESIS
U PROPRIOCEPTION

KINETIC ENERGY
A new energy transfer model for turbulent free shear flow
[NASA-TM-105854] 01 p0081 N93-10454
Airblast damage from small asteroids
[DE92-017834] 03 p0749 N93-12956
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
An experimental investigation of the three-dimensional boundary layer on a rotating disk 03 p0589 N93-13806
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows 05 p1152 N93-15793
PDF turbulence modeling and DNS 05 p1153 N93-15794
A dynamic study of fragmentation and energy loss during high velocity impact
[NASA-CR-184476] 05 p1186 N93-16696
Muon rates at the LHC
[NOTA-INTERNA-971] 05 p1300 N93-17645
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
A comparison of intense extratropical cyclone life cycles from diverse geographical locations 07 p2011 N93-20278
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
Energy dissipator
[NASA-CASE-MSC-21555-1] 08 p2314 N93-23075
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
An investigation of the role of flux divergence in the turbulent kinetic energy balance of the atmospheric surface layer 09 p2773 N93-25756
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630
Spectral energetics of the lower thermosphere 11 p3477 N93-29467
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations 12 p3857 N93-31705
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028
Technique for measuring the spin rate of kinetic energy projectiles
[AD-A264114] 12 p3717 N93-32031

KINETIC EQUATIONS
NT HYDRODYNAMIC EQUATIONS
NT KINEMATIC EQUATIONS
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients 10 p2981 N93-26960
Moment approach to fast ion neoclassical transport and viscous forces
[DE93-753305] 11 p3585 N93-28979
Bounds on internal state variables in viscoplasticity
[NASA-TM-106215] 11 p3451 N93-29196

KINETIC FRICTION
NT SLIDING FRICTION

KINETIC HEATING
NT AERODYNAMIC HEATING
NT SHOCK HEATING
Mechanical behaviour of fiber-reinforced ceramic matrix composites 03 p0532 N93-13527

KINETIC THEORY
NT MIXING LENGTH FLOW THEORY
NT TRANSPORT THEORY
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Kinetic theory of toroidicity and ellipticity-induced Alfven eigenmodes
[DE93-003634] 07 p2077 N93-21995
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
An extension of a kinetic theory of polymer crystallization through the exclusion of negative barriers
[AD-A264810] 11 p3334 N93-29660
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796

KINETICS
NT ELECTROKINETICS
NT KINETIC ENERGY
NT NEWTON THEORY
NT REACTION KINETICS
NT VARIABLE MASS SYSTEMS
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
Occupant kinematics simulation of the Kegworth air accident 06 p1423 N93-19662
Photochemical observation of ion flows in membrane channels
[AD-A259869] 08 p2219 N93-22731
Adsorption kinetics at liquid-liquid interfaces in microgravity conditions. Experimental approach and theoretical background 08 p2248 N93-22843
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-192624] 08 p2292 N93-23220
Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083

The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
Kinetics of adsorption from liquid phase on activated carbon
[ETN-93-94042] 12 p3703 N93-31521
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

KIRCHHOFF-HELMHOLTZ FLOW
U PIPE FLOW

KIRCHHOFF-HUYGENS PRINCIPLE
U DIFFRACTION
U WAVE PROPAGATION

KITE BALLOONS
U TETHERED BALLOONS

KITS
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061

KLEBSIELLA
AFRRI reports
[AD-A254581] 03 p0674 N93-12649

KLEIN-GORDON EQUATION
On the spring and mass of the Dirac oscillator
10 p3146 N93-27355

KLYSTRONS
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves
[DE92-015974] 02 p0293 N93-12089
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
Common analysis of the Relativistic Klystron and the Standing-Wave Free-Electron Laser two-beam accelerator
[DE92-041205] 05 p1173 N93-16529
High power microwave generator
[AD-D015560] 07 p1891 N93-20783
Transverse instabilities in a relativistic klystron two-beam accelerator
[DE93-007110] 09 p2852 N93-25375
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Improvements in X-band transmitter phase stability through Klystron body temperature regulation
09 p2678 N93-26114
New results and applications for the quasioptical gyrotron
[AD-A261961] 10 p3046 N93-27950
Accelerator research studies
[DE93-009353] 11 p3573 N93-28522
Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880

KNEE (ANATOMY)
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085

KNIGHT SHIFT
U NUCLEAR MAGNETIC RESONANCE

KNOWLEDGE
NT PARADOXES
NT PHILOSOPHY
Knowledge and regularity in planning
[NASA-TM-108113] 04 p0965 N93-15293
A brief survey of zero-knowledge proofs
[CWI-CS-R9232] 10 p3101 N93-27996

KNOWLEDGE BASED SYSTEMS
NT EXPERT SYSTEMS
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
Knowledge-based systems for computational control
[AD-A260409] 08 p2527 N93-24110
How far we are from the complete knowledge: Complexity of knowledge acquisition in Dempster-Shafer approach
[NASA-CR-192944] 09 p2874 N93-25139
How to help intelligent systems with different uncertainty representations cooperate with each other
[NASA-CR-192947] 09 p2818 N93-25196
Min and max are the only continuous ampersand-, V-operations for finite logics
[NASA-CR-192952] 09 p2820 N93-25452
Multi-viewpoint clustering analysis
09 p2825 N93-25980
Knowledge-based decision support for Space Station assembly sequence planning
[NASA-CR-193048] 09 p2599 N93-26095
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603
Constraints logic programming in knowledge-based planning domains
[AD-A262958] 10 p3104 N93-28291
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
Cognitive interface considerations for intelligent cockpits 11 p3503 N93-28865
DataHub knowledge based assistance for science visualization and analysis using large distributed databases 11 p3613 N93-29230
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications
11 p3510 N93-29520
Fuzzy knowledge base construction through belief networks based on Lukasiewicz logic
11 p3515 N93-29550
Life insurance risk assessment using a fuzzy logic expert system 11 p3520 N93-29585
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
Knowledge-based framework for an automated user interface presentation design tool
12 p3836 N93-31135
Temporal and spatial analysis in knowledge-based physics problem-solving 12 p3814 N93-31651
Creating a structured knowledge base by parsing natural language text 12 p3839 N93-31854
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138
Knowledge based document retrieval in office environments: The Kabiria system
[REPT-92-032] 12 p3843 N93-32389
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

KNOWLEDGE BASES (ARTIFICIAL INTELLIGENCE)
Analysis of observation report databases/knowledge bases
[AD-A252636] 01 p0172 N93-10428
A knowledge-based blackboard system to interpret graphical data from vibration tests of gas turbines
[PNR-90993] 02 p0212 N93-11114
Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
A rule-based system for real-time analysis of control systems
[NASA-TM-104258] 02 p0277 N93-11619
Hypertext functionality: A theoretical framework
02 p0478 N93-11858
An expert system for diagnosing environmentally induced spacecraft anomalies 02 p0230 N93-11927
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11928
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Fuzzy logic control for camera tracking system
02 p0314 N93-11935
Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936
The development and technology transfer of software engineering technology at NASA. Johnson Space Center
02 p0396 N93-11943
System diagnostic builder 02 p0396 N93-11944
Knowledge-based system V and V in the Space Station Freedom program 02 p0396 N93-11945
Manager's assistant systems for space system planning 02 p0398 N93-11952
Query optimization and planning in object-oriented knowledge bases
[AD-A256006] 04 p1008 N93-15254
Annotating the real world with knowledge-based graphics on a see-through head-mounted display
04 p0954 N93-15543
Tradeoffs in the utility of learned knowledge
[NASA-TM-108111] 05 p1242 N93-16750
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Model-based software design
05 p1249 N93-17514
Description of research interests and current work related to automating software design
05 p1249 N93-17515
Knowledge-intensive software design systems: Can too much knowledge be a burden?
05 p1250 N93-17518
A domain-specific design architecture for composite material design and aircraft part redesign
05 p1250 N93-17522
Knowledge modeling for software design
05 p1251 N93-17525
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
The Schoenmaker's paradox: Its solution in a belief dependence framework
[LP-91-05] 05 p1273 N93-17725
Belief dependence, revision and persistence
[LP-91-06] 05 p1273 N93-17727
Using conceptual clustering to learn about function, structure, and behavior in design
[INRIA-RR-1401] 06 p1633 N93-18573
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations
06 p1634 N93-18660
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Patterns for knowledge discovery in databases
06 p1688 N93-19712
Extracting knowledge from data: SYS8688 approach
06 p1688 N93-19715
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Discovery of physical principles from design experiences 06 p1690 N93-19722
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Knowledge acquisition from examples with mixed attributes 06 p1691 N93-19729
A knowledge-based system for satellite imagery segmentation
[INPE-5296-PRE/1701] 06 p1568 N93-19834
Research in text processing
[AD-A259434] 07 p2087 N93-20010
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
Intelligent processing equipment within the Environmental Protection Agency
[PB92-217330] 07 p1989 N93-21011
Knowledge-based consulting system for dynamic network security control
[ETN-93-93420] 07 p2028 N93-21069
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
Application of fuzzy set and Dempster-Shafer theory to organic geochemistry interpretation
08 p2450 N93-22212
Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285
Fuzzy logic controllers: A knowledge-based system perspective 08 p2453 N93-22352
An expert system for the diagnostic and maintenance of various aircraft components
[MBB-FE-363-S-PUB-0499] 08 p2105 N93-22392

Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Access methods for large, multifunctional knowledge bases 08 p2525 N93-23381
How far we are from the complete knowledge: Complexity of knowledge acquisition in Dempster-Shafer approach
[NASA-CR-192944] 09 p2874 N93-25139
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
Development of a heuristic knowledge base for the selection of applicable or relevant and appropriate environmental requirements
[AD-A261038] 09 p2765 N93-25864
Knowledge-based machine indexing from natural language text: Knowledge base design, development, and maintenance
[NASA-CR-4523] 10 p3164 N93-26902
Efficient model-based diagnosis of dynamic systems with state
[MEMO-INF-92-53] 10 p3096 N93-27488
Introduction to cadet center for advanced data evaluation technology 11 p3614 N93-29240
Parallel inferencing method and apparatus for rule-based expert systems
[NASA-CASE-NPO-18004-1-CU] 11 p3521 N93-29504
Approximate reasoning using terminological models 11 p3510 N93-29522
Fuzzy knowledge base construction through belief networks based on Lukasiewicz logic 11 p3515 N93-29550
Probabilistic load simulation: Code development status 12 p3694 N93-31564
Expert system development for probabilistic load simulation 12 p3695 N93-31570
Creating a structured knowledge base by parsing natural language text 12 p3839 N93-31854
Advanced Artificial Intelligence Technology Testbed 12 p3801 N93-32126
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127
The Knowledge-Based Software Assistant: Beyond CASE 12 p3794 N93-32156

KNOWLEDGE REPRESENTATION
Hypertext functionality: A theoretical framework 02 p0478 N93-11858
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
Methodologies for building robust schedules 02 p0397 N93-11949
COMPASS: An Ada based scheduler 02 p0397 N93-11950
Information system constraint language (ISyCL)
[AD-A256268] 04 p0976 N93-14438
Representation of research paradigms as a function of familiarity with research domains
[AD-A256553] 05 p1263 N93-16266
Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500
The dynamics of description
[CWI-CS-R9143] 05 p1240 N93-16671
Utilizing semantic networks to database and retrieve generalized stochastic colored Petri nets
[NASA-CR-191853] 05 p1355 N93-16707
Quantification and partiality
[CWI-CS-R9152] 05 p1242 N93-16732
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
The KASE approach to domain-specific software systems 05 p1247 N93-17502
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509
Toward domain-specific design environments: Some representation ideas from the telecommunications domain 05 p1249 N93-17511
Knowledge-intensive software design systems: Can too much knowledge be a burden? 05 p1250 N93-17518
Knowledge modeling for software design 05 p1251 N93-17525
CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528
Semantics and comparative logic
[LP-91-09] 05 p1272 N93-17713
The Schoenmaker's paradox: Its solution in a belief dependence framework
[LP-91-05] 05 p1273 N93-17725
Belief dependence, revision and persistence
[LP-91-06] 05 p1273 N93-17727
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
Implementation of inheritance by means of relations
[INRIA-RR-1417] 06 p1621 N93-18513
Using conceptual clustering to learn about function, structure, and behavior in design
[INRIA-RR-1401] 06 p1633 N93-18573
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
Uncertainty management by relaxation of conflicting constraints in production process scheduling 06 p1636 N93-18673
A hybrid job-shop scheduling system 06 p1639 N93-18690
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
Informal qualitative models in scientific discovery 06 p1690 N93-19725
Knowledge acquisition from examples with mixed attributes 06 p1691 N93-19729
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
The evaluation and reporting of discovery systems 06 p1691 N93-19734
Evaluating machine discovery systems 06 p1692 N93-19735
Evaluation of discovery systems 06 p1692 N93-19736
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
On semantics: The case of knowledge graphs
[MEMO-1028] 07 p2091 N93-20955
Modelling knowledge in electronic study books
[MEMO-1029] 07 p2091 N93-21032
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
Application of fuzzy set and Dempster-Shafer theory to organic geochemistry interpretation 08 p2450 N93-22212
Multi-layered reasoning by means of conceptual fuzzy sets 08 p2455 N93-22365
Access methods for large, multifunctional knowledge bases 08 p2525 N93-23381
Multispectral intelligent fusion techniques 08 p2352 N93-23564
An ontology of knowledge graphs
[MEMO-1049] 08 p2441 N93-24063
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information 09 p2741 N93-24796
Min and max are the only continuous ampersand-, V-operations for finite logics
[NASA-CR-192952] 09 p2820 N93-25452
TARGET: Rapid capture of process knowledge 09 p2814 N93-25590
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
Dynamic modal predicate logic
[CWI-CS-R9237] 10 p3101 N93-28001
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications 11 p3510 N93-29520
Approximate reasoning using terminological models 11 p3510 N93-29522
Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523
Fuzzy knowledge base construction through belief networks based on Lukasiewicz logic 11 p3515 N93-29550
Determining rules for closing customer service centers: A public utility company's fuzzy decision 11 p3516 N93-29561
Inverse problems: Fuzzy representation of uncertainty generates a regularization 11 p3516 N93-29563
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472
Meeting some neighbours: A dynamic modal logic meets theories of change and knowledge representation
[LP-92-10] 12 p3808 N93-31531
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127

KNUDSEN CELLS
U KNUDSEN GAGES

KNUDSEN FLOW
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow 03 p0495 N93-13746
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215

KNUDSEN GAGES
Development of a Knudsen cell for molecular beam epitaxial growth of GaAs films in the microgravity environment 07 p1804 N93-21082

KNUDSEN NUMBER
U KNUDSEN FLOW

KOLMOGOROFF-SMIRNOFF TEST
A Kolmogorov-Smirnov type test for ergodic diffusion processes
[INRIA-RR-1696] 10 p3122 N93-28447

KOLMOGOROV THEORY
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
Cascade processes and fully developed turbulence 03 p0591 N93-13901
Radar cross section models for limited aspect angle windows
[AD-A258918] 06 p1510 N93-19341
Transformations of gaussian random fields and a test for independence of a survival time from a covariate
[AD-A260442] 08 p2472 N93-24114
PDE: Differential, geometric and algebraic methods in nonlinear filtering
[AD-A260967] 09 p2829 N93-26222
Spectra and structure functions of temperature fluctuations in the inner solar wind 12 p3860 N93-31720

KONDO EFFECT
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Phase separation and superconductivity in the Kondo-like spin-hole coupled model
[SSCL-PREPRINT-759] 10 p3153 N93-28144

KORTEWEG-DEVRIES EQUATION
Inverse spectral transform for the 2 + 1-dimensional Gardner equation
[MATHS-REPT-A-138] 02 p0425 N93-11323
A discrete Neumann system
[PREPRINT-870] 05 p1279 N93-16968
Lie point symmetries and exact solutions of nonlinear differential equations
[PREPRINT-840] 05 p1269 N93-16994
Symmetry group of partial differential equations and of differential difference equations: The Toda lattice versus the Korteweg-de Vries equation
[PREPRINT-841] 05 p1270 N93-16995
The symmetry equation package for REDUCE
[MEMO-1053] 08 p2469 N93-23866

KOVAR (TRADEMARK)
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624

KREEP
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503 06 p1735 N93-18788
neoKREEP: A new lunar component at Apollo 17 06 p1737 N93-18797

KRIGING
Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337

KRONECKER PRODUCT
U ORTHOGONALITY

KRYPTON
NT KRYPTON ISOTOPES
NT KRYPTON 85

Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
The 100-500 kWe NEP systems 10 p2983 N93-26984
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798
Isotopically selective detection of rubidium in krypton
[ETN-93-94051] 12 p3703 N93-31630

KRYPTON FLUORIDE LASERS
Mercury: A second-generation KrF laser for inertial fusion research
[DE93-000698] 05 p1308 N93-16226
New analysis of KrF picosecond pulse experiment
[DE93-003805] 08 p2308 N93-23290
Mercury: The Los Alamos ICF KrF laser system
[DE93-007363] 09 p2713 N93-25379

KRYPTON ISOTOPES
NT KRYPTON 85
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

KRYPTON 85
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304

KU BAND
U SUPERHIGH FREQUENCIES

KUIPER AIRBORNE OBSERVATORY
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass 03 p0758 N93-14091
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796

KURTOSIS
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672

KUWAIT
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967

L

L BAND
U ULTRAHIGH FREQUENCIES

LABELING (MARKING)
U MARKING

LABOR
Aerospace industry profile, 1990-1991
[CTN-92-60513] 01 p0001 N93-10651
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543

LABORATORIES
NT ENGINE TESTING LABORATORIES
NT HUMAN FACTORS LABORATORIES
NT LONG DURATION EXPOSURE FACILITY
NT MANNED ORBITAL LABORATORIES
NT SKYLAB 1
NT SPACE LABORATORIES
NT SPACELAB
Laboratory information management system proposal
[DE92-018243] 02 p0478 N93-11796
Activity of the technical groups (LULI Palaiseau, France) 02 p0322 N93-12052
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Requirements for a network storage service 04 p1003 N93-14781
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
A manned exobiology laboratory based on the Moon 05 p1074 N93-17457
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Capsule review of DOE research and development laboratories and field facilities
[DE93-003282] 08 p2570 N93-22402
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Ongoing research projects at VTT in 1991
[ISBN-951-38-3771-8] 08 p2570 N93-23423
Summer research program (1992). Graduate student
[AD-A261971] 10 p3163 N93-28223
Applied research in America
[DE93-011725] 11 p3625 N93-28646
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Thermal effects testing at the National Solar Thermal Test Facility
[DE93-009825] 11 p3465 N93-30391
Introduction to the National Information Display Laboratory 11 p3628 N93-30718
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
Calibration system for testing laboratory
[VTT-TIED-1401] 12 p3738 N93-31172
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
National Media Laboratory: Media testing results 12 p3840 N93-31972
Advanced Artificial Intelligence Technology Testbed 12 p3801 N93-32126

LABORATORY EQUIPMENT
NT IMAGE FURNACES
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
Advanced UHV thin-film deposition facility for research in superconductivity and superconducting electronics
[AD-A259089] 07 p1889 N93-20395
Design of a laboratory computer interface
[AD-A259126] 07 p2028 N93-20594
Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926
International and commercial sub-orbital program for microgravity research 07 p1807 N93-21104
Progress in the development of the laser-based R/D test-bed system 07 p1811 N93-21127
Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625

LABYRINTH
NT OTOLITH ORGANS
NT SEMICIRCULAR CANALS
NT VESTIBULES

LABYRINTH SEALS
An experimental technique for performing 3-D LDA measurements inside whirling annular seals 01 p0093 N93-10894
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951

LACTATES
The 0.3 mm diameter flexible amperometric lactate probe
[AD-A260826] 09 p2690 N93-25782
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820

LACTIC ACID
Autoradiographic distribution and applied pharmacological characteristics of dextromethorphan and related antitissue/anticonvulsant drugs and novel analogs
[AD-A255607] 04 p0935 N93-15009

LAG (DELAY)
U TIME LAG

LAGEOS (SATELLITE)
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS) 07 p1971 N93-20971
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
Italian Space Agency activities in Earth observation 08 p2358 N93-23756
STS-52 Space Shuttle mission report
[NASA-CR-193061] 09 p2613 N93-25993

LAGRANGE COORDINATES
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020

LAGRANGE EQUATIONS OF MOTION
U EULER-LAGRANGE EQUATION

LAGRANGE MULTIPLIERS
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
Adaptive meshing in solids
[DE93-003238] 08 p2287 N93-22331

LAGRANGIAN
U LAGRANGIAN FUNCTION

LAGRANGIAN FUNCTION
Formulation and treatment of frictional contact problems using finite elements 09 p2717 N93-25412
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Chaos metrics for testing lagrangian particle models
[AD-A261429] 09 p2776 N93-26454
High strain Lagrangian hydrodynamics: A three dimensional SPH code for dynamic material response
[AD-A262798] 10 p3043 N93-28378
Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations 11 p3428 N93-30902
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640

LAKE BEDS
U BEDS (GEOLOGY)

LAKE ICE
NT ICE FLOES
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669

LAKES
NT GREAT LAKES (NORTH AMERICA)
NT GREAT SALT LAKE (UT)
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
Lake remote sensing for global climate research 07 p1958 N93-21602
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423

LAMB WAVES
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation
[AD-A262237] 10 p3130 N93-27933
LAMBERT SURFACE
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
LAMELLA
The effect of lamination angle on polymer retention
[DE93-004304] 07 p1861 N93-21722
LAMINA
U LAYERS
LAMINAR BOUNDARY LAYER
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
Laminar boundary-layer breakdown
[AD-A254489] 02 p0306 N93-12162
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Laminar turbulent transition of a boundary layer by disturbances in the main stream 05 p1161 N93-16816
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
The influence of bulges on boundary-layer instability 10 p2932 N93-27435
High-lift aerodynamics: Prospects and plans 10 p2933 N93-27442
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855
LAMINAR BOUNDARY LAYER SEPARATION
U BOUNDARY LAYER SEPARATION
U LAMINAR BOUNDARY LAYER
LAMINAR FLAMES
U FLAMES
U LAMINAR FLOW
LAMINAR FLOW
NT BLASIUS FLOW
NT STRATIFIED FLOW
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126] 01 p0083 N93-10859
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
Studies in nonlinear problems of energy
[DE92-018551] 02 p0345 N93-11733
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications 03 p0586 N93-13399
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle 05 p1057 N93-16784
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
A kinetic theory treatment of heat transfer in plane Poiseuille flow with uniform pressure
[NASA-TM-103993] 06 p1532 N93-18884
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Similarity in laminar pipe flows with secondary flows 06 p1413 N93-19302
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region 06 p1413 N93-19304
Numerical analysis of flow in a heated horizontal square duct 06 p1413 N93-19305
Comparative study of various difference schemes for some laminar channel flows 06 p1413 N93-19307
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Natural laminar flow test in-flight visualization 06 p1417 N93-19921
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames 07 p1853 N93-20189
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
On the structure and stabilization mechanisms of planar and cylindrical premixed flames 07 p1853 N93-20199
The effects of gravity on wrinkled laminar flames 07 p1853 N93-20200
The structure of particle cloud premixed flames 07 p1853 N93-20202
Stability and transition of hypersonic boundary layer 07 p1763 N93-20687
On the structure of gaseous confined laminar diffusion flames: Numerical investigation
[NASA-TM-106039] 07 p1902 N93-21198
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Space Station Freedom combustion research 08 p2190 N93-22643
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method 08 p2291 N93-23180
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching 09 p2642 N93-24771
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
On the cross-stream spectral method for the Orr-Sommerfeld equation
[NASA-TM-107737] 09 p2845 N93-26086
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432
The influence of bulges on boundary-layer instability 10 p2932 N93-27435
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations 10 p2935 N93-27451
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
Flow visualization on helicopter blades using acenaphthen
[ESA-TT-1255] 11 p3422 N93-29273
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855
Selected experiments in laminar flow: An annotated bibliography
[NASA-TM-103989] 12 p3673 N93-32226
LAMINAR FLOW AIRFOILS
Natural laminar flow test in-flight visualization 06 p1417 N93-19921
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
LAMINAR FLOW CONTROL
U BOUNDARY LAYER CONTROL
U LAMINAR BOUNDARY LAYER

LAMINAR HEAT TRANSFER
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer
01 p0005 N93-10889
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
LAMINAR JETS
U JET FLOW
U LAMINAR FLOW
LAMINAR WAKES
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
LAMINATED MATERIALS
U LAMINATES
LAMINATES
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges
01 p0045 N93-10471
Vibration of laminated composite plates using various plate theories: Analytical and finite element results
01 p0045 N93-10473
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities
01 p0047 N93-10483
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Failure analysis of laminated composites by using iterative three-dimensional finite element method
01 p0051 N93-10505
Analysis of a buffer strip laminate with a cutout
01 p0052 N93-10506
Consistent shear constitutive relations for laminated plates 01 p0028 N93-10509
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations
01 p0029 N93-10525
Natural vibrations of multilayered doubly curved shells
01 p0057 N93-10532
Linear and nonlinear analyses of thick composite circular plates using the finite element method
01 p0096 N93-10873
Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy
[FFA-TN-1992-04] 02 p0237 N93-11128
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Aerospatiale processes for three dimensional preforms
[REPT-921-430-147] 02 p0239 N93-11590
Global-local finite element analysis of composite structures
[DE92-019138] 02 p0240 N93-11658
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual
[NASA-TP-3292] 02 p0241 N93-12015
Composite failure analysis handbook. Volume 2: Technical handbook. Part 3: Case histories
[AD-A249131] 02 p0241 N93-12054
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials
02 p0339 N93-12194
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
Hierarchic models for laminated plates
03 p0528 N93-12629
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties
03 p0530 N93-13007
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
The shear gage and compact shear specimen for shear property measurements of composite materials
03 p0628 N93-13630
Effects of layer waviness on compression-loaded thermoplastic composite laminates
03 p0532 N93-13724
Studies on numerical and experimental determination of energy release rate for composite laminates
03 p0533 N93-13752
Contact of orthotropic laminates with a rigid spherical indentor 03 p0533 N93-13778
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
Finite elements for free edge delaminations and delaminated anisotropic beams
03 p0535 N93-13967
The role of the fiber/matrix interphase in the static and fatigue behavior of polymeric matrix composite laminates
03 p0535 N93-13968
Delamination initiation in postbuckled dropped-ply laminates 03 p0535 N93-14030
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
Fracture mechanisms and fracture control in composite structures 04 p0899 N93-14474
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Mechanical response of composite materials with through-the-thickness reinforcement
04 p0834 N93-14753
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Damage mechanics modelisation of composite structures: A physical approach of failure
05 p1079 N93-15741
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates
05 p1080 N93-15742
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260
Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
Prediction of thermal cycling induced matrix cracking
05 p1100 N93-16780
Stress analysis and damage evaluation of flawed composite laminates by hybrid-numerical methods
05 p1100 N93-17340
Manufacturing and inspection of artificial delaminations in composite materials
[NLR-TP-91085-U] 05 p1099 N93-17582
SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
Open and filled hole static tensile strength characterization of metal matrix composite SCS-9/Beta21s
[AD-A258829] 06 p1480 N93-19091
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336

Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Stratified plate model for composite plate analysis
[AD-A259001] 06 p1481 N93-19359
Impact response of laminated plates subjected to transverse loading
[NIAR-92-5] 06 p1560 N93-19360
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321
Adherence and reactivity of graphite base multimaterials
[ECL-92-04] 07 p1859 N93-20542
Compression-after-impact behavior of ARALL(trade name)-1 laminates
[AD-A259203] 07 p1832 N93-20550
Reliability of failure envelopes for composite materials 07 p1929 N93-20642
Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes 07 p1930 N93-20645
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
Delamination buckling in circular plates 07 p1931 N93-20653
Buckling of clamped angle-ply laminated plates under inplane loads 07 p1931 N93-20654
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
Debonding/Delamination of Composites
[AGARD-CP-530] 07 p1840 N93-21507
Free edge delamination prevention in composite laminates 07 p1840 N93-21508
Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510
Numerical analysis of the thermoelastic effects in laminated structures and its use in the identification of defects 07 p1841 N93-21511
Predicting failure by debonding/delamination 07 p1841 N93-21512
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Edge delamination of composite laminates 07 p1842 N93-21519
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Identification of delamination by eigenfrequency degradation: An inverse problem 07 p1843 N93-21526
Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning 07 p1843 N93-21528
Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use 07 p1844 N93-21534
Vacuum multilayer lamination of printed wiring boards
[DE93-004912] 07 p1894 N93-21727
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate
[VTT-PUBS-105] 08 p2208 N93-22815
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
Analysis of delamination related fracture processes in composites
[NASA-CR-192632] 08 p2209 N93-23073
The effects of delamination on the vibrational characteristics of composite structural elements 08 p2210 N93-23202
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Fiber-metal laminates: A solution to weight, strength, and fatigue problems 08 p2211 N93-23938
Damage in laminated composites due to low velocity impact 08 p2213 N93-23947
A process model for control of resin volume fraction in filament wound composite laminates 08 p2213 N93-23948
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Stress distribution in composite flatwise tension test specimens
[NASA-TM-106074] 09 p2634 N93-25071
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory 09 p2636 N93-25661
Inelastic behavior of thermoplastic composites 09 p2636 N93-25674
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
Low-velocity impact of composite sandwich plate 09 p2637 N93-25695
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
Dynamic characteristics of specialty composite structures with embedded damping layers
[NASA-TM-106165] 10 p2989 N93-26705
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Composite laminated bend analysis and experiments 10 p2921 N93-27181
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
A thermal stress solution for multilayered composite cylinders
[AD-A262579] 11 p3295 N93-28657
Metal Matrix Laminate Tailoring (MMLT) code: User's manual
[NASA-TM-106052] 11 p3295 N93-28681
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
Axial impact of composites 11 p3297 N93-29078
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248
Analysis of LDEF micrometeoroid/debris data and damage to composite materials 11 p3309 N93-29366
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials 11 p3303 N93-30845
Comparison of impact results for several polymeric composites over a wide range of low impact velocities 11 p3304 N93-30848
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Developments in impact damage modeling for laminated composite structures 11 p3305 N93-30857
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Progressive failure methodologies for predicting residual strength and life of laminated composites 11 p3307 N93-30866
Effects of bolt-hole contact on bearing-bypass damage-onset strength 11 p3307 N93-30870
Mechanical properties of composite materials 11 p3290 N93-30951
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650
GARTEUR compression behaviour of advanced CFRP
[NLR-TP-91290-U] 12 p3701 N93-32202

LAMINATIONS
U LAMINATES

LAMPS
U LUMINAIRES

LAN (COMPUTER NETWORKS)
U LOCAL AREA NETWORKS

LANCE MISSILE
Clustered Lance Booster (CLB) feasibility study
[AD-A262746] 11 p3286 N93-28593

LAND
NT ARID LANDS
NT COASTAL PLAINS
NT COLORADO PLATEAU (US)
NT DESERTS
NT FARMLANDS
NT FLOOD PLAINS
NT GRASSLANDS
NT MARSHLANDS

NT MOJAVE DESERT (CA)
NT NATIONAL PARKS
NT PLAINS
NT RANGELANDS
NT WETLANDS

LAND ICE
ERS-1 radar altimetry of ice sheets
07 p1959 N93-21606
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883
Velocities of Thwaites and Land glaciers
12 p3760 N93-31885
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886
SPOT satellite mapping of Ice Stream B
12 p3760 N93-31887
The mass balance of the ice plain of Ice Stream B and Crary Ice Rise 12 p3760 N93-31888
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890
The role of the margins in ice stream dynamics
12 p3761 N93-31896
Thermal control of ice-stream margins
12 p3762 N93-31897
In search of ice-stream sticky spots
12 p3762 N93-31899
Geologic controls on the West Antarctic Ice Sheet
12 p3762 N93-31900
Effect of subglacial volcanism on changes in the West Antarctic Ice Sheet 12 p3762 N93-31901
Sensible and latent heat flux estimates in Antarctica
12 p3763 N93-31902
Modeling ice streams: Derived quantities
12 p3763 N93-31904

LAND MANAGEMENT
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil
04 p0905 N93-14450
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271
International Space Year in China
07 p1975 N93-21272
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147
The Brazilian contributions for the international Space Year, 1992 08 p2338 N93-22148
Study of the cultivated land losses around Tunis
08 p2368 N93-23819
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Sustainable agriculture and the environment in the humid tropics
[PB93-173920] 10 p3068 N93-27402
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344

LAND MOBILE SATELLITE SERVICE
Regional satellites: The European experience with Eutelsat for TV, voice, data and mobile transmissions
[REPT-921-440-106] 04 p0818 N93-15071
Research in LMSS propagation
[NASA-CR-191915] 07 p1885 N93-21400
Land mobile satellite communications systems and services 08 p2275 N93-23517
EUTELTRACS: The European land mobile satellite service 08 p2276 N93-23526
Numerical and experimental analyses of large composite skeletal satellite systems 09 p2616 N93-25463
L- and K-band LMSS propagation measurements using MARECS-B, OLYMPUS, and ACTS
09 p2683 N93-26467
A communications system for the United Nations Transitional Authority in Cambodia (UNTAC)
10 p3025 N93-26663
Comparison of multiple access techniques for bandwidth limited land-mobile satellite communications
11 p3370 N93-30314

LAND SURFACE TEMPERATURE
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Evaluating climate-vegetation interactions at climate model sub-grid scales 09 p2764 N93-25476

LAND USE
The role of human activity and land use change in atmospheric chemistry and air quality
[DE92-019622] 03 p0642 N93-12880
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil
04 p0905 N93-14450
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
Ecological implications of landscape fragmentation
[DE92-019186] 04 p0911 N93-15273
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils
[NASA-CR-191219] 05 p1202 N93-16748
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795
Comparative analysis of the indices of vegetation in urban areas obtained from the TM-Landsat and HRV-Spot data: City of Taubate
[INPE-5418-TDI/482] 06 p1575 N93-19831
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322
Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953
The distribution of green areas in urban areas: Cartography and comparative analysis of LANDSAT TM and HRV/SPOT data
[INPE-5262-PRE/1686] 07 p1979 N93-21560
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan
07 p1956 N93-21585
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
Assessment of actual land use by means of an integrated LIS 08 p2353 N93-23568
Prototype for a regional data management system, a step towards a regional land use project
08 p2353 N93-23571
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm
08 p2354 N93-23576
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
Contribution of remote sensing and GIS for rangeland management in the region of Ouarzazate (Morocco)
08 p2367 N93-23814
Study of the cultivated land losses around Tunis
08 p2368 N93-23819
Application of remote sensing data for the investigation of environmental degradation sites in East Germany
09 p2739 N93-24785
Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789
Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791
The photointerpretation of the area taken over from agriculture by intense urbanization at Villabate (Palermo, Italy) 09 p2742 N93-24800
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Sustainable agriculture and the environment in the humid tropics
[PB93-173920] 10 p3068 N93-27402
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Land use database for the Netherlands using LANDSAT Thematic Mapper pictures
[BCRS-91-32] 11 p3463 N93-30839
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592
Indigenous views of land and the environment
[PB93-186898] 12 p3755 N93-32166
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191
Satellite pictures: An efficient aid for information about land use
[ETN-93-93467] 12 p3747 N93-32343

LANDAU DAMPING
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
Transformation of energy and momentum due to Landau damping in time
[IPPCZ-316] 04 p0988 N93-14813
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626

LANDAU FACTOR
An introduction to superconductivity
[PREPRINT-801] 05 p1280 N93-16421
Electronic Landau levels in quantum wells with periodically structured interfaces
[DE93-608514] 12 p3828 N93-31664

LANDAU-GINZBURG EQUATIONS
Solutions without phase-slip for the Ginsburg-Landau equation
[PB92-115575] 03 p0696 N93-12889
Domain decomposition: A blowup problem and the Ginzburg-Landu equations
[DE92-040736] 05 p1266 N93-16587
The onset of vortex turbulence
10 p2938 N93-28251
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
The constraint for the lowest Landau level and the effective field theory approach for the fractional quantum hall system
[DE93-608200] 12 p3831 N93-31509

LANDFILLS
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826

LANDFORMS
NT ALPS MOUNTAINS (EUROPE)
NT ATOLLS
NT BEDS (GEOLOGY)
NT BERMUDA
NT CALDERAS
NT COLORADO PLATEAU (US)
NT CONES (VOLCANOES)
NT CUSPS (LANDFORMS)

NT DELTAS
NT ESCARPMENTS
NT GAPS (GEOLOGY)
NT GRAND CANYON (AZ)
NT GREAT BASIN (US)
NT GREENLAND
NT HAWAII
NT ICELAND
NT INDONESIA
NT ISLANDS
NT JAPAN
NT MARS VOLCANOES
NT MASSIFS
NT MOUNTAINS
NT NEW ZEALAND
NT PACIFIC ISLANDS
NT PHILIPPINES
NT PLATEAUS
NT REEFS
NT RIVER BASINS
NT ROCKY MOUNTAINS (NORTH AMERICA)
NT SALT BEDS
NT SIERRA NEVADA MOUNTAINS (CA)
NT STEPPES
NT STRUCTURAL BASINS
NT TIDAL FLATS
NT VOLCANOES
NT WATERSHEDS

The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139

Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142

Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319

Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321

Magellan stereo images and Venusian geology 04 p1035 N93-14347

Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353

Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354

Venus: Geology of Beta Regio rift system 04 p1037 N93-14355

An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986

Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213

LANDING
NT AIRCRAFT LANDING
NT CRASH LANDING
NT DITCHING (LANDING)
NT HORIZONTAL SPACECRAFT LANDING
NT LUNAR LANDING
NT MARS LANDING
NT PLANETARY LANDING
NT SOFT LANDING
NT SPACECRAFT LANDING
NT TOUCHDOWN
NT VERTICAL LANDING
NT WATER LANDING

Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635

Integrated and Multi-Function Navigation
[AGARD-CP-525] 08 p2119 N93-22780

Visual autonomous automatic landing of airplanes 08 p2121 N93-22791

An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29888

LANDING AIDS
NT AIRPORT LIGHTS
NT ALL-WEATHER LANDING SYSTEMS
NT APPROACH INDICATORS
NT AUTOMATIC LANDING CONTROL
NT DISCRETE ADDRESS BEACON SYSTEM
NT INSTRUMENT LANDING SYSTEMS
NT LANDING INSTRUMENTS
NT MICROWAVE LANDING SYSTEMS

Facilities and capabilities catalog for landing and escape systems
[NASA-RP-1282] 04 p0814 N93-14495

Scene correlation for INS aiding in flight-test systems: Runway-referenced flight-tests with on-board sensors only 08 p2121 N93-22792

LANDING GEAR
Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248

Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238

Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189

Aircraft landing gear shimmy 06 p1441 N93-19029

Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100

Testing a wheeled landing gear system for the TH-57 helicopter
[AD-A262152] 10 p2942 N93-27547

LANDING INSTRUMENTS
NT APPROACH INDICATORS

Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408

Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200

LANDING LOADS
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078

LANDING MODULES
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT MARS EXCURSION MODULE

LANDING SIMULATION
Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408

LANDING SITES
NT LUNAR LANDING SITES

In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128

The geology of the Venera/Vega landing sites 04 p1024 N93-14296

Reusable Reentry Satellite (RRS): Recovery tradeoff study
[NASA-CR-186396] 04 p0825 N93-15658

Lunar site characterization and mining 05 p1380 N93-16882

GPS multipath errors in the precision landing environment 08 p2106 N93-22569

LANDING SPEED
Energy method for analysis of measured airspeed change in landing airborne manoeuvre
[ESDU-92020] 06 p1436 N93-18042

LANDING SYSTEMS
U LANDING AIDS

LANDSAT SATELLITES
NT LANDSAT 4
NT LANDSAT 5

Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701

Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598

The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777

National Aeronautics and Space Administration 05 p1358 N93-17091

Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073

Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216

Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346

Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641

Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857

Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585

Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436

Effects of cloud cover on satellite positioning
[AD-A260032] 08 p2409 N93-24252

Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440

Remotely sensed data from space: Distribution, pricing, and applications. An OTA background paper 10 p3062 N93-27066

Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915

Atmospheric correction of LANDSAT-TM-data for forest inventory 11 p3459 N93-28929

Interim report on Landsat national archive activities 11 p3618 N93-30455

Recent acceleration of Thwaites Glacier 12 p3761 N93-31893

Remotely sensed data from space. Distribution, pricing, and applications: An OTA background paper
[PB93-176964] 12 p3747 N93-32309

LANDSAT 4
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140

Classifying multispectral data by neural networks 09 p2825 N93-25976

LANDSAT 5
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM 08 p2354 N93-23573

LANDSCAPE
U TERRAIN
U TOPOGRAPHY

LANDSLIDES
The Apollo 17 samples: The Massifs and landslide 06 p1738 N93-18809

The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557

Remote sensing landslide hazard mapping using GIS technology in Colombian Andes 08 p2351 N93-23559

Applicability of satellite remote sensing for slope instability hazard zonation 08 p2368 N93-23817

LANES
U PATHS

LANGEVIN FORMULA
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434

LANGMUIR PROBES
U ELECTROSTATIC PROBES

LANGMUIR-BLODGETT FILMS
Molecular devices based on new monolayer-forming systems
[AD-A260996] 09 p2866 N93-25854

LANGUAGE PROGRAMMING
Optimization of expressions involving array classes
[DE92-019421] 02 p0411 N93-11536

Interfacing Matlab and software written in other languages
[NPL-DITC-200/92] 02 p0412 N93-11688

Syntax and lexis of the specification language Z
[RSRE-MEMO-4367] 02 p0414 N93-12326

Information system constraint language (ISyCL)
[AD-A256268] 04 p0976 N93-14438

Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502

NPSGDL: An object oriented graphics description language for virtual world application support
[AD-A257337] 05 p1234 N93-15992

The failure of failures in a paradigm for asynchronous communication
[CWI-CS-R9147] 05 p1237 N93-16410

Lazy scanner generation for modular regular grammars
[CWI-CS-R9158-REV] 05 p1251 N93-17533

On the borderline between grammars and programs
[TR-91-17] 05 p1252 N93-17594

A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839

A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861

The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870

The concurrent clean system user's manual and PABCstat user's manual, version 0.8
[TR-92-19] 11 p3523 N93-28484

A query language for spatial data 12 p3745 N93-31261

Managing semantic heterogeneity with production rules and persistent queues
[REPT-92-078] 12 p3811 N93-31464

Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466

LANGUAGES
NT ADA (PROGRAMMING LANGUAGE)
NT ASSEMBLY LANGUAGE
NT C (PROGRAMMING LANGUAGE)
NT C++ (PROGRAMMING LANGUAGE)
NT COBOL
NT COMMAND LANGUAGES
NT CONTEXT FREE LANGUAGES
NT ENGLISH LANGUAGE
NT FORTRAN
NT HIGH LEVEL LANGUAGES
NT LISP (PROGRAMMING LANGUAGE)
NT MACHINE ORIENTED LANGUAGES
NT NATURAL LANGUAGE (COMPUTERS)
NT PASCAL (PROGRAMMING LANGUAGE)
NT PROGRAMMING LANGUAGES
NT PROLOG (PROGRAMMING LANGUAGE)
NT QUERY LANGUAGES
NT SENTENCES
NT WORDS (LANGUAGE)

On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977

Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494

Recursively generated networks and dynamical learning
[AD-A255441] 04 p0963 N93-14783

NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592

Lambek grammar: An information-based categorical grammar
[LP-92-01] 05 p1273 N93-17715

Modal logic and attribute value structures
[LP-92-02] 05 p1273 N93-17716

Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733

Categorical grammar and natural reasoning
[LP-91-08] 06 p1642 N93-17828

A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831

Languages for requirements specifications
[RSRE-MEMO-4585] 09 p2810 N93-25453

Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915

Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525

The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559

Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337

Kohonen feature maps in natural language processing
[CL-91-01] 12 p3788 N93-31517

LANTHANIDE SERIES METALS
U RARE EARTH ELEMENTS

LANTHANUM
NT LANTHANUM ISOTOPES

LANTHANUM COMPOUNDS
NT LANTHANUM OXIDES

The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996

Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037

Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399

Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362

Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829

Effects of composition on sintering of current interconnects in SOFC
[DE93-004837] 10 p3065 N93-27613

LANTHANUM ISOTOPES

NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043

Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807

LANTHANUM OXIDES

Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343

Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571

Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905

The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989

Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941

LANTHANUM 140
U LANTHANUM ISOTOPES

LAOS

Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177

LAP JOINTS

An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study
01 p0051 N93-10501

Comparison of the maximum stress and the stress intensity approach in the analysis of bonded joints
01 p0053 N93-10514

Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity
01 p0053 N93-10515

Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction
01 p0054 N93-10516

An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106

Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952

Damage tolerance assessment of boron/epoxy repairs to fuselage lap joints
[AD-A258383] 06 p1439 N93-18257

Viscoelastic analysis of bonded connections
07 p1929 N93-20638

Peak stresses in adhesive step lap joints with voids
07 p1932 N93-20656

Numerical finite element analysis of damage using Monte Carlo techniques
07 p1842 N93-21522

A new method of impact tension testing of adhesively-bonded joints
08 p2212 N93-23939

A fracture mechanics approach to failure load predictions of structural adhesive joints
08 p2212 N93-23940

Designing for damage tolerant composite repairs
[AD-A260094] 08 p2214 N93-24053

Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518

LAPLACE EQUATION

An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331

A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695

Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897

Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468

Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713

The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905

LAPLACE OPERATORS
U LAPLACE TRANSFORMATION

LAPLACE TRANSFORMATION

Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652

Non-linear analysis of wave progagation using transform methods and plates and shells using integral equations
04 p0896 N93-14186

Queueing systems on a circle
[MEMO-1038] 05 p1276 N93-16670

Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731

Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468

Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016

Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads
09 p2726 N93-25533

Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833

A multigrid extension of the FFT for the numerical inversion of Fourier and LaPlace transforms
[TRITA-NA-9204] 11 p3548 N93-29024

Perturbation of the Laplacian by the Coulomb potential and a point interaction in L(sup p)(R cubed)
[REPT-92-55] 12 p3807 N93-31613

LAPSE RATE

Airmass modification by vertical motion: Discussion and case study
[PB93-160596] 10 p3079 N93-28134

LARGE DEPLOYABLE REFLECTOR

Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591

Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592

Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593

Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731

Numerical and experimental analyses of large composite skeletal satellite systems
09 p2616 N93-25463

LARGE SCALE INTEGRATION

High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916

Anik E spacecraft integration and test
04 p0808 N93-14939

Development of 10 k gate-gate array
07 p1799 N93-20472

On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884

LARGE SPACE STRUCTURES

Numerical simulation of large actively controlled space structures
01 p0013 N93-10308

Model reference adaptive control in large space structures
01 p0013 N93-10365

Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970

Structural dynamics of large space structures having parametric uncertainties
02 p0225 N93-11836

Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300

Advanced two-phase heat transfer systems
02 p0229 N93-12459

Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579

Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591

Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592

Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593

Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655

Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682

First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977

Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method
04 p0816 N93-14274

Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606

Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792

Space based radar: Test of large space structures
04 p0808 N93-14941
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Space craft verification at the David Florida Laboratory
04 p0809 N93-14943
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Offloading techniques for large deployable space structures 04 p0821 N93-15605
Adaptive structures for precision controlled large space systems 05 p1078 N93-15730
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Development of a laser-based measurement system for modal testing of large space structures
05 p1083 N93-15766
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
Dynamic of large reflectors 05 p1084 N93-15773
Ground test validation for precision structures
05 p1085 N93-15785
A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
The damper placement problem for large flexible space structures 05 p1089 N93-16776
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326
Control law synthesis for large flexible spacecraft
[NLR-TP-91155-U] 05 p1088 N93-17539
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 1
[NASA-CP-3177-PT-1] 06 p1461 N93-18818
The Mini-Mast CSI testbed: Lessons learned
06 p1461 N93-18819
Model reduction for the dynamics and control of large structural systems via neutral network processing direct numerical optimization 06 p1461 N93-18820
Physical insight into the simultaneous optimization of structure and control 06 p1461 N93-18821
Model reduction results for flexible space structures
06 p1462 N93-18824
Micro-precision control/structure interaction technology for large optical space systems
06 p1462 N93-18826
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
The development and testing of the Lens Antenna Deployment Demonstration (LADD) test article
06 p1463 N93-18829
Integrated design of the CSI evolutionary structure: A verification of the design methodology
06 p1463 N93-18830
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
The JPL Phase B interferometer testbed
06 p1464 N93-18834
A comparison of viscoelastic damping models
06 p1464 N93-18836
Structural control sensors for the CASES GTF
06 p1464 N93-18837
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure
06 p1466 N93-18846
Spacecraft dynamics characterization and control system failure detection
[NASA-CR-192190] 06 p1466 N93-18852
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Robust stability of second-order systems
[NASA-CR-192246] 06 p1647 N93-18871
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 2
[NASA-CP-3177-PT-2] 06 p1466 N93-18928
CSI related dynamics and control issues in space robotics 06 p1467 N93-18929
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931
A synopsis of test results and knowledge gained from the Phase-0 CSI evolutionary model
06 p1467 N93-18933
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration
06 p1468 N93-18934
Model reduction in integrated controls-structures design 06 p1468 N93-18935
The Middeck Active Control Experiment (MACE)
06 p1457 N93-18936
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Average-cost based robust structural control
06 p1469 N93-18939
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results
06 p1469 N93-18940
Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures
06 p1561 N93-19459
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm
07 p1823 N93-20167
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Research on large structure assembly technology: Research on deployable assembly structure
07 p1795 N93-20444
Multimodal optimization of vibrating space frames
07 p1931 N93-20652
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Long Duration Space Materials Exposure (LDSE)
08 p2189 N93-22638
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Optimal control of large space structures
09 p2819 N93-25343
Identification and control of lightly damped, large space structures: An experimental evaluation
09 p2616 N93-25351
Analytical and experimental study of control effort associated with model reference adaptive control
09 p2820 N93-25468
The dynamics and control of large flexible asymmetric spacecraft 09 p2617 N93-25525
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Dynamics of on-orbit construction process
09 p2669 N93-26406
Interaction dynamics and control for orbital assembly
09 p2669 N93-26407
Controls for orbital assembly of large space structures
09 p2620 N93-26408
Structural load control during construction
09 p2669 N93-26409
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Passive damping augmentation of flexible beam-like lattice trusses for large space structures
10 p2923 N93-27192
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
Advanced actuators for the control of large space structures 10 p2962 N93-27572
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
An evolutionary construction facility for Space Station Freedom 10 p2971 N93-27839
Automated assembly of large space structures
10 p2971 N93-27842
MODE: Structural Test Article (STA)
10 p3059 N93-27894
Implementation of input command shaping to reduce vibration in flexible space structures
10 p3059 N93-27901
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Description of the Joint Damping Experiment (JDX)
11 p3263 N93-28703
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Space construction activities
[NASA-CR-192690] 11 p3274 N93-29108
Interaction dynamics of on-orbit construction
11 p3274 N93-29109
Controls of interaction dynamics of orbital assembly
11 p3275 N93-29111
Structural load control during construction
11 p3275 N93-29113
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103

LARGE SPACE TELESCOPE
U HUBBLE SPACE TELESCOPE

LARVAE
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543

LASER ABLATION
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029
Laser-ablation processes
[DE92-011226] 02 p0322 N93-12250
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Optical probes for laser induced shocks
[AD-A256092] 04 p0884 N93-14284
Growth of epitaxial thin films by pulsed laser ablation
[DE92-040515] 05 p1319 N93-16296
Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966
High-temperature superconducting electronics
06 p1523 N93-18464
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Detection of explosives material on single microparticles 07 p1774 N93-21916
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510

Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
Complex dielectric function of amorphous diamond films deposited by pulsed excimer (ArF) laser ablation of graphite
[AD-A264527] 11 p3598 N93-30408

LASER ALTIMETERS
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707
Diode-pumped laser altimeter
[NASA-CR-193166] 10 p3047 N93-27153
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780

LASER ANEMOMETERS
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
An experimental technique for performing 3-D LDA measurements inside whirling annular seals 01 p0093 N93-10894
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests 03 p0503 N93-13218
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599

LASER ANNEALING
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU] 05 p1150 N93-17277

LASER APPLICATIONS
NT LASER CUTTING
NT LASER DEPOSITION
NT LASER FUSION
NT PULSED LASER DEPOSITION
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Design of laser optical systems
[AD-A254247] 01 p0089 N93-10703
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Ground/space co-operation for interferometry 01 p0178 N93-10946
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU] 02 p0216 N93-11057
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Center of Excellence in laser medicine
[DE92-018760] 02 p0384 N93-11445
Laser glasses
[DE92-018061] 02 p0267 N93-11549
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599
Diagnostics and modeling of H(-) ion sources
[AD-A250664] 02 p0440 N93-11867
Novel nonlinear laser diagnostic techniques
[AD-A254709] 02 p0323 N93-12335
Development summary of a sympathetic discharge CO2 laser for lidar use
[NASA-CR-184433] 02 p0323 N93-12516
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Laser densification and doping of sol-gel glasses
[AD-A254566] 03 p0604 N93-12644
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081
Gas temperature measurements using the dual-line detection Rayleigh scattering technique 03 p0599 N93-13668
Laser-based strain measurements for high temperature applications 03 p0601 N93-13675
Parameter studies of helium-neon lasers at 543 nm 03 p0606 N93-13747
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Engineering planetary lasers for interstellar communication 03 p0608 N93-14010
Results of the laser sensor technology transition investigation
[AD-A255845] 03 p0608 N93-14085
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Multiperiod-grating surface-emitting lasers
[NASA-CASE-NPO-17763-1-CU] 04 p0885 N93-14703
Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
Development of a laser-based measurement system for modal testing of large space structures 05 p1083 N93-15766
Transient x ray laser schemes at 1 millimicron and at 2 millimicron
[DE92-040670] 05 p1171 N93-15948
Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098
Possible application of transient electromagnetic pulses to high brightness e-guns
[DE92-040360] 05 p1138 N93-16100
Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Development of techniques required for the application of a laser to three dimensional visual sensing
[NASA-CR-191855] 05 p1174 N93-16706
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
Advanced atomic filters 06 p1664 N93-18468
High-energy laser-particle interaction 06 p1543 N93-18469
Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471
Nanotechnology 06 p1678 N93-18489
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
NASA pyrotechnically actuated systems program 07 p1863 N93-20133
Small ICBM Laser Firing Unit (LFU) 07 p1864 N93-20138
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
Laser diode ordnance design 07 p1864 N93-20140
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components 07 p1865 N93-20149
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
The semiconductor laser applied to fibre optic sensors 07 p1910 N93-20286
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Research on intersatellite laser communication 07 p1790 N93-20419
Laser scribing system for amorphous silicon solar cells
[AD-A259287] 07 p1910 N93-20608
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Autonomous docking ground demonstration 07 p1816 N93-21430
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Ultrafast laser generation of hard x rays 07 p1912 N93-21952
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046
Approach range and velocity determination using laser sensors and retroreflector targets 08 p2147 N93-22297
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Quantum theory of multiwave mixing with applications to squeezing in both atomic and semiconductor media
[AD-A259875] 08 p2514 N93-22732
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Applications of x ray lasers
[DE93-005299] 08 p2308 N93-22953
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
The design and construction of an ion trap based system for laser pyrolysis/mass spectrometry of single organic aerosol particles
[AD-A260455] 08 p2222 N93-24115
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
A compact and high-performance reference cell for laser frequency stabilization 09 p2716 N93-25065
Laser desorption in an ion trap mass spectrometer
[DE93-007330] 09 p2712 N93-25150
Laser ignition application in a space experiment
[NASA-TM-106133] 09 p2664 N93-25337

JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454
Laser initiated corrosion pits on aluminum
09 p2650 N93-25464
Application of an on-machine gage for diameter measurements 09 p2711 N93-25578
Liquid crystals for laser applications
[AD-A261209] 09 p2714 N93-25869
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Systems analysis on laser beamed power
[NASA-CR-193206] 10 p3047 N93-27036
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849
Enhanced noncontacting laser extensometer for biaxial strain measurements
[AD-A263170] 11 p3430 N93-28989
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827
Advanced coordinate measuring machine at Sandia National Laboratories
[DE93-010618] 11 p3432 N93-29842
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781
The optical response of a double quantum well driven by two lasers: Localization and low frequency generation
[AD-A265118] 12 p3819 N93-31792
Space qualification for an intersatellite laser communications system
[AD-A265145] 12 p3717 N93-31989
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178

LASER ARRAYS

Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Transverse effects in a model of semiconductor laser arrays 07 p1909 N93-20284
Ultraviolet waveguide lasers for phased array lidar
[AD-A261657] 09 p2715 N93-26363
Solid state research
[AD-A262874] 10 p3154 N93-28247

LASER BEAMS

4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Design of laser optical systems
[AD-A254247] 01 p0089 N93-10703
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
Measurements and modeling of laser irradiance in the high-power third-harmonic Nova focus. Volume A: Report
[DE92-016746] 01 p0090 N93-10739
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU]
03 p0605 N93-13418
Three-dimensional guiding effects in a free-electron laser 04 p0883 N93-14125
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15298
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory
[DE92-040316] 04 p1013 N93-15425
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
Sensitivity studies of a standing-wave free-electron laser
[DE93-000575] 05 p1170 N93-15696
Laser-induced dissociation of HN3(DN3) on GaAs(100) K
[AD-A257426] 05 p1315 N93-15865
Laser guide stars: Bridge of ground-based lasers entering space
[AD-A256649] 05 p1171 N93-15887
Alignment focusing system for high-power laser beam
[AD-A256907] 05 p1172 N93-16026
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Adaptive optics for laser power beaming
05 p1305 N93-17307
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter
[NASA-TM-105994] 06 p1540 N93-18091
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
Examination of laser conditioning using atomic force microscopy
[DE93-001328] 07 p1909 N93-20020
Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering
[AD-D015579] 07 p1910 N93-20770
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529
Laser diagnostics 08 p2311 N93-23260
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015823] 08 p2241 N93-24257
Sample positioning in microgravity
[NASA-CASE-NPO-18448-1-CU]
08 p2253 N93-24600
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Laser field assisted photoemission using femtosecond laser pulses
[DE93-007277] 09 p2712 N93-25378
Laser propagation through turbulence
[AD-A260712] 09 p2714 N93-26217
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Diode-pumped laser altimeter
[NASA-CR-193166] 10 p3047 N93-27153
Using harmonic oscillators to determine the spot size of Hermite-Gaussian laser beams
10 p3049 N93-27328
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333
Proposal for a universal particle detector experiment
11 p3286 N93-28795
SWAT 2 overview
[AD-A262905] 11 p3578 N93-29139
SWAT laboratory test results
[AD-A262906] 11 p3578 N93-29140
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
Laser radiation detection system
[AD-D015724] 11 p3438 N93-29287
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
Analysis of possibilities for using laser scattering for MeV electron beam diagnostics
[DE93-606223] 11 p3441 N93-30767

Theoretical-experimental study of the non-thermal effects of the polarized laser radiation in living tissues
[DE93-607212] 11 p3441 N93-30775
Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

LASER CAVITIES
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
Laser Journal
[AD-A254106] 01 p0090 N93-10855
A study of the CO2 laser near threshold
02 p0316 N93-11720
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Communications: Fiber-coupled external-cavity semiconductor high-power laser
[AD-A257386] 05 p1171 N93-15860
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop
09 p2716 N93-25068
Problems in the implementation of x ray optics with x ray lasers
[DE93-009297] 11 p3438 N93-29781
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Intracavity-pumped 2.1 micrometer Ho(3+): YAG laser
[AD-D015728] 11 p3441 N93-30587

LASER COMMUNICATION
U OPTICAL COMMUNICATION

LASER CUTTING
Cutting parameters with Lasag lasers
[DE93-010403] 12 p3732 N93-32288

LASER DAMAGE
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Laser damage in thin film optical coatings
[AD-A259425] 07 p1909 N93-20005
Examination of laser conditioning using atomic force microscopy
[DE93-001328] 07 p1909 N93-20020
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Advances in laser diodes for pyrotechnic applications
07 p1865 N93-20146
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

LASER DEPOSITION
NT PULSED LASER DEPOSITION
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342

LASER DIODES
U SEMICONDUCTOR LASERS

LASER DOPPLER VELOCIMETERS
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
LDV Measurements of unsteady flow fields in radial turbine
[AD-A253592] 01 p0004 N93-10648
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
An experimental technique for performing 3-D LDA measurements inside whirling annular seals
01 p0093 N93-10894
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer
02 p0302 N93-11698
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor
04 p0784 N93-14846
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Wind tunnel seeding particles for laser velocimeter
05 p1057 N93-16770
Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data
05 p1165 N93-16792
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Use of a triaxial laser velocimeter for anemometric calibration on an A340 airbus 06 p1446 N93-19926
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
An assessment of laser velocimetry in hypersonic flow
[NASA-CR-190895] 07 p1762 N93-21556
Photochemical observation of ion flows in membrane channels
[AD-A259869] 08 p2219 N93-22731
An investigation of particle turbulence quantities in a dense two-phase pipe flow, using laser Doppler velocimetry 08 p2295 N93-23496
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
An investigation of laser velocimetry measurements within high speed, complex flows
09 p2697 N93-25237
Measurement of velocities in gas-liquid two-phase flow using laser Doppler velocimetry
[DE93-008083] 09 p2698 N93-25306
Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477

LASER DRILLING
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806

LASER FUSION
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Recent Nova experimental results
[DE92-019783] 03 p0715 N93-13105
Environmental assessment: OMEGA upgrade project at the Laboratory for Laser Energetics, University of Rochester
[DE92-040410] 04 p0886 N93-14907
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
Experimental determination of the hydrodynamic instability growth rates in indirect and direct drive ICF
[DE93-006278] 08 p2496 N93-23676
Start-up imprinting and shock dynamics in laser-target interaction
[AD-A261384] 09 p2715 N93-26445
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594
Summary of progress in laser fusion; advanced technology developments: National Laser Users Facility news; and a laser system report --- laser fusion and laser energetics
[DE93-009054] 10 p3047 N93-27120
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097

Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
SIRIUS-P: An inertially confined direct drive laser fusion power reactor
[DE93-012433] 11 p3439 N93-30186

LASER GEODYNAMIC SATELLITE
U LAGEOS (SATELLITE)

LASER GUIDANCE
An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
Laser guide stars: Bridge of ground-based lasers entering space
[AD-A256649] 05 p1171 N93-15887
Feasibility experiment for sodium-layer laser guide stars at the Lawrence Livermore National Laboratory
[DE93-007115] 09 p2715 N93-26503
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE93-009543] 11 p3630 N93-29785

LASER GYROSCOPES
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
An active solid state ring laser gyroscope
09 p2709 N93-25291
Applications of inertial-sensor high-inheritance instruments to DSN precision antenna pointing
09 p2621 N93-26112

LASER HEATING
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation
08 p2251 N93-22857
Experimental investigation of consolidation of thermoplastic tape using laser energy
08 p2212 N93-23944
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115

LASER INDUCED FLUORESCENCE
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics
[AD-A250930] 01 p0088 N93-10247
Vibrational relaxation of H2O by H2, HCl, and H2O at 295 K
[AD-A252800] 01 p0029 N93-10263
Development of laser excited atomic fluorescence and ionization methods
[DE92-016199] 01 p0089 N93-10611
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467
Novel nonlinear laser diagnostic techniques
[AD-A254709] 02 p0323 N93-12335
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster
03 p0602 N93-13686
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Two-photon cooperative cascade superfluorescence
[AD-A255690] 03 p0608 N93-14023
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
Combustion Research Program: Flame studies, laser diagnostics, and chemical kinetics
[DE93-002758] 05 p1106 N93-17212
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Injection of drag-reducing additives into turbulent water flows. Investigation of laser-induced fluorescence for concentration measurements
[AD-A259459] 07 p1898 N93-20243
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions
[AD-A259476] 07 p1909 N93-20246
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
Development of a laser-induced fluorescence system for application to rocket plumes
[AD-A259760] 08 p2205 N93-24025
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF)
09 p2598 N93-26006
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV)
10 p2935 N93-27454
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365
Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE93-009543] 11 p3630 N93-29785
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means
11 p3319 N93-30081
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Isotopically selective detection of rubidium in krypton
[ETN-93-94051] 12 p3703 N93-31630
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307

LASER INTERFEROMETRY
Elastic and plastic strain measurement in high temperature environment using laser speckle
03 p0600 N93-13673
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
Calibration of a standard transducer using a laser interferometer (TTCP calibration round-robin)
[NRC-34387] 08 p2305 N93-24289
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320

LASER MATERIALS
Long wavelength multiple quantum well lasers for high-speed modulation applications
[AD-A253348] 01 p0087 N93-10211
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Development of a hydrodynamic code: MINNIE
02 p0318 N93-12031
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Color center laser with transverse auxiliary illumination
[AD-D015387] 04 p0887 N93-15250
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462
International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Novel short-wavelength lasers
06 p1543 N93-18472
Characterization of radiation damage in solids
06 p1659 N93-18478
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369
Development of coherent x ray lasers
[DE93-009288] 11 p3437 N93-29104
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276

LASER MICROSCOPY
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
An FFT-based method for attenuation correction in fluorescence confocal microscopy
[CWI-AM-R9114] 05 p1174 N93-16848

LASER MODE LOCKING
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Improvement in the control aspect of laser frequency stabilization for SUNLITE project
05 p1175 N93-16798
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524

LASER MODES
A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers
03 p0606 N93-13629
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop
09 p2716 N93-25068
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524

Aberration correction of unstable resonators
[NASA-CASE-NPO-18662-1-CU] 10 p3148 N93-28428
Mode hopping in semiconductor lasers 12 p3731 N93-31131

LASER OUTPUTS
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Stability of coupled semiconductor diode lasers 01 p0088 N93-10379
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Influence of flow velocity on the output power of high pressure CW CO2 lasers
[AD-A254240] 01 p0089 N93-10722
Measurements and modeling of laser irradiance in the high-power third-harmonic Nova focus. Volume A: Report
[DE92-016746] 01 p0090 N93-10739
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Experimental studies of x ray laser spectral profiles: Observation of gain narrowing and saturation behavior
[DE92-019603] 02 p0316 N93-11659
Prediction of electromagnetic pulse generation by picosecond avalanches in high-pressure air
[DE92-019382] 02 p0282 N93-11675
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies 02 p0320 N93-12044
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Research on stimulated Raman scattering with applications to atmospheric lidar 02 p0322 N93-12163
Arm length matching in 10 m delay-line interferometer
[ISAS-TN-649] 03 p0596 N93-12639
Small-scale x ray laser systems
[DE92-018442] 03 p0604 N93-12744
Numerical modelling of the suppression of stimulated Brillouin scattering due to finite laser bandwidth
[DE92-018064] 03 p0606 N93-13534
A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers 03 p0606 N93-13629
Demonstration of a neon-like rubidium x ray laser
[DE92-019576] 03 p0606 N93-13653
Parameter studies of helium-neon lasers at 543 nm 03 p0606 N93-13747
CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
Nonlinear dynamics of optical systems 04 p0979 N93-14124
Three-dimensional guiding effects in a free-electron laser 04 p0883 N93-14125
Multiperiod-grating surface-emitting lasers
[NASA-CASE-NPO-17763-1-CU] 04 p0885 N93-14703
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
Geometric optics scaling laws for x-ray laser coherence
[DE92-040402] 05 p1301 N93-16102
Mercury: A second-generation KrF laser for inertial fusion research
[DE93-000698] 05 p1308 N93-16226
Multiple element ring laser
[AD-D015471] 05 p1173 N93-16469
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
Self-collimated unstable resonator semiconductor laser
[NASA-CASE-NPO-18386-1-CU] 06 p1540 N93-18277
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Novel short-wavelength lasers 06 p1543 N93-18472
Chaotic dynamics of atoms 06 p1659 N93-18491
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering
[AD-D015579] 07 p1910 N93-20770
Environmental assessment for the brilliant pebbles tether test at the Nevada test site
[DE93-003869] 07 p1952 N93-21839
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
Studies of tunable, high power excimer lasers 08 p2309 N93-23597
Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052
High-resolution free-electron laser spectroscopy 08 p2309 N93-24191
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy 08 p2285 N93-24295
An active solid state ring laser gyroscope 09 p2709 N93-25291
Laser field assisted photoemission using femtosecond laser pulses
[DE93-007277] 09 p2712 N93-25378
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging 09 p2713 N93-25389
Experimental and theoretical study of cw HF chemical laser overtone performance 09 p2713 N93-25420
Experimental and theoretical study of CW HF chemical laser residual fundamental gain 09 p2714 N93-25721
Start-up imprinting and shock dynamics in laser-target interaction
[AD-A261384] 09 p2715 N93-26445
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Diode-pumped laser altimeter
[NASA-CR-193166] 10 p3047 N93-27153
Proof of the feasibility of coherent and incoherent schemes for pumping a gamma ray laser
[AD-A262421] 10 p3048 N93-27656
Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU] 10 p3048 N93-28132
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098
Low-pump-rate multi-millisecond atomic xenon laser
[DE93-011484] 11 p3437 N93-29180
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
Construction and operation of a gas transport CO2 laser
[AD-A263102] 11 p3438 N93-29797
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
High-repetition rate x ray lasers and applications
[DE93-011882] 11 p3440 N93-30394
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401
Holmium quasi-two level laser
[AD-D015706] 11 p3440 N93-30427
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
A variable reflectivity output coupler for optically pumped far infrared lasers
[MPE-PREPRINT-225] 11 p3441 N93-30640
Analysis of possibilities for using laser scattering for MeV electron beam diagnostics
[DE93-606223] 11 p3441 N93-30767
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Mode hopping in semiconductor lasers 12 p3731 N93-31131
Effects of atomic coherence on multi-level lasing systems 12 p3731 N93-31133
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019
Optical and kinetic processes in excimer lasers
[AD-A264210] 12 p3733 N93-32402

LASER PLASMA INTERACTIONS
Topics in high-intensity laser plasma interaction 02 p0450 N93-11191
The 1989 Scientific Report of the Laboratory for the Use of High Power Lasers
[ETN-92-92175] 02 p0317 N93-12023
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026
X pulse radiation around the critical surface 02 p0318 N93-12027
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029
Development of a hydrodynamic code: MINNIE 02 p0318 N93-12031
Laser material interaction in confined medium 02 p0319 N93-12035
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Development of coherent x ray lasers
[DE93-009288] 11 p3437 N93-29104

LASER PLASMAS
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Topics in high-intensity laser plasma interaction 02 p0450 N93-11191
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
The 1989 Scientific Report of the Laboratory for the Use of High Power Lasers
[ETN-92-92175] 02 p0317 N93-12023
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering 02 p0318 N93-12025
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026
X-UV spectroscopy temporal resolution 02 p0318 N93-12028
Development of a hydrodynamic code: MINNIE 02 p0318 N93-12031
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma 02 p0320 N93-12041
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies 02 p0320 N93-12044
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A 02 p0321 N93-12046
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy 02 p0254 N93-12050
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060

Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
Self-consistent one-dimensional modelling of x ray laser plasmas
[DE92-019543] 03 p0712 N93-12571
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
Electron temperature of Gd plasma produced by laser resonance ionization
[DE91-017785] 03 p0718 N93-13732
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Excimer laser irradiation of metal surfaces
04 p0884 N93-14175
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Stimulated Brillouin backscattering for nonlinear ionic sound waves in laser plasmas
[ETN-93-93415] 07 p2074 N93-21208
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Multiply charged ions from laser driven plasma sources 08 p2495 N93-23242
Laser driven hydrodynamic instability experiments
[DE93-005822] 08 p2308 N93-23330
X ray absorption spectroscopy of dense, shock compressed, laser plasma 08 p2496 N93-23497
Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020

LASER POWER BEAMING

Laser power transmission 05 p1175 N93-16910
Adaptive optics for laser power beaming
05 p1305 N93-17307
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Enabling lunar and space missions by laser power transmission 05 p1393 N93-17423
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
Handbook of actuators and edge alignment sensors
[NASA-CR-193203] 09 p2620 N93-25317
Space transfer concepts and analyses for exploration missions. Technical directive 12: Beamed power systems study
[NASA-CR-192532] 09 p2599 N93-26146
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Systems analysis on laser beamed power
[NASA-CR-193206] 10 p3047 N93-27036
Power beaming options for the Space Station
10 p2969 N93-27812
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
The lightcraft project 11 p3233 N93-29749
ASPEC: Solar power satellite
11 p3233 N93-29750
Power beaming to communication satellites in GEO
[DE93-007608] 11 p3279 N93-29840

LASER PROPULSION

Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Beamed energy propulsion 05 p1095 N93-16917
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
The lightcraft project 11 p3233 N93-29749

LASER PUMPING

Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers
03 p0606 N93-13629
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Transient x ray laser schemes at 1 millimicron and at 2 millimicron
[DE92-040670] 05 p1171 N93-15948
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
A high efficiency CW holmium-doped fluorozirconate fibre laser at 1.19 micrometers
[MBB-Z-0414-91-PUB] 07 p1911 N93-20843
Efficient CW operation of a 2.75 micrometer Er(3+)-doped fluorozirconate fibre laser pumped at 650 and 795 nm
[MBB-Z-0384-91-PUB] 07 p1911 N93-20916
Selective reactivity, ultrafast energy transfer and the development of chemically pumped visible lasers
[AD-A260123] 08 p2309 N93-24071
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Experiments on a diode-laser-pumped Rb-87 maser
09 p2716 N93-25030
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop
09 p2716 N93-25068
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging
09 p2713 N93-25389
1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544
Proof of the feasibility of coherent and incoherent schemes for pumping a gamma ray laser
[AD-A262421] 10 p3048 N93-27656
Low-pump-rate multi-millisecond atomic xenon laser
[DE93-011484] 11 p3437 N93-29180
ND laser with co-doped ion(s) pumped by visible laser diodes
[AD-D015711] 11 p3437 N93-29277
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU]
11 p3440 N93-30415
Holmium quasi-two level laser
[AD-D015706] 11 p3440 N93-30427
Intracavity-pumped 2.1 micrometer Ho(3+): YAG laser
[AD-D015728] 11 p3441 N93-30587
A variable reflectivity output coupler for optically pumped far infrared lasers
[MPE-PREPRINT-225] 11 p3441 N93-30640

LASER RADAR

U OPTICAL RADAR

LASER RADIATION

U LASER BEAMS

LASER RANGE FINDERS

Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
Geophysical parameters from the analysis of laser ranging to Starlette
[NASA-CR-192406] 06 p1541 N93-18605
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS)
07 p1971 N93-20971
Commission 7: Recent crustal movements
07 p1973 N93-20988
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
A comparison of laser based ranging systems for AR/C category 1: Hardware 08 p2144 N93-22278
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging
09 p2713 N93-25389
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument
09 p2711 N93-25614
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters
09 p2676 N93-26106
Lageos laser ranging earth rotation
[AD-A261471] 09 p2757 N93-26354
Recognizing parameterized objects from range data
[OUEL-1918/92] 11 p3523 N93-28486
Conception of a modular real-time system for laser remote sensing with particular consideration of upward compatibility
[SER-C-378] 12 p3731 N93-31340

LASER RANGER/TRACKER

Analysis of lunar laser ranging in the framework of a post-Newtonian theory
[SER-C-383] 02 p0315 N93-11332
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
International Earth Rotation Service
07 p1974 N93-20990
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281

LASER SPECTROMETERS

TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover
05 p1386 N93-17236
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
Measurement of the rotation Raman spectra of nitrogen, oxygen, and water vapor under conditions of a temperature humidity lidar
[GKSS-92/E/32] 11 p3485 N93-31018

LASER SPECTROSCOPY

Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
On-line analysis of chemical composition using an FT-Raman spectrometer in the near-IR
[DE92-016503] 02 p0253 N93-12311
Novel nonlinear laser diagnostic techniques
[AD-A254709] 02 p0323 N93-12335
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
High-resolution resonant degenerate 4-wave mixing spectroscopy
[DE92-012146] 03 p0538 N93-13234
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
Laser spectroscopy of rare earth ions
03 p0608 N93-13846
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Time-resolved optical studies of 3-5 semiconductors
04 p0990 N93-14183
Laser-based studies with an ion-trap mass spectrometer: Ion tomography and analytical applications
[DE92-017529] 04 p0887 N93-15135

Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098
Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144
Microparticle-based fluorescence immunoassay
[DE92-040704] 05 p1103 N93-16195
A laser spectroscopy technique for evaluating in-situ degradation of composite materials
[AD-A256983] 05 p1097 N93-16255
An in situ technique for elemental analysis of lunar surfaces 05 p1388 N93-17254
Perturbative nearly-degenerate four-wave mixing lineshapes in gases
[DE93-002673] 07 p1850 N93-21490
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals
[DE93-004432] 08 p2228 N93-22724
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
High-resolution free-electron laser spectroscopy 08 p2309 N93-24191
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326
Laser spectroscopy and dynamics of transient species
[DE93-011265] 10 p3048 N93-28365
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions 11 p3319 N93-30075
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means 11 p3319 N93-30081
Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801
Pulsed laser photoacoustic spectrometer for study of solid materials
[DE93-605290] 11 p3441 N93-31023
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

LASER STABILITY

System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Arm length matching in 10 m delay-line interferometer
[ISAS-TN-649] 03 p0596 N93-12639
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399

LASER TARGET INTERACTIONS

Laser material interaction in confined medium 02 p0319 N93-12035
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser 02 p0319 N93-12037
Shock waves induced by pulsed laser in confined interaction: Numerical simulation 02 p0319 N93-12038
Laser-ablation processes
[DE92-011226] 02 p0322 N93-12250
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Excimer laser irradiation of metal surfaces 04 p0884 N93-14175
Finite element models of laser welding 04 p0888 N93-14226
Start-up imprinting and shock dynamics in laser-target interaction
[AD-A261384] 09 p2715 N93-26445
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020

LASER TARGETS

Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534
Hydrodynamic efficiencies in implosion experiments 02 p0308 N93-12030
Recent Nova experimental results
[DE92-019783] 03 p0715 N93-13105
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
Inertial confinement fusion target component fabrication and technology development support
[DE93-010836] 11 p3585 N93-28836
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation 11 p3319 N93-30101
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020

LASER WEAPONS

Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867

LASER WELDING

Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Finite element models of laser welding 04 p0888 N93-14226
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
Laser welding of plastics under low and high gravity conditions 07 p1811 N93-21125
Laser welding of selected aerospace alloys 09 p2718 N93-25435

LASER WINDOWS

Three-dimensional laser window formation for industrial application 08 p2310 N93-22197

LASERS

NT AIRBORNE LASERS
NT ARGON LASERS
NT ATMOSPHERIC LASERS
NT CARBON DIOXIDE LASERS
NT CHEMICAL LASERS
NT CONTINUOUS WAVE LASERS
NT DISTRIBUTED FEEDBACK LASERS
NT DYE LASERS
NT EXCIMER LASERS
NT FREE ELECTRON LASERS
NT GALLIUM ARSENIDE LASERS
NT GAMMA RAY LASERS
NT GAS LASERS
NT GASDYNAMIC LASERS
NT GLASS LASERS
NT HELIUM-NEON LASERS
NT HF LASERS
NT HIGH POWER LASERS
NT INFRARED LASERS
NT INJECTION LASERS
NT IODINE LASERS
NT KRYPTON FLUORIDE LASERS
NT METAL VAPOR LASERS
NT NEODYMIUM LASERS
NT NOVA LASER SYSTEM
NT PULSED LASERS
NT Q SWITCHED LASERS
NT RAMAN LASERS
NT RARE GAS-HALIDE LASERS
NT RING LASERS
NT RUBY LASERS
NT SEMICONDUCTOR LASERS
NT SOLAR-PUMPED LASERS
NT SOLID STATE LASERS
NT SPACEBORNE LASERS
NT SURFACE EMITTING LASERS
NT TEA LASERS
NT TUNABLE LASERS
NT ULTRAVIOLET LASERS
NT WAVEGUIDE LASERS
NT X RAY LASERS
NT XENON CHLORIDE LASERS
NT XENON FLUORIDE LASERS
NT YAG LASERS

Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Hot-wire vs laser, is there a difference?
[DE92-019337] 02 p0310 N93-11554
Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Numerical modelling of the suppression of stimulated Brillouin scattering due to finite laser bandwidth
[DE92-018064] 03 p0606 N93-13534
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Two micron laser development for atmospheric remote sensing at NASA Langley Research Center 04 p0784 N93-14845
Optical glasses for high-peak-power laser applications
[DE92-040403] 04 p0886 N93-14906
Radical ion formation in polymers as a mechanism for laser eye protection
[AD-A255992] 04 p0850 N93-15111
Color center laser with transverse auxiliary illumination
[AD-D015387] 04 p0887 N93-15250
Chaotic dynamics of atoms 06 p1659 N93-18491
International Symposium on Applications of Laser Techniques to Fluid Mechanics and Workshop on Computers in Flow Measurements No. 6
[AD-A258510] 07 p1897 N93-20049
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Ultrafast dynamics of quantum well lasers: Ultimate potential for high speed modulation
[AD-A258653] 07 p1910 N93-20365
Progress in the development of the laser-based R/D test-bed system 07 p1811 N93-21127
Laser docking sensor engineering model 08 p2139 N93-22247
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Mercury: The Los Alamos ICF KrF laser system
[DE93-007363] 09 p2713 N93-25379
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Aberration correction of unstable resonators
[NASA-CASE-NPO-18662-1-CU] 10 p3148 N93-28428

Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Effects of atomic coherence on multi-level lasing systems 12 p3731 N93-31133

LASING
Progress toward x ray lasing between autoionizing transitions
[DE92-017428] 02 p0317 N93-11765
Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Theory of lasing without population inversion 03 p0605 N93-13497
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462
Novel short-wavelength lasers 06 p1543 N93-18472
Method and apparatus for detection and control of prelasing in a Q-switched laser
[NASA-CASE-LAR-14790-1] 06 p1542 N93-19373
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Effects of atomic coherence on multi-level lasing systems 12 p3731 N93-31133

LATCH-UP
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087

LATCHES
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Retractable tool bit having slider type catch mechanism
[NASA-CASE-GSC-13358-1] 04 p0890 N93-14710
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Hatch securing mechanism
[AD-D015613] 07 p1914 N93-20399
Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306

LATE STARS
NT CARBON STARS
NT FLARE STARS
NT M STARS
NT MIRA VARIABLES
Stars in the Rosat all-sky survey 02 p0482 N93-11477
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673

LATENT HEAT
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
Local and regional estimates of sensible and latent heat flux densities from a patch-work surface
[ISBN-0-315-70882-4] 09 p2772 N93-25556
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations 11 p3483 N93-30044
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045
Sensible and latent heat flux estimates in Antarctica 12 p3763 N93-31902

LATENT HEAT OF FUSION
U HEAT OF FUSION

LATERAL CONTROL
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Low bandwidth robust controllers for flight
[NASA-CR-193085] 10 p2946 N93-27156
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite 10 p2925 N93-27203
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068

LATERAL STABILITY
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828

LATERALITY
U LATERAL STABILITY

LATERALIZATION
U LATERAL CONTROL

LATEX
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
Method of processing composites on a latex base (Description of an invention for an author's certificate)
[AD-A258455] 06 p1478 N93-18423

LATITUDE
NT GEOMAGNETIC LATITUDE
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory 04 p0920 N93-14213
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396

LATTICE IMPERFECTIONS
U CRYSTAL DEFECTS

LATTICE PARAMETERS
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Structure and dynamics in low dimensional guest-host solids
[DE93-006498] 08 p2504 N93-22887
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Convergence of compact lattice scalar field theory to its continuum limit
[SSCL-PREPRINT-771] 10 p3156 N93-27584
Phase transitions in the dual lattice in Potts model
[ROM1F-90-752] 10 p3152 N93-27700
A lattice computation of the decay constant of the B-meson
[SSCL-PREPRINT-747] 10 p3135 N93-28198
Hadron structure on the lattice
[SSCL-PREPRINT-754] 10 p3157 N93-28211
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

LATTICE VIBRATIONS
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Spectroscopic effects of disorder and vibrational localization in mixed-halide metal-halide chain solids
[DE93-007361] 09 p2646 N93-26505
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342
Knot invariants and cellular automata
[AD-A264199] 11 p3607 N93-30884
A dynamical model of structural phase transition in La2CuO4
[DE93-605325] 11 p3602 N93-31025

LATTICES
A study of improvement in lattice QCD
[SSCL-PREPRINT-766] 05 p1286 N93-16348
Lattice calculations of f(D) and f(B)
[SSCL-PREPRINT-798] 05 p1286 N93-16394
On lattice chiral gauge theories
[PREPRINT-794] 05 p1278 N93-16415
D decays, B-physics, and CP-violation from lattice QCD
[PREPRINT-799] 05 p1287 N93-16419
Weak matrix elements
[PREPRINT-854] 05 p1279 N93-16976
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
Gribov copies and smeared correlation functions in lattice QCD
[PREPRINT-892] 05 p1330 N93-17027
CP-violation in K(sup +/-) to 3 pi decays and lattice QCD B-factors
[PREPRINT-848] 05 p1323 N93-17068
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
A preliminary study of the Gribov ambiguity in lattice SU(3) Coulomb gauge
[PREPRINT-816] 07 p2055 N93-21179
A lattice computation of the decay constant of the B-meson
[SSCL-PREPRINT-747] 10 p3135 N93-28198
First calculation of D(+) approaches (K bar)(*0)e(+)nu(sub e) in lattice QCD
[SSCL-PREPRINT-748] 10 p3135 N93-28208

LATTICES (MATHEMATICS)
NT BOOLEAN ALGEBRA
NT BOOLEAN FUNCTIONS
Design of a lattice-based faceted classification system 02 p0415 N93-12385
On ascertaining inductively the dimension of the joint kernel of certain commuting linear operators
[AD-A254748] 03 p0696 N93-12847
A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-792] 05 p1287 N93-16414
SU(3) lattice gauge fixing with overrelaxation and Gribov copies
[PREPRINT-839] 05 p1322 N93-16993
Symmetry group of partial differential equations and of differential difference equations: The Toda lattice versus the Korteweg-de Vries equation
[PREPRINT-841] 05 p1270 N93-16995
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187

An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 2
[RR-875-M] 07 p2056 N93-21395
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
Truth-Valued-Flow Inference (TVFI) and its applications in approximate reasoning 08 p2452 N93-22223
The canonical forms of a lattice rule
[DE93-005686] 08 p2466 N93-22759
The set of super-stable marriages forms a distributive lattice
[MEMO-1052] 10 p3125 N93-27907
Incidence and lattice calculus with applications to stochastic geometry and image analysis
[CWI-BS-R9213] 10 p3126 N93-28089
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171

LAUE METHOD
Investigation of III-V superlattices and heterostructures by convergent-beam electron diffraction
[ETN-92-92784] 05 p1321 N93-16581
Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391

LAUNCH COMPLEXES
U LAUNCHING BASES

LAUNCH DATES
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133

LAUNCH TIME
U LAUNCH WINDOWS

LAUNCH VEHICLE CONFIGURATIONS
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
Atlas mission planner's guide
[AD-A258845] 06 p1470 N93-19366
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
National Launch System. Task 4: System architecture options analysis
[MCR-92-5011] 09 p2609 N93-26098
A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123
ASUR 11 p3228 N93-29720

LAUNCH VEHICLES
NT ARIANE LAUNCH VEHICLE
NT ATLAS LAUNCH VEHICLES
NT CENTAUR LAUNCH VEHICLE
NT DELTA LAUNCH VEHICLE
NT HEAVY LIFT LAUNCH VEHICLES
NT PEGASUS AIR-LAUNCHED BOOSTER
NT RECOVERABLE LAUNCH VEHICLES
NT REUSABLE LAUNCH VEHICLES
NT SATURN 5 LAUNCH VEHICLES
NT SINGLE STAGE TO ORBIT VEHICLES
NT TITAN LAUNCH VEHICLES
NT TITAN 4 LAUNCH VEHICLE
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles 01 p0017 N93-10015
Electric propulsion applications 01 p0020 N93-10029
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
A personal viewpoint on the development of China's liquid propellant rocket engines
[AD-A254104] 01 p0027 N93-10813
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study
[NASA-CR-188583] 04 p0824 N93-15629
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study
[NASA-CR-188578] 04 p0825 N93-15633
Reusable Reentry Satellite (RRS): Launch tradeoff study
[NASA-CR-186395] 05 p1086 N93-15803
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Transport: Introduction 05 p1384 N93-16911
Directions for future Earth-to-orbit vehicles 05 p1076 N93-17309
Reliability evaluation methodology for NASA applications 05 p1182 N93-17328
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan
[NASA-CR-192037] 06 p1733 N93-17999
Public space launch acquisition: A comparative case study
[AD-A258141] 06 p1455 N93-18083
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Expendable launch vehicles technology: A report to the US Senate and the US House of Representatives
[NASA-TM-108141] 06 p1456 N93-19375
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Space propulsion 08 p2174 N93-22092
Vehicle systems 08 p2174 N93-22095
Propulsion Systems Panel 08 p2174 N93-22096
Vehicle Systems Panel deliberations 08 p2175 N93-22098
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100
Hybrid rocket propulsion 08 p2175 N93-22102
Reliability of solid rocket motor cases and nozzles 08 p2176 N93-22103
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Transportation systems analyses, volume 2
[NASA-CR-192486] 08 p2177 N93-22386
Candidate technologies for the Integrated Health Management Program
[NASA-CR-192520] 08 p2420 N93-22655
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Transportation systems analyses. Volume 1: Executive summary
[NASA-CR-192485] 08 p2179 N93-23008
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
New launch technologies and American competitiveness 08 p2153 N93-23157
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
Space transfer vehicle concepts and requirements study. Volume 2, book 2: System and program requirements trade studies
[NASA-CR-192526] 09 p2611 N93-25511
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
Propulsion needs for lunar/Mars missions 10 p2967 N93-27798
Space transportation analysis and design (Reissue A)
[AD-A262752] 11 p3271 N93-28487
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Launch vehicles for lightweight TACSAT deployment 11 p3271 N93-29903
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881

LAUNCH WINDOWS
Autonomous rendezvous targeting techniques for national launch system application 08 p2145 N93-22284
Practical aspects of transfer from GTO to lunar orbit 09 p2604 N93-24719
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node
[NASA-TM-104566-VOL-2] 11 p3486 N93-28497

LAUNCHERS
NT GUN LAUNCHERS
NT HYPERVELOCITY LAUNCHERS
NT MISSILE LAUNCHERS
Numerical simulation for the coaxial electromagnetic launcher using hybrid potentials with FE-BE method 02 p0222 N93-11726
The DSI small satellite launcher 03 p0511 N93-13180
Safety and arming system for tube launched projectile
[AD-D015557] 07 p1889 N93-20307
A multiple armature railgun launcher
[AD-A259768] 08 p2171 N93-23486
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Evaluation of future space transportation systems with regard to their reliability and costs
[ESA-TT-1281] 12 p3687 N93-31593

LAUNCHING
NT AIR LAUNCHING
NT LIFTOFF (LAUNCHING)
NT LUNAR LAUNCH
NT ROCKET LAUNCHING
NT SEA LAUNCHING
NT SPACECRAFT LAUNCHING
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Space Shuttle orbiter modifications to support Space Station Freedom
[NASA-TM-108050] 03 p0520 N93-13455
Self-actuating slide valve system
[AD-D015456] 05 p1177 N93-16435
Potential missile flight performance gains from improvements to the propulsion system 05 p1092 N93-17609
Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system 06 p1496 N93-19402
Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources 06 p1664 N93-19409
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat 06 p1424 N93-19671
Robust Neighboring Optimal Guidance for the Advanced Launch System --- Author
[NASA-CR-192087] 08 p2171 N93-22009
Advanced launch system trajectory optimization using suboptimal control 08 p2171 N93-22010
National Launch System: Structures and materials 08 p2172 N93-22083
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114

Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
Space Station Freedom research capabilities 08 p2183 N93-22609
New launch technologies and American competitiveness 08 p2153 N93-23157
A multiple armature railgun launcher [AD-A259768] 08 p2171 N93-23486
Systems engineering considerations for operational support systems 09 p2666 N93-24689
Investigation of the effects of Extra Vehicular Activity (EVA) and Launch and Entry (LES) gloves on performance 09 p2803 N93-26061
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs 09 p2670 N93-26063
Task 2A: UNIS requirements and concepts [MCR-92-5006-PT-A] 09 p2610 N93-26180
Develop margin philosophy to attain robustness [MCR-92-5005] 09 p2610 N93-26182
Task Type E report for National Launch Demonstration Center (NLDC) (Task 32) [MCR-91-5010] 09 p2610 N93-26591
A survey of codes for modeling electromagnetic launch [AD-A264946] 12 p3687 N93-32074

LAUNCHING BASES
NT CAPE KENNEDY LAUNCH COMPLEX
Ever watchful [ESA-BR-37-I] 03 p0517 N93-13903
Preliminary definition of a lunar landing and launch facility (Complex 39L) 05 p1394 N93-17429
Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113

LAUNCHING DEVICES
U LAUNCHERS

LAUNCHING PADS
Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52 [NASA-TM-107554] 06 p1457 N93-19050

LAUNCHING SITES
NT LAUNCHING PADS
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation [NASA-CR-193016] 11 p3272 N93-31033

LAVA
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Physical characterization of magmatic liquids [DE92-015931] 02 p0363 N93-11848
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Large-volume lava flow fields on Venus: Dimensions and morphology 04 p1033 N93-14339
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356
Episodic plate tectonics on Venus 04 p1044 N93-14390
Lunar lava tube sensing 05 p1391 N93-17270
A search for intact lava tubes on the Moon: Possible lunar base habitats [PGD-PUBL-541] 05 p1396 N93-17438
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
The application of remotely sensed data to studies of volcanism within the Galapagos Islands 12 p3747 N93-32326

LAW (JURISPRUDENCE)
NT INTERNATIONAL LAW
NT LEGAL LIABILITY
NT PUBLIC LAW
NT SPACE LAW
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3 [PB92-199421] 01 p0134 N93-10341
Comparison of the prevalence index and average wetland values for identification of wetland vegetation [DE92-016701] 04 p0910 N93-15209
Technology transfer: Federal efforts to enhance the competitiveness of small manufacturers [AD-A256804] 05 p1358 N93-15704
Energy analysis program [DE93-001570] 05 p1199 N93-16045
Environmental Review Guide for Operations (ERGO) [AD-A256922] 05 p1202 N93-16502
Vulnerability assessment of aircraft: A review of the Department of Defense Live Fire Test and Evaluation Program [PB93-149946] 08 p2127 N93-23678
Eumetsat practice for protection of its satellite data 08 p2373 N93-23850
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851
US data policy for Earth observation from space 08 p2373 N93-23852
Conditions of access to Earth observation data: Legal aspects 08 p2373 N93-23853
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data 08 p2374 N93-23855

LAWS
NT CHILD-LANGMUIR LAW
NT CLOSURE LAW
NT CONSERVATION LAWS
NT KEPLER LAWS
NT SCALING LAWS
NT STEFAN-BOLTZMANN LAW
NT STOKES LAW OF RADIATION
NT WEBER-FECHNER LAW
Preserving our future today: Your guide to the United States Environmental Protection Agency [PB92-226190] 07 p1990 N93-21345
Pollution prevention: A regulatory update [DE93-009727] 11 p3472 N93-30180

LAY-UP
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF) [NASA-TM-108382] 03 p0526 N93-13429
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue [AD-A258907] 06 p1480 N93-19336
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts [AD-A258909] 06 p1481 N93-19354
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading [AD-A258902] 06 p1481 N93-19443
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Design of multiple-ply laminated composite tapered beams [NASA-TM-108411] 12 p3700 N93-31650

LAYERS
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite [AD-A251050] 02 p0458 N93-10996
Evaluation of multilayer mask concept for RESPO 21 [AD-A253392] 02 p0389 N93-12079
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567

LAYOUTS
VLSI design for reliability [AD-A253207] 02 p0292 N93-11781
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout [PB92-169572] 03 p0637 N93-12937
Magnetic bearings for a high-performance optical disk buffer, volume 2 [NASA-CR-190874] 03 p0615 N93-13608
Accurate and efficient layout extraction [ISBN-90-9004806-5] 05 p1147 N93-16499
On the typography of flight-deck documentation [NASA-CR-177605] 07 p2087 N93-19970
GGADS: A library independent layout synthesis system for user adaptive gate array master structures [ETN-93-92571] 07 p1892 N93-21021
Center for shape optimization and material layout [AD-A260087] 08 p2471 N93-24411

LC CIRCUITS
Improvement of LC feedthrough filters 07 p1797 N93-20458

LCRE REACTOR
U LITHIUM COOLED REACTOR EXPERIMENT

LDEF
U LONG DURATION EXPOSURE FACILITY

LDR (TELESCOPE)
U LARGE DEPLOYABLE REFLECTOR

LEACHING
Characterization of the water soluble component of inedible residue from candidate CELSS crops [NASA-TM-107557] 06 p1605 N93-18111
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill 09 p2659 N93-25585

LEAD (METAL)
NT LEAD ISOTOPES
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 06 p2210 N93-23719
Airborne studies of ocean-particle-cloud interactions [AD-A259874] 08 p2415 N93-23958
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions [DE93-007711] 09 p2848 N93-25364

LEAD ACID BATTERIES
Results of advanced battery technology evaluations for electric vehicle applications [DE92-018766] 02 p0289 N93-11432
Laboratory testing of the electrosource traction battery [DE92-017993] 02 p0292 N93-12057
Proper battery system design for GAS experiments 03 p0511 N93-13176
Battery selection for space experiments 03 p0512 N93-13184
Interagency Advanced Power Group Solar Photovoltaic Panel Fall Meeting minutes [DE93-006188] 08 p2376 N93-22330
Battery compatibility with photovoltaic charge controllers [DE93-005373] 08 p2377 N93-22537
Battery selection for Space Shuttle experiments [NASA-TM-106142] 10 p2958 N93-27038
High reliability, maintenance-free INS battery development [AD-A264521] 11 p3412 N93-30406
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download [ETN-93-94179] 11 p3466 N93-30573

LEAD ALLOYS
The effect of low Au concentrations on the properties of eutectic Sn/Pb [DE92-041206] 05 p1109 N93-15675
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys [DE93-006041] 08 p2230 N93-23024
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems [DE93-753130] 11 p3320 N93-28529
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys [DE93-606725] 12 p3704 N93-31093

LEAD COMPOUNDS
NT LEAD OXIDES
NT LEAD SELENIDES
NT LEAD SULFIDES
NT LEAD TITANATES
Hierarchical textures in ferroelectric crystals [DE93-608938] 12 p3827 N93-31175

LEAD ISOTOPES
Nuclear structure studies at intermediate energy [DE93-003661] 05 p1295 N93-17605

LEAD OXIDES
A study of parameters that influence growth and stability of the (Bi(1-x)Pb(x))2 Sr2Ca2Cu3O(y) phase [DE92-015187] 02 p0462 N93-11703
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments [DE92-040716] 05 p1318 N93-16267

LEAD SELENIDES
Introduction to lead salt infrared detectors [AD-A260781] 09 p2710 N93-25686

LEAD SULFIDES
Introduction to lead salt infrared detectors [AD-A260781] 09 p2710 N93-25686

LEAD TITANATES
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD [DE92-010907] 02 p0459 N93-11190
Research on lead titanate films for radiation detection [AD-A261187] 09 p2849 N93-25823
Materials for adaptive structural acoustic control, volume 2 [AD-A264620] 11 p3563 N93-30385

LEAD ZIRCONATE TITANATES
Piezoelectric and electrostrictive materials for transducers applications, volume 2 [AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3 [AD-A250891] 01 p0072 N93-10280

Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16928
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU] 05 p1150 N93-17277
Development of neural modules based on Si/PLZT technology for opto-electronic implementations of neural networks
[AD-A257937] 06 p1518 N93-18120
Metal-coated, ordered void piezoelectric ceramic material
[AD-D015540] 07 p1859 N93-20304
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Materials for adaptive structural acoustic control, volume 1
[AD-A264619] 11 p3562 N93-30121
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385

LEADERSHIP
Implementing total quality management (TQM) 1: The command imperative
[AD-A259885] 08 p2520 N93-23981

LEADING EDGE FLAPS
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134

LEADING EDGE SLATS
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252

LEADING EDGE SWEEP
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299

LEADING EDGES
NT BLUNT LEADING EDGES
NT SHARP LEADING EDGES
Hypersonic inlet efficiency revisited 01 p0005 N93-10012
Flow over a leading edge with distributed roughness 01 p0006 N93-10549
The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942
The effect of surface suction near the leading edge of a swept-back wing
[AERO-REPT-9205] 07 p1761 N93-20807
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
The transient development of vortices over delta wings 09 p2576 N93-25269
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Brush seal low surface speed hard-rub characteristics
[NASA-TM-106169] 10 p3039 N93-27132
Leading edge vortices in a chordwise periodic flow 10 p2927 N93-27218
The experimental study of transition and leading edge contamination of swept wings
[LIB-TRANS-2197] 10 p2930 N93-27274
Three-dimensional compressible stability-transition calculations using the spatial theory 10 p2931 N93-27431
Aerodynamics of a finite wing with simulated ice 10 p2932 N93-27437
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble 10 p2936 N93-27457
Prediction of vortex breakdown on a delta wing 10 p2936 N93-27459
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel 10 p2992 N93-28265
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

LEAF AREA INDEX
Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737

LEAKAGE
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Space Station Freedom seal leakage rate analysis and testing summary: Air leaks in ambient versus vacuum exit conditions
[NASA-TM-103604] 02 p0328 N93-12149
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Thermal issues at the SSC 03 p0584 N93-13387
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Brush seal bristle flexure and hard-rub characteristics
[NASA-TM-105864] 06 p1547 N93-18321
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
Hydrogen leak detection in the Space Shuttle 06 p1457 N93-19392
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell
[DE93-004519] 08 p2317 N93-24049
Inward contaminant leakage tests of the S-Tron Corporation emergency escape breathing device. Phase 1: Tests of the original design. Phase 2: Tests with the redesigned neck seal
[DOT/FAA/AM-92/18] 09 p2582 N93-25205
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Brush seal low surface speed hard-rub characteristics
[NASA-TM-106169] 10 p3039 N93-27132
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951
Flammability and explosion limits of H2 and H2/CO: A literature review
[AD-A264896] 12 p3702 N93-31064

LEARNING
NT ASTRONAUT TRAINING
NT CONDITIONING (LEARNING)
NT HABITUATION (LEARNING)
NT TRANSFER OF TRAINING
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Questioning mechanisms during complex learning
[AD-A247382] 02 p0386 N93-11415
Learning and using methodologies in information systems analysis and design 03 p0739 N93-14058
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices 04 p1000 N93-14205

Long term memory for different types of classroom knowledge
[AD-A255235] 04 p0999 N93-14526
Recursively generated networks and dynamical learning
[AD-A255441] 04 p0963 N93-14783
An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027
Space support forum 08 p2153 N93-23160
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A264224] 11 p3539 N93-30361
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657
An annotated bibliography of inductive learning since 1985
[REPT-92-74] 12 p3833 N93-31507

LEARNING MACHINES
U MACHINE LEARNING

LEARNING THEORY
Myths and legends in learning classification rules
[NASA-CR-191236] 03 p0693 N93-13366
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509
An annotated bibliography of inductive learning since 1985
[REPT-92-74] 12 p3833 N93-31507

LEAST SQUARES METHOD
Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
A least-squares finite element method for incompressible Navier-Stokes problem 01 p0060 N93-10548
QR decomposition based algorithms and architectures for least-squares adaptive filtering
[RSRE-MEMO-4562] 02 p0408 N93-11390
EUROMET project no. 231: Uncertainties in mass measurement. NPL's analysis of data from the calibration of weight set NPLW43
[NPL-MOM-107] 02 p0432 N93-11666
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Computer program for calculating and fitting thermodynamic functions
[NASA-RP-1271] 03 p0728 N93-12967
Estimation of EOF expansion coefficients from incomplete data
[AD-A255252] 03 p0697 N93-13886
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
A normal distribution or a Weibull distribution for fatigue lives
[LR-689] 05 p1275 N93-16216
Precision and resolution in spectroscopic model fitting
[ISBN-90-6275-756-6] 05 p1104 N93-16582
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
The neutral wind in the E-region from CP-1 data 06 p1729 N93-19565
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633
SSG 4.116: Kinematic and dynamic system modelling in geodesy 07 p1972 N93-20982
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
History of geodesy 07 p1975 N93-20997
Evaluation and detection of a signal containing an autoregressive noise
[ETN-93-92684] 07 p1885 N93-21061
Estimation methods for parameters of multivariate autoregressive models
[ETN-93-92685] 07 p2059 N93-21062
A comparative study of estimation of partial cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640
Comparison of operational and standard methods for data in rectangular array
[DE93-007783] 08 p2471 N93-24574
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
Identification of significant outliers in time series data
[AD-A262437] 10 p3125 N93-27659
A comparison of variable selection criteria for multiple linear regression: A second simulation study
[AD-A262512] 10 p3125 N93-27664
Finite interpolation of random fields
[CWI-BS-R9210] 10 p3126 N93-28087
Adaptive filtering methods: On methods to use a priori information in order to reduce complexity while maintaining convergence properties
[ISBN-90-9005143-0] 10 p3121 N93-28109
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Evaluation of fuzzy inference systems using fuzzy least squares 11 p3513 N93-29539
QR decomposition based least squares lattice algorithm 11 p3358 N93-30239
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
RLS techniques with generalized forgetting devices for the identification of time-varying systems
[REPT-92-069] 12 p3810 N93-31463
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009
Set-membership identification for robust control design
[AD-A265669] 12 p3800 N93-32197
Adaptive RLS identification with generalized forgetting techniques
[REPT-92-037] 12 p3810 N93-32390

LEAVES
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
Data analysis for bark and leaf reflectance measurements
[AD-A258598] 07 p1966 N93-19983

LECTURES
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
The 1991 lectures in complex systems
[AD-A259428] 07 p2050 N93-20008
Lecture materials for the CTOS/MCS introductory course
[NASA-CR-192734] 07 p2048 N93-21308
Index to NASA news releases and speeches, 1992
[NASA-TM-109187] 08 p2524 N93-23172

LED (DIODES)
U LIGHT EMITTING DIODES

LEG (ANATOMY)
NT FEET (ANATOMY)
NT KNEE (ANATOMY)
Anthropometry of the foot and lower leg of U.S. Army soldiers: Fort Jackson, SC
[AD-A261405] 09 p2802 N93-26404

LEGAL LIABILITY
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637

LEGENDRE CODE
U COMPUTER PROGRAMMING
U NEUTRON SCATTERING

LEGENDRE FUNCTIONS
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry 02 p0373 N93-12002
Vector approximation problems in geometric vector optimization
[REPT-92-39] 06 p1643 N93-17871

LEGENDRE POLYNOMIALS
U LEGENDRE FUNCTIONS

LEGENDRE TRANSFORMATION
U LEGENDRE FUNCTIONS

LEGUMINOUS PLANTS
NT SOYBEANS

LEM (LUNAR MODULE)
U LUNAR MODULE

LEMMAS
U THEOREMS

LENGTH
NT DIFFUSION LENGTH
Equivalent lengths of struts (for use in buckling calculations)
[ESDU-92038] 06 p1554 N93-18046
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827

LENNARD-JONES POTENTIAL
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Experimental and theoretical studies of dense fluid mixtures
[DE93-006070] 09 p2695 N93-24976
Composition dependence of fluid thermophysical properties: Theory and modeling
[DE93-011119] 10 p2996 N93-28352
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097

LENS ANTENNAS
A multiple-aperture multiple-beam EHF antenna for satellite communications
[AD-A256020] 04 p0858 N93-14426
The development and testing of the Lens Antenna Deployment Demonstration (LADD) test article 06 p1463 N93-18829
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
Zone plate lens antennas for millimeter and submillimeter wavelengths 10 p3016 N93-27757
Double-slot antennas on extended hemispherical dielectric lenses 10 p3016 N93-27759
Recent advances in bootlace lens design 11 p3374 N93-30336

LENS DESIGN
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Endoscopic measurements using a panoramic annular lens
[NASA-CR-184501] 05 p1167 N93-16453
Birefringent polarization ray tracing: Theory and applications 07 p2067 N93-20285

Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105

LENSES
NT CONTACT LENSES
NT FRESNEL LENSES
NT GRAVITATIONAL LENSES
NT WIDE ANGLE LENSES
NT ZOOM LENSES
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU] 03 p0711 N93-13711
Optical glasses for high-peak-power laser applications
[DE92-040403] 04 p0886 N93-14906
Color center laser with transverse auxiliary illumination
[AD-D015387] 04 p0887 N93-15250
Center for x ray optics, 1991
[DE93-001543] 04 p0984 N93-15350
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems 04 p0984 N93-15506
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Immersion objective lenses in electron optics
[ETN-92-92799] 06 p1662 N93-18442
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Double-slot antennas on extended hemispherical dielectric lenses 10 p3016 N93-27759
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

LEO ENVIRONMENTS
U EARTH ORBITAL ENVIRONMENTS

LEONID METEOROIDS
Formation of the Leonid meteor stream and storm 06 p1721 N93-19267

LEPTONS
NT ANTINEUTRINOS
NT CONDUCTION ELECTRONS
NT ELECTRONS
NT MUONS
NT NEUTRINOS
NT POSITRONS
NT SOLAR NEUTRINOS
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
The spin of the nucleon in deep inelastic lepton scattering experiments
[DE92-018854] 03 p0702 N93-13073
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
The discovery of the tau lepton
[DE93-004013] 07 p2063 N93-21718
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793
Lepton-quark families, cosmic strings and democratic mass matrix
[DE93-608263] 12 p3832 N93-31809

LESIONS
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Analysis of visual loss from retinal lesions
[AD-A264692] 11 p3496 N93-30494

LETHALITY
Limited toxicity and mutagenicity testing of five unicharge propellant compounds
[AD-A252339] 01 p0043 N93-10636
User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852

LETTERS (SYMBOLS)
U SYMBOLS

LEUKOCYTES
NT EOSINOPHILS
NT LYMPHOCYTES

LEVEL (HORIZONTAL)
NT LIQUID LEVELS

LEVEL (QUANTITY)
NT ATOMIC ENERGY LEVELS
NT ELECTRON STATES
NT ENERGY LEVELS
NT GROUND STATE
NT INTERMOLECULAR FORCES
NT MOLECULAR ENERGY LEVELS

LEVELING
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344

LEVERS
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Portable seat lift
[NASA-CASE-MFS-28610-1] 05 p1228 N93-17045

LEVITATION
NT ACOUSTIC LEVITATION
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
An electromagnetically levitated two-axis gimbaless pointing mechanism 10 p2961 N93-27565
Forces on a magnet moving past figure-eight coils
[DE93-009965] 11 p3561 N93-29189

LEWIS BASE
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574

LEWIS NUMBERS
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching 09 p2642 N93-24771
Modelling of microgravity ignition phenomena 09 p2664 N93-25465
Studies in premixed combustion
[DE93-007955] 11 p3310 N93-29051

LIABILITIES
NT LEGAL LIABILITY

LIAPUNOV FUNCTIONS
Ergodic properties of high dimensional symplectic maps
[PREPRINT-802] 05 p1276 N93-16422
Performance and stability robustness for uncertain linear systems: A quadratic approach
[LAAS-92199] 05 p1271 N93-17494
Extended Lyapunov exponents for second order systems
[AD-A258838] 06 p1647 N93-19066
Explicit representations of Lyapunov functions for stable analytic systems
[RR-402] 07 p2051 N93-20737
Maneuver and vibration control of flexible space structures by Lyapunov stability theory 08 p2195 N93-23956
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Robust control of robots using only position measurements
[MEMO-1073] 10 p3110 N93-28092

LIBRARIES
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
NASA Electronic Library System (NELS) database schema, version 1.2
[NASA-CR-190643] 01 p0172 N93-10451
Seminar on Basic Documentation Practices
[AGARD-R-788] 01 p0172 N93-10593
Documentation practices: The national scene (Greece) 01 p0173 N93-10595
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres 01 p0173 N93-10598
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
The long hold: Storing data at the National Archives 03 p0737 N93-13139
Ultraviolet spectra of stars and stellar systems 04 p1011 N93-14593
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
Mathematical software under UNICOS at LCC
[DE93-001828] 04 p0952 N93-15493
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328
Updating and expanding the library of materials on NASA Spacelink electronic information system 05 p1340 N93-17282
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
Examining a layered approach to function and design representation for reusable software components
[AD-A258920] 06 p1626 N93-19343
TRADOC Library and Information Network (TRALINET). Union list of periodicals (TULIP)
[AD-A258935] 06 p1688 N93-19451
HippoDraw
[DE93-004005] 06 p1627 N93-19633
Establishing a research agenda for Scientific and Technical Information (STI): Focus on the user 06 p1692 N93-19797
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 27: Knowledge diffusion and US government technology policy: Issues and opportunities for sci/tech librarians
[NASA-TM-108680] 07 p2088 N93-20110
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
Open forum on recommendations of the White House Conference on Library and Information Services
[PB93-107639] 07 p2091 N93-21379
Access EPA
[PB92-147438] 07 p1994 N93-21811
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Motif, the basics: An overview of the widget set
[DE93-005273] 08 p2436 N93-22720
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279
Public libraries in the US, 1990
[PB93-127926] 08 p2525 N93-23285
Modernization and unification: Strategic goals for NASA STI program
[NASA-TM-109186] 08 p2528 N93-24117
AGRICOLA subject category codes with scope notes (modified AGRIS)
[PB93-152643] 08 p2528 N93-24202
List of journals indexed in AGRICOLA, 1992
[PB93-152650] 08 p2528 N93-24204
Crossing the frontier between publishing and information service
[DE93-002894] 09 p2873 N93-24677
Interactive interface for National Center for Atmospheric Research (NCAR) Graphics 09 p2878 N93-25794
Proceedings of the 33rd Annual Military LibrariansWorkshop
[AD-A261071] 09 p2882 N93-26242
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846

RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
The 9th FLICC Forum on Federal Information Policies
[PB93-184687] 11 p3624 N93-29668
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
End users: New products and services 12 p3837 N93-31220
The management of change: Implications for the information professional 12 p3838 N93-31222
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637
Performance of a distributed superscalar storage server 12 p3841 N93-31978
Automation and hypermedia technology applications 12 p3843 N93-32155

LIBRATION
Optimal transfers between libration-point orbits in the elliptic restricted three-body problem 09 p2608 N93-25758

LIBRATIONAL MOTION
On the dynamical structure of the Trojan group of asteroids 06 p1721 N93-19269
Femtosecond dynamics in hydrogen-bonding solvents: Formamides
[DE93-003476] 09 p2643 N93-25123
The dynamics and control of space tethers 11 p3274 N93-28629

LIBYA
Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827

LICENSING
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Patent write-ups: Patents available for licensing
[AD-A256694] 05 p1402 N93-16113
Radiological safety regulation and licensing of nuclear-based explosive detection systems 07 p1770 N93-21894
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
The role of the University Licensing Office in transferring intellectual property to industry 11 p3626 N93-30698

LICHENS
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704

LIDAR
U OPTICAL RADAR

LIE GROUPS
NT SPINOR GROUPS
An isomorphism for algebra of distributions with compact support on Lie groups
[DE92-603605] 02 p0427 N93-12176
Applications of group-invariant analytic solutions to inertial confinement fusion
[DE92-040347] 03 p0715 N93-13047
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
An approximate invariant using Lie algebra
[DE93-000564] 05 p1263 N93-16247
Quantum groups and Lie-admissable time evolution
[SSCL-PREPRINT-793] 05 p1264 N93-16349
Vertex operator representation of some quantum tori Lie algebras
[PREPRINT-834] 05 p1269 N93-16956
Lie point symmetries and exact solutions of nonlinear differential equations
[PREPRINT-840] 05 p1269 N93-16994
Symmetries and conditional symmetries of differential-difference equations
[PREPRINT-858] 05 p1270 N93-16997
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
Lie-admissible perturbation methods for open quantum systems
[PREPRINT-845] 06 p1651 N93-17840
Explicit representations of Lyapunov functions for stable analytic systems
[RR-402] 07 p2051 N93-20737
On a possible non-Lorentzian energy-dependence of the K neutral(sub S)
[PREPRINT-807] 07 p2053 N93-20903
Two-parameter quantum groups
[PREPRINT-820] 07 p2060 N93-21182
Deformation of supersymmetric and conformal quantum mechanics through affine transformations 10 p3142 N93-27321
The algebra of supertraces for 2+1 super de Sitter gravity 10 p3144 N93-27337
Symmetry algebra of a generalized anisotropic harmonic oscillator 10 p3122 N93-27347
Fermion realization of exceptional Lie algebras from maximal unitary subalgebras 10 p3123 N93-27348
The harmonic oscillator and nuclear physics 10 p3146 N93-27354
Symmetries and motions in manifolds
[NIKHEF-H/92-08] 10 p3128 N93-27510
On the fermionic Heisenberg group and its Q-representations
[NIKHEF-H/92-11] 10 p3117 N93-27542
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Quasar redshifts and non-potential interactions
[SSCL-PREPRINT-758] 10 p3205 N93-28143
Continuous symmetries of discrete equations
[SSCL-PREPRINT-738] 10 p3121 N93-28163
Lie groups whose set of compact subgroups is inductive
[ETN-93-93791] 11 p3547 N93-28524
Deformations of the Lie algebras L1(H(2)) and L1(W(2))
[MEMO-1056] 11 p3547 N93-28667
Computer algebra tools for higher symmetry analysis of nonlinear evolution equations
[DE93-606089] 11 p3535 N93-30787
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
Normal equivariant forms of vector fields
[DE92-644845] 11 p3551 N93-30929
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
Normal forms of invariant vector fields under a finite group action
[DE93-604134] 12 p3813 N93-31102
BRST quantization of 2D-Yang Mills theory with anomalies
[NIKHEF-H/92-13] 12 p3831 N93-31122
Q-deformed conformal superalgebra and its Hopf subalgebras
[DE93-608160] 12 p3807 N93-31808
Supersymmetric construction of W-algebras from super Toda and WZNW theories
[DE93-608244] 12 p3808 N93-31819
Lie bialgebras with triangular decomposition
[DE93-604232] 12 p3808 N93-31820
On two-current realization of KP hierarchy
[DE93-609917] 12 p3808 N93-31912

LIF (FLUORESCENCE)
U LASER INDUCED FLUORESCENCE

LIFE (BIOLOGY)
U LIFE SCIENCES

LIFE (DURABILITY)
NT FATIGUE LIFE
NT HALF LIFE
NT SATELLITE LIFETIME
NT SERVICE LIFE
NT STORAGE STABILITY
The total time on test statistic and age-dependent censoring
[AD-A253622] 01 p0147 N93-10798
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
The use of life cycle costing for the acquisition of non-major systems at the Naval Regional Contracting Center Detachment
[AD-A255170] 02 p0480 N93-12473
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
In-service considerations affecting component life 04 p0800 N93-14898
ICI optical data storage tape 04 p1005 N93-15037
Testing and characterisation of metallic materials for structural analysis of high temperature components 05 p1082 N93-15757
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Toward full life cycle control: Adding maintenance measurement to the SEL 05 p1245 N93-17170
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Control of in-service damage: Application to aircraft engines
[DS-2027] 06 p1448 N93-18151
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
Recommended approach to software development, revision 3
[NASA-TM-108630] 06 p1624 N93-18861
Research on large capacity Ni-Cd batteries 07 p1799 N93-20476
Research on Ni-H2 batteries 07 p1800 N93-20477
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Contactless microwave lifetime measurement
[ETN-93-93595] 10 p3027 N93-27870
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU] 10 p2987 N93-28424
Development of nickel/metal hydride secondary battery
[DE93-781330] 11 p3406 N93-28669
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581

LIFE CYCLE COSTS
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Role of automation in the ACRV operations 02 p0230 N93-11977
The use of life cycle costing for the acquisition of non-major systems at the Naval Regional Contracting Center Detachment
[AD-A255170] 02 p0480 N93-12473
Alternative systems for fuel gas boosters for small gas turbine engines
[PB92-223049] 03 p0612 N93-12977
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872

Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance 05 p1393 N93-17420
PDES Application Protocol Suite for Composite (PAS-C) scoping and benefits criteria. Volume 1: Executive summary and overview
[AD-A258833] 06 p1687 N93-19074
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
Statistical analysis of fatigue tests 07 p1923 N93-20343
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
Approach range and velocity determination using laser sensors and retroreflector targets 08 p2147 N93-22297
Summary of activities of the Life Cycle Costing Workshop conducted by the Environmental Restoration Program of Oak Ridge National Laboratory
[DE93-000823] 08 p2531 N93-22935
Space transfer concepts and analyses for exploration missions. Technical directive 12: Beamed power systems study
[NASA-CR-192532] 09 p2599 N93-26146
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585

LIFE RAFTS
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697

LIFE SCIENCES
NT EXTRATERRESTRIAL LIFE
NT MOLECULAR BIOLOGY
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 365)
[NASA-SP-7011(365)] 01 p0130 N93-10075
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 360)
[NASA-SP-7011(360)] 01 p0130 N93-10076
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 364)
[NASA-SP-7011(364)] 01 p0130 N93-10077
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367)
[NASA-SP-7011(367)] 01 p0130 N93-10080
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
SLS-1 flight experiments preliminary significant results
[NASA-TM-108033] 03 p0520 N93-13613
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 368)
[NASA-SP-7011(368)] 04 p0934 N93-14603
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
NASA/NSF Antarctic Science Working Group 05 p1222 N93-16802
NASA/NSF Workshop on Antarctic Research 05 p1222 N93-16803
Infectious disease 05 p1222 N93-16804
Nutrition 05 p1222 N93-16805
Immunology presentation at the 1990 NASA/NSF Antarctica Biomedical Science Working Group 05 p1222 N93-16806
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Long-duration isolation and confinement: Human factors issues and research requirements 05 p1223 N93-16808
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 370)
[NASA-SP-7011(370)] 06 p1596 N93-18108
The US global change research program: Early achievements and future directions 06 p1573 N93-18864
The 1991 lectures in complex systems
[AD-A259428] 07 p2050 N93-20008
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 372)
[NASA-SP-7011(372)] 07 p2024 N93-21044
Space life sciences overview 07 p1802 N93-21074
Direct-reading dosimeters for space life science experiments 07 p1804 N93-21083
Prologue to Action. Life Sciences Education and Science Literacy
[PB93-107514] 07 p2021 N93-21230
Environmental health discipline science plan
[NASA-TM-108042] 07 p2024 N93-21369
Space human factors discipline science plan
[NASA-TM-108023] 07 p2026 N93-21370
A modular, programmable measurement system for physiological and spaceflight applications 08 p2305 N93-22201
Space Station Freedom Utilization Conference
[NASA-TM-108742] 08 p2182 N93-22606
Space Station Freedom Utilization Conference: Executive summary 08 p2182 N93-22607
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Life sciences utilization of Space Station Freedom 08 p2185 N93-22622
Life sciences recruitment objectives 08 p2186 N93-22623
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629
Crew health 08 p2187 N93-22630
Bibliography of the Biosciences Division: 1986 to present
[DCIEM-92-20] 08 p2419 N93-23343
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 373)
[NASA-SP-7011(373)] 10 p3083 N93-26945
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-005] 11 p3490 N93-28683
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-027] 11 p3490 N93-28684
Spontaneous regulating mechanisms that may have led to the origin of life
[DE93-603677] 12 p3771 N93-31161
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924

LIFE SPAN
Dissolution of tidally limited star clusters in galaxies by passing giant molecular clouds or other massive objects
[MITT-SER-A-232] 07 p2097 N93-21301

LIFE SUPPORT SYSTEMS
NT CLOSED ECOLOGICAL SYSTEMS
NT EMERGENCY LIFE SUSTAINING SYSTEMS
NT PORTABLE LIFE SUPPORT SYSTEMS
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
ECLSS evolution: Advanced instrumentation interface requirements. Volume 3: Appendix C
[NASA-CR-184367] 03 p0678 N93-12990
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Lunar resource recovery: A definition of requirements 03 p0761 N93-13978
The environmental control and life-support system for a lunar base: What drives its design 03 p0680 N93-13991
Life systems for a lunar base 03 p0680 N93-13992
Lunar base CELSS: A bioregenerative approach 03 p0680 N93-13993
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
Potential of derived lunar volatiles for life support 03 p0680 N93-13998
Technology development for lunar base water recycling 03 p0680 N93-13999
Plasma reactor waste management systems 03 p0680 N93-14000
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630
Reusable Reentry Satellite (RRS): Thermal control trade study
[NASA-CR-186528] 05 p1087 N93-16719
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
UPT scenarios: Implications for system reliability 05 p1182 N93-17332
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Study on environment control and life support technology 07 p1789 N93-20413
Space Station ECLSS integration analysis
[NASA-CR-192470] 07 p2027 N93-22002
Mars transfer vehicle studies 08 p2173 N93-22088
Introduction to Space Station Freedom 08 p2182 N93-22608
Integrated oxygen recovery system
[NASA-CR-192343] 08 p2426 N93-22663
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Near Earth object fuels (neo-fuels): Discovery, prospecting and use
[DE93-005185] 09 p2892 N93-25164
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904

Integrated oxygen recovery system
[NASA-CR-192982] 09 p2801 N93-26088
1991 NASA Life Support Systems Analysis workshop
[NASA-CR-4466] 10 p3085 N93-27100
1992 NASA Life Support Systems Analysis workshop
[NASA-CR-4467] 10 p3085 N93-27101
Environmental control and life support system
10 p2965 N93-27718
Environmental control and life support system evolution 10 p2965 N93-27719
Technologies for ECLSS evolution
10 p2965 N93-27720
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
JSC ECLSS R/T program overview
10 p2966 N93-27725
Evolving EVA system capability for the evolving Space Station Freedom requirements 10 p2966 N93-27791
Environmental control and life support systems
10 p2972 N93-27858
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Dust protection for environmental control and life support systems in the lunar environment
10 p3089 N93-27979
Manned lunar surface site 10 p2951 N93-28033
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436
Selenia: A habitability study for the development of a third generation lunar base 11 p3233 N93-29748
Technology transfer in the NASA Ames Advanced Life Support Division 11 p3628 N93-30724
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365

LIFEBOATS
The application of Hybrid 3 dummy to the impact assessment of a free-fall lifeboat
06 p1424 N93-19671

LIFETIME (DURABILITY)
U LIFE (DURABILITY)

LIFT
NT ROTOR LIFT
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Lift coefficient of a randomly oscillating hydroplane
[DRA/MAR-TM(MTH)-91320] 02 p0197 N93-11377
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
New methods for predicting nonlinear lift, center of pressure, and pitching moment on missile configurations
[AD-A255078] 03 p0492 N93-12741
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
An approximate method for estimating the lifting characteristics of thin bodies of non-circular cross-section
[CRANFIELD-AERO-9006] 08 p2108 N93-22395
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control
09 p2576 N93-25274
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
Leading edge vortices in a chordwise periodic flow
10 p2927 N93-27218
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

LIFT AUGMENTATION
Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336
Tailored composite wings with elastically produced chordwise camber 11 p3308 N93-30876
The numerical simulation of circulation controlled airfoil flowfields 11 p3243 N93-30947

LIFT COEFFICIENTS
U AERODYNAMIC COEFFICIENTS
U LIFT

LIFT DEVICES
The theoretical background to BS7167: 1990 - specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method
06 p1410 N93-19281
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Advanced underwater lift device
[NASA-CR-185709] 08 p2169 N93-22877

LIFT DISTRIBUTION
U FORCE DISTRIBUTION
U LIFT

LIFT DRAG RATIO
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128

LIFT FANS
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286

LIFT FORCES
U LIFT

LIFTING BODIES
NT LIFTING REENTRY VEHICLES
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522
Panel methods for aerodynamic analysis and design
[NLR-TP-91404-U] 12 p3674 N93-32357

LIFTING REENTRY VEHICLES
The X-15/HL-20 operations support comparison
[NASA-TM-4453] 12 p3687 N93-32379

LIFTING ROTORS
NT BEARINGLESS ROTORS
Studies of a flat wake rotor theory
[NASA-CR-190936] 02 p0201 N93-12343

LIFTING SURFACES
U LIFT DEVICES
U LIFTING BODIES
U SURFACES

LIFTOFF (LAUNCHING)
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731

LIGANDS
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Growth of 2-6 thin-films from single-source precursors based on sterically encumbered sitel ligands
[DE92-017077] 02 p0466 N93-12099
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Organometallic chemistry of bimetallic compounds
[DE93-002773] 05 p1115 N93-17201
International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986
Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Recovery and separation of precious metals from space 10 p3001 N93-26686
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

LIGHT (VISIBLE RADIATION)
NT AIRGLOW
NT COHERENT LIGHT
NT DAYGLOW
NT GEOCORONAL EMISSIONS
NT NIGHTGLOW
NT POLARIZED LIGHT
NT SUNLIGHT
NT TWILIGHT GLOW
NT ZODIACAL LIGHT
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Observation of pulses propagating at supraluminous speed in an optical fiber 02 p0320 N93-12040
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Soft x ray segregation of Seyfert galaxies
05 p1362 N93-17135

Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426

LIGHT ABSORPTION
U ELECTROMAGNETIC ABSORPTION

LIGHT AIRCRAFT
NT OH-58 HELICOPTER
NT PIPER AIRCRAFT
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802

LIGHT ALLOYS
NT ALUMINUM ALLOYS
NT ALUMINUM-LITHIUM ALLOYS
NT BERYLLIUM ALLOYS
NT MAGNESIUM ALLOYS
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST
[NASA-CR-192354] 08 p2230 N93-23193
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739

LIGHT AMPLIFIERS
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices
[AD-A253001] 02 p0446 N93-11071
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. Ilifornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666
OSA proceedings of the topical meeting on optical amplifiers and their applications, volume 13
[AD-A252974] 03 p0711 N93-13879
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
All solid-state high power visible laser
[NASA-CR-193163] 11 p3436 N93-28623

LIGHT BEAMS
NT LASER BEAMS
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
A computer algorithm for automatic beam steering
[DE92-019338] 02 p0411 N93-11555
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods
[DE92-019032] 02 p0445 N93-11831
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Analysis and design of a novel robotic finger-tip sensor for adaptive grasping 09 p2719 N93-25745
SWAT 2 overview
[AD-A262905] 11 p3578 N93-29139
SWAT laboratory test results
[AD-A262906] 11 p3578 N93-29140
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007

LIGHT BULBS
U LUMINAIRES

LIGHT COMMUNICATION
U OPTICAL COMMUNICATION

LIGHT CURVE
The black hole candidate binary A0620-00 04 p1015 N93-14148
Chaotic behaviour of x ray lightcurves of AGN? 05 p1366 N93-17101
Multifrequency observations of rapidly variable blazars 05 p1361 N93-17109
ROSAT and multi-wavelength observations of 3C 371 05 p1361 N93-17121
The x ray variability of NGC6814: Power spectra 06 p1562 N93-18712
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
Light curve and fan-shaped coma of comet P/Tempel 2 in 1988-1989 06 p1700 N93-19114
Fragmentation and densities of meteoroids 06 p1700 N93-19118
Asteroids with unusual lightcurves: 14 Irene and 51 Nemausa 06 p1701 N93-19123
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
A photometric survey of outer belt asteroids 06 p1697 N93-19149
The gas production rate of periodic comet d'Arrest 06 p1705 N93-19155
Lightcurve of comet Austin(1989c1) and its dust mantle development 06 p1707 N93-19167
Inversion methods for interpretation of asteroid lightcurves 06 p1698 N93-19182
Spin vector and shape of 532 Herculina 06 p1711 N93-19193
Ground-based observations of 951 Gaspra: CCD lightcurves and spectrophotometry with the Galileo filters 06 p1698 N93-19212
The shape of asteroid 1917 Cuyo 06 p1714 N93-19218
Twentieth century light curves and the nucleus of comet P/Tempel 2 06 p1698 N93-19231
The unusual lightcurve of 1990 TR 06 p1720 N93-19265
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO 08 p2540 N93-23929
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073

LIGHT DURATION
U FLASH
U PULSE DURATION

LIGHT ELEMENTS
An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements 08 p2485 N93-22184
Photoerosion in astrophysical environments 10 p3205 N93-28450
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360

LIGHT EMISSION
NT BIOLUMINESCENCE
NT CATHODOLUMINESCENCE
NT CHEMILUMINESCENCE
NT ELECTROLUMINESCENCE
NT FLUORESCENCE
NT LASER INDUCED FLUORESCENCE
NT LUMINESCENCE
NT LUNAR LUMINESCENCE
NT OPTICAL RESONANCE
NT PHOSPHORESCENCE
NT PHOTOLUMINESCENCE
NT RESONANCE FLUORESCENCE
NT SONOLUMINESCENCE
NT SPACECRAFT GLOW
NT THERMOLUMINESCENCE
NT X RAY FLUORESCENCE
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Visible light emission from porous silicon examined by photoluminescence and Raman spectroscopy
[DE93-006780] 09 p2646 N93-26502

LIGHT EMITTING DIODES
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMi-B-494] 02 p0442 N93-11028
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599
Compact Blue-Green Lasers: Summaries of papers presented at the topical meeting. Volume 6: Technical digest series
[AD-A255001] 03 p0608 N93-13883
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Solar-powered light emitting diode power line avoidance marker design
[AD-A259886] 08 p2381 N93-23983
Emerging large-screen display technology
[AD-A261066] 09 p2681 N93-26241
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811

LIGHT GAS GUNS
Operating characteristics of a 7.6 mm (0.30 inch) diameter two-stage light-gas gun
[DE92-018783] 02 p0217 N93-11447
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987

LIGHT HELICOPTERS
NT OH-58 HELICOPTER

LIGHT INTENSITY
U LUMINOUS INTENSITY

LIGHT IONS
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407

LIGHT MODULATION
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Infrared image projector utilizing a deformable mirror device spatial light modulator
[AD-D015373] 03 p0710 N93-13500
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032

Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Ultrafast dynamics of quantum well lasers: Ultimate potential for high speed modulation
[AD-A258653] 07 p1910 N93-20365
Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277
Full complex modulation using two one-parameter spatial light modulators
[NASA-CASE-MSC-22255-1] 10 p3148 N93-28135
Spatial Light Modulators (SLMs) surface quality
[AD-A263249] 11 p3579 N93-29656
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372
Subpicosecond electrooptic sampling
[AD-A264635] 11 p3581 N93-30520
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Design of coupled mace filters for optical pattern recognition using practical spatial light modulators
[NASA-CR-193192] 12 p3823 N93-31841
Quantum well optical waveguide modulators
[AD-A265421] 12 p3824 N93-32050

LIGHT PROBES
U LIGHT BEAMS

LIGHT SCATTERING
NT HALOS
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems
[AD-A253186] 01 p0158 N93-10445
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Light scattering from a sphere on or near an interface 02 p0448 N93-12531
Numerical modelling of the suppression of stimulated Brillouin scattering due to finite laser bandwidth
[DE92-018064] 03 p0606 N93-13534
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar 03 p0653 N93-13614
Quantum fluctuations in stimulated Raman scattering 04 p0857 N93-14126
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Diffusing wave spectroscopy 04 p0980 N93-14169
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Definition of the sea surface infrared sun glitter corridor
[AD-A257100] 05 p1220 N93-16125
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Light diffusion in stochastically perturbed media
[REPT-92-41] 06 p1661 N93-17873
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering
[AD-D015579] 07 p1910 N93-20770
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Coarsening of a quiescent electrorheological fluid I: Experiment
[DE93-006776] 09 p2642 N93-24972
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors 09 p2772 N93-25535
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Loading and testing a light scattering cell with a binary fluid mixture near its critical composition
[NASA-CR-193147] 11 p3415 N93-28557
Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Analysis of possibilities for using laser scattering for MeV electron beam diagnostics
[DE93-606223] 11 p3441 N93-30767
Scattering by irregular particles in anomalous diffraction and discrete dipole approximations 12 p3817 N93-31154
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

LIGHT SOURCES
NT ILLUMINATORS
A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11956
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory
[DE92-040316] 04 p1013 N93-15425
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Advanced light source
[DE92-041181] 05 p1302 N93-16196
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
Simulated high heat load performance of an inclined crystal monochromator
[DE93-000506] 05 p1326 N93-17378
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
OptoElectronic Materials Center: A collaborative program including University of New Mexico, Stanford University, and California Institute of Technology
[AD-A258113] 06 p1540 N93-17894
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Tunable infrared and visible solid-state laser 06 p1543 N93-18473
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
Transversely polarized source cladding for an optical fiber
[NASA-CASE-LAR-14652-1-SB] 08 p2486 N93-22039
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Undulator Spectromicroscopy Facility at the Advanced Light Source
[DE93-007964] 11 p3261 N93-28490
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
A quality monitor and monitoring technique employing optically stimulated electron emission
[NASA-CASE-LAR-15063-1] 11 p3449 N93-30414
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

LIGHT TRANSMISSION
NT HALOS
NT LIGHT SCATTERING
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements 04 p0914 N93-14641
Aerosol and light extinction databases for North America and Europe
[AD-A256710] 05 p1213 N93-16169
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595
An iterative approach to curved ray photoelastic analysis 07 p1928 N93-20635
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047

LIGHT VALVES
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential
06 p1611 N93-19782
LIGHTHILL METHOD
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
LIGHTING
U ILLUMINATING
LIGHTING EQUIPMENT
NT AIRCRAFT LIGHTS
NT AIRPORT LIGHTS
NT FLASH LAMPS
NT ILLUMINATORS
NT LUMINAIRES
Integration of exterior lighting systems and night vision imaging systems
[AD-A254826] 03 p0677 N93-12732
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
LIGHTNING
NT BALL LIGHTNING
Method and apparatus for determining return stroke polarity of distant lightning
[NASA-CASE-MFS-26102-2-CU]
01 p0125 N93-10108
Numerical computation of the lightning response of an earth-covered munitions storage bunker and comparison with experiments
[DE92-014268] 02 p0367 N93-11236
Lightning threat warning system at the Tonopah Test Range
[DE92-040444] 02 p0221 N93-11631
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
Temporal monitoring of VHF and LF atmospherics and their relation to lightning
[AD-A252617] 02 p0371 N93-12180
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Evidence for lightning on Venus
04 p1043 N93-14386
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
Preliminary lightning tests: Optical fiber penetration of an exclusion region barrier
[DE92-019804] 04 p0983 N93-15230
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida
05 p1219 N93-17285
Electromagnetic scattering in clouds
05 p1142 N93-17327
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Determination and representation of electric charge distributions associated with adverse weather conditions
06 p1588 N93-19403
OLS data system/global survey of lightning
07 p2006 N93-20085
Atmospheric electricity/meteorology analysis
07 p2006 N93-20086
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
ER-2 investigations of lightning and thunderstorms
07 p2006 N93-20088
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Radiolocation in the lower ELF frequency band
08 p2270 N93-23630
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879
Zoning of aircraft: A review of the definitions
09 p2583 N93-24880
Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881
Lightning data acquisition 09 p2778 N93-24883
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures
09 p2583 N93-24886
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Zoning of aircraft by electric field modelling
09 p2583 N93-24894
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Positive cloud-to-ground flashes in severe storms
09 p2780 N93-24896
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A260779] 09 p2756 N93-25679
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
Proceedings of the Thunder and Lighting Seminar and the 3D Lightning Warning Workshop
[AD-A262766] 11 p3482 N93-29304
Thunderstorm forecast study for Eglin AFB, Florida
[AD-A263423] 11 p3483 N93-29810
Stand alone lightning detection equipment used at Canadian Forces air bases 11 p3367 N93-30295
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737
A long wave TE/TM noise prediction model
11 p3397 N93-30742
Experimental evaluation of an arrival time difference lightning positioning system
[KNMI-WR-92-01] 12 p3767 N93-31600
LIGHTNING SUPPRESSION
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Characteristic and development report SA3581/MC4196 Lightning Arrestor Connector (LAC)
[DE93-010610] 11 p3412 N93-30118
LIGHTS
U LUMINAIRES
LIKELIHOOD RATIO
Comparison of tests, and local families
[MEMO-1034] 05 p1266 N93-16594
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem
[INRIA-RR-1495] 06 p1647 N93-18653
Inverse sequential detection of parameter changes in developing time series
[NASA-CR-191996] 07 p2059 N93-21191
LIMBS (ANATOMY)
NT ARM (ANATOMY)
NT ELBOW (ANATOMY)
NT FEET (ANATOMY)
NT FINGERS
NT FOREARM
NT HAND (ANATOMY)
NT KNEE (ANATOMY)
NT LEG (ANATOMY)
Finite element analysis of a composite artificial ankle
08 p2423 N93-22189
LIME
U CALCIUM OXIDES
LIMITATIONS
U CONSTRAINTS
LIMITER CIRCUITS
Design and evaluation of a quasi-active delay-line limiter/filter RF protection device
[AD-A254179] 01 p0071 N93-10255
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
LIMITS
Comparisons of theoretical limits for source coding with practical compression algorithms
06 p1513 N93-19428
LIMITS (MATHEMATICS)
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982
Integrable singular integral evolution equations
[PREPRINT-880] 05 p1270 N93-17013
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
Accurate test limits with estimated parameters
[MEMO-1024] 07 p1877 N93-21397
Polynomial systems with centers and limit cycles
[REPT-92-38] 10 p3118 N93-27869
Bifurcation of limit cycles in a particular class of quadratic systems with two centres
[REPT-92-43] 10 p3119 N93-27931
Some limit theorems in log density
[W-9108] 10 p3126 N93-28120
Existence and uniqueness of limit cycles for a special system of differential equations on the plane
[REPT-92-63] 12 p3806 N93-31550
LINE CURRENT
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
LINE OF SIGHT
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Digital bank-to-turn control and guidance
04 p0802 N93-14447
Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020
Representativity of wind measurement from space
07 p1961 N93-21617
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers
10 p3201 N93-26882
The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays
10 p2920 N93-27177
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Design considerations for a night, air-to-surface attack capability on a dual role fighter
11 p3251 N93-28871
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875
Eclipse observations of the outer solar corona and the SOHO mission 12 p3872 N93-31371
LINE OF SIGHT COMMUNICATION
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367

LINE SHAPE
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
Perturbative nearly-degenerate four-wave mixing lineshapes in gases
[DE93-002673] 07 p1850 N93-21490
Inverse Raman spectroscopy measurements of line-shift coefficients in hydrogen perturbed by argon
[DE93-003906] 07 p1852 N93-21840
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258
Bibliography on atomic line shapes and shifts
[PB93-173433] 10 p3132 N93-27529
LINE SPECTRA
NT BALMER SERIES
NT ELECTRONIC SPECTRA
NT FRAUNHOFER LINES
NT H ALPHA LINE
NT H BETA LINE
NT K LINES
NT LYMAN SPECTRA
NT RYDBERG SERIES
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
MCFC diagnostics: HCl detection
[DE92-001292] 03 p0639 N93-13313
The emission-line properties of quasars
03 p0753 N93-13487
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
An infrared polarimetric study of sunspots
03 p0770 N93-13627
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions
03 p0756 N93-13853
Ultraviolet spectra of stars and stellar systems
04 p1011 N93-14593
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance
04 p1047 N93-14918
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
Fluctuations at the blue edge of saturated wind lines in IUE spectra of O-type stars
[NASA-CR-191887] 06 p1696 N93-18776
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
The correlation between water production rates and visual magnitudes in comets 06 p1709 N93-19181
Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015
Inverse Raman spectroscopy measurements of line-shift coefficients in hydrogen perturbed by argon
[DE93-003906] 07 p1852 N93-21840
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
A joint program with Japanese investigators to map carbon 2 line emission from the galaxy
[NASA-CR-192704] 08 p2546 N93-22469
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211
Global solar intensity oscillations near solar maximum
08 p2557 N93-23492
SUMER: Solar Ultraviolet Measurements of Emitted Radiation 08 p2541 N93-23931
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Line formation and the Poynting-Robertson effect in accretion discs 09 p2847 N93-25355
Exploitation of cyclostationarity for signal-parameter estimation and system identification
[AD-A260833] 09 p2728 N93-25784
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
The nature of faint emission-line galaxies
10 p3173 N93-26716
Constraints on chemical evolution models from QSOALS abundances 10 p3182 N93-26769
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Emission line gas in early-type galaxies: Kinematics and physical conditions 10 p3200 N93-26874
Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877
The ISM in the M82 starburst
10 p3202 N93-26887
The Lyman alpha forest of the high-z quasar 0000-263
10 p3203 N93-26890
H1 in RSA galaxies 10 p3203 N93-26891
Bibliography on atomic line shapes and shifts
[PB93-173433] 10 p3132 N93-27529
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
CO lines toward NGC 2024 and other star forming regions: A closer look at the warm gas component
[MPE-PREPRINT-223] 11 p3637 N93-30639
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
Ground-based coronagraphic observations of solar streamers 12 p3870 N93-31358
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375
Quiet and active solar structures as observed at the bottom of the transition region 12 p3874 N93-31382
A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394
General properties of the polarization of the Fe 14 5303 A coronal emission line 12 p3877 N93-31404
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406
Atomic and molecular line observations of galaxies
12 p3847 N93-31771
Submillimetre line observations of molecular clouds
12 p3848 N93-31772
LINEAMENT
U STRUCTURAL PROPERTIES (GEOLOGY)
LINEAR ACCELERATORS
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
UV/XUV FEL storage ring and linac
[AD-A253307] 01 p0089 N93-10697
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
The foxhole accelerating structure
[DE92-019052] 02 p0443 N93-11429
Application of the Moyer method to transverse shielding of linear Bremsstrahlung sources
[DE92-017027] 02 p0443 N93-11493
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Analysis of the prebuncher for the KEK 40-MeV proton linac
[DE92-514988] 02 p0444 N93-11525
Research and development of superconducting linear accelerators for neutral particle beam applications
[DE92-019043] 02 p0444 N93-11652
The diagnostics system for the multiple heavy ion beams induction linac experiment, MBE-4
[DE92-017109] 02 p0445 N93-12126
Pre-compression of bunch length in the SLC damping rings
[DE92-018154] 02 p0446 N93-12497
A simple model for SLC positron stability issues
[DE92-019644] 03 p0706 N93-12992
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
Suppression of the e(-) coextracted from a Penning surface-plasma H(-) source
[DE92-040350] 03 p0714 N93-12997
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Special MAFIA postprocessors for the analysis of RF structures
[DE92-040248] 03 p0565 N93-13510
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
High-brightness linac for the Advanced Free-Electron Laser Initiative at Los Alamos
[DE92-040213] 04 p0887 N93-15417
SCRUNCHER phase and amplitude control
[DE92-040225] 04 p0870 N93-15421
Calculation of mechanical vibration frequencies of stiffened superconducting cavities
[DE92-040228] 04 p0903 N93-15423
Design features of a seven-cell high-gradient superconducting cavity
[DE92-040229] 04 p0870 N93-15424
Sensitivity studies of a standing-wave free-electron laser
[DE93-000575] 05 p1170 N93-15696
High power picosecond CO2 laser system for ATF electron accelerator project
[DE92-040497] 05 p1171 N93-15832
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
Beam loading compensation with variable group velocity
[DE93-001810] 05 p1297 N93-16199
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
First results from the SLD silicon calorimeters
[DE93-001805] 05 p1167 N93-16219
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Design and modeling of superconducting RFQ structures
[DE93-000511] 05 p1326 N93-17376
Design and test of a superconducting structure for high-velocity ions
[DE93-000513] 05 p1326 N93-17377

Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Use of the CEBAF accelerator for IR and UV free electron lasers
[CEBAF-PR-92-023] 06 p1660 N93-18768
The N* program at CEBAF
[DE93-000829] 07 p1880 N93-20019
The RFQ LINAC: A high-current compact ion accelerator for explosive detection 07 p1766 N93-21872
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
Further time-resolved electron-beam characterizations with optical transition radiation
[DE93-007891] 10 p3131 N93-26625
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178
NIKHEF-K contributions to the 3rd European Particle Accelerator Conference
[NIKHEF-AMPS-92-02] 10 p3139 N93-28337
The Amsterdam Pulse Stretcher AmPS as a photon source 10 p3139 N93-28338
Mechanical design philosophy and construction of the Amsterdam Pulse Stretcher ring AmPS 10 p3139 N93-28339
The 80 kV electrostatic wire septum for AmPS 10 p3139 N93-28340
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341
High power density, thin magnetic DC septa for AmPS 10 p3140 N93-28342
Improvement of the 400 kV linac electron source of AmPS 10 p3140 N93-28343
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Ultraviolet free electron laser facility preliminary design report
[DE93-009360] 11 p3435 N93-28594
NPB cesium space experiment 11 p3267 N93-28733
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
TESLA test cell cryostat support post thermal and structural analysis
[DE93-008365] 11 p3407 N93-29048
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Pulse control in an accelerator for heavy-ion fusion
[DE93-009527] 11 p3576 N93-30390
Report of the working group on far field accelerators
[AD-A265443] 12 p3732 N93-32021

LINEAR AMPLIFIERS
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882

LINEAR ARRAYS
NT ENDFIRE ARRAYS
NT MULTISPECTRAL LINEAR ARRAYS
NT YAGI ANTENNAS
Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
Optimal linear array heading in a directional noise field
[AD-A257336] 05 p1137 N93-15991
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
Antenna analysis using neural networks 05 p1142 N93-16790
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Tolerance theory of phased array antennas: A statistical approach 11 p3369 N93-30307

LINEAR ENERGY TRANSFER (LET)
An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492
A study of the generation of linear energy transfer spectra for space radiations
[NASA-TM-4410] 03 p0772 N93-13572
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Bevalac ion beam characterizations for single event phenomena
[AD-A257033] 04 p0979 N93-15362
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637

LINEAR EQUATIONS
NT RICCATI EQUATION
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
Perturbation theory for the solution of systems of linear equations
[AD-A254994] 02 p0428 N93-12511
Implementation details of the coupled QMR algorithm
[NASA-CR-191213] 03 p0684 N93-12801
Studies in estimation theory, applications, and implementation
[AD-A256964] 05 p1275 N93-16250
On efficiently characterizing solutions of linear Diophantine equations and its application to data dependence analysis
[RUU-CS-92-01] 05 p1266 N93-16643
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
On homogeneous quasilinear evolution equation
[REPT-91-65] 07 p2052 N93-20854
Some new results for solving linear systems arising from computational fluid dynamics problems 09 p2699 N93-25349
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
WAVEPACK: Basic concepts of linear wave propagation
[MEMO-1068] 10 p3041 N93-28077
Proper elimination of latent variables
[MEMO-1072] 10 p3121 N93-28164
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Simplified Linear Equation Solvers: User's manual
[DE93-011975] 11 p3550 N93-30140

LINEAR FILTERS
NT KALMAN FILTERS
Scalar gain interpretation of large order filters 09 p2606 N93-24729
Synchronization of the LAPTV adative filter with input statistics 11 p3358 N93-30242

LINEAR INTEGRATED CIRCUITS
Development of radiation resistant linear IC (equivalent to mu PC 806) 07 p1798 N93-20468

LINEAR OPERATORS
On ascertaining inductively the dimension of the joint kernel of certain commuting linear operators
[AD-A254748] 03 p0696 N93-12847
Measurability of operator fields
[W-9204] 05 p1264 N93-16353
Integrable nonlinear evolution equations with constraints: 1
[PREPRINT-824] 05 p1270 N93-17220
Equivalent conditions for the solvability of the infinite-dimensional LQ-problem with unbounded input and output operators
[W-9209] 10 p3121 N93-28138
The linear quadratic digital control of infinite-dimensional systems with unbounded input and output operators
[REPT-92-49] 12 p3798 N93-31483
Perturbation of the Laplacian by the Coulomb potential and a point interaction in L(sup p)(R cubed)
[REPT-92-55] 12 p3807 N93-31613

LINEAR POLARIZATION
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era 04 p1026 N93-14304
Pioneer Venus polarimetry and haze optical thickness 04 p1032 N93-14335

LINEAR PREDICTION
A mixed excitation vocoder with fuzzy logic classifier
[AD-A256834] 04 p0864 N93-15636
Rain compensation algorithm using adaptive linear prediction 09 p2685 N93-26485

LINEAR PROGRAMMING
Numerical optimization
[AD-A254575] 03 p0682 N93-12647
Sensitivity analysis of the simultaneous proportionate change of inputs and outputs in data envelopment analysis
[AD-A254821] 03 p0683 N93-12730
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961
Parallel processing for linear programming
[ISBN-90-6275-754-5] 05 p1256 N93-16565
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Bracketing to speed convergence illustrated on the Von Newmann algorithm for finding a feasible solution to a linear program with a convexity constraint
[DE93-002660] 06 p1621 N93-18450
Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355
Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009
Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391
Further developments in shape optimization of stress concentration regions. Part 1: General theory 07 p1927 N93-20630
Further developments in shape optimization of stress concentration regions. Part 2: Applications 07 p1928 N93-20631
A build-up variant of the path-following method for LP
[REPT-91-47] 07 p2037 N93-20863
Denumerable constrained Markov decision problems and finite approximations
[INRIA-RR-1568] 07 p2058 N93-20867
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
Linear-programming tools in integer programming: The traveling salesman
[AD-A261398] 09 p2812 N93-26290
Methods of optimization under uncertainty
[AD-A261487] 09 p2873 N93-26342
Integrated approaches to parallelism in optimization and the solution of inverse problems
[AD-A261490] 09 p2829 N93-26344
MP-DIT: Mathematical program data interchange tool
[MEMO-COSOR-92-31] 10 p3095 N93-27385
New approaches to linear and nonlinear programming
[DE93-010134] 10 p3103 N93-28214

Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527
Estimating test range capacity
[AD-A262493] 11 p3270 N93-28938
Modelling temporal abductive explanation
[AD-A263096] 11 p3526 N93-29145
Dynamic factorization in large-scale optimization
[AD-A263993] 11 p3528 N93-29345
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
Primal-dual algorithms for linear programming based on the logarithmic barrier method
[REPT-92-104] 12 p3790 N93-31659

LINEAR QUADRATIC GAUSSIAN CONTROL

Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
On a robust controller design using a minimax optimization approach 03 p0695 N93-14021
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
An explicit solution to the optimal LQG problem for flexible structures with collocated rate sensors 06 p1467 N93-18932
An experimental determination of the effects of blending collocated and non-collocated sensor measurements to control a flexible structure
[AD-A258823] 06 p1559 N93-18998
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
Improvements to LQGI/LTR methodology for plants with lightly damped or low frequency poles
[AD-A258841] 06 p1648 N93-19112
Design of the reduced LQG compensator for the DSS-13 antenna 09 p2672 N93-24669
Identification and control of lightly damped, large space structures: An experimental evaluation 09 p2616 N93-25351
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Optimal fixed-finite-dimensional compensator for Burgers' equation with unbounded input/output operators
[NASA-CR-191454] 12 p3808 N93-31857

LINEAR QUADRATIC REGULATOR

NT LINEAR QUADRATIC GAUSSIAN CONTROL
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Control of a very flexible robot in gravity 03 p0615 N93-13541
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Position and vibration control of flexible space robots 04 p0892 N93-15102
Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380
Game theoretic synthesis for robust aerospace controllers 10 p2919 N93-27171
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis
[AD-A262151] 10 p2946 N93-27546
Equivalent conditions for the solvability of the infinite-dimensional LQ-problem with unbounded input and output operators
[W-9209] 10 p3121 N93-28138
Robust control for uncertain structures 10 p3061 N93-28174
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
Optimal filtering and LQR theory with constraints on system and control matrices 11 p3357 N93-30234
The linear quadratic digital control of infinite-dimensional systems with unbounded input and output operators
[REPT-92-49] 12 p3798 N93-31483

LINEAR RECEIVERS

Fast training of a high-speed voice and data modem receiver
[ACTA-POLYTEC-SCAND-EL-67] 05 p1140 N93-17632

LINEAR REGULATOR

U LINEAR QUADRATIC REGULATOR

LINEAR SYSTEMS

Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
Krylov subspace methods for complex non-Hermitian linear systems
[NASA-CR-190931] 02 p0409 N93-11458
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
Perturbation theory for the solution of systems of linear equations
[AD-A254994] 02 p0428 N93-12511
Identification of parametric finite element models using experimental modal data
[PB92-217819] 03 p0558 N93-12976
Identifiability of linear systems in physical coordinates
[NASA-TM-107695] 03 p0625 N93-13125
Non-linear analysis of wave propagation using transform methods and plates and shells using integral equations 04 p0896 N93-14186
L2 and L-infinity multiobjective control for linear systems 04 p0961 N93-14399
On the sum of accretive operators
[ETN-92-92794] 05 p1265 N93-16566
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
Performance and stability robustness for uncertain linear systems: A quadratic approach
[LAAS-92199] 05 p1271 N93-17494
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Sub-groups of Z(sup n), standard basis, and linear diophantine systems
[INRIA-RR-1510] 06 p1615 N93-17836
Discrete-time Markovian jump linear systems
[REPT-92-37] 06 p1631 N93-17870
Robust multivariable feedback design for uncertain linear systems
[AD-A258257] 06 p1648 N93-17902
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
Robust control with structured perturbations
[NASA-CR-192195] 06 p1633 N93-18579
Global stabilization of linear analytic systems
[RR-403] 07 p2051 N93-20738
On a fundamental notion of equivalence in linear systems theory
[MATHS-REPT-A-162] 07 p2053 N93-20890
Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706
Temporal identification of linear and nonlinear structures
[ECL-90-33] 08 p2324 N93-22696
A comparative study of preconditioned Lanczos methods for nonsymmetric linear system
[DE93-006453] 08 p2436 N93-22979
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
On positive invariance and constrained control of linear multivariable systems
[LAAS-92223] 08 p2462 N93-23862
Robust controls with structured perturbations
[NASA-CR-192956] 09 p2817 N93-24757
Stability margins for multilinear interval systems by way of phase conditions: A unified approach
[NASA-CR-192893] 09 p2819 N93-25226
Parametric stability margin for multilinear interval control systems
[NASA-CR-192892] 09 p2819 N93-25296
PCG: A software package for the iterative solution of linear systems on scalar, vector and parallel computers
[DE93-007366] 09 p2809 N93-25315
Some new results for solving linear systems arising from computational fluid dynamics problems 09 p2699 N93-25349
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
Equivalent conditions for the solvability of the infinite-dimensional LQ-problem with unbounded input and output operators
[W-9209] 10 p3121 N93-28138
Proper elimination of latent variables
[MEMO-1072] 10 p3121 N93-28164
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Division by polynomial matrix and its application to multivariable linear systems 11 p3357 N93-30233
Disturbance decoupling by measurement feedback for structured systems: A graph theoretical approach
[REPT-92-53] 12 p3805 N93-31487
The generic dimension of a minimal realization of an AR-system
[REPT-92-82] 12 p3805 N93-31492
Analytic system problems and J-lossless factorization for infinite-dimensional linear systems
[W-9218] 12 p3798 N93-31513
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192

LINEAR TRANSFORMATIONS

An intrinsic construction of the algebra of quaternions
[REPT-92-31] 06 p1643 N93-17845
Classification of minimal graphs of given face-width on the torus
[CWI-BS-R9203] 10 p3117 N93-27607

LINEAR VIBRATION

Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221

LINEARITY

NT COLLINEARITY
A linear time algorithm for recognizing interval orders
[MEMO-1046] 05 p1242 N93-16846
Log-ratio signal-processing technique for beam position monitors
[DE93-007356] 09 p2851 N93-25314
A dynamic bandwidth and phase linearity measurement technique for 4-channel MSK VLF antenna systems 11 p3398 N93-30748

LINEARIZATION

An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
Nonlinear control problems and systems approximations: A geometric approach
[MEMO-1039] 05 p1261 N93-16951
Controllability distributions and systems approximations: A geometric approach
[MEMO-1040] 05 p1269 N93-16952
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Adaptive predistortion linearization of nonlinear power amplifiers
[ISBN-0-315-60483-2] 08 p2286 N93-24611
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
Line formation and the Poynting-Robertson effect in accretion discs 09 p2847 N93-25355
Concurrent data objects in quadratic space
[CS-9112] 10 p3101 N93-28066
The semiclassical stability of de Sitter spacetime
[DESY-92-131] 11 p3603 N93-28472
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080

Normal forms of invariant vector fields under a finite group action
[DE93-604134] 12 p3813 N93-31102
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373
Nonlinear disturbance decoupling and linearization: A partial interpretation of integral feedback
[MEMO-1093] 12 p3801 N93-32400

LINERS
U LININGS

LINES (GEOMETRY)
NT CHORDS (GEOMETRY)
NT GEODESIC LINES
A metric for line segments
[CWI-BS-R9126] 05 p1268 N93-16832
On the information contained in the motion field of lines and the cooperation between motion and stereo
[INRIA-RR-1453] 06 p1537 N93-18647
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872

LINES OF FORCE
Cooperative control of multiple space manipulators
04 p0805 N93-14923

LING-TEMCO-VOUGHT AIRCRAFT
NT A-7 AIRCRAFT

LINGUISTICS
NT MACHINE TRANSLATION
NT PHONEMES
NT PHONEMICS
NT SEMANTICS
NT SENTENCES
NT SYNTAX
NT WORDS (LANGUAGE)
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
Perception-based and machine-oriented signal processing within speech understanding systems
03 p0692 N93-13239
Recent developments in the NL-Soar garden path theory
[AD-A255889] 03 p0688 N93-13944
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Fuzzy set approach to quality function deployment: An investigation 05 p1274 N93-16779
Logic and the flow of information
[LP-91-10] 05 p1357 N93-17714
Modal logic and attribute value structures
[LP-92-02] 05 p1273 N93-17716
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
An update semantics for dynamic predicate logic
[LP-92-04] 06 p1615 N93-17841
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
Interpretation as abduction
[AD-A259608] 08 p2425 N93-24227
Speech research
[AD-A260643] 09 p2675 N93-25639
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403
Left-corner and head-corner chart parsing
[MEMO-INF-92-55] 10 p3096 N93-27489
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525
The axiomatic definition of a linguistic scale fuzziness degree, its major properties, and applications
11 p3510 N93-29520
Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A fuzzy set preference model for market share analysis 11 p3514 N93-29548
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Quantification of human responses
11 p3500 N93-29564
Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577
Automating multilingual communication
12 p3837 N93-31219
A formal discourse grammar tackling verb phrase anaphora
[CL-91-03] 12 p3787 N93-31478
Kohonen feature maps in natural language processing
[CL-91-01] 12 p3788 N93-31517
Connectionist models and linguistic theory: Investigations of stress systems in language
[AD-A265450] 12 p3777 N93-32064

LININGS
NT ROCKET LININGS
On the stability of confined shells under external pressure 02 p0335 N93-11202
The design and commissioning of an acoustic liner for propeller noise testing in the ARA transonic wind tunnel
[PNR-90880] 02 p0433 N93-11204
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
User's guide to Flexible Membrane Liner Advisory Expert System, Flex version 3.0
[PB93-134872] 08 p2259 N93-24559
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507
Reusable cryogenic liquid rocket propellant tank
[NASA-CASE-LAR-14172-1] 12 p3692 N93-31295

LINKAGES
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
The theoretical background to BS7167: 1990 - specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
Structural shape optimization of robotic links
07 p1918 N93-20717
Quick acting gimbal joint
[NASA-CASE-MSC-21918-1] 08 p2314 N93-23076
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU]
08 p2314 N93-23078
Nonholonomic geometry, mechanics and control
09 p2724 N93-25270
Joint drive development for the Space Station Remote Manipulator System 11 p3370 N93-30313

LINKING
U JOINING

LIOUVILLE EQUATIONS
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567

LIPID METABOLISM
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Lipodystrophies in the French military flight crew
12 p3774 N93-32249

LIPIDS
NT ALDOSTERONE
NT CHOLESTEROL
NT LIPOPROTEINS
NT PROSTAGLANDINS
New class of lubricants derived from archaebacterial lipids
[AD-D015481] 05 p1124 N93-16487
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick
11 p3291 N93-30953
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002
Blood lipids in aircrew recruits and in RAF aviators
12 p3774 N93-32251
Objective improvements obtained by control of diet and physical training in Spanish Air Force fighter pilots
12 p3780 N93-32258
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259

LIPOPROTEINS
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces
12 p3775 N93-32254

LIQUEFACTION
NT COAL LIQUEFACTION
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
Horizontal stress in-situ by cone penetrometers and related studies
[AD-A260503] 08 p2401 N93-24418
Development and mechanical properties of construction materials from lunar simulant 10 p3021 N93-26687
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464

LIQUEFIED GASES
NT LIQUEFIED NATURAL GAS
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT LIQUID HYDROGEN
NT LIQUID NITROGEN
NT LIQUID OXYGEN
Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics
[NASA-CR-191781] 04 p1013 N93-15589
A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590
A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance
04 p1014 N93-15591
Liquid xenon time projection chamber for gamma rays in the MeV region: Development status
04 p1014 N93-15592
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 1
[PB93-186492] 12 p3712 N93-31326
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 2
[PB93-186500] 12 p3713 N93-31327

LIQUEFIED NATURAL GAS
Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Environment and safety research
[PB93-188860] 12 p3751 N93-31142
LNG as a fuel for railroads: Assessment of technology status and economics
[PB93-188787] 12 p3713 N93-31434

LIQUID ALLOYS
Liquid tellurides: Structure and properties
[DE93-002909] 06 p1677 N93-19830
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225
Effective interactions between concentration fluctuations and charge transfer in chemically ordering liquid alloys
[DE93-606724] 11 p3327 N93-30778

LIQUID ATOMIZATION
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412

LIQUID CHROMATOGRAPHY
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144
A gel-permeation chromatography study of electrochemically synthesized Poly(3-alkylthiophenes)
[AD-A259864] 08 p2239 N93-23957
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423

Chemical and biological variability in the upper water column
[AD-A262207] 10 p3080 N93-27684
Innovative instrument design and applications in super-critical fluid chromatography and extraction
12 p3704 N93-32327

LIQUID COOLED REACTORS
NT BOILING WATER REACTORS
NT LITHIUM COOLED REACTOR EXPERIMENT
NT NRX REACTORS
NT PRESSURIZED WATER REACTORS
NT WATER COOLED REACTORS

LIQUID COOLING
NT FILM COOLING
Natural convection from a horizontal heater in response to steady and pulsatile input powers
[AD-A257101] 05 p1156 N93-16126
Advanced water-cooled phosphoric acid fuel cell development
[DE93-000215] 05 p1197 N93-17008
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003358] 05 p1198 N93-17574
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003490] 07 p1988 N93-21732
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
Lightweight passive microclimate cooling device
[AD-A262262] 10 p3087 N93-28112
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155

LIQUID CRYSTALS
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
Synthesis of side chain liquid crystal polymerization by living ring opening metathesis polymerization. Report 1: Influence of molecular weight, polydispersity, and flexible spacer length (n=2-8) on the thermotropic behavior of the resulting polymers
[AD-A248699] 01 p0040 N93-10727
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Scattering and order in thermotropic liquid crystals
03 p0723 N93-13332
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU]
03 p0711 N93-13711
Phase conjugation using CO2 lasers
03 p0607 N93-13812
Molecular theories and computer simulations of liquid crystals 03 p0725 N93-13843
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446
Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential
06 p1611 N93-19782
Liquid crystal displays replacing the CRT and CLE of future cockpits 06 p1447 N93-19783
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
The production of fibres from polypropylene and liquid crystal polymer blends 07 p1837 N93-21149
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404
Processable precursors to high performance liquid crystalline polymers
[AD-A260466] 08 p2240 N93-24116
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
Liquid crystals for laser applications
[AD-A261209] 09 p2714 N93-25869
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Low-cost helmet-mounted displays
[AD-A262616] 11 p3501 N93-28479
Optically tiled flat panel displays. A feasibility study
[AD-A262737] 11 p3592 N93-28590
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU]
11 p3452 N93-29613
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805
Ferroelectric liquid crystal optical interconnect switching systems
[AD-A263751] 11 p3596 N93-29859
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases
11 p3255 N93-29943
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains
[ETN-93-94041] 12 p3709 N93-31520
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002
Liquid-crystal heat valve controlled with multiple electrode pairs
[AD-D015739] 12 p3830 N93-32211

LIQUID DROPS
U DROPS (LIQUIDS)

LIQUID FILLED SHELLS
Reusable cryogenic liquid rocket propellant tank
[NASA-CASE-LAR-14172-1] 12 p3692 N93-31295

LIQUID FLOW
NT WATER FLOW
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Fluid/structure interactions. Internal flows
07 p1905 N93-20629
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Pulse mitigation and heat transfer enhancement techniques. Volume 5: Transient liquid movement in heat pipe wicks
[AD-A264513] 11 p3426 N93-30403

LIQUID FUELS
NT AIRCRAFT FUELS
NT AUTOMOBILE FUELS
NT DIESEL FUELS
NT GASOLINE
NT HYDROGEN FUELS
NT JET ENGINE FUELS
NT JP-4 JET FUEL
NT JP-5 JET FUEL
NT JP-8 JET FUEL
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Biological production of ethanol from coal
[DE92-016114] 01 p0043 N93-10608
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Metal slurry droplet and spray combustion
02 p0245 N93-11138
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Flame spread across liquid pools
07 p1854 N93-20209
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
Conversion of light hydrocarbon gases to metal carbides for production of liquid fuels and chemicals
[DE93-009707] 09 p2644 N93-25500
Microwave absorption measurements and interference: Effects for a liquid fuel between 2.5 and 18 GHz
[AD-A260607] 09 p2675 N93-25635

LIQUID HELIUM
NT LIQUID HELIUM 2
Tables of thermodynamic properties of helium magnet coolant, revision A
[DE92-019098] 02 p0471 N93-11656

Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
High-temperature superconducting current leads
[DE92-040729] 05 p1145 N93-16028
Performance measurements of superconducting current leads having low helium boiloff rates
[DE92-040730] 05 p1146 N93-16392
Zero sound experiments in superfluid He3
[ISBN-951-22-0841-5] 08 p2476 N93-23005
The design of a propulsion system using vent gas from a liquid helium cryogenic system
09 p2623 N93-25539

LIQUID HELIUM 2
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Superfluid helium needs and resupply on Space Station 10 p2968 N93-27802

LIQUID HYDROGEN
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Zero-gravity quantity gaging system
[NASA-CR-185602] 03 p0556 N93-12699
Developing a safe on-orbit cryogenic depot
05 p1393 N93-17426
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Optimizing liquid hydrogen storage systems
07 p1879 N93-20692
Space propulsion 08 p2174 N93-22092
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Cryogenic transfer module for geosynchronous orbit
10 p2920 N93-27176
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252

LIQUID INJECTION
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
Apparatus for reduction of vibration in liquid-injected gas compressor system
[AD-D015607] 07 p1914 N93-20772
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560

LIQUID LEVELS
Precision liquid-level measurement in deep tanks using a swept-RF resonant cavity
[DE92-017236] 03 p0597 N93-13267

LIQUID MERCURY
U MERCURY (METAL)

LIQUID METAL COOLED REACTORS
NT LITHIUM COOLED REACTOR EXPERIMENT

LIQUID METAL FAST BREEDER REACTORS
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022

LIQUID METALS
NT LIQUID SODIUM
NT MERCURY (METAL)
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Heat transfer in a liquid metal crucible with an integral blackbody cavity
[DE92-019640] 03 p0576 N93-12825
Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Gas bubbles in liquid metals 07 p1808 N93-21110
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214

LIQUID NITROGEN
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
The evolution of space simulation
04 p0814 N93-15610
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Orbital storage and supply of subcritical liquid nitrogen
10 p2968 N93-27801
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512
High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077

LIQUID OXIDIZERS
Hybrid rocket performance 05 p1095 N93-17295

LIQUID OXYGEN
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Zero-gravity quantity gaging system
[NASA-CR-185602] 03 p0556 N93-12699
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Electromagnetic launch of lunar material
05 p1384 N93-16914
Developing a safe on-orbit cryogenic depot
05 p1393 N93-17426
Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795
Cryogenic transfer module for geosynchronous orbit
10 p2920 N93-27176
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464

LIQUID OXYGEN HYDROCARBON ROCKET ENGINES
U OXYGEN-HYDROCARBON ROCKET ENGINES

LIQUID PHASE EPITAXY
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Study of the mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions
[CTN-93-60619] 04 p0855 N93-15201
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934
On the modelling of the dissolution and liquid phase epitaxial growth processes in a horizontal sandwich system 07 p1803 N93-21080
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581

LIQUID PHASE SINTERING
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976

LIQUID PHASES
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436
Remote fiber optic sensor for gaseous and liquid environments, phase 2
[AD-A256224] 04 p0983 N93-15241
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights
07 p1810 N93-21119
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033
Recovery and separation of precious metals from space 10 p3001 N93-26686
Kinetics of adsorption from liquid phase on activated carbon
[ETN-93-94042] 12 p3703 N93-31521

LIQUID PROPELLANT ROCKET ENGINES
NT HYDRAZINE ENGINES
NT HYDROGEN OXYGEN ENGINES
NT OXYGEN-HYDROCARBON ROCKET ENGINES
NT SPACE SHUTTLE MAIN ENGINE
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles
01 p0017 N93-10015
LAM actuated propellant flow control device
01 p0018 N93-10017
Selection of rocket propulsion systems
01 p0022 N93-10034
A personal viewpoint on the development of China's liquid propellant rocket engines
[AD-A254104] 01 p0027 N93-10813
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
A summary of the JANNAF workshop on diagnostics
02 p0248 N93-11451
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Reliability evaluation methodology for NASA applications 05 p1182 N93-17328

SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Fiberoptic characteristics for extreme operating environments
[NASA-CR-189189] 06 p1475 N93-19649
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
Advanced rocket propulsion 08 p2174 N93-22091
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting
[NASA-CR-192515] 09 p2614 N93-26152
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Rocket engine numerical simulator 10 p2981 N93-26962
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
Liquid fuel injection elements for rocket engines
[NASA-CASE-MFS-28547-1] 11 p3289 N93-29847
Method of fabricating a rocket engine combustion chamber
[NASA-CASE-MFS-28569-1] 11 p3338 N93-30565
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

LIQUID ROCKET PROPELLANTS
NT CRYOGENIC ROCKET PROPELLANTS
NT HYPERGOLIC ROCKET PROPELLANTS
NT MONOPROPELLANTS
NT RP-1 ROCKET PROPELLANTS
NT SLURRY PROPELLANTS
NLS cargo transfer vehicle propulsion system 01 p0023 N93-10041
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
The 28th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-573-VOL-1] 02 p0244 N93-11132
The 28th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-573-VOL-2] 02 p0247 N93-11448
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
Physical processes involved in injection and atomization of liquid propellants 02 p0248 N93-11453
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
An experimental study of droplet dispersion in turbulent flows 02 p0248 N93-11455
Impact ignition of liquid propellants
[AD-A252299] 02 p0249 N93-11490
Soviet chemical propellant research and development
[PB92-195577] 02 p0275 N93-12147
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
Bipropellant spray combustion modeling in small rocket engines 03 p0556 N93-13924
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems 03 p0556 N93-13983
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Cryogenic transfer module for geosynchronous orbit 10 p2920 N93-27176
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261965] 10 p3008 N93-27666
Space Station propulsion system 10 p2969 N93-27817
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025
Progress in optical diagnostic development for the electro-thermal chemical program
[DE93-009452] 10 p2997 N93-28452
A new facility for advanced rocket propulsion research
[NASA-TM-106193] 11 p3270 N93-28696

LIQUID ROTATION
U ROTATING LIQUIDS

LIQUID SLOSHING
Liquid oscillations under strong surface tension in a circular cylindricel container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Stabilized finite element methods for incompressible flows with emphasis on moving boundaries and interfaces 09 p2703 N93-25663
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
The Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-27893
Middeck 0-gravity dynamics experiment: Fluid slosh experiments 10 p3010 N93-27895
The MODE family of facility class experiments 11 p3263 N93-28705
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376

LIQUID SODIUM
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338

LIQUID SURFACES
NT MENISCI
Liquid oscillations under strong surface tension in a circular cylindrical container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation 08 p2251 N93-22857
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473

LIQUID WASTES
NT URINE
NT WASTE WATER

LIQUID-GAS MIXTURES
NT AEROSOLS
NT FOG
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine 03 p0613 N93-13331
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Parameters influencing the hot-spot ignition of aviation fuel/air and ethylene/air mixtures 09 p2583 N93-24886
Flow visualizations of perpendicular blade vortex interactions
[NASA-CR-192725] 09 p2696 N93-25208
Measurement of velocities in gas-liquid two-phase flow using laser Doppler velocimetry
[DE93-008083] 09 p2698 N93-25306
Combined centrifugal force/gravity gas/liquid separator system
[AD-D015726] 11 p3444 N93-29288
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Prediction of gas-liquid two-phase flow regime in microgravity
[NASA-TM-106274] 11 p3352 N93-30939

LIQUID-LIQUID INTERFACES
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972
The physics of pattern formation at liquid interfaces
[DE92-016971] 02 p0462 N93-11747
Control of thermocapillary convection in a two-layer liquid system 04 p0809 N93-14945
Transient response of a viscous liquid bridge of finite length and anchored edges
[LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
[CTN-93-60630] 05 p1133 N93-16918
Response of a rotating anchored finite annular liquid layer to axial excitation
[LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Response of an annular cylindrical liquid layer with anchored edges in zero-gravity
[LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554
Stability of the fluid-fluid interphase in rotating systems subjected to different gravitational intensities 07 p1805 N93-21087
Isopycnic systems as models for the behavior of liquids in a microgravity environment 07 p1805 N93-21089
A visualization study of the diffusion process between two liquids of different densities under microgravity conditions 07 p1806 N93-21095
Natural axisymmetric frequencies of cylindrical liquid column with anchored free surface
[LRT-WE-9-FB-3-1991] 07 p1903 N93-21297
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating 08 p2247 N93-22835

Adsorption kinetics at liquid-liquid interfaces in microgravity conditions. Experimental approach and theoretical background 08 p2248 N93-22843
Oscillations of finite liquid columns 08 p2250 N93-22855
A method of measuring the interfacial tension of two liquids of the same mass volume: The cylindrical method 08 p2251 N93-22860
Charge transfer processes on liquid/liquid interfaces: The first hundred years [AD-A260421] 08 p2225 N93-24429
Tracking sharp interface of two fluids by the CIP (Cubic-Interpolated Propagation) scheme [NIFS-206] 09 p2698 N93-25277

LIQUID-SOLID INTERFACES
Structure of thermocapillary flow in narrow cavities 01 p0061 N93-10552
Electron transfer rates at semiconductor/liquid interfaces [DE92-018559] 02 p0289 N93-11438
Dynamics and pattern selection at the crystal-melt interface [DE92-040210] 03 p0724 N93-13577
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation [PB92-217462] 04 p0910 N93-15217
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects [AD-A256660] 05 p1101 N93-15913
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121
Natural frequencies and response of spinning liquid column with partially sliding contact line [LRT-WE-9-FB-24-1991] 07 p1903 N93-21298
Response of a non-viscous liquid column with anchored liquid surface to axial excitation [LRT-WE-9-FB-4-1991] 08 p2288 N93-22677
Wetting hysteresis of tin on silica solid surfaces of controlled periodic roughness 08 p2251 N93-22861
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder [PB93-139061] 08 p2290 N93-22897
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres [AD-A260304] 08 p2223 N93-24235
Computation of complex solidification morphologies using a phase-field model [PB93-156743] 09 p2869 N93-26547
Condensed matter physics at surfaces and interfaces of solids [DE93-005648] 10 p3154 N93-28346
Analytical applications of electrified interfaces between two immiscible solutions [AD-A263085] 11 p3311 N93-29132
Potential transmission and transients during corrosion: Applications to corrosion monitoring [DE93-010863] 11 p3323 N93-29256

LIQUID-VAPOR INTERFACES
Interfacial area and two-phase flow structure development measured by a double-sensor probe [DE92-019459] 02 p0300 N93-11538
Development of an electrical impedance computed tomographic two-phase flows analyzer [DE92-040527] 05 p1155 N93-15923
Present state-of-the-art of two-phase flow model calculations [DE92-041124] 05 p1156 N93-16159
Interfacial area and interfacial transfer in two-phase flow systems [DE93-000647] 05 p1157 N93-16378
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 1 [CTN-93-60610] 05 p1157 N93-16425
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3 [CTN-93-60611] 05 p1158 N93-16544
Stability of the fluid-fluid interphase in rotating systems subjected to different gravitational intensities 07 p1805 N93-21087
Quenching of a tube and filling of a vessel under microgravity 07 p1806 N93-21096
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
The WINCOF-I code: Detailed description [NASA-CR-190779] 09 p2573 N93-24760
Experimental and theoretical studies of dense fluid mixtures [DE93-006070] 09 p2695 N93-24976
Mixing and transient interface condensation of a liquid hydrogen tank [NASA-TM-106201] 10 p3042 N93-28252

LIQUIDS
NT BEVERAGES
NT CRYOGENIC FLUIDS
NT FERMI LIQUIDS
NT HYDRAULIC FLUIDS
NT LIQUEFIED GASES
NT LIQUEFIED NATURAL GAS
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT LIQUID HYDROGEN
NT LIQUID METALS
NT LIQUID NITROGEN
NT LIQUID OXIDIZERS
NT LIQUID OXYGEN
NT LIQUID SODIUM
NT MERCURY (METAL)
NT MERCURY ISOTOPES
NT ORGANIC LIQUIDS
NT POTABLE WATER
NT ROTATING LIQUIDS
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing [DE92-017020] 02 p0263 N93-10972
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling [AD-A255173] 02 p0341 N93-12376
Vapor to liquid ratio test as an indicator of volatility [DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
A new apparatus for continuous countercurrent flow of solids and liquids [DE92-011675] 03 p0583 N93-13318
Fluids, gels, and glasses under extreme conditions of pressure and temperature [AD-A255675] 04 p0847 N93-14166
Viscosity of liquids. Halogenated methanes [ESDU-92028] 04 p0839 N93-14539
Removal of THD from painted test panels by liquid systems [AD-A255624] 04 p0850 N93-15064
Adsorption and diffusion of fluids in well-characterized adsorbent materials [DE92-040160] 04 p0843 N93-15414
Defects and impurities in amorphous semiconductors and in liquid electrolytes [MBB-Z-0386-91-PUB] 07 p2080 N93-20842
Hydrophobic effects from cavity statistics [DE93-003698] 07 p1904 N93-21734
Liquid explosives screening system 07 p1771 N93-21899
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating 08 p2247 N93-22835
Liquid and solid ion plasmas [AD-A261888] 09 p2862 N93-26528
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy 11 p3318 N93-30073
Thermodynamic and structural properties of metallic glasses and supercooled liquids [ISBN-0-315-72443-9] 11 p3605 N93-30359
Studies in Lewis acid and superacid ionic liquids [AD-A264683] 11 p3316 N93-30551

LISP (PROGRAMMING LANGUAGE)
Higher-order generic functions for CLOS [DE92-013447] 02 p0413 N93-12137
CMU common lisp user's manual [AD-A256431] 04 p0950 N93-15336
Micrometer FX/DLX: A pedagogic compiler [AD-A256821] 05 p1232 N93-15684
Automating FEA programming 05 p1251 N93-17524
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401

LISTS
NT HARDWARE UTILIZATION LISTS
Source hierarchy list. Volume 1: A through D [AD-A256100] 04 p1001 N93-14265
Source header list. Volume 2: K through Z [AD-A256001] 04 p1007 N93-15112
Source header list. Volume 1: A through J [AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N [AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z [AD-A256102] 05 p1352 N93-16065

LITERATURE
NT BIOGRAPHY
NT DOCUMENTATION
Chinese research on shock physics [PB93-134450] 08 p2474 N93-22080

LITHIUM
NT LITHIUM ISOTOPES
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte [AD-A254918] 03 p0545 N93-12651
Li/SOCl battery technology: Problems and solutions [AD-A254514] 03 p0570 N93-12725
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator [DE92-016091] 03 p0716 N93-13191
Thermally stable electrolytes for rechargeable lithium batteries, phase 2 [NASA-CR-190878] 03 p0573 N93-13610
Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments [ITN-93-85183] 05 p1105 N93-16854
Anode for rechargeable ambient temperature lithium cells [NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Microstructure of rapidly-solidified lithium powders [DE93-004765] 08 p2229 N93-22880
Reversible potassium vanadium bronze cathodes (K(x)V6O(13+y)) with various potassium to vanadium ratios [CTN-93-60709] 08 p2285 N93-24291
Dynamics of collision processes [DE93-007143] 09 p2849 N93-25509
JPL nuclear electric propulsion task 10 p2983 N93-26980
Application of quality function deployment to the design of a lithium battery [DE93-008346] 10 p3033 N93-28459
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques [DE93-007699] 11 p3405 N93-28581
Research and development of carbon black anodes for lithium secondary cells [DE93-781331] 11 p3406 N93-28746
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride [DE93-010760] 11 p3451 N93-28832
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen [NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry [AD-A263098] 11 p3311 N93-29133
Research and development of lithium secondary batteries for load conditioner use, volume 2 [DE93-781329] 11 p3410 N93-29673
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods [AD-A263728] 11 p3411 N93-29986

LITHIUM ALLOYS
NT ALUMINUM-LITHIUM ALLOYS
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite [RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Evaluation of flotation for purification of pyrite for use in thermal batteries [DE92-019330] 02 p0290 N93-11553
Damage tolerance behaviour of aluminium-lithium sheet alloys [NLR-TP-91244-U] 05 p1117 N93-17540
Flight simulation and constant amplitude fatigue crack growth in aluminum-lithium sheet and plate [NLR-TP-91104-U] 05 p1063 N93-17562
Design of an ultra-high-strength weldable Al-Cu-Li alloy for space applications 08 p2211 N93-23936
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems [DE93-753130] 11 p3320 N93-28529
Accelerated and real-time corrosion testing of aluminum-lithium alloys [NLR-TP-91203-U] 12 p3707 N93-32385

LITHIUM CHLORIDES
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3 [AD-A248001] 02 p0467 N93-12175
Life cycle testing of desiccant core samples [PB93-127058] 08 p2220 N93-23098

LITHIUM COMPOUNDS
NT LITHIUM CHLORIDES
NT LITHIUM HYDRIDES
NT LITHIUM HYDROXIDES
NT LITHIUM NIOBATES
NT LITHIUM OXIDES
NT LITHIUM PERCHLORATES
NT LITHIUM SULFATES
Determination of the weight average molecular weight of SRM 1480 [PB92-222934] 03 p0553 N93-13785

Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
Thermal stability of lithiated vanadium oxide (LVO), gamma-lithium vanadium bronze (gamma-LiV2O5) and vanadium dioxide (VO2) thermal battery cathode materials
[RAE-TR-92047] 12 p3722 N93-32422

LITHIUM COOLED REACTOR EXPERIMENT
Space power reactor ground test in the Experimental Gas Cooled Reactor (EGCR) at Oak Ridge
[DE92-016788] 05 p1299 N93-17202

LITHIUM HYDRIDES
Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832

LITHIUM HYDROXIDES
The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240

LITHIUM ISOTOPES
Laser cooling of a stored ion beam: A first step towards crystalline beams
[DE93-010301] 10 p3048 N93-28333

LITHIUM NIOBATES
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Reduction of bend losses for titanium diffused waveguides in lithium niobate
[ETN-93-92558] 07 p1884 N93-20750
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Holographic data storage crystals for the LDEF
11 p3435 N93-29697

LITHIUM OXIDES
Overcharge and overdischarge protection of ambient temperature secondary lithium cells
[NASA-CASE-NPO-18343-1-CU]
02 p0290 N93-11456

LITHIUM PERCHLORATES
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158

LITHIUM SULFATES
NASA Center update: Jet Propulsion Laboratory
07 p1983 N93-20492

LITHIUM SULFUR BATTERIES
First year testing of prototype magnesium/manganese dioxide BA-4590/U battery
[AD-A255503] 03 p0574 N93-13839
Lithium rechargeable cell with a poly 3-methylthiophene cathode
[AD-A255436] 04 p0866 N93-14552
Smart battery controller for lithium sulfur dioxide batteries
[AD-A255490] 04 p0867 N93-14642
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526
Design considerations for rechargeable lithium batteries 07 p1987 N93-20527
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 1
[FL-D-22-VOL-1] 08 p2282 N93-23501
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 2
[FL-D-22-VOL-2] 08 p2282 N93-23728
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Approach to extending the cycle life of lithium secondary battery
[DE93-776266] 11 p3406 N93-28983
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036
Temperature compensated lithium battery energy monitor
[AD-D015680] 11 p3409 N93-29605

LITHIUM 4
U LITHIUM ISOTOPES

LITHIUM 6
U LITHIUM ISOTOPES

LITHOGRAPHY
NT PHOTOLITHOGRAPHY
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices
[AD-A253001] 02 p0446 N93-11071
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
Soft X Ray Projection Lithography Topical Meeting. Volume 8: Technical digest
[AD-A254756] 03 p0709 N93-12850
A differential equation design method for finite-conjugate, multi-mirror imaging systems
04 p0979 N93-14165
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Method and system for electron beam lithography
[AD-D015397] 05 p1146 N93-16399
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511
Electron optical defect inspection in x ray lithography masks
[ETN-93-92570] 07 p1919 N93-20884
Design and manufacture of optical system for use in UV lithography with the free electron laser
[DE93-005440] 08 p2307 N93-22539
VETA-I x ray test analysis
[NASA-CR-192321] 09 p2854 N93-26183
Slot antenna SIS mixers for submillimeter wavelengths
10 p3014 N93-27745
Solid state research
[AD-A262273] 10 p3154 N93-28237
Solid state research
[AD-A262874] 10 p3154 N93-28247
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080

LITHOLOGY
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism
04 p1027 N93-14313
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503
06 p1735 N93-18788
Refining the granulite suite 06 p1736 N93-18789
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880

LITHOSPHERE
NT EARTH CORE
NT EARTH CRUST
NT EARTH MANTLE
NT EARTH SURFACE
Is Ishtar Terra a thickened basaltic crust?
04 p1024 N93-14292
Variations in lithospheric thickness on Venus
04 p1030 N93-14329
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Tectonic connections to interior processes on Venus
04 p1039 N93-14361
Cytherean crustal bending at Salme Dorsa
04 p1039 N93-14364
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
The tectonics of Venus: An overview
04 p1042 N93-14382
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera
04 p1044 N93-14389
Improved determination of vector lithospheric magnetic anomalies from MAGSAT data
[NASA-CR-192784] 09 p2771 N93-25201
Optimism experiment and development of space-qualified seismometers in France
11 p3846 N93-28796

LITTORAL CURRENTS
U COASTAL CURRENTS

LIVESTOCK
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480

LMFBR
U LIQUID METAL FAST BREEDER REACTORS

LNG
U LIQUEFIED NATURAL GAS

LOAD CARRYING CAPACITY
Modeling of Euclidean braided fiber architectures to optimize composite properties 04 p0834 N93-14755
The prediction of the overall behavior of viscous composites
[ITN-93-85184] 05 p1098 N93-16855
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels
[ATN-9301] 12 p3742 N93-32331

LOAD DISTRIBUTION (FORCES)
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method
01 p0029 N93-10510
The dressing of resin bonded diamond grinding wheels
[PNR-90965] 02 p0264 N93-11086
Crashworthy characteristics of circular tubes in axisymmetric buckling 02 p0337 N93-11721
Split torque transmission load sharing
[NASA-TM-105884] 03 p0610 N93-12736
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Design requirements for force reflecting master controllers 06 p1605 N93-18035
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001
Probabilistic load simulation: Code development status
12 p3694 N93-31564
Expert system development for probabilistic load simulation 12 p3695 N93-31570

LOAD FACTORS
U LOADS (FORCES)
LOAD TESTING MACHINES
Method and apparatus for gripping test specimens
[NASA-CASE-LEW-15345-1] 02 p0329 N93-12327
High-temperature flexure fixture for advanced ceramics
[PB92-222959] 07 p1860 N93-21030
System for testing bearings
[NASA-CASE-MFS-28589-1] 11 p3445 N93-29618
LOAD TESTS
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
On the development of a new fracture toughness procedure 01 p0059 N93-10541
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
Mixed mode bending test of the interlaminar fracture toughness of carbon/epoxy
[FFA-TN-1992-04] 02 p0237 N93-11128
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
NIST impact test facility
[PB92-226315] 07 p1788 N93-21467
Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Delamination development under fatigue loading 07 p1842 N93-21521
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
The role of fatigue testing in the design, development, and certification of the ATR 42/72
[ETN-93-93704] 08 p2127 N93-23969
Stress distribution in composite flatwise tension test specimens
[NASA-TM-106074] 09 p2634 N93-25071
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106
Load test set-up for the Airmass Sunburst Ultra-Light Aircraft 11 p3249 N93-29776
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Development of an experimental method to determine the axial rigidity of a strut-node joint 11 p3290 N93-30950
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines
[DLR-FB-92-17] 12 p3700 N93-31461
Conclusions and recommendations 12 p3682 N93-31749
LOADING
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading 03 p0628 N93-13728
Offloading techniques for large deployable space structures 04 p0821 N93-15605
LOADING FORCES
U LOADS (FORCES)
LOADING OPERATIONS
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
LOADING RATE
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
LOADING WAVES
U ELASTIC WAVES
U LOADS (FORCES)
LOADS (FORCES)
NT AERODYNAMIC LOADS
NT AXIAL COMPRESSION LOADS
NT AXIAL LOADS
NT BLAST LOADS
NT COMPRESSION LOADS
NT CONTACT LOADS
NT CRITICAL LOADING
NT CYCLIC LOADS
NT DYNAMIC LOADS
NT GUST LOADS
NT IMPACT LOADS
NT LANDING LOADS
NT RANDOM LOADS
NT ROLLING CONTACT LOADS
NT SHOCK LOADS
NT STATIC LOADS
NT THRUST LOADS
NT TRANSIENT LOADS
NT TRANSVERSE LOADS
NT VIBRATORY LOADS
NT WING LOADING
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538
An evaluation of the cumulative damage effect under creep loading 01 p0058 N93-10540
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048
The technical background to standards for eyebolts
[NPL-DMM(A)-52] 02 p0325 N93-11327
Loads from the detonation of hydrogen-air-steam mixtures
[DE92-019318] 02 p0249 N93-11551
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
Self mobile space manipulator project 02 p0331 N93-11973
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
Structural verification for GAS experiments 03 p0511 N93-13175
Contact of orthotropic laminates with a rigid spherical indentor 03 p0533 N93-13778
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
High torque capable, self locking, vibration isolating flexible shaft coupling statement of government interest
[AD-D015501] 05 p1178 N93-16583
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
Problems involving combined loading 05 p1189 N93-17314
Reliability analysis of External Tank Attack Ring (ETA) 05 p1182 N93-17322
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535
An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
A macro-micro robot for precise force applications 08 p2465 N93-22158
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
Energy dissipator
[NASA-CASE-MSC-21555-1] 08 p2314 N93-23075
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531
Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Methods of determining loads and fiber orientations in anisotropic non-crystalline materials using energy flux deviation
[NASA-CASE-LAR-14399-1] 09 p2729 N93-26102
Interaction between ice and propeller
[VTT-TIED-1281] 10 p3051 N93-27832
Dynamic analysis of spur gears using computer program DANST
[NASA-TM-106211] 10 p3052 N93-28050
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Dynamic ice structure interaction: Theory and applications
[VTT-PUBS-90] 11 p3353 N93-28632
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
Energy efficient drivepower
[DE93-012436] 11 p3411 N93-30058
AGARD Engine Disc Cooperative Test Programme
[AGARD-R-766-ADD] 12 p3681 N93-31741
Fatigue crack growth results for Ti-6Al-4V, IMI 685, and Ti-17 12 p3682 N93-31746
LOCAL AREA NETWORKS
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104

Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
A simple, effective media access protocol system for integrated, high data rate networks
02 p0279 N93-11119
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
Coordinating Council. Eighth Meeting: Using the Internet
[NASA-TM-108019] 03 p0734 N93-12673
DATA: How to generate, store, retrieve, communicate, and interpret it: Proceedings
[DE92-040405] 03 p0735 N93-13000
HIPPI and Fibre Channel
[DE92-040346] 03 p0689 N93-13046
User interface of DFQL: An object-oriented approach
[AD-A255225] 03 p0687 N93-13835
Requirements for a network storage service
04 p1003 N93-14781
ATOMIC: A low-cost, very high-speed LAN
[AD-A257140] 05 p1233 N93-15855
Risk assessment of LAN communications
[AD-A257327] 05 p1137 N93-15987
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1662 N93-18335
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
The economic use of PC for cartographic distributed tasks
07 p1967 N93-20534
Analysis of timed-token ring protocols
[INRIA-RR-1570] 07 p2044 N93-20894
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Evaluating the potential of combining an expert system and simulation for LAN selection
08 p2524 N93-23127
Intelligent, integrated fiber optic networks
[AD-A260282] 08 p2490 N93-24260
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
RAID-2: Design and implementation of a large scale disk array controller
[NASA-CR-192911] 09 p2806 N93-25233
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
Gigabit network communications research
[AD-A260644] 09 p2675 N93-25640
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
FY92 contributions to the Database Management System Interface Standards Working Group of the Navy Next Generation Computer Resources Program
[AD-A261348] 09 p2883 N93-26313
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Flexible control techniques for a lunar base
10 p3111 N93-27981
FDDI installation and performance analysis
[AD-A263263] 11 p3529 N93-29497
Gigabit network communications research
[AD-A264895] 11 p3536 N93-31026

LOCAL GROUP (ASTRONOMY)
NT MILKY WAY GALAXY

LOCAL THERMODYNAMIC EQUILIBRIUM
Internal variables in the local-equilibrium approximation
[DE92-016854] 02 p0471 N93-12102
Atoms and molecules in supernova 1987A
03 p0699 N93-13851

LOCALIZATION
U POSITION (LOCATION)

LOCATION
U POSITION (LOCATION)

LOCKHEED AIRCRAFT
NT C-130 AIRCRAFT
NT F-104 AIRCRAFT
NT P-3 AIRCRAFT
NT SR-71 AIRCRAFT
NT U-2 AIRCRAFT

LOCKHEED U-2 AIRCRAFT
U U-2 AIRCRAFT

LOCKING
NT LASER MODE LOCKING
US Army helicopter inertia reel locking failures
06 p1427 N93-19689
Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
Prosthetic elbow joint
[NASA-CASE-MFS-28707-1] 11 p3508 N93-30566

LOCKS
Valve lock
[NASA-CASE-MFS-29764-1] 06 p1550 N93-19049

LOCOMOTION
NT WALKING
Self mobile space manipulator project
02 p0331 N93-11973
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067
Biped control via nonlinear dynamics
09 p2718 N93-25697
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061

LOCOMOTIVES
Engineman stress and fatigue: Pilot tests
[PB93-175008] 11 p3507 N93-29675

LOG PERIODIC ANTENNAS
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY
[DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
Log-periodic slot antenna
[CA-PATENT-1-296-421] 08 p2272 N93-24203
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico
[DOT/FAA/CT-TN93/10] 10 p2941 N93-27017

LOGARITHMS
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
A build-up variant of the path-following method for LP
[REPT-91-47] 07 p2037 N93-20863
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586
Logarithmic time scale in thermographic Non Destructive Evaluation (NDE) of materials 11 p3359 N93-30246

LOGIC
Modelling temporal abductive explanation
[AD-A263096] 11 p3526 N93-29145

LOGIC CIRCUITS
NT THRESHOLD GATES
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Formal specification of the VIPER microprocessor in HOL
[RSRE-90009] 02 p0405 N93-12430
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
Optimal synthesis methods for silicon compilers
[ETN-92-92677] 04 p0947 N93-15125
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709
Telerobotic control of a mobile coordinated robotic server
[NASA-CR-191650] 05 p1259 N93-16387
Scan-based switching tests
[AD-A257712] 05 p1151 N93-17685
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Representation and readability of logic diagrams and aspects of their automatic generation
[ETN-93-92559] 07 p1890 N93-20751
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
Theoretical and experimental investigations of coincidences in Poisson distributed pulse trains and spectral distortion caused by pulse pileup
[ISBN-0-315-60449-2] 08 p2286 N93-24614
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Hierarchical model of matching
11 p3519 N93-29580
Performance enhancement of dynamic CMOS logic circuits 11 p3361 N93-30257
Electronics mixed-mode simulation
[AD-A264734] 11 p3534 N93-30577
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462

LOGIC DESIGN
Blackboard architectures for multi-agent planning
[AD-A255035] 03 p0688 N93-12710
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
Parallel simulation of structural VHDL circuits on Intel Hypercubes
[AD-A258999] 06 p1521 N93-19012
Anytime declarativism
[AD-A258698] 07 p2032 N93-20376
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Two generalizations of Kohonen clustering
08 p2449 N93-22207
A fuzzy logic controller system
[AD-A259723] 08 p2439 N93-23467
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
A design of a fast and area efficient multi-input Muller C-element
[AD-A261002] 09 p2690 N93-25856
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
Fuzzy Control/Space Station automation
12 p3688 N93-31440
Terminology and concepts of control and Fuzzy Logic
12 p3688 N93-31443
Overview of Fuzzy Logic 12 p3688 N93-31445
Blowdown thrust profile prediction
12 p3689 N93-31448
Path planning control 12 p3685 N93-31451
Hyperbaric treatment 12 p3689 N93-31454
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649

LOGIC NETWORKS
U LOGIC CIRCUITS

LOGIC PROGRAMMING
Blackboard architectures for multi-agent planning
[AD-A255035] 03 p0688 N93-12710
A proof of the Church-Rosser theorem and its representation in a logical framework
[AD-A256574] 04 p0942 N93-14268
Proof of theorems in Z
[AD-A255711] 04 p0968 N93-14431
Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
A module system for a programming language based on the LF logical framework
[AD-A256731] 05 p1235 N93-16069
Implementing higher-order algebraic specifications
[CWI-CS-R9150] 05 p1265 N93-16368
The dynamics of description
[CWI-CS-R9143] 05 p1240 N93-16671
Integration of deductive and object oriented data bases: Theoretical and implementation aspects
[REPT-92-039] 06 p1618 N93-18199

Global planning of several plants
06 p1635 N93-18667
Fast theorem proving in intuitionistic propositional logic
[CWI-CS-R9157] 07 p2051 N93-20840
Design and implementation of LOGRES
[REPT-92-040] 07 p2039 N93-21184
A high-speed auto-tuning PID regulator based on programmable logic devices
[REPT-92-042] 07 p2047 N93-21186
A logic-based approach to federated databases
09 p2876 N93-25466
A theory of first-order built-in's of PROLOG
[CWI-CS-R9216] 10 p3093 N93-27255
Transition systems and dynamic semantics
[CWI-CS-R9217] 10 p3094 N93-27256
A comparison of OBJ3 and ASF+SDF
[CWI-CS-R9223] 10 p3094 N93-27363
Comparative transition system semantics
[CWI-CS-R9222] 10 p3095 N93-27389
A predicate transformer for unification
[CWI-CS-R9227] 10 p3096 N93-27391
Constraints logic programming in knowledge-based planning domains
[AD-A262958] 10 p3104 N93-28291
Automated reasoning with function evaluation for COCOLOG
[INRIA-RR-1713] 11 p3529 N93-29488
On the integration of algebraic and logic languages
[ETN-93-94238] 12 p3786 N93-31205
Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466
Reasoning about termination of PROLOG programs
[CT-91-12] 12 p3787 N93-31479
Weak equivalence: Theory and applications
[CT-92-02] 12 p3788 N93-31529
A new definition of SLDNF-resolution
[CT-92-03] 12 p3806 N93-31530
VDM specification of the Secure Hash algorithm
[NPL-DITC-212/92] 12 p3790 N93-31735
Revision by expansion in logic programs
[REPT-93-02] 12 p3790 N93-31852
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127
Agent oriented programming: An overview of the framework and summary of recent research
12 p3794 N93-32136

LOGIC UNITS
U ARITHMETIC AND LOGIC UNITS

LOGICAL ELEMENTS
A high-speed auto-tuning PID regulator based on programmable logic devices
[REPT-92-042] 07 p2047 N93-21186

LOGISTICS
NT LUNAR LOGISTICS
NT SPACE LOGISTICS
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Ground operations and logistics in the context of the International Asteroid Mission 03 p0515 N93-13560
The environmental control and life-support system for a lunar base: What drives its design
03 p0680 N93-13991
Software development with application generators: The Naval Aviation Logistics Command Management Information System Case
[AD-A257624] 05 p1357 N93-17768
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
O-Plan2: The open planning architecture
06 p1637 N93-18678
PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994
The German national industry as a source of logistic support for armed forces facing new requirements
[MBB-UL-0002-91-PUB] 07 p1877 N93-21463
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
The role of smart systems in rendezvous, close proximity operations and docking maneuvers
08 p2150 N93-22310
Distributed computer systems and logistics systems: What do they have in common besides distribution?
[MEMO-INF-92-44] 08 p2448 N93-23872
Estimating spares requirements for Space Station Freedom using the M-SPARE model
[AD-A260878] 09 p2617 N93-25630
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
RACE pulls for shared control
12 p3686 N93-32122

LOGISTICS MANAGEMENT
NT INVENTORY CONTROLS
NT INVENTORY MANAGEMENT
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
LINK user manual
[DE92-017987] 02 p0479 N93-12143
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Software development with application generators: The Naval Aviation Logistics Command Management Information System Case
[AD-A257624] 05 p1357 N93-17768
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
Management of Automatic Data Processing (ADP) system documentation in the Department of Defense
[AD-A258507] 07 p2088 N93-20048
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
Estimating spares requirements for Space Station Freedom using the M-SPARE model
[AD-A260878] 09 p2617 N93-25630
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124

LONG DURATION EXPOSURE FACILITY
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Some results of the oxidation investigation of copper and silver samples flown on LDEF
01 p0034 N93-10580
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Effect of space exposure on pyroelectric infrared detectors 01 p0038 N93-10582
Long Duration Exposure Facility (LDEF) optical systems SIG summary and database 01 p0038 N93-10583
Polymer matrix composites on LDEF experiments M0003-9 and M0003-10 01 p0038 N93-10584
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites
01 p0038 N93-10585
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA
01 p0039 N93-10592
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces
01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces
01 p0032 N93-10854
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF
02 p0270 N93-11994
Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
LDEF materials: An overview of the interim findings
03 p0546 N93-12770
LDEF atomic oxygen fluence update
03 p0546 N93-12771
LDEF yaw and pitch angle estimates
03 p0524 N93-12772
Materials SIG quantification and characterization of surface contaminants 03 p0546 N93-12773
Z306 molecular contamination ad hoc committee results 03 p0546 N93-12774
Long Duration Exposure Facility (LDEF) contamination modeling 03 p0547 N93-12775
Surface contamination on LDEF exposed materials
03 p0547 N93-12776
Sources and transport of silicone NVR
03 p0547 N93-12777
Thermal control surfaces on the MSFC LDEF experiments 03 p0547 N93-12778
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum
03 p0544 N93-12779
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment
03 p0548 N93-12782
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Characterisation and dynamic modelling of the near-earth space particulate environment
04 p1019 N93-14637
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
LDEF solar cell radiation effects analysis
[NASA-CR-192458] 05 p1195 N93-16374
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Four space application material coatings on the long-duration exposure flight (LDEF)
[NASA-TM-104574] 06 p1493 N93-18370
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
Protection of Materials and Surface Finishes from the Low Earth Orbit Space Environment
[CTN-93-60605] 07 p1847 N93-20810
The LDEF experience. Materials
07 p1847 N93-20811
Protection of composite materials in space. The LDEF experience 07 p1847 N93-20812
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Chemical analyses of provided samples
[NASA-CR-193211] 10 p2993 N93-27077
LDEF: 69 Months in Space. Part 3: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-3] 10 p3219 N93-28254
LDEF materials overview 10 p2997 N93-28255
Oxygen isotopes implanted in the LDEF spacecraft
10 p2997 N93-28256
Silazine to silica 10 p2997 N93-28257
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
LDEF fiber-composite materials characterization
10 p2992 N93-28264
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel
10 p2992 N93-28265

Surface analyses of composites exposed to the space environment on LDEF 10 p2993 N93-28268
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
Spectral infrared hemispherical reflectance measurements for LDEF tray clamps 10 p3149 N93-28270
Surface characterization of selected LDEF tray clamps 10 p3001 N93-28271
Contamination on LDEF: Sources, distribution, and history 10 p2998 N93-28272
Optical characterization of LDEF contaminant film 10 p3149 N93-28274
Evaluation of seals, lubricants, and adhesives used on LDEF 10 p3007 N93-28275
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
LDEF thermal control coatings post-flight analysis 10 p3008 N93-28278
Selected results for LDEF thermal control coatings 10 p3008 N93-28279
Fluorescence measurements of the thermal control experiments coatings on LDEF S0069 and A0114 10 p3008 N93-28280
Atomic oxygen effects on LDEF experiment AO171 10 p3138 N93-28281
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF 10 p3008 N93-28282
Second LDEF Post-Retrieval Symposium interim results of experiment A0034 10 p3008 N93-28283
The interaction of atomic oxygen with copper: An XPS, AES, XRD, optical transmission, and stylus profilometry study 10 p3149 N93-28284
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
Materials And Processes Technical Information System (MAPTIS) LDEF materials data base 10 p3168 N93-28286
Data bases for LDEF results 10 p3168 N93-28287
Long Duration Exposure Facility experiment M0003 deintegration observation data base 10 p3169 N93-28288
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 [AD-A263252] 11 p3329 N93-28561
LDEF materials data bases [NASA-TM-107757] 11 p3290 N93-29067
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2 [NASA-CP-3194-PT-2] 11 p3654 N93-29354
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Micrometeoroids and debris on LDEF 11 p3638 N93-29356
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets 11 p3638 N93-29358
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF 11 p3283 N93-29362
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
Hypervelocity impact facility for simulating materials exposure to impact by space debris 11 p3283 N93-29365
Analysis of LDEF micrometeoroid/debris data and damage to composite materials 11 p3309 N93-29366
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps 11 p3283 N93-29369
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF) 11 p3638 N93-29371
Interplanetary meteoroid debris in LDEF metal craters 11 p3638 N93-29372
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
Damage areas on selected LDEF aluminum surfaces 11 p3283 N93-29374
LDEF data: Comparisons with existing models 11 p3283 N93-29375
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376
Long Duration Exposure Facility (LDEF) attitude measurements of the Interplanetary Dust Experiment 11 p3638 N93-29377
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces 11 p3638 N93-29378
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381
LDEF: 69 Months in Space. Part 1: Second Post-Retrieval Symposium [NASA-CP-3194-PT-1] 11 p3660 N93-29621
Refinements on the pinhole camera measurements of the LDEF attitude 11 p3283 N93-29622
LDEF microenvironments, observed and predicted 11 p3283 N93-29623
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments 11 p3428 N93-29624
EnviroNET: On-line information for LDEF 11 p3624 N93-29625
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
Sensitivity of LDEF foil analyses using ultra-low background germanium vs. large NaI(Tl) multidimensional spectrometers 11 p3318 N93-29627
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
A photon phreak digs the LDEF happening 11 p3572 N93-29629
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
Collection, analysis, and archival of LDEF activation data 11 p3624 N93-29631
Induced activation study of LDEF 11 p3572 N93-29632
Revised prediction of LDEF exposure to trapped protons 11 p3572 N93-29633
A measurement of the radiation dose to LDEF by passive dosimetry 11 p3572 N93-29634
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637
Light-heavy ion measurements in CR-39 located on the Earth side of LDEF 11 p3573 N93-29638
Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF 11 p3573 N93-29639
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments 11 p3573 N93-29640
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641
Future directions for LDEF ionizing radiation modeling and assessments 11 p3573 N93-29642
Cosmogenic radionuclides on LDEF: An unexpected Be-10 result 11 p3573 N93-29643
Heavy ion measurement on LDEF 11 p3573 N93-29644
Progress report on the Heavy Ions in Space (HIIS) experiment 11 p3573 N93-29645
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
LDEF: 69 Months in Space. Part 4: Second Post-Retrieval Symposium [NASA-CP-3194-PT-4] 11 p3665 N93-29682
Overview of the Systems Special Investigation Group investigation 11 p3318 N93-29683
Post-flight analyses of the crystals from the M0003-14 quartz crystal microbalance experiment 11 p3602 N93-29684
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2 11 p3414 N93-29685
LEO effects on candidate solar cell cover materials 11 p3467 N93-29687
New results from FRECOPA analysis 11 p3448 N93-29688
Degradation of electro-optic components aboard LDEF 11 p3582 N93-29689
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
In orbit degradation of EUV optical components in the wavelength range 10-40 nm AO 138-3 11 p3582 N93-29691
Degradation of optical components in a space environment 11 p3582 N93-29692
Studies of effects on optical components and sensors: LDEF experiments AO-147 (ERB components) and S-0014 (APEX) 11 p3582 N93-29693
Effects of long term space environment exposure on optical substrates and coatings (S0050-2) 11 p3582 N93-29694
LDEF space optics handbook 11 p3582 N93-29695
Ruled and holographic experiment (AO 138-5) 11 p3434 N93-29696
Holographic data storage crystals for the LDEF 11 p3435 N93-29697
Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF 11 p3583 N93-29699
Radiation and temperature effects on LDEF fiber optic samples 11 p3583 N93-29700
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results 11 p3429 N93-29701
Final results of space exposed experiment developed for students 11 p3492 N93-29702
Continued results of the seeds in space experiment 11 p3492 N93-29703
LDEF archival system plan 11 p3624 N93-29704
Retrievable payload carrier, next generation Long Duration Exposure Facility: Update 1992 11 p3283 N93-29705
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
An LDEF 2 dust instrument for discrimination between orbital debris and natural particles in near-Earth space 11 p3286 N93-29707
Future radiation measurements in low Earth orbit 11 p3654 N93-29708

LONG DURATION SPACE FLIGHT
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366) [NASA-SP-7011(366)] 01 p0130 N93-10079
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 367) [NASA-SP-7011(367)] 01 p0130 N93-10080
SLS-1 flight experiments preliminary significant results [NASA-TM-108033] 03 p0520 N93-13613
Radiation monitoring for long duration space flights 04 p0812 N93-14959
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Crew health 08 p2187 N93-22630
JPRS report: Science and technology. Central Eurasia: Life sciences [JPRS-ULS-92-022] 09 p2795 N93-25407
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1 [NASA-TM-108408] 11 p3331 N93-29193
Issues on human acceleration tolerance after long-duration space flights [NASA-TM-104753] 11 p3495 N93-29651

LONG PERIOD VARIABLES
U MIRA VARIABLES

LONG RANGE NAVIGATION
U LORAN

LONG RANGE WEATHER FORECASTING
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028

LONG TERM EFFECTS
Orbit perturbations due to an axi-symmetric gravitational field, analyzed over extended periods of time [RAE-TM-SPACE-386] 02 p0220 N93-11486

Nucleate pool boiling in the long duration low gravity environment of the Space Shuttle
[NASA-TM-105973] 04 p0855 N93-15420
Research on equipment life extension technology 07 p1793 N93-20436
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
Problem solving for long term, global scenarios of space traffic
[ILR-MITT-265(1991)] 07 p1821 N93-20906
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Atomic oxygen effects on LDEF experiment AO171 10 p3138 N93-28281
The interaction of atomic oxygen with copper: An XPS, AES, XRD, optical transmission, and stylus profilometry study 10 p3149 N93-28284
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
Materials And Processes Technical Information System (MAPTIS) LDEF materials data base 10 p3168 N93-28286
Long Duration Exposure Facility experiment M0003 deintegration observation data base 10 p3169 N93-28288
Degradation of electro-optic components aboard LDEF 11 p3582 N93-29689
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823

LONG WAVE RADIATION
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU] 02 p0458 N93-11056
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Meteor fireball sounds identified 06 p1709 N93-19184
Propagation characteristics of the ionospheric transmission window relating to long wave radio location issues 08 p2265 N93-23600
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791

LONG WAVES (METEOROLOGY)
U PLANETARY WAVES

LONGERONS
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004

LONGITUDE
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605

LONGITUDINAL CONTROL
Pitch control trimming system for canard design aircraft
[CA-PATENT-APPL-SN-2013236] 01 p0010 N93-10374
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
Pitch control margin at high angle of attack-quantitative requirements (flight test correlation with simulation predictions)
[AD-A257418] 05 p1068 N93-16009
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
New adaptive controllers for aircraft 10 p2921 N93-27180

LONGITUDINAL STABILITY
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036

LONGITUDINAL WAVES
NT PLANE WAVES
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982

LONGSHORE CURRENTS
U COASTAL CURRENTS

LOOK ANGLES (TRACKING)
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera 10 p2923 N93-27194

LOOP ANTENNAS
Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661

LOOPS
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
Two loop calculation of the anomalous dimension of four-fermion operators with static heavy quarks
[PREPRINT-873] 05 p1291 N93-17073

LORAN
NT LORAN C
LORAN and the effects of terrestrial propagation
[PB92-197219] 02 p0205 N93-11472
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832

LORAN C
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Carrier wave signals interfering with Loran-C
[ETN-92-92528] 05 p1059 N93-17584
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991 09 p2835 N93-25006
Experimental results of the performance of the new phase and frequency controller 09 p2839 N93-25035

LORENTZ FORCE
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
Relativistic band gaps in one-dimensional disordered systems
[DE93-609841] 12 p3829 N93-31814
Benet improvements made on Los Alamos electromagnetic field code
[AD-A265474] 12 p3718 N93-32065

LORENTZ TRANSFORMATIONS
On a possible non-Lorentzian energy-dependence of the K neutral(sub S)
[PREPRINT-807] 07 p2053 N93-20903
On inducing finite dimensional physical field representations for massless particles in even dimensions 10 p3144 N93-27339
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922
Relativity theory in (2 + 2)-space
[DE92-644671] 11 p3608 N93-30983

LOS ALAMOS TURRET REACTOR
U HIGH TEMPERATURE NUCLEAR REACTORS

LOSS OF COOLANT
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
Austrian contributions to reactor safety research
[OEFZS-4622] 10 p3139 N93-28203

LOSSES
Software for prediction and analysis of ground wave propagation loss
[AD-A253474] 01 p0067 N93-10199
Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field 06 p1531 N93-18732
Determination of the dissipative loss of a two-port network from noise temperature measurements 06 p1505 N93-18904
Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156
Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264
Reduction of bend losses for titanium diffused waveguides in lithium niobate
[ETN-93-92558] 07 p1884 N93-20750
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Report of the Seasat Failure Review Board 09 p2619 N93-24693
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929
High-performance compression of astronomical images 09 p2805 N93-25931
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
World commercial aircraft accidents
[DE93-010892] 11 p3243 N93-28571
Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier 11 p3386 N93-29599
Analysis of visual loss from retinal lesions
[AD-A264692] 11 p3496 N93-30494
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

LOSSLESS MATERIALS
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087

LOSSY MEDIA
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087

LOST WAX PROCESS
U INVESTMENT CASTING

LOUDNESS
Laboratory study of effects of sonic boom shaping on subjective loudness and acceptability
[NASA-TP-3269] 02 p0434 N93-11620
Effect of sonic boom asymmetry on subjective loudness
[NASA-TM-107708] 05 p1282 N93-16755
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692

LOUDSPEAKERS
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168

LOUISIANA
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159

LOUVERS
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121

LOW ALLOY STEELS
U HIGH STRENGTH STEELS

LOW ALTITUDE
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Combat aircraft noise: The operator's perspective 01 p0148 N93-10669
Noise emission of low flying military airplanes 01 p0149 N93-10675
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662

Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579
Optimal recovery from microburst wind shear 08 p2107 N93-22574
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
A prediction model for noise from low-altitude military aircraft
[AD-A262494] 10 p3130 N93-27662
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593

LOW ASPECT RATIO
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Diagnostics systems for the TBR-E tokamak
[INPE-5428-RPQ/662] 03 p0716 N93-13257
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239

LOW ASPECT RATIO WINGS
NT DELTA WINGS
Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings 06 p1450 N93-19019
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449

LOW CARBON STEELS
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Fatigue life of two steels under variable amplitude loading 07 p1948 N93-21323
A study into the effects of electric fields and currents on the aging and quench hardening of steels
[AD-A260228] 08 p2233 N93-24098
INEL spray-forming research 09 p2658 N93-25562
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071

LOW CONCENTRATIONS
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899

LOW COST
Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Global positioning systems technology and its application in environmental programs
[PB92-169358] 01 p0007 N93-10442
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU] 03 p0711 N93-13711
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
Ramjet propulsion for advanced projectiles 05 p1067 N93-17615
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Robo-line storage: Low latency, high capacity storage systems over geographically distributed networks
[NASA-CR-192910] 09 p2805 N93-25130
Low cost dewatering of waste slurries 09 p2769 N93-25573
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
QuickStar: System design, capabilities, and tactical applications of a small, smart space system 11 p3284 N93-29905
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
Potential low-cost telerobotics flight experiments 12 p3737 N93-32120

LOW DENSITY FLOW
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379

LOW DENSITY GASES
U RAREFIED GASES

LOW EARTH ORBITAL ENVIRONMENTS
U EARTH ORBITAL ENVIRONMENTS

LOW FREQUENCIES
NT VERY LOW FREQUENCIES
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Temporal monitoring of VHF and LF atmospherics and their relation to lightning
[AD-A252617] 02 p0371 N93-12180
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
VLF/LF corona investigation
[AD-A258052] 05 p1141 N93-17709
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
The single-gap hollow spherical dipole in non-conducting media
[AD-A260017] 08 p2273 N93-24460
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU] 08 p2169 N93-24598
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere 11 p3395 N93-30731
Studies of the propagation of Low Frequency (LF) radio waves 11 p3396 N93-30738
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791
The optical response of a double quantum well driven by two lasers: Localization and low frequency generation
[AD-A265118] 12 p3819 N93-31792

LOW FREQUENCY BANDS
NT VERY LOW FREQUENCIES

LOW GRAVITY
U MICROGRAVITY

LOW GRAVITY MANUFACTURING
A microgravity processing plant for the manufacturing of propellant and water from asteroid ore 03 p0515 N93-13558
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Research on space component and material manufacturing experiments utilizing microgravity environment 07 p1791 N93-20422
Axial response and pulse behavior of a cylindrical liquid column. Part 2
[LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296
Natural axisymmetric frequencies of cylindrical liquid column with anchored free surface
[LRT-WE-9-FB-3-1991] 07 p1903 N93-21297
Natural frequencies and response of spinning liquid column with partially sliding contact line
[LRT-WE-9-FB-24-1991] 07 p1903 N93-21298
Report on microgravity experiment by TR-1A rocket
[NASDA-EG-920021] 07 p1875 N93-21950
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832

LOW LATITUDES
U TROPICAL REGIONS

LOW LEVEL TURBULENCE
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy 03 p0660 N93-14064

LOW MASS
U MASS

LOW MOLECULAR WEIGHTS
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158

LOW NOISE
Development of microchannel plates in advanced wind-tunnel instrumentation
[NASA-CR-181947] 05 p1166 N93-15716
Minimizing noise-temperature measurement errors 06 p1507 N93-18919
Initial trials results for image stabilisation using a rugged low noise gyroscope 08 p2255 N93-22021
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems 08 p2287 N93-22179
Low-voltage-swing CMOS transceivers
[DE93-006607] 08 p2277 N93-22511
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743

A low-noise 492 GHz SIS waveguide receiver
10 p3015 N93-27750

LOW PASS FILTERS
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Diabatic dynamic initialization
06 p1563 N93-18719
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407

LOW PRESSURE
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760

LOW PRESSURE CHAMBERS
U VACUUM CHAMBERS

LOW REYNOLDS NUMBER
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
On the drag of model dendrite fragments at low Reynolds number
[NASA-TM-105916] 07 p1855 N93-19974
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers
11 p3416 N93-28612
A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200
Turbulence and transition modeling for high-speed flows
[NASA-CR-191473] 12 p3727 N93-32329

LOW SPEED
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
An experimental and a theoretical investigation of rotor pitch damping using a model rotor
01 p0008 N93-10322
Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
Damage in laminated composites due to low velocity impact 08 p2213 N93-23947
Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
Helicopter low-speed yaw control
[NASA-CASE-LAR-14219-1] 09 p2597 N93-25998
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

LOW SPEED WIND TUNNELS
NT SUBSONIC WIND TUNNELS
The 13 ft by 9 ft low speed wind tunnel facility at DRA (Aerospace Division) Bedford (England)
[RAE-TM-AERO-2228] 02 p0199 N93-11883
Acoustical evaluation of the NASA Lewis 9 by 15 foot low speed wind tunnel
[NASA-TP-3274] 02 p0218 N93-12016
Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
Tests of models equipped with TPS in low speed ONERA F1 pressurized wind tunnel 03 p0577 N93-13201
Wind tunnel tests and CFD in Fuji Heavy Industries
06 p1416 N93-19323
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
On the development of a film cooling layer
11 p3258 N93-29959

LOW TEMPERATURE
NT CRYOGENIC TEMPERATURE
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Nanophase ceramics
[AD-A254661] 02 p0272 N93-12246
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291
Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
Feasibility of silicon nitride films by vapor deposition at low temperature: Comparison of dichlorsilane-ammonia and disilane gaseous systems
[LAAS-92249] 06 p1490 N93-17812
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Summary of the 1992 ACP Winter Conference on Future Trends in Low Temperature Physics
[AD-A259809] 08 p2508 N93-23643
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083

LOW TEMPERATURE ENVIRONMENTS
Operational strategies for contamination control of composite materials 04 p0822 N93-15614
Novel low temperature superconducting bolometers
[DE93-010433] 11 p3430 N93-28664
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298
Microwave processing of silicon nitride for advanced gas turbine applications
[DE93-007910] 11 p3334 N93-29767

LOW TEMPERATURE PHYSICS
Summary of the 1992 ACP Winter Conference on Future Trends in Low Temperature Physics
[AD-A259809] 08 p2508 N93-23643

LOW TEMPERATURE PLASMAS
U COLD PLASMAS

LOW THRUST
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
Tethers 05 p1089 N93-16915
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536

LOW THRUST PROPULSION
NT ELECTROMAGNETIC PROPULSION
NT ELECTROSTATIC PROPULSION
NT ION PROPULSION
NT PLASMA PROPULSION
NT SOLAR ELECTRIC PROPULSION
NT SOLAR THERMAL PROPULSION
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Electric propulsion 05 p1095 N93-16916
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems
05 p1074 N93-17290
Vertical landing on an asteroid
10 p2924 N93-27202

LOW TURBULENCE
Subsonic aerodynamic research laboratory
[AD-A256060] 04 p0780 N93-14661
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383

LOW VELOCITY
U LOW SPEED

LOW VOLTAGE
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080

LOW WEIGHT
Metal alloy and method of preparation thereof
[AD-D015670] 09 p2652 N93-26234

LOWER ATMOSPHERE
NT TROPOPAUSE
NT TROPOSPHERE
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190

LOWER BODY NEGATIVE PRESSURE
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
Respiratory response to varying degrees of tilt and lower body negative pressure 07 p1809 N93-21114
Altered fluid shift dynamics with 6 days in microgravity
08 p2160 N93-24369
Cardiovascular stress test with non-invasive techniques 08 p2165 N93-24399
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594

LOWER IONOSPHERE
NT D REGION
Atmospheric dynamics and coupling
06 p1584 N93-18495
Propagation characteristics of the ionospheric transmission window relating to long wave radio location issues 08 p2265 N93-23600
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737

LOX (OXYGEN)
U LIQUID OXYGEN

LOX-HYDROCARBON ROCKET ENGINES
U OXYGEN-HYDROCARBON ROCKET ENGINES

LOX-HYDROGEN ENGINES
U HYDROGEN OXYGEN ENGINES

LQG CONTROL
U LINEAR QUADRATIC GAUSSIAN CONTROL

LQR
U LINEAR QUADRATIC REGULATOR

LRV (VEHICLE)
U LUNAR ROVING VEHICLES

LSI
U LARGE SCALE INTEGRATION

LST
U HUBBLE SPACE TELESCOPE
LTE (ASTRONOMY)
U LOCAL THERMODYNAMIC EQUILIBRIUM
LUBRICANT TESTS
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670
LUBRICANTS
NT HIGH TEMPERATURE LUBRICANTS
NT LUBRICATING OILS
NT SOLID LUBRICANTS
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Materials compatibility and lubricants research on CFC-refrigerant substitutes: Thermophysical properties
[DE92-015116] 01 p0043 N93-10397
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-000537] 05 p1121 N93-16192
Miscibility of lubricants with refrigerants
[DE93-000538] 05 p1122 N93-16244
Compatibility of refrigerants and lubricants with elastomers
[DE93-000539] 05 p1122 N93-16245
Compatibility of refrigerants and lubricants with motor materials
[DE93-000540] 05 p1122 N93-16246
New class of lubricants derived from archaebacterial lipids
[AD-D015481] 05 p1124 N93-16487
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Compatibility of refrigerants and lubricants with elastomers
[DE93-006429] 08 p2216 N93-22057
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-006426] 08 p2237 N93-22884
Compatibility of refrigerants and lubricants with motor materials
[DE93-006428] 08 p2237 N93-22885
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Formability of type 304 stainless steel sheet
[DE92-018619] 08 p2229 N93-22924
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-013082] 12 p3715 N93-32163
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-014771] 12 p3711 N93-32293
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352
LUBRICATING OILS
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system 04 p0796 N93-15173
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-000541] 05 p1128 N93-17807
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Investigation of multiply alkylated cyclopentane synthetic oil and lead naphthenate additive under boundary contact interactions
[ATR-93(8361)-1] 10 p2995 N93-27602
Synthetic lubricating oil greases containing metal chelates of Schiff bases
[AD-D015694] 11 p3333 N93-29458
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352
LUBRICATION
NT BOUNDARY LUBRICATION
NT SELF LUBRICATION
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Tribology of magnetic storage systems 04 p1002 N93-14772
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
Research on HOPE actuator power unit 07 p1792 N93-20430
On the thermoelastohydrodynamic lubrication dimensionless problem formulations 07 p1917 N93-20693
A boundary element formulation for thermo-hydrodynamic lubrication problem 07 p1918 N93-20704
Boundary element formulation for thermoelastohydrodynamic contact problems 07 p1918 N93-20705
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
Elastohydrodynamic lubrication of multilayered elastic solids 10 p3053 N93-28413
Fundamental studies of friction, lubrication, and wear by atomic force microscopy
[AD-A264647] 11 p3446 N93-30524
Tribology: Friction, lubrication, and wear technology 11 p3292 N93-30965
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670
LUBRICATION SYSTEMS
Research on HOPE actuator power unit 07 p1792 N93-20430
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
LUCITE (TRADEMARK)
U POLYMETHYL METHACRYLATE
LUDER BANDS
U PLASTIC DEFORMATION
U YIELD POINT
LUGS
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
LUMBERING AREAS
U FORESTS
LUMINAIRES
NT AIRCRAFT LIGHTS
NT AIRPORT LIGHTS
NT FLASH LAMPS
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
LUMINANCE
The effects of luminance boundaries on color perception
[AD-A250705] 02 p0384 N93-11841
Effects of spatial luminance nonuniformities on visual-task performance and subjective uniformity
[AD-A255989] 04 p0936 N93-14416
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
LUMINESCENCE
NT BIOLUMINESCENCE
NT CATHODOLUMINESCENCE
NT CHEMILUMINESCENCE
NT ELECTROLUMINESCENCE
NT FLUORESCENCE
NT LASER INDUCED FLUORESCENCE
NT LUNAR LUMINESCENCE
NT OPTICAL RESONANCE
NT PHOSPHORESCENCE
NT PHOTOLUMINESCENCE
NT RESONANCE FLUORESCENCE
NT SONOLUMINESCENCE
NT SPACECRAFT GLOW
NT THERMOLUMINESCENCE
NT X RAY FLUORESCENCE
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
Time-resolved optical studies of 3-5 semiconductors 04 p0990 N93-14183
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Luminescence probe studies of ionomers. 3: Distribution of decay rate constants for tris bipyridyl ruthenium(2) in Nafion membranes
[AD-A260764] 09 p2645 N93-25916
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966
LUMINESCENT INTENSITY
U LUMINOUS INTENSITY
LUMINOSITY
NT STELLAR LUMINOSITY

Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
The emission-line properties of quasars
03 p0753 N93-13487
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228
Optical signatures of cooling flows in isolated early-type galaxies 04 p1017 N93-14243
X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096
The evolution of AGN's at x ray wavelengths
05 p1372 N93-17141
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
The optical counterparts of the x ray binaries in NGC 6712 and 47 Tucanae 08 p2538 N93-23914
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers
09 p2892 N93-24949
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793
The multicomponent structure of bulges
10 p3187 N93-26800
Luminosities of H alpha emitting regions in a pair of interacting galaxies in the Bootes void
10 p3188 N93-26812
Luminosity segregation in galaxy clusters as an indication of dynamical evolution
10 p3192 N93-26834
Removing Malmquist bias from linear regressions
10 p3122 N93-26872
Emission line gas in early-type galaxies: Kinematics and physical conditions 10 p3200 N93-26874
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880
The ISM in the M82 starburst
10 p3202 N93-26887
Powering the superwind in NGC 253
10 p3203 N93-26893
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419

LUMINOUS FLUX DENSITY
U LUMINOUS INTENSITY

LUMINOUS INTENSITY
NT LUMINANCE
The x ray properties of warm IRAS galaxies
05 p1371 N93-17134
The surface density of quasars and Seyfert galaxies at B is approximately 22.0 05 p1375 N93-17157
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
Optical fiber strain sensor with improved linearity
[NASA-CASE-LAR-14857-1-SB]
06 p1663 N93-19374
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Polarimetric multispectral imaging technology
11 p3434 N93-28774
Near-infrared line imaging of NGC 6240: Global shock and nuclear starburst
[MPE-PREPRINT-226] 11 p3631 N93-30641

LUMPED PARAMETER SYSTEMS
Lumped mass modelling for the dynamic analysis of aircraft structures 06 p1447 N93-19460
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model
09 p2678 N93-26119

LUNAR ATMOSPHERE
The Mount Wilson optical interferometer: The first automated instrument and the prospects for lunar interferometry 03 p0745 N93-13582
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
An optical VLA on the Moon
03 p0747 N93-13596
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598
Astronomy on the Moon: Geological considerations
[SOEST-CONTRIB-2399] 05 p1363 N93-17434
Lunar base activities and the lunar environment
05 p1398 N93-17455
An artificially generated atmosphere near a lunar base
05 p1398 N93-17456

LUNAR BASED EQUIPMENT
NT LUNAR CONSTRUCTION EQUIPMENT
NT LUNAR EXCAVATION EQUIPMENT
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
Report of the Lunar Interferometry Study Team (LIST) activities 01 p0178 N93-10945
Power system commonality study
[NASA-CR-190765] 02 p0347 N93-12019
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Configuration optimization of space structures
09 p2670 N93-26415
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Conceptual study on manned lunar surface site
10 p2950 N93-28029
Conceptual study of manned lunar surface site
10 p2951 N93-28031
Lunar science: Using the Moon as a testbed
11 p3650 N93-28821
The 1990-1991 project summaries
11 p3230 N93-29730
Interferometry from the Moon
12 p3845 N93-31757
The lunar interferometer for solar physics
12 p3847 N93-31768
Advanced lunar-based interferometer for solar observations 12 p3847 N93-31769

LUNAR BASES
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Habitat automation 02 p0391 N93-11976
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
Telescopes on the Moon or pie in the sky?
03 p0746 N93-13591
Lunar interferometric astronomy: Some basic questions 03 p0746 N93-13592
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598
Report of the Working Group on Space/Lunar Tradeoffs 03 p0747 N93-13599
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Thermal control systems for low-temperature heat rejection on a lunar base
[NASA-CR-191286] 03 p0679 N93-13717
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
Lunar resource recovery: A definition of requirements
03 p0761 N93-13978
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems
03 p0556 N93-13983
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
The possibility of concrete production on the Moon
03 p0554 N93-13988
Concrete structure construction on the Moon
03 p0559 N93-13989
Lunar concrete for construction
03 p0555 N93-13990
The environmental control and life-support system for a lunar base: What drives its design
03 p0680 N93-13991
Life systems for a lunar base
03 p0680 N93-13992
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
Potential of derived lunar volatiles for life support
03 p0680 N93-13998
Technology development for lunar base water recycling 03 p0680 N93-13999
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
Solar water heating system for a lunar base
03 p0641 N93-14005
Automation and robotics considerations for a lunar base 03 p0619 N93-14006
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment
03 p0766 N93-14007
Mobile work platform for initial lunar base construction
03 p0559 N93-14009
The real world and lunar base activation scenarios
03 p0680 N93-14014
Moon Park: A research and educational facility
03 p0519 N93-14015
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
A basis of settlement: Economic foundations of permanent pioneer communities
03 p0741 N93-14019
The lunar community church: Contributions to lunar living and to evolution of ethical and spiritual thinking
03 p0676 N93-14020
In-situ lunar oxygen extraction
04 p0806 N93-14929
Photovoltaic power system for a lunar base
04 p0806 N93-14930
Mission and technology assessment of human exploration to the Moon and Mars
04 p0809 N93-14944
Power requirements for the first lunar outpost (FLO)
[NASA-TM-105925] 04 p0909 N93-15523
Space resources. Volume 4: Social concerns
[NASA-SP-509-VOL-4] 05 p1377 N93-16857
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
Life support and self-sufficiency in space communities
05 p1229 N93-16866
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Alternative scenarios utilizing nonterrestrial resources
05 p1379 N93-16872
Issues for further study 05 p1379 N93-16874
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
Adaptive optics for laser power beaming
05 p1305 N93-17307
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1
[NASA-CP-3166-VOL-1] 05 p1391 N93-17414
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Lunar base mission technology issues and orbital demonstration requirements on space station
05 p1392 N93-17416
Adaption of space station technology for lunar operations 05 p1392 N93-17417
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
Enabling lunar and space missions by laser power transmission 05 p1393 N93-17423
Preliminary definition of a lunar landing and launch facility (Complex 39L) 05 p1394 N93-17429

Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
The choice of the location of the lunar base 05 p1394 N93-17431
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Astronomy on the Moon: Geological considerations [SOEST-CONTRIB-2399] 05 p1363 N93-17434
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
A search for intact lava tubes on the Moon: Possible lunar base habitats [PGD-PUBL-541] 05 p1396 N93-17438
A seismic risk for the lunar base [CONTRIB-769] 05 p1396 N93-17439
Lunar architecture and urbanism 05 p1396 N93-17440
Earth-based analogs of lunar and planetary facilities 05 p1396 N93-17441
Inflatable habitation for the lunar base 05 p1229 N93-17442
Preliminary design study of lunar housing configurations 05 p1229 N93-17443
Prefabricated foldable lunar base modular systems for habitats, offices, and laboratories 05 p1229 N93-17444
Concrete lunar base investigation 05 p1230 N93-17445
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
Lunar subsurface architecture enhanced by artificial biosphere concepts 05 p1230 N93-17448
Extraterrestrial applications of solar optics for interior illumination 05 p1305 N93-17449
Lunar base activities and the lunar environment 05 p1398 N93-17455
An artificially generated atmosphere near a lunar base 05 p1398 N93-17456
A manned exobiology laboratory based on the Moon 05 p1074 N93-17457
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats [NASA-CR-192030] 06 p1605 N93-18018
Preliminary design of a radiator shading device for a lunar outpost [NASA-CR-192016] 06 p1605 N93-18019
Conceptual design of a thermal control system for an inflatable lunar habitat module [NASA-CR-192014] 06 p1606 N93-18113
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection [NASA-CR-192019] 06 p1734 N93-18233
Resource availability at Taurus-Littrow 06 p1736 N93-18792
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon [ESA-SP-1150] 07 p2099 N93-21013
Lunar soils grain size catalog [NASA-RP-1265] 07 p2100 N93-21663
Space transfer concepts and analysis for exploration missions [NASA-CR-192482] 08 p2178 N93-22705
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems [NASA-CR-191023] 08 p2377 N93-22879
First Lunar Outpost support study [NASA-CR-192843] 08 p2153 N93-23054
Space Nuclear Thermal Propulsion Test Facilities Subpanel [NASA-TM-105708] 09 p2622 N93-25105
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
Center for Space Construction Third Annual Symposium [NASA-CR-192688] 09 p2669 N93-26405
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Lunar regolith and structure mechanics 09 p2670 N93-26412
Indigenous lunar construction materials 09 p2670 N93-26413
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Configuration optimization of space structures 09 p2670 N93-26415
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Proceedings of the Lunar Materials Technology Symposium [NASA-CR-192881] 10 p3211 N93-27956
Return to the Moon: Lunar robotic science missions 10 p3211 N93-27958
An engineer/constructor's view of lunar resource development 10 p3211 N93-27960
An evolution strategy for lunar nuclear surface power 10 p2988 N93-27963
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Electrical power integration for lunar operations 10 p2988 N93-27966
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Lunar materials processing system integration 10 p3021 N93-27972
Options for a lunar base surface architecture 10 p3214 N93-27974
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Dust protection for environmental control and life support systems in the lunar environment 10 p3089 N93-27979
Flexible control techniques for a lunar base 10 p3111 N93-27981
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Considerations for lunar colony communications systems 10 p3030 N93-27983
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Future Space Activity Workshop: Lunar Base Workshop 1992 [JTN-93-80420] 10 p2948 N93-28014
Conceptual study on manned lunar surface site 10 p2950 N93-28029
Conceptual study of manned lunar surface site 10 p2951 N93-28031
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover 10 p2951 N93-28032
Lunar surface experiment system 10 p2951 N93-28034
Indigenous lunar construction materials 11 p3277 N93-29120
Systems engineering studies of lunar base construction 11 p3277 N93-29121
Earth to lunar CELSS evolution 11 p3229 N93-29727
Selenia: A habitability study for the development of a third generation lunar base 11 p3233 N93-29748
The 1990-1991 project summaries 11 p3234 N93-29755
GENESIS 2: Advanced lunar outpost 11 p3235 N93-29760

LUNAR COMMUNICATION

Considerations for lunar colony communications systems 10 p3030 N93-27983

LUNAR COMPOSITION

Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
Oxygen from the lunar soil by molten silicate electrolysis 05 p1382 N93-16890
Vapor phase pyrolysis 05 p1108 N93-16891
Plasma separation 05 p1313 N93-16892
Processes for metal extraction 05 p1382 N93-16893
Bioprocessing of ores: Application to space resources 05 p1382 N93-16894
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234
A lunar penetrator to determine solar-wind-implanted resources at depth in the lunar regolith 05 p1386 N93-17239
A ground-based search for lunar resources using high-resolution imaging in the infrared 05 p1386 N93-17241
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
Lunar and asteroid composition using a remote secondary ion mass spectrometer 05 p1387 N93-17245
Lunar resources using moderate spectral resolution visible and near-infrared spectroscopy: Al/Si and soil maturity 05 p1387 N93-17247
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
Assessment of the lunar surface layer and in situ materials to sustain construction-related applications 05 p1388 N93-17253
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
Remote assessment of lunar resource potential 05 p1391 N93-17268
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
The Moon: Biogenic elements 06 p1591 N93-18548
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon [ESA-SP-1150] 07 p2099 N93-21013
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry [DE93-003839] 07 p2098 N93-21849

LUNAR CONSTRUCTION EQUIPMENT

Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction [AD-A253399] 01 p0189 N93-10406
Mobile work platform for initial lunar base construction 03 p0559 N93-14009
Assessment of the lunar surface layer and in situ materials to sustain construction-related applications 05 p1388 N93-17253
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats [NASA-CR-192030] 08 p1605 N93-18018
Center for Space Construction Third Annual Symposium [NASA-CR-192688] 09 p2669 N93-26405
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Indigenous lunar construction materials 09 p2670 N93-26413
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Configuration optimization of space structures 09 p2670 N93-26415
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Space construction activities [NASA-CR-192690] 11 p3274 N93-29108
Lunar crane system 11 p3277 N93-29118
Indigenous lunar construction materials 11 p3277 N93-29120
Systems engineering studies of lunar base construction 11 p3277 N93-29121

LUNAR CRATERS

The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
The Apollo 17 regolith 06 p1737 N93-18799
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
Geology of the Apollo 17 site 06 p1738 N93-18803
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded? 06 p1739 N93-18813
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815

LUNAR CRUST

Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism 01 p0118 N93-10169
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
The ancient lunar crust, Apollo 17 region 06 p1736 N93-18795

The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts 06 p1738 N93-18806
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17 06 p1738 N93-18808
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts 06 p1739 N93-18812
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded? 06 p1739 N93-18813
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816

LUNAR DUST
Dust control for Enabler [NASA-CR-192065] 05 p1180 N93-17774
Data analysis and interpretation of lunar dust exosphere 09 p2898 N93-26059
Dust protection for environmental control and life support systems in the lunar environment 10 p3089 N93-27979

LUNAR ENVIRONMENT
NT LUNAR ATMOSPHERE
Lunar and Martian environmental interactions with nuclear power system radiators [NASA-TM-105747] 02 p0230 N93-10965
Human safety in the lunar environment 05 p1229 N93-16867
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
Lunar resource assessment: An industry perspective 05 p1387 N93-17246
Economic geology of the Moon: Some considerations 05 p1388 N93-17249
The target: H2O on the Moon 05 p1388 N93-17250
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy 05 p1390 N93-17261
Environmental effects on lunar astronomical observatories 05 p1363 N93-17454
Lunar base activities and the lunar environment 05 p1398 N93-17455
Design of a radiator shade for testing in a simulated lunar environment [NASA-CR-192080] 05 p1229 N93-17710
Design for producing fiberglass fabric in a lunar environment [NASA-CR-192068] 05 p1135 N93-17770
NASA/USRA advanced design program activity, 1991-1992 [NASA-CR-192063] 05 p1135 N93-17778
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats [NASA-CR-192078] 05 p1229 N93-17806
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs 09 p2670 N93-26063
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
The interaction of high voltage systems with the environments of the Moon and Mars [NASA-TM-106107] 09 p2618 N93-26148
Dust protection for environmental control and life support systems in the lunar environment 10 p3089 N93-27979
Flexible control techniques for a lunar base 10 p3111 N93-27981
Lunar science: Using the Moon as a testbed 11 p3650 N93-28821

LUNAR EVOLUTION
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811

LUNAR EXCAVATION EQUIPMENT
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction [AD-A253399] 01 p0189 N93-10406
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment 03 p0766 N93-14007
Lunar site characterization and mining 05 p1380 N93-16882
A baseline lunar mine 05 p1380 N93-16883
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats [NASA-CR-192030] 06 p1605 N93-18018
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980

LUNAR EXPLORATION
Nuclear thermal propulsion transportation systems for lunar/Mars exploration [NASA-TM-105870] 02 p0233 N93-12363
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary [NASA-CR-184473] 02 p0227 N93-12442
First International Microgravity Laboratory [NASA-TM-108007] 03 p0518 N93-13113
Mobile work platform for initial lunar base construction 03 p0559 N93-14009
Mission and technology assessment of human exploration to the Moon and Mars 04 p0809 N93-14944
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix [NASA-CR-184490] 05 p1075 N93-16556
Space transfer vehicle concepts and requirements. Volume 1: Executive summary [NASA-CR-184488] 05 p1075 N93-16672
Space transfer vehicle concepts and requirements, volume 2, book 1 [NASA-CR-184489] 05 p1076 N93-16686
Alternative scenarios utilizing nonterrestrial resources 05 p1379 N93-16872
Issues for further study 05 p1379 N93-16874
To build a mine: Prospect to product 05 p1379 N93-16876
Lunar exploration for resource utilization 05 p1380 N93-16877
Lunar site characterization and mining 05 p1380 N93-16882
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
System model development for nuclear thermal propulsion [NASA-TM-108215] 05 p1299 N93-17343
A lunar polar expedition 05 p1395 N93-17433
The Lunar Orbital Prospector 05 p1395 N93-17436
The roles of humans and robots as field geologists on the Moon 05 p1397 N93-17450
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan [NASA-CR-192037] 06 p1733 N93-17999
Nuclear safety for the space exploration initiative [NASA-CR-189180] 06 p1659 N93-18032
Extended mission/lunar rover, executive summary [NASA-CR-192017] 06 p1547 N93-18162
The design of a common lunar lander [NASA-CR-192026] 06 p1459 N93-18165
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection [NASA-CR-192019] 06 p1734 N93-18233
The Moon: Biogenic elements 06 p1591 N93-18548
Future scientific exploration of Taurus-Littrow 06 p1739 N93-18814
Last chance at Taurus-Littrow 06 p1740 N93-18817
Research on lunar and planet development and utilization 07 p1789 N93-20412
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon [ESA-SP-1150] 07 p2099 N93-21013
An analysis of power beaming for the Moon and Mars [NASA-CR-191072] 08 p2182 N93-22554
Space transfer concepts and analysis for exploration missions [NASA-CR-192482] 08 p2178 N93-22705
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems [NASA-CR-192494] 08 p2179 N93-23007
A mission concept for near term Lunar exploration [DE93-007598] 09 p2896 N93-25321
The challenges and benefits of lunar exploration 10 p3211 N93-27957
Return to the Moon: Lunar robotic science missions 10 p3211 N93-27958
Future Space Activity Workshop: Lunar Base Workshop 1992 [JTN-93-80420] 10 p2948 N93-28014
Unmanned lunar surface exploration 10 p2951 N93-28035
Moon revolving observation satellites 10 p2952 N93-28037
Moon revolving observation satellite 10 p2952 N93-28038
Research on lunar resources development and their utilization 10 p2952 N93-28039
Lunar surface roving explorer 10 p2952 N93-28041
Science missions for lunar resources exploration 10 p2953 N93-28044
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover [DE93-008340] 10 p3052 N93-28152
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
RATLER: Robotic All-Terrain Lunar Exploration Rover 12 p3737 N93-32117

LUNAR FLIGHT
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1 [NASA-CP-3166-VOL-1] 05 p1391 N93-17414
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
Advanced propulsion for LEO-Moon transport. 3: Transportation model 05 p1393 N93-17422
Lunar lander stage requirements based on the Civil Needs Data Base 05 p1394 N93-17427
Research on lunar and planet development and utilization 07 p1789 N93-20412

LUNAR GEOLOGY
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon 03 p0761 N93-13976
Lunar material resources: An overview 05 p1380 N93-16878
Lunar resource evaluation and mine site selection 05 p1380 N93-16881
Joint Workshop on New Technologies for Lunar Resource Assessment [NASA-CR-191918] 05 p1385 N93-17233
Geophysical methods: An overview 05 p1385 N93-17235
Economic geology of the Moon: Some considerations 05 p1388 N93-17249
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Astronomy on the Moon: Geological considerations [SOEST-CONTRIB-2399] 05 p1363 N93-17434
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
The roles of humans and robots as field geologists on the Moon 05 p1397 N93-17450
Workshop on Geology of the Apollo 17 Landing Site [NASA-CR-191637] 06 p1735 N93-18786
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503 06 p1735 N93-18788
Refining the granulite suite 06 p1736 N93-18789
Mare volcanism in the Taurus-Littrow region 06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Resource availability at Taurus-Littrow 06 p1736 N93-18792
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
The Apollo 17 region: A compositional overview 06 p1736 N93-18796
neoKREEP: A new lunar component at Apollo 17 06 p1737 N93-18797
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Apollo 17 regolith 06 p1737 N93-18799
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Geology of the Apollo 17 site 06 p1738 N93-18803
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805

Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17
06 p1738 N93-18808
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
Future scientific exploration of Taurus-Littrow
06 p1739 N93-18814
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
Last chance at Taurus-Littrow
06 p1740 N93-18817
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Science missions for lunar resources exploration
10 p2953 N93-28044

LUNAR GRAVITATION
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system
01 p0179 N93-10303
Bone loss and human adaptation to lunar gravity
03 p0676 N93-14002
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042

LUNAR IONOSPHERE
U LUNAR ATMOSPHERE

LUNAR LANDING
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
Lunar site characterization and mining
05 p1380 N93-16882
Preliminary definition of a lunar landing and launch facility (Complex 39L) 05 p1394 N93-17429
Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
The design of a common lunar lander
[NASA-CR-192026] 06 p1459 N93-18165
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection
[NASA-CR-192019] 06 p1734 N93-18233
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Metals production 10 p3214 N93-27970
Moon revolving observation satellites
10 p2952 N93-28037
Conceptual study of lunar landing modules
10 p2952 N93-28043

LUNAR LANDING MODULES
NT LUNAR MODULE
Lunar lander stage requirements based on the Civil Needs Data Base 05 p1394 N93-17427
Lunar lander conceptual design
05 p1394 N93-17428
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
The design of a common lunar lander
[NASA-CR-192026] 06 p1459 N93-18165
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites
10 p2952 N93-28037
Conceptual study of lunar landing modules
10 p2952 N93-28043
The 1990/1991 project summaries
11 p3229 N93-29725
Lunar lander ground support system
11 p3230 N93-29729
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
B and T: Lunar landers 11 p3234 N93-29751
RS Landers: Lunar lander 11 p3234 N93-29753

LUNAR LANDING SITES
Preliminary definition of a lunar landing and launch facility (Complex 39L) 05 p1394 N93-17429
Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
The choice of the location of the lunar base
05 p1394 N93-17431
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
Last chance at Taurus-Littrow
06 p1740 N93-18817
Lunar surface experiment system
10 p2951 N93-28034
Conceptual study of lunar landing modules
10 p2952 N93-28043

LUNAR LAUNCH
Preliminary definition of a lunar landing and launch facility (Complex 39L) 05 p1394 N93-17429
Lunar base launch and landing facilities conceptual design 05 p1394 N93-17430
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Neighboring suboptimal control for vehicle guidance
08 p2171 N93-22011
Conceptual study of lunar landing modules
10 p2952 N93-28043

LUNAR LIMB
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Annular Solar Eclipse of 10 May 1994
[NASA-RP-1301] 10 p3169 N93-27057

LUNAR LOGISTICS
First Lunar Outpost support study
[NASA-CR-192843] 08 p2153 N93-23054

LUNAR LUMINESCENCE
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380

LUNAR MAGNETIC FIELDS
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Geophysical methods: An overview
05 p1385 N93-17235
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000

LUNAR MANTLE
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812

LUNAR MAPS
Mapping the Moon in soft x rays: Promises and challenges 05 p1388 N93-17252
Lunar prospector: A preliminary surface remote sensing resource assessment for the Moon
05 p1389 N93-17256
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
Determination of lunar ilmenite abundance from remotely sensed data 10 p3208 N93-26689
Moon revolving observation satellite
10 p2952 N93-28038
Imaging spectrometers using concave holographic gratings 11 p3434 N93-28783

LUNAR MARIA
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Uses of lunar sulfur 03 p0761 N93-13981
The choice of the location of the lunar base
05 p1394 N93-17431
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
The ancient lunar crust, Apollo 17 region
06 p1736 N93-18795
The Apollo 17 region: A compositional overview
06 p1736 N93-18796
neoKREEP: A new lunar component at Apollo 17
06 p1737 N93-18797
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812

LUNAR MINING
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Potential of derived lunar volatiles for life support
03 p0680 N93-13998
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment
03 p0766 N93-14007
Issues for further study 05 p1379 N93-16874
Lunar site characterization and mining
05 p1380 N93-16882
A baseline lunar mine 05 p1380 N93-16883
Application of manufactured products
05 p1383 N93-16902
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
An artificially generated atmosphere near a lunar base
05 p1398 N93-17456
Lunar mining of oxygen using fluorine
10 p2997 N93-26680
Energy for lunar resource exploitation
10 p3212 N93-27961
Electrical power integration for lunar operations
10 p2988 N93-27966

LUNAR MODULE
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
Research on lunar and planet development and utilization 07 p1789 N93-20412

LUNAR OBSERVATORIES
Support and servicing requirements for large observatories in space 03 p0746 N93-13589
Lunar optical telescopes: An historical perspective
03 p0746 N93-13593
Astronomy on the Moon: Geological considerations
[SOEST-CONTRIB-2399] 05 p1363 N93-17434
Some astronomical challenges for the twenty-first century 05 p1363 N93-17451
Radio astrometry from the Moon
05 p1363 N93-17452
Required technologies for lunar astronomical observatories 05 p1363 N93-17453
Environmental effects on lunar astronomical observatories 05 p1363 N93-17454
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory
[NASA-CR-192029] 06 p1695 N93-18163
LUTE primary mirror materials and design study report
[NASA-CR-192487] 08 p2487 N93-22961
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859

LUNAR OCCULTATION
NT SOLAR ECLIPSES

LUNAR ORBITS
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
Electromagnetic launch of lunar material
05 p1384 N93-16914
Beamed energy propulsion 05 p1095 N93-16917

Mars transfer vehicle studies
08 p2173 N93-22088
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Practical aspects of transfer from GTO to lunar orbit
09 p2604 N93-24719

LUNAR PHASES
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401

LUNAR PHOTOGRAPHS
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803

LUNAR PROBES
Research on lunar and planet development and utilization 07 p1789 N93-20412
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036

LUNAR PROGRAMS
NT APOLLO PROJECT
JPRS report: Science and technology. Central Eurasia: Space. Development of Soviet spacecraft for manned missions
[JPRS-USP-92-003] 02 p0224 N93-11162
In-situ lunar oxygen extraction
04 p0806 N93-14929
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1
[NASA-CP-3166-VOL-1] 05 p1391 N93-17414

LUNAR RADIATION
Design of a radiator shade for testing in a simulated lunar environment
[NASA-CR-192080] 05 p1229 N93-17710
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806

LUNAR RANGEFINDING
Analysis of lunar laser ranging in the framework of a post-Newtonian theory
[SER-C-383] 02 p0315 N93-11332
International Earth Rotation Service
07 p1974 N93-20990

LUNAR RESOURCES
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977
Lunar resource recovery: A definition of requirements
03 p0761 N93-13978
Uses of lunar sulfur 03 p0761 N93-13981
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems
03 p0556 N93-13983
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
The possibility of concrete production on the Moon
03 p0554 N93-13988
Concrete structure construction on the Moon
03 p0559 N93-13989
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Potential of derived lunar volatiles for life support
03 p0680 N93-13998
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment
03 p0766 N93-14007
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Issues for further study 05 p1379 N93-16874
To build a mine: Prospect to product
05 p1379 N93-16876
Lunar exploration for resource utilization
05 p1380 N93-16877
Lunar material resources: An overview
05 p1380 N93-16878
Lunar resource evaluation and mine site selection
05 p1380 N93-16881
Lunar site characterization and mining
05 p1380 N93-16882
A baseline lunar mine 05 p1380 N93-16883
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Lunar beneficiation 05 p1381 N93-16887
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Bioprocessing of ores: Application to space resources
05 p1382 N93-16894
Processing of metal and oxygen from lunar deposits
05 p1382 N93-16895
Lunar cement 05 p1382 N93-16897
Manufacturing and fabrication, part 3 --- extraterrestrial resources 05 p1382 N93-16898
Iron and alloys of iron --- lunar resources
05 p1382 N93-16899
Glass and ceramics --- lunar resources
05 p1383 N93-16900
Cement and concrete 05 p1383 N93-16901
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Electromagnetic launch of lunar material
05 p1384 N93-16914
Joint Workshop on New Technologies for Lunar Resource Assessment
[NASA-CR-191918] 05 p1385 N93-17233
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234
Geophysical methods: An overview
05 p1385 N93-17235
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover
05 p1386 N93-17236
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
Shock-treated lunar soil simulant: Preliminary assessment as a construction material
05 p1386 N93-17238
A lunar penetrator to determine solar-wind-implanted resources at depth in the lunar regolith
05 p1386 N93-17239
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment
05 p1386 N93-17240
A ground-based search for lunar resources using high-resolution imaging in the infrared
05 p1386 N93-17241
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
Lunar resource assessment: An industry perspective
05 p1387 N93-17246
Lunar resources using moderate spectral resolution visible and near-infrared spectroscopy: Al/Si and soil maturity 05 p1387 N93-17247
Radon as a tracer for lunar volatiles
05 p1388 N93-17248
Economic geology of the Moon: Some considerations
05 p1388 N93-17249
The target: H2O on the Moon
05 p1388 N93-17250
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
Mapping the Moon in soft x rays: Promises and challenges 05 p1388 N93-17252
An in situ technique for elemental analysis of lunar surfaces 05 p1388 N93-17254
Lunar prospector: A preliminary surface remote sensing resource assessment for the Moon
05 p1389 N93-17256
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
Remote assessment of lunar resource potential
05 p1391 N93-17268
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Lunar resources: Oxygen from rocks and soil
06 p1735 N93-18787
Resource availability at Taurus-Littrow
06 p1736 N93-18792
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon
[ESA-SP-1150] 07 p2099 N93-21013
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191991] 07 p2099 N93-21553
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191992] 07 p2103 N93-21554
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191989] 07 p1850 N93-21564
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Indigenous lunar construction materials
09 p2670 N93-26413
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores
10 p2997 N93-26677
Experimental study of the electrolysis of silicate melts
10 p2997 N93-26679
Melt-processing of lunar ceramics
10 p3007 N93-26685
Development and mechanical properties of construction materials from lunar simulant 10 p3021 N93-26687
Abundance of He-3 and other solar-wind-derived volatiles in lunar soil 10 p3209 N93-26692
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Return to the Moon: Lunar robotic science missions
10 p3211 N93-27958
An engineer/constructor's view of lunar resource development 10 p3211 N93-27960
Energy for lunar resource exploitation
10 p3212 N93-27961
Electrical power integration for lunar operations
10 p2988 N93-27966
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Magnetic beneficiation of lunar soils
10 p3213 N93-27968
Metals production 10 p3214 N93-27970
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Lunar materials processing system integration
10 p3021 N93-27972
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Options for a lunar base surface architecture
10 p3214 N93-27974
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Research on lunar resources development and their utilization 10 p2952 N93-28039
Use of particle beams for lunar prospecting
11 p3650 N93-28822
Method for producing oxygen from lunar materials
[NASA-CASE-MSC-21759-1] 11 p3312 N93-29617

LUNAR ROCKS
NT KREEP
The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Lunar material resources: An overview
05 p1380 N93-16878
Lunar beneficiation 05 p1381 N93-16887
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888

Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Bioprocessing of ores: Application to space resources
05 p1382 N93-16894
Processing of metal and oxygen from lunar deposits
05 p1382 N93-16895
Lunar cement 05 p1382 N93-16897
Application of manufactured products
05 p1383 N93-16902
Microwave heating of lunar materials. Appendix A
05 p1383 N93-16903
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats [NASA-CR-192030] 06 p1605 N93-18018
Workshop on Geology of the Apollo 17 Landing Site [NASA-CR-191637] 06 p1735 N93-18786
Lunar resources: Oxygen from rocks and soil
06 p1735 N93-18787
Refining the granulite suite 06 p1736 N93-18789
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Resource availability at Taurus-Littrow
06 p1736 N93-18792
The ancient lunar crust, Apollo 17 region
06 p1736 N93-18795
The Apollo 17 region: A compositional overview
06 p1736 N93-18796
neoKREEP: A new lunar component at Apollo 17
06 p1737 N93-18797
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Apollo 17 regolith 06 p1737 N93-18799
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
Geology of the Apollo 17 site
06 p1738 N93-18803
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17
06 p1738 N93-18808
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
Future scientific exploration of Taurus-Littrow
06 p1739 N93-18814
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
Last chance at Taurus-Littrow
06 p1740 N93-18817
Lunar science measurements and instruments for resource characterization [DE93-005436] 08 p2553 N93-22905
Lunar regolith and structure mechanics
09 p2670 N93-26412
Indigenous lunar construction materials
09 p2670 N93-26413
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Lareg area solar cells from lunar materials
10 p3066 N93-26688
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Lunar materials processing system integration
10 p3021 N93-27972
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Regolith-structure modeling 11 p3276 N93-29116
Lunar regolith penetrators and cutters
11 p3276 N93-29117
Indigenous lunar construction materials
11 p3277 N93-29120
Method for producing oxygen from lunar materials [NASA-CASE-MSC-21759-1] 11 p3312 N93-29617

LUNAR ROVING VEHICLES

RATLER: Robotic All-Terrain Lunar Exploration Rover [DE92-019295] 02 p0487 N93-11502
The Lunar Roving Vehicle: Historical perspective
03 p0619 N93-14008
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix [NASA-CR-184490] 05 p1075 N93-16556
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover
05 p1386 N93-17236
Robotic lunar rover technologies and SEI supporting technologies at Sandia National Laboratories
05 p1389 N93-17255
Lunar surface rovers 05 p1390 N93-17262
The roles of humans and robots as field geologists on the Moon 05 p1397 N93-17450
Dust control for Enabler [NASA-CR-192065] 05 p1180 N93-17774
Activities of the Boom and Chassis Group [NASA-CR-192028] 06 p1544 N93-17975
Pressurized lunar rover [NASA-CR-192034] 06 p1544 N93-18015
Design of a pressurized lunar rover [NASA-CR-192033] 06 p1545 N93-18016
Extended mission/lunar rover, executive summary [NASA-CR-192017] 06 p1547 N93-18162
Future scientific exploration of Taurus-Littrow
06 p1739 N93-18814
A mission concept for near term Lunar exploration [DE93-007598] 09 p2896 N93-25321
Telerobotic rovers for extraterrestrial construction
09 p2670 N93-26416
Propulsion needs for lunar/Mars missions
10 p2967 N93-27798
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover
10 p2951 N93-28032
Unmanned lunar surface exploration
10 p2951 N93-28035
Conceptual study of lunar roving explorer
10 p2952 N93-28040
Lunar surface roving explorer
10 p2952 N93-28041
Lunar surface roving explorer
10 p2952 N93-28042
Conceptual study of lunar landing modules
10 p2952 N93-28043
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover [DE93-008340] 10 p3052 N93-28152
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
Lunar rovers and local positioning system
11 p3277 N93-29119
RATLER: Robotic All-Terrain Lunar Exploration Rover
12 p3737 N93-32117

LUNAR SATELLITES

The Lunar Orbital Prospector
05 p1395 N93-17436
Research on lunar and planet development and utilization 07 p1789 N93-20412
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites
10 p2952 N93-28037
Moon revolving observation satellite
10 p2952 N93-28038

LUNAR SCATTERING

U DIFFUSE RADIATION

LUNAR SHADOW

Annular Solar Eclipse of 10 May 1994 [NASA-RP-1301] 10 p3169 N93-27057

LUNAR SHELTERS

The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1 [NASA-CP-3166-VOL-1] 05 p1391 N93-17414
Lunar architecture and urbanism
05 p1396 N93-17440
Inflatable habitation for the lunar base
05 p1229 N93-17442
Preliminary design study of lunar housing configurations 05 p1229 N93-17443
Prefabricated foldable lunar base modular systems for habitats, offices, and laboratories
05 p1229 N93-17444
Concrete lunar base investigation
05 p1230 N93-17445
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
Lunar subsurface architecture enhanced by artificial biosphere concepts 05 p1230 N93-17448
Extraterrestrial applications of solar optics for interior illumination 05 p1305 N93-17449
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission [NASA-TM-4422] 06 p1746 N93-18014
Center for Space Construction Third Annual Symposium [NASA-CR-192688] 09 p2669 N93-26405
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Conceptual study on manned lunar surface site
10 p2950 N93-28029
Indigenous lunar construction materials
11 p3277 N93-29120

LUNAR SOIL

NT LUNAR DUST
Test equipment data package for the KC-135 fiber pulling apparatus [NASA-CR-184446] 03 p0506 N93-13013
Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report [NASA-TM-108379] 03 p0551 N93-13115
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
Lunar resource recovery: A definition of requirements
03 p0761 N93-13978
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Uses of lunar sulfur 03 p0761 N93-13981
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
Physical properties of concrete made with Apollo 16 lunar soil sample 03 p0554 N93-13987
The possibility of concrete production on the Moon
03 p0554 N93-13988
Potential of derived lunar volatiles for life support
03 p0680 N93-13998
Fiber pulling apparatus modification [NASA-CR-184498] 04 p0891 N93-14763
Lunar material resources: An overview
05 p1380 N93-16878
Lunar beneficiation 05 p1381 N93-16887
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Oxygen from the lunar soil by molten silicate electrolysis 05 p1382 N93-16890
Vapor phase pyrolysis 05 p1108 N93-16891
Plasma separation 05 p1313 N93-16892
Lunar cement 05 p1382 N93-16897
Iron and alloys of iron --- lunar resources
05 p1382 N93-16899
Cement and concrete 05 p1383 N93-16901
Application of manufactured products
05 p1383 N93-16902
Microwave heating of lunar materials. Appendix A
05 p1383 N93-16903
Electromagnetic launch of lunar material
05 p1384 N93-16914
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
Shock-treated lunar soil simulant: Preliminary assessment as a construction material
05 p1386 N93-17238
Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
Workshop on Geology of the Apollo 17 Landing Site [NASA-CR-191637] 06 p1735 N93-18786
Lunar resources: Oxygen from rocks and soil
06 p1735 N93-18787
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503
06 p1735 N93-18788
Resource availability at Taurus-Littrow
06 p1736 N93-18792
The Apollo 17 region: A compositional overview
06 p1736 N93-18796
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Apollo 17 regolith 06 p1737 N93-18799
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Using Apollo 17 high-Ti mare basalts as windows to the lunar mantle 06 p1738 N93-18805
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806

Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221
06 p1738 N93-18807
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17
06 p1738 N93-18808
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Lunar science measurements and instruments for resource characterization
[DE93-005436] 08 p2553 N93-22905
Lunar regolith and structure mechanics
09 p2670 N93-26412
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-26675
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Lareg area solar cells from lunar materials
10 p3066 N93-26688
Development of a material processing plant for lunar soil 10 p3021 N93-26694
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Magnetic beneficiation of lunar soils
10 p3213 N93-27968
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-27969
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Lunar materials processing system integration
10 p3021 N93-27972
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Research on lunar resources development and their utilization 10 p2952 N93-28039
Science missions for lunar resources exploration
10 p2953 N93-28044
Method for producing oxygen from lunar materials
[NASA-CASE-MSC-21759-1] 11 p3312 N93-29617

LUNAR SPACECRAFT
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT LUNAR PROBES
NT LUNAR SATELLITES
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 1
[NASA-CP-3166-VOL-1] 05 p1391 N93-17414
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Lunar base mission technology issues and orbital demonstration requirements on space station
05 p1392 N93-17416
Adaption of space station technology for lunar operations 05 p1392 N93-17417
Operational considerations for lunar transportation
05 p1392 N93-17418
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance
05 p1393 N93-17420
Advanced propulsion for LEO-Moon transport. 2: Tether configurations in the LEO-Moon system
05 p1393 N93-17421
Advanced propulsion for LEO-Moon transport. 3: Transportation model 05 p1393 N93-17422
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Lunar scout: A Project Artemis proposal
[NASA-CR-192076] 06 p1460 N93-18167
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 2: Draft final
[NASA-CR-192489] 08 p2178 N93-22959
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle
[NASA-CR-192492] 08 p2178 N93-22993
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Lunar NTR vehicle design and operations study
10 p2978 N93-26922
Propulsion needs for lunar/Mars missions
10 p2967 N93-27798
Conceptual study of manned lunar transportation system 10 p2951 N93-28030
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042

LUNAR SURFACE
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment
03 p0766 N93-14007
Human safety in the lunar environment
05 p1229 N93-16867
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Processes for metal extraction
05 p1382 N93-16893
Electromagnetic launch of lunar material
05 p1384 N93-16914
Geophysical methods: An overview
05 p1385 N93-17235
Drilling and digging techniques for the early lunar outpost 05 p1386 N93-17237
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
High-resolution elemental mapping of the lunar surface 05 p1387 N93-17244
Lunar and asteroid composition using a remote secondary ion mass spectrometer
05 p1387 N93-17245
Radon as a tracer for lunar volatiles
05 p1388 N93-17248
The target: H2O on the Moon
05 p1388 N93-17250
Mapping the Moon in soft x rays: Promises and challenges 05 p1388 N93-17252
Assessment of the lunar surface layer and in situ materials to sustain construction-related applications
05 p1388 N93-17253
An in situ technique for elemental analysis of lunar surfaces 05 p1388 N93-17254
Robotic lunar rover technologies and SEI supporting technologies at Sandia National Laboratories
05 p1389 N93-17255
Lunar prospector: A preliminary surface remote sensing resource assessment for the Moon
05 p1389 N93-17256
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
Lunar surface rovers 05 p1390 N93-17262
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment
05 p1391 N93-17267
Remote assessment of lunar resource potential
05 p1391 N93-17268
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
The choice of the location of the lunar base
05 p1394 N93-17431
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
A lunar polar expedition 05 p1395 N93-17433
Astronomy on the Moon: Geological considerations
[SOEST-CONTRIB-2399] 05 p1363 N93-17434
The Lunar Orbital Prospector
05 p1395 N93-17436
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
A search for intact lava tubes on the Moon: Possible lunar base habitats
[PGD-PUBL-541] 05 p1396 N93-17438
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
Design for producing fiberglass fabric in a lunar environment
[NASA-CR-192068] 05 p1135 N93-17770
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Extended mission/lunar rover, executive summary
[NASA-CR-192017] 06 p1547 N93-18162
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory
[NASA-CR-192029] 06 p1695 N93-18163
The Moon: Biogenic elements
06 p1591 N93-18548
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
Data analysis and interpretation of lunar dust exosphere 09 p2898 N93-26059
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
An evolution strategy for lunar nuclear surface power
10 p2988 N93-27963
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover
[DE93-008340] 10 p3052 N93-28152
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces
11 p3434 N93-28769
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
Use of particle beams for lunar prospecting
11 p3650 N93-28822
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000
RATLER: Robotic All-Terrain Lunar Exploration Rover
12 p3737 N93-32117

LUNAR SURFACE VEHICLES
NT LUNAR ROVING VEHICLES
Mobile work platform for initial lunar base construction
03 p0559 N93-14009
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix
[NASA-CR-184490] 05 p1075 N93-16556
Transport: Introduction 05 p1384 N93-16911
The Enabler: A reevaluation of design concepts and construction of a scaled model
[NASA-CR-192061] 06 p1545 N93-18039
Enabler operator station --- lunar surface vehicle
[NASA-CR-192067] 06 p1546 N93-18050
Mechanical Design Engineering Enabler Project wheel and wheel drives
[NASA-CR-192060] 06 p1546 N93-18051
Boom and chassis articulation joints
[NASA-CR-192059] 06 p1546 N93-18052
The 1990-1991 project summaries
11 p3230 N93-29730

LUNAR TOPOGRAPHY
A search for intact lava tubes on the Moon: Possible lunar base habitats
[PGD-PUBL-541] 05 p1396 N93-17438
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811

LUNAR TRAJECTORIES
NT EARTH-MOON TRAJECTORIES

Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
LUNEBERG LENSES
U RADAR CORNER REFLECTORS
LUNGS
NT ALVEOLI
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Evaluation of NO(x)-induced toxicity
[AD-A261034] 10 p3084 N93-28122
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
LUTETIUM COMPOUNDS
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
LYAPUNOV FUNCTIONS
U LIAPUNOV FUNCTIONS
LYBIA
U LIBYA
LYMAN ALPHA RADIATION
The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone 02 p0487 N93-11166
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra 04 p1017 N93-14230
Stellar lyman alpha emission and the local interstellar medium
[NASA-CR-192635] 08 p2541 N93-22381
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231
Distant radio galaxies in the near IR 10 p3177 N93-26742
Searching for Lyman alpha emission from a possible Zel'dovich pancake 10 p3179 N93-26755
Metal abundances at z = 3.4 10 p3179 N93-26757
On the evolution of Lyman alpha clouds based upon the Minihalo model 10 p3181 N93-26765
The two-point correlation function of randomly distributed Lyman alpha clouds 10 p3181 N93-26767
Absorption spectra of Q 0000-263 and Q 1442+101 10 p3182 N93-26773
Pruning the Lyman alpha forest of Q1331+170 10 p3182 N93-26774
The Lyman alpha emission of starburst galaxies 10 p3184 N93-26784
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
The Lyman alpha forest of the high-z quasar 0000-263 10 p3203 N93-26890
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
SWAN: A study of solar wind anisotropies 12 p3868 N93-31351
Predicting Ly-alpha intensities in coronal streamers 12 p3870 N93-31360
Ly-alpha radiation from coronal transients 12 p3870 N93-31363
Interplanetary hydrogen gas as a monitor of the Sun's corpuscular and radiative output 12 p3878 N93-31412
Measuring electron temperature in the extended corona 12 p3880 N93-31422
LYMAN BETA RADIATION
High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135
LYMAN SPECTRA
Can quasars photoionize the intergalactic medium at high redshift? 10 p3179 N93-26756
HST/FOS spectra of PG 1351+64: An intrinsic absorber at low redshift 10 p3180 N93-26761
Low redshift Lyman alpha absorption lines and the dark matter halos of disk galaxies 10 p3180 N93-26762
Neutral hydrogen at the present epoch: A constraint on the evolution of high redshift systems 10 p3181 N93-26763
Testing the pressure-confined Ly alpha cloud model 10 p3181 N93-26764
Intensity correlation of ionizing background at high redshifts 10 p3181 N93-26768
Pruning the Lyman alpha forest of Q1331+170 10 p3182 N93-26774
A re-analysis of the spectrum of 2206-199 10 p3182 N93-26775
LYMPHOCYTES
Space flight and immune system 02 p0376 N93-11284
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
LYOPHILIZATION
U COLLOIDING
LYOPHILS
U COLLOIDS
LYRA CONSTELLATION
A study of the abundance distributions along the minor axis of the Galactic bulge 04 p1015 N93-14136
Convection in RR Lyrae stars
[DE93-000851] 05 p1376 N93-17382
LYSOZYME
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393

M

M REGION
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
M STARS
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Spectroscopic and photometric studies of main sequence M stars and a search for late-type dwarfs in the solar vicinity 11 p3629 N93-28608
MAARS
U CRATERS
MACH NUMBER
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Investigation of hypersonic shock-induced combustion in a hydrogen-air system
[NASA-CR-191239] 03 p0538 N93-13456
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers 03 p0590 N93-13826
Interaction of isotropic turbulence with a shock wave 03 p0590 N93-13898
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel
[NASA-TM-105626] 04 p0804 N93-15498
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
Comparison of performances of different circular intakes 05 p1067 N93-17616
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects
[NASA-CR-191087] 08 p2111 N93-23431
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
Analysis of fluctuating static pressure measurements in a large high Reynolds number transonic cryogenic wind tunnel
[NASA-TM-108722] 10 p2947 N93-27142
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0 10 p2927 N93-27221
Reynolds and Mach number effects on multielement airfoils 10 p2934 N93-27446
Dynamic airfoil stall investigations 10 p2935 N93-27453
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733
MACH REFLECTION
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
MACH-ZEHNDER INTERFEROMETERS
Fiber optic sensors for static fracture studies and dynamic wave propagation problems 03 p0709 N93-12984
Interferometric optical fiber data link
[AD-D015581] 07 p2067 N93-20797
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
MACHINE LEARNING
Artificial intelligence technical paper abstracts, 1991
[AD-A253340] 01 p0141 N93-10269
PRODIGY4.0: The manual and tutorial
[AD-A253970] 01 p0137 N93-10422
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU] 02 p0420 N93-11174
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181

ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
Geometrical concepts about learning rules in networks with binary and ternary output functions
[REPT-92-020] 02 p0411 N93-11592
Application of machine learning techniques for effective retrieval in image database
[AD-A254907] 02 p0479 N93-12287
Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
Myths and legends in learning classification rules
[NASA-CR-191236] 03 p0693 N93-13366
Resource constrained design of artificial neural networks using comparator neural network
[NASA-CR-191280] 03 p0694 N93-13376
Explanation-based knowledge acquisition of electronics
[AD-A255069] 03 p0573 N93-13650
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
Force and position control of robot manipulators: Learning and repetitive control approach
04 p0888 N93-14473
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
Machine intelligence, a foreword: The brain as electronic circuitry; electronic circuitry as a brain
[AD-A255283] 04 p0962 N93-14533
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
Tradeoffs in the utility of learned knowledge
[NASA-TM-108111] 05 p1242 N93-16750
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
The cognitive, perceptual, and neural bases of skilled performance
[AD-A258236] 06 p1601 N93-17820
Proceedings of the 2nd International Workshop on Cellular Neural Networks and their Applications
[AD-A258245] 06 p1631 N93-17821
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Using conceptual clustering to learn about function, structure, and behavior in design
[INRIA-RR-1401] 06 p1633 N93-18573
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Proceedings of the ML-92 Workshop on Machine Discovery (MD-92)
[NIAR-92-12] 06 p1688 N93-19711
Self-questioning and experimentation in an exploratory discovery system 06 p1689 N93-19717
Discovery of pathways in science
06 p1689 N93-19718
Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
Discovery of physical principles from design experiences 06 p1690 N93-19722
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
Machine discovery by model driven analogy
06 p1629 N93-19724
Informal qualitative models in scientific discovery
06 p1690 N93-19725
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
Knowledge acquisition from examples with mixed attributes 06 p1691 N93-19729
ARC.2: Linear regression in ABACUS
06 p1629 N93-19731
Goal-directed learning: A decision-theoretic model for deciding what to learn next 06 p1629 N93-19732
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
The evaluation and reporting of discovery systems
06 p1691 N93-19734
Evaluating machine discovery systems
06 p1692 N93-19735
Evaluation of discovery systems
06 p1692 N93-19736
An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
Design issues for a reinforcement-based self-learning fuzzy controller 08 p2454 N93-22362
Structure identification in fuzzy inference using reinforcement learning 08 p2456 N93-22371
Genetic learning in rule-based and neural systems
08 p2456 N93-22374
Evolving fuzzy rules in a learning classifier system
08 p2457 N93-22375
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
Learning optimal control using learning automata
[MATHS-REPT-A-176] 08 p2462 N93-24078
Permissive planning: A machine-learning approach to planning in complex real-world domains
[AD-A260019] 08 p2521 N93-24303
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Adaptive decision support systems: Concepts, characterization, and an application
09 p2876 N93-25475
Tree classification software 09 p2814 N93-25591
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
Machine learning techniques for fault isolation and sensor placement 09 p2823 N93-25966
An application of machine learning to the organization of institutional software repositories
09 p2825 N93-25981
Using modular neural networks with local representations to control dynamic systems
[AD-A261597] 09 p2826 N93-26162
Reinforcement learning for robots using neural networks
[AD-A261434] 09 p2827 N93-26487
An expert system shell for inferring vegetation characteristics: Changes to the historical cover type database (Task F)
[NASA-CR-193067] 10 p3063 N93-27072
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Robotics and artificial intelligence for hazardous environments
[DE93-008271] 11 p3541 N93-29047
Overview of the System of Experts for Intelligent Data Management (SEIDAM) 11 p3613 N93-29228
A self-learning rule base for command following in dynamical systems 11 p3512 N93-29531
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534
Fuzzy learning under and about an unfamiliar fuzzy teacher 11 p3516 N93-29558
Some problems with the design of self-learning management systems 11 p3516 N93-29559
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping
11 p3519 N93-29581
An accelerated training method for back propagation networks
[NASA-CASE-MSC-21625-1] 11 p3498 N93-29610
Analog CMOS circuits for neural networks
11 p3355 N93-30223
A motion detector based on a neural network
11 p3356 N93-30224
An artificial neural network model for periodic trajectory generation 11 p3356 N93-30225
Drive-reinforcement learning system applications
[AD-A264514] 11 p3446 N93-30404
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Optimization of adaptive resonance theory network with bolizmann machine
[PB93-188134] 12 p3797 N93-31332
Kohonen feature maps in natural language processing
[CL-91-01] 12 p3788 N93-31517
Connectionist models and linguistic theory: Investigations of stress systems in language
[AD-A265450] 12 p3777 N93-32064
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305

MACHINE LIFE
U SERVICE LIFE

MACHINE ORIENTED LANGUAGES
Monitoring and controlling distributed applications using Lomita (position paper)
[NASA-CR-190971] 03 p0687 N93-13695
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
Efficient implementation of a functional language for the definition of practicable, denotational semantics
[ETN-93-93413] 07 p2055 N93-21176

MACHINE RECOGNITION
U ARTIFICIAL INTELLIGENCE

MACHINE STORAGE
U COMPUTER STORAGE DEVICES
U CORE STORAGE

MACHINE TOOLS
NT MILLING MACHINES
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0258 N93-11621
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123
Fatigue design of earthmoving machines
07 p1924 N93-20350
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Application of an on-machine gage for diameter measurements 09 p2711 N93-25578
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473

MACHINE TRANSLATION
The evolution of Ten15
[RSRE-MEMO-4543] 02 p0409 N93-11405
Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494
Improving the quality of machine translations by providing stylistic guidelines to authors and editors
[AD-A258786] 06 p1687 N93-18977
Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442
Automating multilingual communication
12 p3837 N93-31219

MACHINE VISION
U COMPUTER VISION

MACHINERY
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Service loading of work attachments of hydraulic excavators 07 p1924 N93-20351
Computer aided planning of laboratory tests of excavator attachments 07 p1924 N93-20352
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597

MACHINING
NT CHEMICAL MACHINING
NT ELECTROCHEMICAL MACHINING
NT MILLING (MACHINING)
NT ULTRASONIC MACHINING
Superplastic forming of ceramic insulation
02 p0228 N93-12452

Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
Tolerance, chains and setting of machines: Three dimensional statistical model of machined dimensions
[PAPER-C-2-5] 07 p2036 N93-20833
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
A comment on the role of machining induced residual stresses on fatigue crack initiation
07 p1949 N93-21334
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate
[AD-A262594] 11 p3596 N93-29424

MACINTOSH PC
U MACINTOSH PERSONAL COMPUTERS

MACINTOSH PERSONAL COMPUTERS
Desktop Computing Integration Project
05 p1254 N93-16795

MACROCLIMATE
U CLIMATE

MACROMOLECULES
Unsolved problems of crystallization and melting of flexible macromolecules
[DE92-040876] 05 p1125 N93-16597
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142

MACROSCOPIC EQUATIONS
Connection of microscopic with macroscopic dynamics: Towards a hydrodynamical description of quantum mechanics 03 p0729 N93-13957

MACULAR VISION
U VISION

MAFFEI GALAXIES
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811

MAGELLAN MISSION (ESA)
U MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE

MAGELLAN PROJECT (NASA)
Surface processes on Venus
04 p1024 N93-14294
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Magellan project 04 p1041 N93-14373
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
V-GRAM: Magellan bulletin about Venus and the radar mapping mission
[NASA-CR-192923] 09 p2898 N93-26424
Revealing the face of Venus: Magellan
[NASA-CR-192922] 09 p2898 N93-26517

MAGELLAN SPACECRAFT (NASA)
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons
04 p1039 N93-14363
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Magellan project 04 p1041 N93-14373
The geologic mapping of Venus using C-1 format: Sheets 75N254, 60N263 04 p1041 N93-14375
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
The tectonics of Venus: An overview
04 p1042 N93-14382
Scattering properties of Venus' surface
04 p1044 N93-14391
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
V-GRAM: Magellan bulletin about Venus and the radar mapping mission
[NASA-CR-192923] 09 p2898 N93-26424
Revealing the face of Venus: Magellan
[NASA-CR-192922] 09 p2898 N93-26517

MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414

MAGELLANIC CLOUDS
B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
Atoms and molecules in supernova 1987A
03 p0699 N93-13851
Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies
04 p1020 N93-14869
Ultraviolet studies of novae in the large Magellanic cloud
[DE92-040348] 05 p1359 N93-16181
Time variability of extragalactic sources in the ecliptic pole regions 05 p1370 N93-17123
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function
09 p2894 N93-25559
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Far-infrared line images of dwarf galaxies
10 p3186 N93-26797
Tidal interactions and the formation of Magellanic spiral galaxies 10 p3190 N93-26821
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604

MAGMA
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism
01 p0118 N93-10169
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Venus steep-sided domes: Relationships between geological associations and possible petrogenetic models 04 p1038 N93-14359
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
The ancient lunar crust, Apollo 17 region
06 p1736 N93-18795
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812

MAGNESIUM
NT MAGNESIUM ISOTOPES
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Ab initio molecular orbital calculations for magnesium-containing systems
[AD-A255811] 05 p1287 N93-16397
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard
09 p2842 N93-25058
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913

MAGNESIUM ALLOYS
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
Fatigue studies in Al-Mg-Si alloys
03 p0543 N93-13690
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Mechanical properties of several magnesium and aluminum composites
[AD-A262481] 11 p3299 N93-30137
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486

MAGNESIUM COMPOUNDS
NT CHLOROPHYLLS
NT CORDIERITE
NT DOLOMITE (MINERAL)
NT MAGNESIUM OXIDES
NT MAGNESIUM TITANATES
NT TALC
Physics of hydrogen storage in metal-hydrides
04 p0854 N93-14630

MAGNESIUM ISOTOPES
Evidence for alpha-particle chain configurations in Mg-24
[DE92-018790] 03 p0705 N93-13546

MAGNESIUM OXIDES
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774

MAGNESIUM TITANATES
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092

MAGNESYN (TRADEMARK)
U SERVOMOTORS

MAGNET COILS
Reduced mass persistent switches for large superconducting magnets in space
[DE93-004782] 08 p2474 N93-22047
A comparison of the Space Station version of ASTROMAG with two free-flyer versions
[DE93-004695] 08 p2193 N93-22777
Forces on a magnet moving past figure-eight coils
[DE93-009965] 11 p3561 N93-29189

MAGNETIC ABSORPTION
U ELECTROMAGNETIC ABSORPTION

MAGNETIC ANOMALIES
Magnetic holes near the magnetopause
03 p0653 N93-13491
Latitudinally period-dependent pulsations: A model of the distributed perturbation ionospheric Hall current. The resultant ground field and a study of 3 intervals
08 p2547 N93-23194
Improved determination of vector lithospheric magnetic anomalies from MAGSAT data
[NASA-CR-192784] 09 p2771 N93-25201
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
Heavy ion measurement on LDEF
11 p3573 N93-29644

MAGNETIC BEARINGS
Magnetic bearings for a high-performance optical disk buffer, volume 2
[NASA-CR-190874] 03 p0615 N93-13608
Magnetic bearings for a high-performance optical disk buffer, volume 1
[NASA-CR-190873] 03 p0616 N93-13706
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters
[NASA-CR-189135] 04 p0891 N93-14916
Study of magnetic bearings with high temperature superconductors, phase 3
[NASA-CR-192229] 06 p1551 N93-19378
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
Magnetic Suspension Technology Workshop
[NASA-CP-3202] 10 p2959 N93-27554
Magnetic bearings: Fifty years of progress
10 p2959 N93-27556
Magnetic bearing turbomachinery case histories and applications for space related equipment
10 p2959 N93-27557
Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558

A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
Design considerations for ultra-precision magnetic bearing supported slides 10 p2960 N93-27562
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
Design and test of a magnetic thrust bearing 10 p2961 N93-27567
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569
Active magnetic bearings applied to industrial compressors 10 p2961 N93-27570
Practical limits to the performance of magnetic bearings: Peak force, slew rate, and displacement sensitivity 10 p2961 N93-27571
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
High efficiency magnetic bearings 10 p2962 N93-27574
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Cryogenic magnetic bearing [AD-A264716] 11 p3446 N93-30512
A study on the development of high T(sub c) superconducting materials [DE93-606394] 12 p3720 N93-31825
Large angle magnetic suspension test fixture [NASA-CR-193123] 12 p3684 N93-31836
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

MAGNETIC CIRCUITS
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications [NASA-CR-192348] 08 p2263 N93-23215
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Evaluation of actuators for the SDOF and MDOF active microgravity isolation systems 10 p3057 N93-27595

MAGNETIC CLOUDS
Statistics of IMF B(z) events [DE92-018372] 02 p0488 N93-11696
Cosmic ray decreases and magnetic clouds 06 p1564 N93-18071
Model of a rotating magnetic cloud 12 p3857 N93-31707

MAGNETIC COILS
NT MAGNET COILS
Open-loop characteristics of magnetic suspension systems using electromagnets mounted in a planar array [NASA-TP-3229] 02 p0277 N93-11613
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors [DE92-040760] 05 p1318 N93-16202
Properties of the superconductor in accelerator dipole magnets [ISBN-90-9004244-X] 05 p1280 N93-16573
Spaceborne centrifugal relays for spacecraft propulsion [NASA-CR-191773] 05 p1075 N93-16654
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors [DE92-538568] 05 p1149 N93-17007
Suggestions for the magnetic diagnostic fixing system in the inside of tokamak TBR-E [INPE-5277-NTC/298] 06 p1668 N93-19836
Poly-coil design for a 60 tesla quasi-stationary magnet [DE93-007353] 09 p2688 N93-25313

MAGNETIC COMPRESSION
Thermal management in high average power pulsed compression systems [DE92-017055] 01 p0076 N93-10836
Advanced high-explosive flux compression generator development: The CN-3 series [DE92-019962] 03 p0713 N93-12809
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch [DE93-005831] 08 p2493 N93-22869

MAGNETIC CONTROL
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study [NASA-CR-188578] 04 p0825 N93-15633
Approaches to control of the large angle magnetic suspension test fixture [NASA-CR-191890] 05 p1072 N93-16695
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems [AD-A257689] 06 p1665 N93-18245
Physics of transport phenomena in magnetic confinement plasmas [NIFS-202] 06 p1670 N93-19942
Magnetically operated check valve [NASA-CASE-MSC-22046-1] 11 p3442 N93-28501

MAGNETIC COOLING
Adiabatic demagnetization refrigerator for use in zero gravity [NASA-CR-190864] 05 p1130 N93-15689
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet [DE93-000448] 05 p1134 N93-15896
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K [NASA-CR-192365] 07 p1878 N93-21815
An evaluation of magnetic refrigeration cycles based on how effectively the thermal properties of the refrigerant are utilized 08 p2258 N93-23170
A broadband THz receiver for low background space applications 10 p3020 N93-27782

MAGNETIC CORES
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak [DE92-016252] 01 p0161 N93-10392
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000

MAGNETIC DIPOLES
Gradiometer antennas for tunnel detection [PB92-205400] 01 p0069 N93-10440
Modelling of 3-D electromagnetic responses using the time-wavenumber method [DE92-017025] 01 p0070 N93-10865
Electron terms and radiation from crystals [AD-A254353] 02 p0468 N93-12271
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers [AD-A255791] 04 p0885 N93-14647
Properties of the superconductor in accelerator dipole magnets [ISBN-90-9004244-X] 05 p1280 N93-16573
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
Results of the joint HIPAS/NUWC campaigns to investigate ELF generated by auroral electrojet modulation 11 p3398 N93-30746

MAGNETIC DISKS
Magnetic disk 03 p0737 N93-13134
Magnetic disk 04 p1004 N93-15029
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems 04 p0984 N93-15506
Improved astigmatic focus error detection method 04 p0984 N93-15507
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Proposal for massively parallel data storage system 04 p0960 N93-15510
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516
Integrated device with diffractive polarization components for a magneto-optical disk head 04 p0986 N93-15517
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2 [NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Goddard Conference on Mass Storage Systems and Technologies, Volume 1 [NASA-CP-3198-VOL-1] 11 p3616 N93-30449
RAID 7 disk array 11 p3537 N93-30462
Tutorial: Performance and reliability in redundant disk arrays 11 p3537 N93-30463
Striped tertiary storage arrays 11 p3620 N93-30464
Goddard Conference on Mass Storage Systems and Technologies, volume 2 [NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Ultra-high density recording technologies 12 p3840 N93-31971
Data storage: Retrospective and prospective 12 p3841 N93-31976

MAGNETIC DISTURBANCES
NT MAGNETIC STORMS
Auroral energization and geomagnetic disturbances 06 p1584 N93-18499
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991 [PB93-138469] 08 p2556 N93-23334
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679

MAGNETIC DOMAINS
An empirical approach to predicting long term behavior of metal particle based recording media 05 p1170 N93-16330
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices [DE93-004191] 08 p2499 N93-22062

MAGNETIC EFFECTS
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2 [DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1 [DE92-040152] 03 p0673 N93-13520
Gravitational instabilities in a protoplanetary disk 04 p1016 N93-14154
Design aspects of mid-size SMES using high temperature superconductors [DE92-040723] 05 p1142 N93-15828
Magnetic flux-load current interactions in ferrous conductors [AD-A256632] 05 p1143 N93-15906
Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape [DE92-041314] 05 p1321 N93-16533
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field [DE93-000605] 05 p1324 N93-17226
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
The neutral wind in the E-region from CP-1 data 06 p1729 N93-19565
International Monitor for Auroral Geomagnetic Effects (IMAGE): A new magnetometer network in Scandinavia 06 p1732 N93-19585
The effects of externally imposed magnetic perturbations on plasmas in TEXT 07 p2071 N93-20282
Micromagnetic surface studies of materials for nondestructive evaluation [DE93-006303] 08 p2321 N93-22695
Macroscopic models of superconductivity 08 p2508 N93-23500
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem [NASA-TP-3272-PT-1B] 09 p2776 N93-26421
Preliminary investigation of high power microwave plasmas for electrothermal thruster use [NASA-TM-106207] 11 p3288 N93-29158
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples [DE93-608739] 11 p3601 N93-30776
Regular and chaotic motion of two dimensional electrons in a strong magnetic field [DE93-604091] 11 p3607 N93-30933
Electromagnetic response of a superconducting wire of finite length in a perpendicular applied AC magnetic field [MEMO-1087] 12 p3716 N93-31516

MAGNETIC ENERGY STORAGE
Long conduction time plasma opening switch experiments at Sandia National Labs [DE92-015003] 01 p0072 N93-10279
New power-conditioning systems for superconducting magnetic energy storage 03 p0640 N93-13934

MAGNETIC EQUATOR
Global zones of particle precipitation as observed by EXOS-C [AD-A256397] 04 p0917 N93-15466
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605

MAGNETIC FIELD CONFIGURATIONS
An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements [DE92-016294] 01 p0160 N93-10331
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS [DE92-782100] 02 p0451 N93-11277
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535

Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
Review of stellarator research: In search of the magic magnetic bottle
[DE92-019045] 03 p0718 N93-13651
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
Hamiltonian for the toroidal helical magnetic field lines in the vacuum
[NIFS-201] 06 p1669 N93-19885
The effects of externally imposed magnetic perturbations on plasmas in TEXT 07 p2071 N93-20282
Magnetic field structure and collective effects in supernova remnants 08 p2548 N93-23218
Model of Venus ionopause formation 08 p2554 N93-23354
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
Some features of particle orbit behavior in LHD configurations
[NIFS-211] 09 p2859 N93-25216
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Laboratory simulation of field-aligned currents
[NASA-CR-193091] 11 p3476 N93-28538
Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
Plasma diffusion through multidipole magnetic fields
[DE93-608548] 11 p3591 N93-31007
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

MAGNETIC FIELD INTENSITY
U MAGNETIC FLUX

MAGNETIC FIELD INVERSIONS
Ice ages and geomagnetic reversals 06 p1580 N93-18968
Two and three dimensional magnetotelluric inversion
[DE93-013233] 12 p3765 N93-32165

MAGNETIC FIELD RECONNECTION
Physics of coronal loops: Heating and reconnection 01 p0180 N93-10912
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
Venus internal magnetic field and its interaction with the interplanetary magnetic field 04 p1032 N93-14336
Solar flares: The onset of magnetic reconnection and the structure of radiative slow-mode shocks 04 p1048 N93-14859
Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134
The disconnection event of 16.0 March 1986 in comet Halley 06 p1715 N93-19227
Particle simulation of auroral double layers
[AD-A258577] 07 p1996 N93-20032
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
Theory of coronal streamer formation
[DE93-003736] 07 p2102 N93-21967
The solar wind control of reconnection at the dayside magnetopause 08 p2556 N93-23236
Particle simulation of auroral double layers 09 p2774 N93-25830
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562
Theory of coronal streamer formation 12 p3869 N93-31355
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection 12 p3876 N93-31399
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Reconnection in the solar corona 12 p3855 N93-31695
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696
Time-varying reconnection in a stagnation-point flow geometry 12 p3827 N93-31697
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698
A study of the magnetic field annihilation process in the magnetosphere and some geotechnical applications
[DE93-013172] 12 p3765 N93-32164

MAGNETIC FIELDS
NT BIOMAGNETISM
NT FORCE-FREE MAGNETIC FIELDS
NT GEOMAGNETISM
NT INTERPLANETARY MAGNETIC FIELDS
NT INTERSTELLAR MAGNETIC FIELDS
NT LUNAR MAGNETIC FIELDS
NT MAGNETIC CLOUDS
NT MAGNETOSTATIC FIELDS
NT NONUNIFORM MAGNETIC FIELDS
NT PALEOMAGNETISM
NT PLANETARY MAGNETIC FIELDS
NT SOLAR MAGNETIC FIELD
NT STELLAR MAGNETIC FIELDS
NT TRAPPED MAGNETIC FIELDS
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Long conduction time plasma opening switch experiments at Sandia National Labs
[DE92-015003] 01 p0072 N93-10279
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
Gradiometer antennas for tunnel detection
[PB92-205400] 01 p0069 N93-10440
Model for the reversible magnetization of high-(kappa) type-2 superconductors: Application to high-temperature superconductor
[DE92-016297] 01 p0167 N93-10609
Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Development of high temperature superconductors for magnetic field applications
[DE92-015930] 01 p0168 N93-10733
Stellar and circumstellar evolution and activity 01 p0181 N93-10918
Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Nuclear magnetic resonance microscopy: New theoretical and technical developments 02 p0313 N93-11907
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
Magnetic fields in the clusters of galaxies with extreme cooling flows 02 p0486 N93-12164
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Magnetic field perturbation caused by bending vibrations of a quadrupole
[DE92-040644] 03 p0623 N93-13003
A program to study antiprotons in the cosmic rays: Arizona collaboration
[NASA-CR-191272] 03 p0772 N93-13306
Low-frequency fluctuations of plasma magnetic fields 03 p0717 N93-13496
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7 03 p0657 N93-13830
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc 04 p0988 N93-14138
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Active control of foundation transmissibility using magnetostrictive actuators
[AD-A257135] 05 p1145 N93-16078

The 3D MHD study of helias and heliotron
[AD-A257116] 05 p1307 N93-16123
The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels
[DE92-041208] 05 p1111 N93-16149
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates: Neuroendocrine portion of Experiment 4
[DE92-040955] 05 p1224 N93-16166
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Scaling laws for the critical current density of NbN films in high magnetic fields
[DE93-000604] 05 p1318 N93-16277
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Conditioner for a helically transported electron beam
[DE92-041169] 05 p1297 N93-16526
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy
05 p1128 N93-16794
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
A Boltzmann-equation approach to the magnetoresistance of ferromagnetic-normal metallic multilayers
[DE92-041213] 05 p1270 N93-17361
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
Method of processing composites on a latex base (Description of an invention for an author's certificate)
[AD-A258455] 06 p1478 N93-18423
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
Modeling the global positioning system signal propagation through the ionosphere
06 p1434 N93-19420
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
An inverse free electron laser accelerator experiment
[DE93-003495] 06 p1542 N93-19506
Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations
06 p1584 N93-19568
Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Hamiltonian for the toroidal helical magnetic field lines in the vacuum
[NIFS-201] 06 p1669 N93-19885
Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-192141] 07 p1997 N93-20295
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567
On relation between Hamada and Boozer magnetic coordinate system
[NIFS-173] 07 p2075 N93-21568
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715
Selective gamma ray resonant absorption for explosives detection 07 p1769 N93-21887
Liquid explosives screening system
07 p1771 N93-21899
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
De Haas van Alphen effect in superconductors in megagauss fields
[DE93-005465] 08 p2277 N93-22540
Micromagnetic surface studies of materials for nondestructive evaluation
[DE93-006303] 08 p2321 N93-22695
Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendoctrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
Poloidal magnetic field profile measurements on the microwave tokamak experiment using far-infrared polarimetry 08 p2498 N93-24294
Structure and dynamics of the magnetopause
08 p2400 N93-24296
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates
[DE93-007678] 08 p2419 N93-24455
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892
Weak magnetic field sensitivity of quartz crystal oscillators 09 p2833 N93-24993
Improved determination of vector lithospheric magnetic anomalies from MAGSAT data
[NASA-CR-192784] 09 p2771 N93-25201
Two-stream instability for a light ion beam-plasma system with external magnetic field
[NIFS-204] 09 p2859 N93-25248
New ground states in unconventional superconductors
09 p2688 N93-25282
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
Poly-coil design for a 60 tesla quasi-stationary magnet
[DE93-007353] 09 p2688 N93-25313
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171
Magnetic field source for bi-chambered electron beam devices
[AD-A261316] 09 p2691 N93-26299
Imaging regional changes in the spontaneous activity of the brain: An extension of the minimum-norm least-squares estimate
[AD-A261593] 09 p2798 N93-26436
Sensitivity of magnetic flux compression in cylindrical implosions to model parameters
[DE93-003819] 09 p2861 N93-26512
Low temperature Hall and Shubnikov-de Haas effects
[AD-A261871] 09 p2869 N93-26540
Analysis of magnetometer data/wave signals in the Earth's magnetosphere
[NASA-CR-193169] 10 p3072 N93-27154
Wave packet motion in harmonic potential and computer visualization 10 p3141 N93-27315
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Magnetic beneficiation of lunar soils
10 p3213 N93-27968
Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
High power density, thin magnetic DC septa for AmPS
10 p3140 N93-28342
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
Multifractal analysis of radio lobes
11 p3380 N93-28689
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Forces on a magnet moving past figure-eight coils
[DE93-009965] 11 p3561 N93-29189
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer
[AD-A263661] 11 p3324 N93-29391
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Pattern measurements of US Navy ELF antennas
11 p3399 N93-30752
Measurement of magnetic field penetration depth in niobium polycrystalline films by polarized neutron reflection method
[DE93-606390] 11 p3600 N93-30771
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
Neutrino oscillations and a new Faraday effect
[DE93-606111] 11 p3571 N93-30789
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Electric magnetic duality in string theory
[DE93-606061] 11 p3606 N93-30807

Modification of the S-band phase shifter model 331A-3 of Electromagnetic Sciences Inc.
[DIGEL-1992-5] 11 p3399 N93-30836
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
Are there missing convective currents?
[DE93-604672] 12 p3825 N93-31084
Low aperture magnetic elements measurements
[DE93-605897] 12 p3814 N93-31088
New edge magnetoplasmon for a two-dimensional electron gas in a ring geometry
[DE93-608737] 12 p3825 N93-31164
Quantum adiabatic expansion for dynamics in strong magnetic fields
[DE93-609388] 12 p3831 N93-31226
Distinct ion population in the polar cusp: Possible signature of transient reconnection
12 p3766 N93-31680
Quasi-parallel shock re-formation: Two-dimensional simulations 12 p3826 N93-31682
A new method for measuring the speed of the bow shock 12 p3854 N93-31687
Reconnection in the solar corona
12 p3855 N93-31695
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft
12 p3856 N93-31699
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084
Investigation of transitions from order to chaos in dynamical systems
[DE93-014437] 12 p3833 N93-32290
The PIT MkV pulsed inductive thruster
[NASA-CR-191155] 12 p3698 N93-32353

MAGNETIC FILMS

Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Characterization of magneto-optical recording media
04 p0979 N93-14140
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media
04 p0984 N93-15509
Theoretical analysis of microwave and millimeter wave integrated circuits based on magnetic films
[AD-A257512] 06 p1518 N93-18173
Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954
The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710
Magnetic thin films and nanostructures: Anisotropy, microstructure, and their inter-relationship
[DE93-007714] 10 p3002 N93-26611

MAGNETIC FLUX

Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761
Advanced high-explosive flux compression generator development: The CN-3 series
[DE92-019962] 03 p0713 N93-12809
Magnetic flux-load current interactions in ferrous conductors
[AD-A256632] 05 p1143 N93-15906
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
High temperature superconducting bearings for mechanical coolers
[AD-A259316] 07 p1916 N93-21699
Electromagnetic finite element analysis of a solenoid
[DE93-004635] 07 p1894 N93-21724
Dense plasma focus powered by flux compression generators
[DE93-003781] 07 p2076 N93-21837
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Sensitivity of magnetic flux compression in cylindrical implosions to model parameters
[DE93-003819] 09 p2861 N93-26512
Magnetic suspension actuator concepts and applications 10 p2959 N93-27555
High efficiency magnetic bearings
10 p2962 N93-27574
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation
[DE93-605693] 11 p3400 N93-30993
Tokamak plasma shape identification based on the boundary integral equations
[DE93-715383] 12 p3825 N93-31097

MAGNETIC INDUCTION

On development of a three-dimensional particle motion tracking system
[DE92-015846] 03 p0704 N93-13263
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108

MAGNETIC INDUCTION PROBES

U MAGNETIC PROBES

MAGNETIC LEVITATION VEHICLES

Vehicle/guideway interaction in maglev systems
[DE92-019051] 02 p0326 N93-11653
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
Effects of maglev-spectrum magnetic field exposure on CEM T-lymphoblastoid human cell growth and differentiation
[DE92-041134] 05 p1225 N93-16552
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715
Dynamic stability of maglev systems
[DE93-004796] 08 p2315 N93-23335
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Survey of foreign maglev systems
[DE93-008495] 10 p3049 N93-26665
Comparison of major parameters in electrodynamic and electromagnetic levitation transport systems
[PB93-154755] 10 p3051 N93-27412
Aerodynamic forces on maglev vehicles
[PB93-154813] 10 p2930 N93-27413
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
Maglev guideway and route integrity requirements
[PB93-154870] 12 p3736 N93-32086
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-149542] 12 p3736 N93-32192
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194

MAGNETIC MATERIALS

NT FERROMAGNETIC FILMS
NT FERROMAGNETIC MATERIALS
NT PERMALLOYS (TRADEMARK)
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0258 N93-11621
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
Ferrite research aimed at improving induction linac driven FEL performance, phase 2
[AD-A256779] 05 p1172 N93-16053
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

MAGNETIC MEASUREMENT

An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
Magnetic results 1987-89: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-19] 06 p1576 N93-18137
Magnetic results 1990: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-20] 06 p1576 N93-18138

Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380

Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714

Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715

Report of the Kakioka Magnetic Observatory, geomagnetism, Kakioka Memambetsu Kanoya, Chichijima, 1991
[JMA-159] 07 p2000 N93-21746

Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films
08 p2505 N93-23100

Long period pulsation events in electron precipitation and magnetic fields at the South Pole
08 p2394 N93-23387

The SSIMT: A CMOS based magnetic sensor
[ISBN-0-315-60334-8] 08 p2305 N93-24610

Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530

Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234

Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658

Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793

Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809

Measurement of magnetic field penetration depth in niobium polycrystalline films by polarized neutron reflection method
[DE93-606390] 11 p3600 N93-30771

Low aperture magnetic elements measurements
[DE93-605897] 12 p3814 N93-31088

SQUIDs in thermal detectors of weakly interacting particles
[DE93-609531] 12 p3729 N93-31247

Low-temperature formation of magnetic iron oxides
12 p3863 N93-31946

MAGNETIC MEMORIES
U MAGNETIC STORAGE

MAGNETIC METALS
U MAGNETIC MATERIALS
U METALS

MAGNETIC MIRRORS

Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391

Experimental MHD stability limit in the gas-dynamic trap
[DE93-606218] 11 p3591 N93-30780

MAGNETIC MOMENTS

Electronic structure of highly correlated structures
[DE92-017017] 01 p0155 N93-10863

Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681

Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444

The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959

Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186

Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854

Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141

NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487

Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653

A 17 keV neutrino and large magnetic moment solution of the solar neutrino puzzle
[DE93-608264] 12 p3819 N93-31662

Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

MAGNETIC MONOPOLES

Solitons and instantons in string theory
03 p0728 N93-13753

Experimental particle physics
[DE93-003884] 06 p1655 N93-18538

MAGNETIC PERMEABILITY

Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178

Eddy current power dissipation at sharp corners
[DE92-016890] 03 p0571 N93-13300

Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834

Magnetic susceptibility measurements for in situ characterization of lunar soil 05 p1390 N93-17260

Magnetic susceptibility variations in Loess sequences and their relationship to astronomical forcing
06 p1580 N93-18967

High-energy spin-density-wave correlated fluctuations in paramagnetic Cr + 5 at. percent V
[DE93-003165] 07 p1857 N93-21958

Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500

High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077

Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880

MAGNETIC POLES

The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173

Formation of auroral arcs via magnetosphere-ionosphere coupling
[AD-A258641] 07 p1998 N93-20363

MAGNETIC PROBES

An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331

High sensitivity probes for silicon VLSI internal node testing
[AD-A253924] 01 p0169 N93-10764

Tunneling magnetic force microscopy
08 p2514 N93-22194

MAGNETIC PROPERTIES
NT ANTIFERROMAGNETISM
NT BIOMAGNETISM
NT CURIE TEMPERATURE
NT DIAMAGNETISM
NT FERROMAGNETISM
NT FLUX TRANSFER EVENTS
NT GEOMAGNETISM
NT GYROMAGNETISM
NT MAGNETIC EFFECTS
NT MAGNETIC FIELD RECONNECTION
NT MAGNETIC INDUCTION
NT MAGNETIC MOMENTS
NT MAGNETIC PERMEABILITY
NT MAGNETIC RELAXATION
NT MAGNETIC SUSPENSION
NT MAGNETOACOUSTICS
NT MAGNETOACTIVITY
NT MAGNETORESISTIVITY
NT MAGNETOSTRICTION
NT PALEOMAGNETISM
NT PARAMAGNETISM
NT POLARIZATION CHARACTERISTICS
NT REMANENCE
NT SPIN-LATTICE RELAXATION

The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338

NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460

Magnetic properties of high-T(c) superconductors
[DE92-018809] 02 p0460 N93-11533

Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629

Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261

Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366

Application of spin-sensitive electron spectroscopies to investigations of electronic and magnetic properties of solid surfaces and epitaxial systems
[DE92-018597] 02 p0470 N93-12499

Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118

Magnetic properties of high-T(sub c) superconductors
03 p0726 N93-13905

An empirical approach to predicting long term behavior of metal particle based recording media
04 p0883 N93-15043

Spectroscopic and magnetic studies of tetravalent Pa and trivalent Th compounds
[DE92-041214] 05 p1100 N93-15676

The influence of microgravity on the microstructure and properties of eutectics, phase 2
[CTN-93-60627] 05 p1131 N93-16427

Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206

Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620

Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954

Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755

Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854

Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523

Dynamic stability of maglev systems
[DE93-004796] 08 p2315 N93-23335

Magnetic anisotropy in the high transition temperature superconductor YBa2Cu3O(7-delta)
08 p2509 N93-23985

The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037

Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114

Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367

Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369

Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217

Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344

A detailed technology roadmap for superconductivity
11 p3526 N93-29045

On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688

Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments
12 p3863 N93-31943

Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950

Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187

Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

MAGNETIC PUMPING

Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407

MAGNETIC RECORDING

Characterization of magneto-optical recording media
04 p0979 N93-14140

Magnetic disk 04 p1004 N93-15029

Stability of Co-gamma-Fe2O3 tape
04 p1006 N93-15041

An empirical approach to predicting long term behavior of metal particle based recording media
04 p0883 N93-15043

An empirical approach to predicting long term behavior of metal particle based recording media
05 p1170 N93-16330

Reproduction of digital signals in magnetic recording: A theoretical study
[ISBN-90-6275-757-X] 05 p1168 N93-16564

The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710

Tunneling magnetic force microscopy
08 p2514 N93-22194

Goddard Conference on Mass Storage Systems and Technologies, Volume 1
[NASA-CP-3198-VOL-1] 11 p3616 N93-30449
The modern high rate digital cassette recorder 11 p3435 N93-30468
Evolution of a high-performance storage system based on magnetic tape instrumentation recorders 11 p3435 N93-30470
Data storage: Retrospective and prospective 12 p3841 N93-31976

MAGNETIC RELAXATION
NT SPIN-LATTICE RELAXATION
Magnetic hysteresis and flux creep of YBa2Cu3O(x) grown by the Melt-Power-Melt-Growth (MPMG) process
[DE93-000870] 05 p1116 N93-17346
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052

MAGNETIC RESONANCE
NT ELECTRON PARAMAGNETIC RESONANCE
NT FERROMAGNETIC RESONANCE
NT NUCLEAR MAGNETIC RESONANCE
NT PARAMAGNETIC RESONANCE
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Functional MRI studies of human vision on a clinical imager
[DE92-017448] 03 p0674 N93-12566
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves 03 p0718 N93-13750
Spin dependent recombination in conjugated polymers: An optically detected magnetic resonance study
[DE93-001221] 05 p1126 N93-17349
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
EVA Glove Research Team
[NASA-CR-193014] 10 p3086 N93-27847
A feasibility study of hand kinematics for EVA analysis using magnetic resonance imaging 10 p3086 N93-27848
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528

MAGNETIC SHIELDING
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Basic design of a spaceborne hydrogen maser 09 p2716 N93-25024

MAGNETIC SIGNATURES
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
Magnetic results 1987-89: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-19] 06 p1576 N93-18137
Magnetic results 1990: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-20] 06 p1576 N93-18138
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Improved NMR signatures of explosives 07 p1771 N93-21900
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
Active region studies with coordinated SOHO, microwave, and magnetograph observations 12 p3873 N93-31380

MAGNETIC SPECTROSCOPY
Wide range, permanent magnet Compton spectrometer
[DE92-017312] 03 p0596 N93-12762
On the 17-keV conundrum
[DE93-000866] 05 p1286 N93-16305

MAGNETIC STORAGE
NT CORE STORAGE
NT MAGNETIC DISKS
Tribology of magnetic storage systems 04 p1002 N93-14772
Stability of Co-gamma-Fe2O3 tape 04 p1006 N93-15041
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710

MAGNETIC STORMS
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
Statistics of IMF B(z) events
[DE92-018372] 02 p0488 N93-11696
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
Radiation belt dynamic and quasi-static modeling based on CRRES data: Outer-belt short-term response data base
[AD-A256483] 04 p0916 N93-14899
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
Investigation of ring current/storm dynamics: Preliminary results
[AD-A256704] 05 p1207 N93-16155
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982 06 p1565 N93-18072
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Particle simulation of auroral double layers
[AD-A258577] 07 p1996 N93-20032
Magnetospheric and auroral processes
[NASA-CR-192138] 07 p1996 N93-20250
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Electrostatic charging of spacecraft in geosynchronous orbit
[DRA-TM-SPACE-389] 08 p2181 N93-22489
Geomagnetic storm environments and effects on electrical systems
[DE92-041257] 08 p2262 N93-22980
The formation, structure, and evolution of plasmoids 08 p2547 N93-23210
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A259943] 08 p2401 N93-24322
Magnetotail processes associated with auroral surge formation
[ATR-90(7186)-1] 09 p2895 N93-26147
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices 12 p3856 N93-31701
Solar wind penetration to geostationary altitude during the March 1991 magnetic storm 12 p3857 N93-31706
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

MAGNETIC SUBSTORMS
U MAGNETIC STORMS

MAGNETIC SURVEYS
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Two and three dimensional magnetotelluric inversion
[DE93-013233] 12 p3765 N93-32165

MAGNETIC SUSCEPTIBILITY
U MAGNETIC PERMEABILITY

MAGNETIC SUSPENSION
Open-loop characteristics of magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TP-3229] 02 p0277 N93-11613
Vehicle/guideway interaction in maglev systems
[DE92-019051] 02 p0326 N93-11653
Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
Approaches to control of the large angle magnetic suspension test fixture
[NASA-CR-191890] 05 p1072 N93-16695
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Survey of foreign maglev systems
[DE93-008495] 10 p3049 N93-26665
Comparison of major parameters in electrodynamic and electromagnetic levitation transport systems
[PB93-154755] 10 p3051 N93-27412
Magnetic Suspension Technology Workshop
[NASA-CP-3202] 10 p2959 N93-27554
Magnetic suspension actuator concepts and applications 10 p2959 N93-27555
Magnetic bearings: Fifty years of progress 10 p2959 N93-27556
Magnetic bearing turbomachinery case histories and applications for space related equipment 10 p2959 N93-27557
Six degrees of freedom vibration isolation using electromagnetic suspension 10 p2960 N93-27559
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561
Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27566
Design and test of a magnetic thrust bearing 10 p2961 N93-27567
Practical limits to the performance of magnetic bearings: Peak force, slew rate, and displacement sensitivity 10 p2961 N93-27571
Advanced actuators for the control of large space structures 10 p2962 N93-27572
An AC-electromagnetic bearing for flywheel energy storage in space 10 p2962 N93-27573
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts 10 p2962 N93-27575
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928
Forces on a magnet moving past figure-eight coils
[DE93-009965] 11 p3561 N93-29189
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Large angle magnetic suspension test fixture
[NASA-CR-193123] 12 p3684 N93-31836
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194
A decoupled control approach for magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TM-109011] 12 p3715 N93-32227

MAGNETIC SWITCHING
Magnetic switching techniques for high power pulse generation
[ISBN-90-9004705-0] 07 p1892 N93-20935

MAGNETIC TAPE RECORDERS
U MAGNETIC RECORDING
U TAPE RECORDERS

MAGNETIC TAPES
NT COMPUTER COMPATIBLE TAPES
Magnetic tape 03 p0737 N93-13135
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
Status of emerging standards for removable computer storage media and related contributions of NIST 04 p1003 N93-14778
Stability of Co-gamma-Fe2O3 tape 04 p1006 N93-15041

The 19 mm date recorders: Similarities and differences 04 p0883 N93-15042
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Data storage and retrieval system 05 p1354 N93-16324
Network accessible multi-terabyte archive 05 p1354 N93-16326
An empirical approach to predicting long term behavior of metal particle based recording media 05 p1170 N93-16330
Striped tape arrays
[NASA-CR-192914] 09 p2806 N93-25267
Goddard Conference on Mass Storage Systems and Technologies, Volume 1
[NASA-CP-3198-VOL-1] 11 p3616 N93-30449
GE networked mass storage solutions supporting IEEE network mass storage model 11 p3618 N93-30458
Striped tertiary storage arrays 11 p3620 N93-30464
Mass optical storage-tape (MOST) 11 p3621 N93-30471
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
The standards process: Technical committee X3B5 digital magnetic tape 12 p3840 N93-31967
Recording and wear characteristics of 4 and 8 mm helical scan tapes 12 p3730 N93-31969
Striped tape arrays 12 p3730 N93-31970
Ultra-high density recording technologies 12 p3840 N93-31971
National Media Laboratory: Media testing results 12 p3840 N93-31972
Data storage: Retrospective and prospective 12 p3841 N93-31976
The redwood project: An overview 12 p3841 N93-31979

MAGNETIC TRANSDUCERS
The SSIMT: A CMOS based magnetic sensor
[ISBN-0-315-60334-8] 08 p2305 N93-24610

MAGNETIC VARIATIONS
NT GEOMAGNETIC MICROPULSATIONS
NT GEOMAGNETIC PULSATIONS
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989 09 p2774 N93-25689
A predicted geomagnetic field model for epoch 1990.0
[AD-A260669] 09 p2775 N93-25891
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192

MAGNETICALLY TRAPPED PARTICLES
NT INNER RADIATION BELT
NT OUTER RADIATION BELT
NT RADIATION BELTS
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Review of stellarator research: In search of the magic magnetic bottle
[DE92-019045] 03 p0718 N93-13651
A kinetic simulation of low-frequency electromagnetic phenomena in inhomogeneous plasmas of three-dimensions
[NIFS-199] 06 p1669 N93-19883
Effect of alpha particles on radial electric field structure in Torsatron/Heliotron reactor
[NIFS-182] 07 p2071 N93-20265
Some features of particle orbit behavior in LHD configurations
[NIFS-211] 09 p2859 N93-25216
Thermal and electric oscillation driven by orbit loss in helical systems
[NIFS-213] 09 p2860 N93-25346

MAGNETIZATION
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Model for the reversible magnetization of high-(kappa) type-2 superconductors: Application to high-temperature superconductor
[DE92-016297] 01 p0167 N93-10609
Magnetic properties of high-T(c) superconductors
[DE92-018809] 02 p0460 N93-11533
Magnetic hardening studies and novel techniques for preparation of high performance magnets
[AD-A254761] 03 p0698 N93-12865
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
De Haas van Alphen effect in superconductors in megagauss fields
[DE93-005465] 08 p2277 N93-22540
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Computational modeling of MAGO and other magnetized target fusion concepts
[DE93-007354] 09 p2861 N93-26504
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE93-009698] 10 p2994 N93-27487
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661

MAGNETO-OPTICS
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing
[AD-A254035] 01 p0071 N93-10240
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Magneto-optic imaging inspection of selected corrosion specimens
[DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
Characterization of magneto-optical recording media 04 p0979 N93-14140
Optical instrumentation and characterization for magneto-optical recording media 04 p0980 N93-14168
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems 04 p0984 N93-15506
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media 04 p0984 N93-15509
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516
Integrated device with diffractive polarization components for a magneto-optical disk head 04 p0986 N93-15517
Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
A simple and compact source of cold atoms for cesium fountains and microgravity clocks 09 p2831 N93-24981
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Ultra-high density recording technologies 12 p3840 N93-31971

MAGNETOACOUSTIC WAVES
Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434
Ion ring distribution produced by a magnetosonic wave
[DE93-754311] 11 p3590 N93-30533

MAGNETOACOUSTICS
Method of characterizing residual stress in ferromagnetic materials using a pulse histogram of acoustic emission signals
[NASA-CASE-LAR-14239-1] 04 p0845 N93-14705

MAGNETOACTIVITY
NT FLUX TRANSFER EVENTS
NT MAGNETIC FIELD RECONNECTION
NT MAGNETORESISTIVITY
On the Bernstein modes generation in solar post-flare loops 12 p3859 N93-31718

MAGNETOCARDIOGRAPHY
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391

MAGNETOELASTIC WAVES
NT MAGNETOACOUSTIC WAVES

MAGNETOELASTICITY
U MAGNETOSTRICTION

MAGNETOGASDYNAMICS
U MAGNETOHYDRODYNAMICS

MAGNETOGRAMS
U MAGNETIC SIGNATURES

MAGNETOHYDRODYNAMIC ACCELERATION
U PLASMA ACCELERATION

MAGNETOHYDRODYNAMIC FLOW
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions 03 p0657 N93-13793
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067
Comparison between irregularity motion and bulk plasma drifts at high latitudes
[PL-TR-91-2292] 04 p0914 N93-14727
Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407] 05 p1306 N93-15670

Electrostatic potential in a collisionless plasma flow along open magnetic field lines
[NIFS-155] 06 p1666 N93-18421
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
Poloidal flow generation by resistive pressure-gradient-driven turbulence
[DE93-001638] 06 p1667 N93-18707
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
Plasma flow bursts in the auroral zone 06 p1726 N93-19550
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Theory of coronal streamer formation
[DE93-003736] 07 p2102 N93-21967
Design and characterization of the Pegasus 1 plasma flow switch
[DE93-003812] 08 p2276 N93-22322
Ionospheric plasma flow about a system of electrically biased flat plates
[NASA-CR-191119] 08 p2194 N93-23131
Model of Venus ionopause formation 08 p2554 N93-23354
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987
Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
Maneuvering a reentry body via magneto-gasdynamic forces 09 p2615 N93-25207
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
Particle simulation of auroral double layers 09 p2774 N93-25830
Magnetotail processes associated with auroral surge formation
[ATR-90(7186)-1] 09 p2895 N93-26147
Electron cyclotron thruster new modeling results preparation for initial experiments 10 p2983 N93-26982
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
Modelling of plasmaspheric flows 10 p3150 N93-28412
Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812
Two-dimensional and three-dimensional time-dependent MHD model of extended corona 11 p3653 N93-30496
What can we learn from the shape of loops? 12 p3874 N93-31386
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
Time-varying reconnection in a stagnation-point flow geometry 12 p3827 N93-31697
Magnetospheric convection and current system in the dayside polar cap 12 p3856 N93-31700

MAGNETOHYDRODYNAMIC GENERATORS
Dispersion of seed vapor and gas ionization in an MHD second stage combustor and channel
[DE92-016699] 01 p0163 N93-10645
Magnetohydrodynamic projects at the CDIF
[DE92-018190] 01 p0164 N93-10819
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
Overview of recent diagnostic measurements at the USA MHD facilities
[DE92-015365] 02 p0454 N93-12087
Transient phenomena in MHD experiments
[DE92-014496] 02 p0455 N93-12139
The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141
Particle-jet interactions in an MHD second stage combustor
[DE92-016390] 02 p0455 N93-12309
MHD integrated topping cycle project
[DE92-018087] 02 p0456 N93-12504
Design and impiementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276
MHD Integrated Topping Cycle Project
[DE92-041285] 05 p1306 N93-15666
MHD Integrated Topping Cycle Project
[DE92-041284] 05 p1306 N93-15678
DOE Headquarters MHD/fuel cell support contract
[DE92-040257] 05 p1194 N93-15935
Magnetohydrodynamic projects at the CDIF
[DE93-001854] 05 p1311 N93-17035
MHD seed recovery/regeneration
[DE93-000904] 05 p1312 N93-17347
Corrosion and arc erosion in MHD channels
[DE93-001721] 05 p1313 N93-17782
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
MHD seed recovery/regeneration, phase 2
[DE93-006008] 08 p2493 N93-22769
Three-dimensional isothermal flow simulations of an MHD secondary combustor
[DE93-006631] 08 p2497 N93-24035
Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299

MAGNETOHYDRODYNAMIC STABILITY
NT WEIBEL INSTABILITY
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760
Instabilities in the rundown phase of the plasma focus
[IPF-90-3] 02 p0449 N93-11030
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere 02 p0360 N93-11270
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Nonlinear effects of ICRF power on drift wave stability and transport in tokamaks, task 1
[DE92-018488] 02 p0453 N93-11729
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering 02 p0318 N93-12025
Plasma properties
[DE92-018635] 02 p0455 N93-12188
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Fast ion-driven Bernstein instabilities
[DE92-019393] 03 p0705 N93-12713
Plasma properties
[DE92-019982] 03 p0713 N93-12811
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
A simple model for SLC positron stability issues
[DE92-019644] 03 p0706 N93-12992
Tokamak equilibria and transport based on Grad's thirteen moment description
[DE92-019960] 03 p0715 N93-13038
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
Review of stellarator research: In search of the magic magnetic bottle
[DE92-019045] 03 p0718 N93-13651
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves 03 p0718 N93-13750
Theory of the ion-channel laser 03 p0607 N93-13777
Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419
Toroidal effects on drift wave turbulence
[DE93-000498] 05 p1306 N93-15672
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-000600] 05 p1306 N93-15697
Physics of the L-mode to H-mode transition in tokamaks
[DE92-040697] 05 p1306 N93-15827
The 3D MHD study of helias and heliotron
[AD-A257116] 05 p1307 N93-16123
Electron-temperature-gradient-induced instability in tokamak scrape-off layers
[DE93-000623] 05 p1309 N93-16376
High beta and second stability region transport and stability analysis
[DE93-000886] 05 p1310 N93-16534
JT-60 configuration parameters for feedback control determined by regression analysis
[DE92-556731] 05 p1310 N93-16650
Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Theoretical reversed field pinch and tokamak studies
[DE93-002775] 05 p1312 N93-17085
The nonthermal model of disc accretion onto a magnetosphere 05 p1368 N93-17115
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Stability of weak double layers
[TRITA-EPP-91-01] 05 p1313 N93-17649
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Plasma-beam instabilities in cometary ionospheres 06 p1704 N93-19141
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems 06 p1724 N93-19532
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region 06 p1727 N93-19553

Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554

Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618

Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743

A kinetic simulation of low-frequency electromagnetic phenomena in inhomogeneous plasmas of three-dimensions
[NIFS-199] 06 p1669 N93-19883

Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896

The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950

Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951

On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154

Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156

Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159

The effects of externally imposed magnetic perturbations on plasmas in TEXT
07 p2071 N93-20282

Effects of net toroidal current on Mercier criterion in the Large Helical Device
[NIFS-174] 07 p2072 N93-20543

Model of the L-mode confinement in tokamaks
[NIFS-187] 07 p2072 N93-20545

Cross field ion motion at sawtooth crash
[NIFS-189] 07 p2072 N93-20547

A review on application of MHD theory to plasma boundary problems in tokamaks
[NIFS-163] 07 p2073 N93-20762

L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192

On relation between Hamada and Boozer magnetic coordinate system
[NIFS-173] 07 p2075 N93-21568

Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830

Experimental studies of instabilities in radially imploding plasmas
[DE93-003831] 08 p2492 N93-22427

Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428

High beta effects and nonlinear evolution of the TAE instability
[DE93-004170] 08 p2492 N93-22522

Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779

Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869

Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907

Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940

A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984

Selection of an appropriate tokamak operating regime using magnetohydrodynamic and current drive constraints 08 p2495 N93-23167

Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664

Experimental determination of the hydrodynamic instability growth rates in indirect and direct drive ICF
[DE93-006278] 08 p2496 N93-23676

Equilibria and stability of non-adiabatic Vlasov-Maxwellian plasmas 08 p2497 N93-23998

Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504

Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167

Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233

Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349

JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530

Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532

Self-consistent chaos in the beam-plasma instability
[DE93-009581] 11 p3584 N93-28599

Solar flare MDH
[AD-A262275] 11 p3652 N93-28756

Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910

Collective transport of alpha particles due to Alfven wave instability
[DE93-009578] 11 p3587 N93-29148

Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303

Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343

A novel approach for new radiation sources based on solid state plasma instabilities
[AD-A263699] 11 p3588 N93-29382

Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804

Experimental MHD stability limit in the gas-dynamic trap
[DE93-606218] 11 p3591 N93-30780

The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626

Microinstabilities in high-power MPD systems: Preliminary diagnostics
[AD-A265415] 12 p3826 N93-32047

MAGNETOHYDRODYNAMIC TURBULENCE
NT PLASMA TURBULENCE

Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced?
06 p1723 N93-19525

Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-006123] 08 p2491 N93-22052

Thermally driven turbulence and transport in a sheared system
[DE93-006125] 08 p2491 N93-22053

Solar coronal magnetic structure
12 p3852 N93-31676

MAGNETOHYDRODYNAMIC WAVES
NT ELECTROSTATIC WAVES
NT PLASMA WAVES

A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390

Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760

Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761

Ultra-high observations of the prominence-corona transition region 01 p0180 N93-10908

Coronal and solar wind Alfven wave propagation
01 p0180 N93-10909

Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041

Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193

Low-frequency fluctuations of plasma magnetic fields
03 p0717 N93-13496

Interaction of energetic ring current protons with magnetospheric hydromagnetic waves
03 p0718 N93-13750

Resonance absorption of MHD surface waves with applications to the solar atmosphere
04 p1048 N93-14157

Theoretical studies of the physics of the solar atmosphere
[NASA-CR-191357] 04 p1049 N93-15085

A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679

Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973

Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974

Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199

Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673

Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141

Magnetohydrodynamic wave-associated plasma density fluctuations in the Earth's foreshock region
06 p1667 N93-19385

Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588

Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897

Electron acceleration in the magnetosphere
07 p1997 N93-20283

Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697

Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830

Low frequency RF current drive
[DE93-005130] 08 p2260 N93-22421

Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940

Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664

Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752

R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951

Alfven wave transport effects in the time evolution of parallel cosmic-ray modified shocks
[NASA-CR-192932] 09 p2899 N93-25161

Static galactic halo and galactic wind
10 p3198 N93-26862

Collective transport of alpha particles due to Alfven wave instability
[DE93-009578] 11 p3587 N93-29148

Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434

A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394

Coronal heating: The role of resonant absorption
12 p3876 N93-31396

Momentum transport through the chromosphere
12 p3852 N93-31677

Retardation effects and the origin of filament oscillations 12 p3853 N93-31679

Coronal shock waves 12 p3853 N93-31681

Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683

Nonlinear interaction of Alfven waves in solar atmosphere 12 p3860 N93-31724

MAGNETOHYDRODYNAMICS

Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633

Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103

Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas
[AD-A249095] 02 p0451 N93-11275

Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034

Transient phenomena in MHD experiments
[DE92-014496] 02 p0455 N93-12139

The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141

Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416

Advanced high-explosive flux compression generator development: The CN-3 series
[DE92-019962] 03 p0713 N93-12809

Applications of group-invariant analytic solutions to inertial confinement fusion
[DE92-040347] 03 p0715 N93-13047

Low-frequency fluctuations of plasma magnetic fields
03 p0717 N93-13496

Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122

Solar flares: The onset of magnetic reconnection and the structure of radiative slow-mode shocks
04 p1048 N93-14859

Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Theoretical studies of a molecular beam generator
[NASA-CR-191716] 05 p1288 N93-16945
Nonlinear magnetohydrodynamics
[DE93-003241] 06 p1665 N93-18407
A postulational formulation of magnetohydrodynamics
06 p1667 N93-19030
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail
06 p1704 N93-19147
Inexpensive capillary discharge x ray laser driver, phase 1
[AD-A259032] 06 p1542 N93-19372
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions
06 p1722 N93-19522
Interagency Advanced Power Group semi-annual compilation of briefs, September 1992
[DE93-000703] 06 p1571 N93-19613
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897
On the Lagrangian of the linearized MHD equations
[NIFS-154] 06 p1670 N93-19933
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
A review on application of MHD theory to plasma boundary problems in tokamaks
[NIFS-163] 07 p2073 N93-20762
TFTR experimental data analysis collaboration
[DE93-002365] 07 p2075 N93-21483
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Experimental studies of instabilities in radially imploding plasmas
[DE93-003831] 08 p2492 N93-22427
Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
Demonstration for novel self-organization theory by three-dimensional magnetohydrodynamic simulation
[NIFS-212] 09 p2859 N93-25227
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299
Modeling solar coronal streamers
12 p3869 N93-31356
Temperature dependent morphology of untwisted coronal loops 12 p3875 N93-31393
Reconnection in the solar corona
12 p3855 N93-31695
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations 12 p3857 N93-31705
Mirror mode and other compressive ULF modes
12 p3719 N93-31711

MAGNETOHYDROSTATICS
Fast computation of magnetohydrostatic equilibria using Euler potentials and multigrid methods
12 p3877 N93-31401

MAGNETOIONIC PLASMA
U PLASMAS (PHYSICS)

MAGNETOMECHANICS (PHYSICS)
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234

MAGNETOMETERS
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
Characterization of magneto-optical recording media
04 p0979 N93-14140
Development and applications of a new computer-controlled magnetic inspection system
[DE92-040579] 05 p1181 N93-15664
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
Polarization analysis of a balloon-borne solar magnetograph
[NASA-CR-191270] 05 p1167 N93-16458
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Magnetic results 1987-89: Lerwick, Eskadalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-19] 06 p1576 N93-18137
Magnetic results 1990: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-20] 06 p1576 N93-18138
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
International Monitor for Auroral Geomagnetic Effects (IMAGE): A new magnetometer network in Scandinavia
06 p1732 N93-19585
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors
09 p2606 N93-24733
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors
09 p2607 N93-24735
Analysis of magnetometer data/wave signals in the Earth's magnetosphere
[NASA-CR-193169] 10 p3072 N93-27154
TechSAT attitude control 10 p2924 N93-27197
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834
Optimism experiment and development of space-qualified seismometers in France
11 p3646 N93-28796
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer
[AD-A263661] 11 p3324 N93-29391
Low aperture magnetic elements measurements
[DE93-605897] 12 p3814 N93-31088
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

MAGNETOMETRY
U MAGNETIC MEASUREMENT

MAGNETOPAUSE
Magnetic holes near the magnetopause
03 p0653 N93-13491
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions
03 p0657 N93-13793
Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause
06 p1730 N93-19575
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
The solar wind control of reconnection at the dayside magnetopause 08 p2556 N93-23236
Structure and dynamics of the magnetopause
08 p2400 N93-24296
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
Plasma transport through magnetic boundaries
12 p3827 N93-31692
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion?
12 p3855 N93-31693
Exploring the magnetospheric boundary layer
12 p3855 N93-31694
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696
Role of the INTERBALL small scale investigations in the GGS program 12 p3859 N93-31717

MAGNETOPLASMADYNAMICS
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
Scaling of 100 kW class applied-field MPD thrusters
[NASA-CR-190791] 03 p0525 N93-12638
Anode power deposition in applied-field MPD thrusters
[NASA-CR-190790] 03 p0526 N93-13283
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
The MPD thruster program at JPL
06 p1666 N93-18638
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Review of recent work on MPD thrusters at MIT
06 p1666 N93-18641
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
NEP technology: FY 1992 milestones (NASA LeRC)
10 p2983 N93-26977
JPL nuclear electric propulsion task
10 p2983 N93-26980
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981
Thruster models for NEP system analysis
10 p2984 N93-26988
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289
Microinstabilities in high-power MPD systems: Preliminary diagnostics
[AD-A265415] 12 p3826 N93-32047

MAGNETOPLASMAS
U PLASMAS (PHYSICS)

MAGNETORESISTIVITY
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
Ultra-dense magnetoresistive mass memory
[NASA-CR-190955] 02 p0405 N93-12520
Characterization of magneto-optical recording media
04 p0979 N93-14140
A Boltzmann-equation approach to the magnetoresistance of ferromagnetic-normal metallic multilayers
[DE92-041213] 05 p1270 N93-17361
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films
08 p2505 N93-23100
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217

On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098

MAGNETOSHEATH
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Flank solar wind interaction
[NASA-CR-189285] 02 p0489 N93-12303
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
The solar wind control of reconnection at the dayside magnetopause 08 p2556 N93-23236
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
The structure of the dayside boundary layer between the Venus ionosphere and the shocked solar wind 12 p3853 N93-31678
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle 12 p3855 N93-31691

MAGNETOSPHERE-IONOSPHERE COUPLING
Radar studies of high latitude convection flows 03 p0648 N93-12626
A numerical model of ionospheric convection derived from field-alignment currents and the corresponding conductivity
[TRITA-EPP-91-03-REV] 04 p0916 N93-15252
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
Simulation of ionosphere-magnetosphere mesoscale coupling: Letting ionospheric conductivities depend on upward field-aligned currents 06 p1578 N93-18742
The flow of plasma in the solar terrestrial environment
[NASA-CR-192106] 06 p1744 N93-18780
A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945
Formation of auroral arcs via magnetosphere-ionosphere coupling
[AD-A258641] 07 p1998 N93-20363
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials
[NIFS-195] 07 p2073 N93-20764
Latitudinally period-dependent pulsations: A model of the distributed perturbation ionospheric Hall current. The resultant ground field and a study of 3 intervals 08 p2547 N93-23194
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987
A statistical study of field-aligned currents in the Earth's inner magnetosphere 09 p2773 N93-25709
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Laboratory simulation of field-aligned currents
[NASA-CR-193091] 11 p3476 N93-28538
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices 12 p3856 N93-31701
Role of the INTERBALL small scale investigations in the GGS program 12 p3859 N93-31717

MAGNETOSPHERES
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719

MAGNETOSPHERIC ELECTRON DENSITY
Main ionospheric trough: Preliminary results from the 1990 Finnish-French EISCAT campaign 06 p1726 N93-19545

MAGNETOSPHERIC INSTABILITY
Ionospheric response to particle precipitation within aurora
[IRF-SR-208] 02 p0359 N93-11265
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere 02 p0360 N93-11270
Comment on 'EISCAT Radar Observations of Enhanced Incoherent Scatter Spectra and Their Relation to Auroral Luminosity and Field-Aligned Currents' by P. N. Collis et al. 02 p0360 N93-11271
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
On the origin of ion acoustic turbulence in the auroral topside ionosphere 02 p0361 N93-11273
Latitudinally period-dependent pulsations: A model of the distributed perturbation ionospheric Hall current. The resultant ground field and a study of 3 intervals 08 p2547 N93-23194
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698

MAGNETOSPHERIC ION DENSITY
Studies of interactive plasma processes in the polar cusp
[NASA-CR-190892] 02 p0357 N93-10964
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
Imaging the magnetosphere in the extreme ultraviolet
[NASA-CR-192218] 09 p2775 N93-26151
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices 12 p3856 N93-31701

MAGNETOSTATIC FIELDS
Analysis and modeling of the CRRES satellite data
[AD-A254349] 03 p0650 N93-12944
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215

MAGNETOSTATICS
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing
[AD-A254035] 01 p0071 N93-10240
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Applied Computational Electromagnetics Society Journal, volume 7, number 2, winter 1992
[AD-A258483] 06 p1502 N93-18263
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366

MAGNETOSTRICTION
Advanced mechanisms for robotics 02 p0330 N93-11969
Active control of foundation transmissibility using magnetostrictive actuators
[AD-A257135] 05 p1145 N93-16078
Development of magnetostrictive active members for control of space structures
[NASA-CR-190846] 06 p1460 N93-18322
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037
Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141

MAGNETOTAILS
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211

MAGNETOTELLURIC PROFILING
U MAGNETIC SURVEYS

MAGNETRON SPUTTERING
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Thermal analysis of magnetron sputtering designs
[DE93-000348] 04 p0870 N93-15389
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626

MAGNETRONS
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031

MAGNETS
NT ELECTROMAGNETS
NT HIGH FIELD MAGNETS
NT PERMANENT MAGNETS
NT SUPERCONDUCTING MAGNETS
NT WIGGLER MAGNETS
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Experimental investigations of undulator radiation compatability
[ETN-93-92566] 07 p2066 N93-20880
Liquid explosives screening system 07 p1771 N93-21899
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
A variable current bypass shunt for electromagnets
[DE93-004273] 08 p2278 N93-22686
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
Poly-coil design for a 60 tesla quasi-stationary magnet
[DE93-007353] 09 p2688 N93-25313
New technologies for UV detectors 11 p3582 N93-28786
Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019

MAGNIFICATION
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848

MAGNIFIERS
U MAGNIFICATION

MAGNITUDE
NT STELLAR MAGNITUDE
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Evolution of galaxies in compact groups 03 p0750 N93-13148
The correlation between water production rates and visual magnitudes in comets 06 p1709 N93-19181
A new activity index for comets 06 p1699 N93-19261
Ways to improve your correlation functions 10 p3172 N93-26712

MAGNONS
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
Bipolaronic charge density waves, polaronic spin density waves and high T(c) superconductivity
[DE92-017403] 03 p0720 N93-12853
Spin density waves in dilute CuMn alloys
[DE93-001628] 05 p1117 N93-17578
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
High-energy spin-density-wave correlated fluctuations in paramagnetic Cr + 5 at. percent V
[DE93-003165] 07 p1857 N93-21958
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037

MAGNUS EFFECT
A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989

MAIN SEQUENCE STARS
NT DWARF NOVAE
NT DWARF STARS
NT FLARE STARS
NT SUN
Studies of extra-solar Oort Clouds and the Kuiper disk
[NASA-CR-190958] 03 p0769 N93-12669
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects
[NASA-RP-1285] 03 p0744 N93-13461
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
Stability of differentially rotating stars 04 p1018 N93-14584
Spectroscopic and photometric studies of main sequence M stars and a search for late-type dwarfs in the solar vicinity 11 p3629 N93-28608

MAINTAINABILITY
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Maintainability of large gas turbine aero engines
[PNR-90987] 02 p0211 N93-11069
issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Knowledge-intensive software design systems: Can too much knowledge be a burden?
05 p1250 N93-17518
Reliability, Maintainability, and Supportability (RMS) education in engineering schools
[AD-A258260] 06 p1552 N93-18026
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
An analysis of the reliability and maintainability of the Jian 6 and Jian 7 aircraft and ways to improve them
[AD-A261060] 09 p2574 N93-26238
Follow-on operational test and evaluation of the NAVSTAR global positioning system air integration/installation program
[AD-A263067] 10 p2941 N93-27925
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

MAINTENANCE
NT AIRCRAFT MAINTENANCE
NT FILE MAINTENANCE (COMPUTERS)
NT SPACE MAINTENANCE
NT SPACECRAFT MAINTENANCE
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Method and devices for the in situ repair of damaged threads
[AD-D015416] 04 p0891 N93-14881
Annotating the real world with knowledge-based graphics on a see-through head-mounted display
04 p0954 N93-15543
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
A classification procedure for the effective management of changes during the maintenance process
05 p1245 N93-17169
Toward full life cycle control: Adding maintenance measurement to the SEL 05 p1245 N93-17170
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space
05 p1181 N93-17284
Requirements for the implementation of schedule repair technology in the Experiment Scheduling Program
05 p1278 N93-17286
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Developing satellite ground control software through graphical models 05 p1246 N93-17500
Interactive specification acquisition via scenarios: A proposal 05 p1249 N93-17512
RT-Syn: A real-time software system generator
05 p1250 N93-17523
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Study of an adaptive maintenance strategy for logic systems
[ETN-92-92673] 05 p1252 N93-17640
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A258444] 06 p1684 N93-17891
Analysis of a software maintenance system: A case study
[AD-A258469] 06 p1619 N93-18271
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
Automatically calibrating admittances in KATE's autonomous launch operations model
06 p1456 N93-19401
Issues in requirements elicitation
[AD-A258932] 06 p1627 N93-19448
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
Fundamentals of PC operation and maintenance
[PB93-117471] 07 p2029 N93-21453
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
National Aeronautics and Space Administration: Statement of Ralph J. Strnad, Sr., Secretary, Washington Area Metal Trades Council/Chief Steward, Goddard Space Flight Center 07 p2093 N93-21679
Present worth factors for life-cycle cost studies in the Department of Defense
[PB93-120772] 07 p2093 N93-21690
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Integrated FASTBUS, VME and CAMAC diagnostic software at Fermilab
[DE93-004424] 07 p2042 N93-21845
Candidate technologies for the Integrated Health Management Program
[NASA-CR-192520] 08 p2420 N93-22655
Columbus program: Ground staff training simulation
[ETN-93-93694] 08 p2194 N93-23415
Comparison of four-cursor buttons versus joystick to access computerized technical information from an integrated maintenance information system
[AD-A259967] 08 p2526 N93-23462
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
The damage, repair and design of fiber composite structural materials 09 p2635 N93-25532
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
AEGIS measures definition
[AD-A261494] 09 p2812 N93-26375
TCMS operations and maintenance philosophy
[NASA-TM-108756] 09 p2873 N93-26418
A globally gated polling system with server interruptions, and applications to the repairman problem
[CWI-BS-R9208] 10 p3127 N93-27309
A general model for maintenance of complex systems
[CWI-BS-R9201] 10 p3124 N93-27393
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
An analysis of the correlation between the J52 engine component improvement program and improved maintenance parameters
[AD-A262062] 11 p3251 N93-28984
Energy efficient drivepower: An overview
[DE93-012435] 11 p3411 N93-30057
Centralized maintenance evaluation
[AD-A264400] 11 p3544 N93-30886
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992
[PB93-188647] 12 p3700 N93-31334
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545
Research platforms FLIP and ORB support
[AD-A265910] 12 p3771 N93-32320

MAINTENANCE TRAINING
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Human Factors in Aviation Maintenance, phase 2
[DOT/FAA/AM-93/5] 09 p2802 N93-26089
TCMS operations and maintenance philosophy
[NASA-TM-108756] 09 p2873 N93-26418
Investigation of advanced technology for airway facilities maintenance training
[DOT/FAA/CT-TN92/24] 12 p3678 N93-32336

MALAYA
U MALAYSIA

MALAYSIA
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811

MALES
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits
02 p0381 N93-11305
Vascular uptake of rehydration fluids in hypohydrated men at rest and exercise
[NASA-TM-103942] 09 p2795 N93-26133
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894

MALFUNCTIONS
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503

MAMMALS
NT BABOONS
NT DOGS
NT HUMAN BEINGS
NT MICE
NT MONKEYS
NT PRIMATES
NT RATS
NT RODENTS
NT SHEEP
NT SWINE
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018

MAMMARY GLANDS
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568

MAN
U HUMAN BEINGS

MAN ENVIRONMENT INTERACTIONS
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Natural and anthropogenic climate change
[DE93-000898] 05 p1200 N93-16162
Lunar base activities and the lunar environment
05 p1398 N93-17455
Natural and anthropogenic climate change
[DE93-003150] 06 p1573 N93-18393
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Prototype for a regional data management system, a step towards a regional land use project
08 p2353 N93-23571

Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques
08 p2355 N93-23578
The Earth Observing System
08 p2356 N93-23749
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Application of remote sensing data for the investigation of environmental degradation sites in East Germany
09 p2739 N93-24785
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Seventh Annual Information Transfer Meeting. Our Changing Coastal Environment: Research on Natural Processes and Man's Influence
[PB93-173813] 10 p3068 N93-27401
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770

MAN MACHINE SYSTEMS
NT MAN-COMPUTER INTERFACE
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Advanced technology for portable personal visualization
[AD-A253808] 02 p0388 N93-11783
From pilot's associate to satellite controller's associate 02 p0390 N93-11922
Intelligent diagnostics systems
02 p0393 N93-11931
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
The human-electronic crew: Is the team maturing? The 2nd Joint GAF/RAF/USAF Workshop on Human-Electronic Crew Teamwork
[AD-A256192] 04 p0939 N93-14520
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
A voyage to Mars: A challenge to collaboration between man and machines 04 p0777 N93-14614
Compliant walker
[NASA-CASE-GSC-13348-2] 04 p0934 N93-14708
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
A concept for a supervised autonomous robot
04 p0810 N93-14950
A monitoring and control system for complex man-machine systems: Preliminary design
04 p0810 N93-14951
Fuzzy set approach to quality function deployment: An investigation 05 p1274 N93-16779
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
NARSIM and EFMS: Tools for research on integrated ATM
[NLR-TP-89336-U] 06 p1432 N93-17954
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
Cognitive engineering models in space systems
[NASA-CR-192001] 06 p1606 N93-18517
Flight simulator for hypersonic vehicle and a study of NASP handling qualities 06 p1452 N93-19456
Modeling the performance of the human (pilot) interaction in a synthetic flight domain: Information theoretic approach 06 p1612 N93-19465
Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface
[AGARD-CP-521] 06 p1607 N93-19757
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Human factors problems for aircrew-aircraft interfaces: Where should we focus our efforts?
06 p1607 N93-19759
Advanced cockpit-mission and image management
06 p1607 N93-19760
Aircrew acceptance of automation in the cockpit
06 p1608 N93-19761
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
Developing virtual cockpits 06 p1608 N93-19764
Panoramic cockpit displays 06 p1608 N93-19765
A new concept for helmet mounted vision
06 p1609 N93-19767
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Multi-function visor 06 p1609 N93-19770
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft
06 p1610 N93-19772
Multimodal dialog system for future cockpits
06 p1610 N93-19773
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
Management of avionics data in the cockpit
06 p1611 N93-19777
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
The integration of advanced cockpit and systems design 06 p1611 N93-19779
CVA, cockpit design and development tool
06 p1611 N93-19780
Man-machine interface with simulated automatic target recognition systems 06 p1611 N93-19781
The active-matrix LC head-down display (AM-LCD): Operational experience and growth potential
06 p1611 N93-19782
Liquid crystal displays replacing the CRT and CLE of future cockpits 06 p1447 N93-19783
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Cargo vehicle architecture options
08 p2172 N93-22082
The Data Egg: A new solution to text entry barriers
08 p2530 N93-22192
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 5: Human Support
[NASA-TM-108653] 08 p2518 N93-22465
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153
Assured crew return vehicle man-systems integration standards
[NASA-CR-193065] 09 p2614 N93-26329
Man-systems distributed system for Space Station Freedom 10 p2966 N93-27788
EVA and telerobot interaction
10 p2967 N93-27792
Man-systems integration and the man-machine interface 10 p2967 N93-27795
Agent-independent planning 10 p2970 N93-27822
FTS evolution 10 p2970 N93-27824
Extravehicular activity technology discipline
10 p2972 N93-27859
Manned systems technology discipline
10 p2972 N93-27860
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing
11 p3501 N93-28853
A new class of mission support for combat air-crew
11 p3501 N93-28854
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Operator and automation capability analysis: Picking the right team 11 p3503 N93-28864
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack
11 p3503 N93-28867
Computer assisted evaluation for air close combat based on time interval characterization
11 p3504 N93-28868
Overview of cockpit technology research and developrnent programs for improvement of the man/machine interface: Review of the AGARD AVP Symposium held in Madrid, May 1992
11 p3505 N93-28872
Anthropometric data from launch and entry suited test subjects for the design of a recumbent seating system
[NASA-TM-104769] 11 p3505 N93-29044
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
Man-machine cooperation in advanced teleoperation
12 p3784 N93-32106
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109

MAN TENDED FREE FLYERS
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974

MAN-COMPUTER INTERFACE
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
A cognitive approach to the design of information graphics
[AD-A252692] 02 p0474 N93-11353
Direct manipulation and intermittent automation in advanced cockpits
[AD-A253814] 02 p0388 N93-11784
The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11928
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET)
02 p0395 N93-11940
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229
A hybrid approach to software repository retrieval: Blending faceted classification and type signatures
02 p0415 N93-12386
Measures of user-system interface effectiveness: Assessment of structured judgment evaluation techniques for graphical, direct-manipulation style interfaces
[AD-A254493] 03 p0677 N93-12576
Human perceptual deficits as factors in computer interface test and evaluation
[DE92-019124] 03 p0677 N93-12712
Ocular attention-sensing interface system
[NASA-CR-190884] 03 p0678 N93-13450
User interface of DFQL: An object-oriented approach
[AD-A255225] 03 p0687 N93-13835
Formal aspects of human-computer interaction
03 p0679 N93-13909
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
A study of traditional information access models applied in a hypertext information system
03 p0739 N93-14076
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Mapping thoughts: Visual interfaces for information retrieval 04 p1000 N93-14208
Information resource utilisation: Accessibility based on concerns 04 p1001 N93-14216
A distributed visualization environment for engineering sciences
[DE92-012629] 04 p1051 N93-15060

A single-station forecasting model
[AD-A256403] 04 p0924 N93-15331
Proceedings: Graphics Interface 1992
[ISBN-0-9695338-1-0] 04 p0952 N93-15533
Hyper-rendering 04 p0953 N93-15538
Program auralization: Sound enhancements to the programming environment 04 p0953 N93-15539
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
Annotating the real world with knowledge-based graphics on a see-through head-mounted display 04 p0954 N93-15543
Working together, virtually 04 p0954 N93-15547
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing 04 p0954 N93-15549
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse 04 p0955 N93-15551
Designing video annotation and analysis systems 04 p0955 N93-15552
A minimalist global user interface 04 p0957 N93-15566
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567
A linear constraint technology for interactive graphic systems 04 p0957 N93-15568
Transparently interposing user code at the system interface
[AD-A256636] 05 p1233 N93-15907
Questioning mechanisms during tutoring, conversation, and human-computer interaction
[AD-A257214] 05 p1235 N93-16108
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Stratified hypermedia structures for information disclosure
[TR-91-27] 05 p1355 N93-16370
Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Virtual reality systems 05 p1232 N93-16775
A process for prototyping onboard payload displays for Space Station Freedom 05 p1073 N93-17315
Towards automation of user interface design 05 p1248 N93-17510
Description of research interests and current work related to automating software design 05 p1249 N93-17515
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818
NARSIM and EFMS: Tools for research on integrated ATM
[NLR-TP-89336-U] 06 p1432 N93-17954
Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179
Cognitive engineering models in space systems
[NASA-CR-192001] 06 p1606 N93-18517
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
A user interface to a true 3-D display device
[AD-A258995] 06 p1614 N93-18891
The effects of iconic presentation on individuals
[AD-A258785] 06 p1603 N93-18949
HippoDraw
[DE93-004005] 06 p1627 N93-19633
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939
Human-computer interaction in the school of computer science
[AD-A258634] 07 p2028 N93-20001
Management of Automatic Data Processing (ADP) system documentation in the Department of Defense
[AD-A258507] 07 p2088 N93-20048
User interface of complex interactive computer systems
[ECL-92-05] 07 p2030 N93-20059
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
Investigation of cognition acquisition using natural language conversational process
[MBB-FE-315-S-PUB-0498] 08 p2435 N93-22391
Motif, the basics: An overview of the widget set
[DE93-005273] 08 p2436 N93-22720
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU] 08 p2314 N93-23078
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
Architecture for human-computer design, management and coordination in a collaborative AEC environment 08 p2528 N93-24186
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
Prototype PC user interface
[DE93-008008] 09 p2809 N93-25303
TARGET: Rapid capture of process knowledge 09 p2814 N93-25590
Experimenter's laboratory for visualized interactive science 09 p2879 N93-25802
Measures of user-system interface effectiveness: An encoding scheme and indicators for assessing the usability of graphical, direct-manipulation style user interfaces
[AD-A260606] 09 p2801 N93-25840
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
Human computer interface style guide, version 2.0
[AD-A261280] 09 p2807 N93-26291
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
Man-systems distributed system for Space Station Freedom 10 p2966 N93-27788
EVA/manned systems 10 p2966 N93-27789
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Man-systems integration and the man-machine interface 10 p2967 N93-27795
The second Garnet compendium: Collected papers 1990-1992
[AD-A262696] 10 p3102 N93-28118
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
Natural language generation
[AD-A262578] 11 p3524 N93-28579
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
A new class of mission support for combat air-crew 11 p3501 N93-28854
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
A distributed system for visualizing and analyzing multivariate and multidisciplinary data 11 p3613 N93-29226
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Intelligent virtual reality in the setting of fuzzy sets 11 p3513 N93-29544
Software testing using the IEEE standards
[DE93-009833] 11 p3532 N93-30050
Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124
Knowledge-based framework for an automated user interface presentation design tool 12 p3836 N93-31135
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
Accessing Earth science data from the EOS data and information system 12 p3840 N93-31968
System engineering concept demonstration, interface standards studies, volume 4
[AD-A265470] 12 p3791 N93-32024
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Information for the user in design of intelligent systems 12 p3801 N93-32149
Cooperative answers in database systems 12 p3843 N93-32153

MANAGEMENT

NT CONFIGURATION MANAGEMENT
NT CONTRACT MANAGEMENT
NT DATA MANAGEMENT
NT ENGINEERING MANAGEMENT
NT ENVIRONMENT MANAGEMENT
NT FINANCIAL MANAGEMENT
NT FOREST MANAGEMENT
NT INDUSTRIAL MANAGEMENT
NT INFORMATION MANAGEMENT
NT INVENTORY CONTROLS
NT INVENTORY MANAGEMENT
NT LAND MANAGEMENT
NT LOGISTICS MANAGEMENT
NT MATRIX MANAGEMENT
NT PERSONNEL MANAGEMENT
NT PROCUREMENT MANAGEMENT
NT PRODUCTION MANAGEMENT
NT PROJECT MANAGEMENT
NT RECORDS MANAGEMENT
NT RESEARCH MANAGEMENT
NT RESOURCES MANAGEMENT
NT SAFETY MANAGEMENT
NT SYSTEMS MANAGEMENT
NT TOTAL QUALITY MANAGEMENT
NT WATER MANAGEMENT
The status of the Senior Executive Service, 1991
[SES-92-07] 06 p1683 N93-18439
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present 06 p1425 N93-19673
National Airspace System: Air traffic control and airspace management operational concept NAS-SR-132
[DOT/FAA/SE-92/5] 07 p1779 N93-20164

MANAGEMENT ANALYSIS

GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823

MANAGEMENT INFORMATION SYSTEMS

Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Managing data: From vision to reality
[PB92-191212] 02 p0474 N93-11215
Analysis of methods --- information systems evolution environment
[NASA-CR-190278] 02 p0407 N93-11368
An iconic query interface for an image database
[AD-A253571] 02 p0475 N93-11506
Engineering Information System (EIS)
[AD-A254013] 02 p0476 N93-11508
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Intelligent diagnostics systems 02 p0393 N93-11931
Principles of information resource management: A foundation for the future
[AD-A254447] 03 p0733 N93-12597
Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 1
[NASA-CP-3165-VOL-1] 03 p0736 N93-13131

Engineering data transfer test with EDMICS using MIL-R-28002 (Raster)
[DE92-019808] 03 p0738 N93-13619
Information for management, planning, and decision-making in nonprofit organizations: Toward a comprehensive model 04 p1000 N93-14209
Geographic Resources Analysis Support System (GRASS) version 4.0 user's reference manual
[AD-A255218] 04 p1001 N93-14524
Vendor Information System (VIS) systems manual
[AD-A256174] 04 p1002 N93-14650
Proceedings of the NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications
[NASA-TM-107989] 04 p1004 N93-15027
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
Information engineering and the information engineering facility versus rapid application development and focus
[AD-A257297] 05 p1350 N93-15895
A Relational/Object-Oriented Database Management System: R/OODBMS
[AD-A257339] 05 p1351 N93-15993
Department of Defense Directive (DODD) 8000.1 defense Information Management (IM) program
[AD-A256988] 05 p1353 N93-16259
Development of vendor evaluation criteria and post-implementation considerations for MSFC center-wide executive information system 05 p1345 N93-17316
Economic analysis of redesign alternatives for the RESFMS information system
[AD-A257475] 05 p1356 N93-17661
Software development with application generators: The Naval Aviation Logistics Command Management Information System Case
[AD-A257624] 05 p1357 N93-17768
A model for security and distribution of management information systems
[ETN-93-93029] 06 p1685 N93-18107
Data management: Implementation and lessons learned from Department of the Army data management program
[AD-A257858] 06 p1686 N93-18307
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
Corporate information management and business process improvement under the unit cost program: An analysis of a system for the Air Force Institute of Technology
[AD-A258984] 06 p1687 N93-19098
Network management, status, and directions
[DE93-004003] 06 p1630 N93-19510
Towards an integrated approach to proactive monitoring and accident prevention 06 p1429 N93-19700
The AGARD tip research agenda for Scientific and Technical Information (STI) 06 p1692 N93-19800
Management of Automatic Data Processing (ADP) system documentation in the Department of Defense
[AD-A258507] 07 p2088 N93-20048
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
Universal Index System 08 p2530 N93-22152
Methods and means used in programming intelligent searches of technical documents
08 p2530 N93-22155
An integrated information retrieval and document management system 08 p2530 N93-22156
US Geological Survey library classification system
[PB93-129708] 08 p2525 N93-23256
Public libraries in the US, 1990
[PB93-127926] 08 p2525 N93-23285
Executive summary of information systems plans: Fiscal years 1994 to 1998
[PB93-146330] 08 p2527 N93-23646
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
Information systems strategies for public financial management
[PB93-186948] 12 p3842 N93-32167
Knowledge based document retrieval in office environments: The Kabiria system
[REPT-92-032] 12 p3843 N93-32389

MANAGEMENT METHODS
NT DELPHI METHOD (FORECASTING)
NT PATTERN METHOD (FORECASTING)
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Distributed database integrity
[AD-A253272] 02 p0477 N93-11749
DOE guideline: Guide to good practices for incorporating operating experiences
[DE92-017684] 02 p0472 N93-12223
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937
Research and technology in support of IAM
03 p0515 N93-13562
Performance measurement for information systems: Industry perspectives
[NASA-CR-191369] 03 p0738 N93-13737
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
Total quality management: Strengths and barriers to implementation and cultural adaptation
05 p1182 N93-16788
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Data management: Implementation and lessons learned from the Department of the Army data management program
[AD-A258796] 06 p1687 N93-19063
Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Airline quality issues 1992: Proceedings of the International Forum on Airline Quality
[NIAR-92-10] 07 p1764 N93-21561
You want it when: A TQM guide to customer service
[PB93-154540] 08 p2520 N93-23446
Total quality implementation guide
[PB93-154524] 08 p2520 N93-23447
Total Quality Management: Good enough for government work
[AD-A259847] 08 p2520 N93-23954
Implementing total quality management (TQM) 1: The command imperative
[AD-A259885] 08 p2520 N93-23981
Organizational politics, participation in decision-making, and job satisfaction
[DOT/FAA/AM-92/17] 09 p2796 N93-25203
Procedural justice, occupational identification, and organizational commitment
[DOT/FAA/AM-92/21] 09 p2872 N93-25204
Design of a cooperative problem-solving system for enroute flight planning: An empirical study of its use by airline dispatchers
[NASA-CR-192709] 09 p2585 N93-25330
Department of Energy: Better information resources management needed to accomplish missions. Report to the Secretary of Energy
[GAO/IMTEC-92-53] 09 p2882 N93-26096
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
NTP comparison process 10 p2978 N93-26926
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056
Lotosphere, an attempt towards a design culture
[MEMO-INF-92-56] 10 p3163 N93-27490
Application of quality function deployment to the design of a lithium battery
[DE93-008346] 10 p3033 N93-28459
Performance measurement systems: A best practices study
[AD-A262180] 11 p3506 N93-29444
The management of change: Implications for the information professional 12 p3838 N93-31222
NASA Engineering and Technology Advancement Office: A proposal to the administrator
[NASA-TM-109229] 12 p3685 N93-31312
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545
Strategic management: Managing change by managing participation
[AD-A265796] 12 p3834 N93-32311

MANAGEMENT PLANNING
NT PRODUCTION PLANNING
NT PROJECT PLANNING
Total Quality Management (TQM) concepts applied to instruction
[DE92-013399] 01 p0171 N93-10270
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Airport stand assignment model
[TT-9104] 02 p0218 N93-11728
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Coordinating Council. Seventh Meeting: Acquisitions
[NASA-TM-108020] 03 p0733 N93-12636
Coordinating Council. Third Meeting: STI Strategic Plans
[NASA-TM-108016] 03 p0733 N93-12670
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
The real world and lunar base activation scenarios
03 p0680 N93-14014
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522
TQM in a test environment 04 p0823 N93-15620
Total quality management: Strengths and barriers to implementation and cultural adaptation
05 p1182 N93-16788
The future of management: The NASA paradigm
05 p1350 N93-16859
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
Report to Congress: Long-term availability of adequate airport system capacity
[AD-A258209] 06 p1432 N93-18202
Paradigm shift: Can TQM save DOD's procurement process?
[AD-A258319] 06 p1552 N93-18253
Metrication report to the Congress
[NASA-TM-108600] 06 p1499 N93-18281
The obstacles encountered in the development of SMMS: A case study
[AD-A257880] 06 p1686 N93-18337
Data management plan for the Oak Ridge Environmental Information System, Version 1.1
[DE92-041219] 06 p1687 N93-18526
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
Global planning of several plants
06 p1635 N93-18667
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
O-Plan2: The open planning architecture
06 p1637 N93-18678

Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Data management: Implementation and lessons learned from the Department of the Army data management program
[AD-A258796] 06 p1687 N93-19063
Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083
Process engineering with the evolutionary spiral process model, version 01.00.01
[AD-A258966] 06 p1625 N93-19085
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
Program manager: Journal of the Defense Systems Management College, volume 21, number 6, November-December 1992
[AD-A258766] 06 p1553 N93-19870
Wright Laboratory research and development facilities handbook
[AD-A258746] 07 p2085 N93-20403
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 6: Controls and guidance
[NASA-TM-108654] 07 p2085 N93-20774
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Space human factors discipline science plan
[NASA-TM-108023] 07 p2026 N93-21370
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Consortium for materials development in space interaction with Space Station Freedom
08 p2192 N93-22650
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671
Summary of activities of the Life Cycle Costing Workshop conducted by the Environmental Restoration Program of Oak Ridge National Laboratory
[DE93-000823] 08 p2531 N93-22935
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM)
[NASA-CR-192656] 08 p2152 N93-23033
NASA reports 08 p2154 N93-23163
Total quality implementation guide
[PB93-154524] 08 p2520 N93-23447
Executive summary of information systems plans: Fiscal years 1994 to 1998
[PB93-146330] 08 p2527 N93-23646
Human Factors Issues in Aircraft Maintenance and Inspection. Science, technology, and management: A program review
[PB93-146975] 08 p2427 N93-23647
Total Quality Management: Good enough for government work
[AD-A259847] 08 p2520 N93-23954
Implementing total quality management (TQM) 1: The command imperative
[AD-A259885] 08 p2520 N93-23981
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
Improving performance through concept formation and conceptual clustering
[NASA-CR-192726] 09 p2828 N93-25262
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
An environmental audit management plan for the Royal Australian Air Force
[AD-A261092] 09 p2765 N93-25765
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
Knowledge-based decision support for Space Station assembly sequence planning
[NASA-CR-193048] 09 p2599 N93-26095
Department of Energy: Better information resources management needed to accomplish missions. Report to the Secretary of Energy
[GAO/IMTEC-92-53] 09 p2882 N93-26096
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Observations on the NASA Propagation Program
09 p2685 N93-26482
Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257
Local search in physical distribution management
[MEMO-COSOR-92-30] 10 p3163 N93-27384
An engineer/constructor's view of lunar resource development 10 p3211 N93-27960
Repository-Based Software Engineering Program: Working Program Management Plan
[NASA-CR-193113] 10 p3104 N93-28319
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770
The 1991-1992 aviation system capacity plan
[AD-A263436] 11 p3261 N93-29788
The 1992 town meetings: Toward a shared vision
[NASA-NP-205] 11 p3608 N93-30134
The NCAT process 11 p3626 N93-30697
Technology transfer 11 p3627 N93-30707
Technology transfer within the government
11 p3627 N93-30709
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Planning and progress of EPA's pollution prevention research program
[PB93-185767] 11 p3475 N93-30831
NASA Engineering and Technology Advancement Office: A proposal to the administrator
[NASA-TM-109229] 12 p3685 N93-31312
Strategic management: Managing change by managing participation
[AD-A265796] 12 p3834 N93-32311

MANAGEMENT SYSTEMS
NT FLIGHT MANAGEMENT SYSTEMS
NT MANAGEMENT INFORMATION SYSTEMS
Quality management of finite element analysis
[PNR-90951] 02 p0331 N93-11110
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
Performance measurement for information systems: Industry perspectives
[NASA-CR-191369] 03 p0738 N93-13737
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
Space Station Freedom data management system growth and evolution report
[NASA-TM-103869] 04 p0816 N93-15477
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
TMN: Introduction and interpretation
[MEMO-INF-92-40] 05 p1140 N93-16592
Study of port of FRAMES artificial intelligence system
[NASA-CR-192449] 05 p1261 N93-16740
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Parallel processing for scientific computations
[NASA-CR-191910] 05 p1256 N93-17028
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
Data modelization for manufacturing planning and scheduling: Aggregation and disaggregation mechanisms
[LAAS-92263] 06 p1682 N93-17813
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
Time management situation assessment (TMSA)
06 p1639 N93-18692
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
Needs assessment final report
06 p1682 N93-19406
Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161
Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315
Enforcement in the 1990's project: Recommendations of the analytical workgroups
[PB92-224286] 07 p1991 N93-21466
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
The Cheetah data management system
[DE93-004010] 07 p2092 N93-21973
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
On-board fault management for autonomous spacecraft 08 p2140 N93-22255
Advanced air traffic management
08 p2107 N93-22571
Precursor Space Station Freedom experiments
08 p2188 N93-22632
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM)
[NASA-CR-192656] 08 p2152 N93-23033
Executive summary of information systems plans: Fiscal years 1994 to 1998
[PB93-146330] 08 p2527 N93-23646
A version and configuration model for software evolution
[AD-A260557] 08 p2441 N93-24283
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Systems engineering for very large systems
09 p2665 N93-24680
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
Task 2A: UNIS requirements and concepts
[MCR-92-5006-PT-A] 09 p2610 N93-26180
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
SNTP propellant management system
10 p2979 N93-26937
Power management and distribution technology
10 p2983 N93-26978
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257
Lotosphere, an attempt towards a design culture
[MEMO-INF-92-56] 10 p3163 N93-27490
Technology for Space Station evolution: The data management system 10 p2963 N93-27705
Embedded multiprocessor technology for VHSIC insertion 10 p2964 N93-27713
Fluid Management System (FMS) fluid systems overview 10 p2967 N93-27796
Automation of Space Station module power management and distribution system
10 p2969 N93-27816
Advanced interface heat exchangers for the Space Station main thermal bus 10 p2971 N93-27844
Data management system technology discipline
10 p2972 N93-27857
Fluid management system technology discipline
10 p2973 N93-27861
Some problems with the design of self-learning management systems 11 p3516 N93-29559
Design of biomass management systems and components for closed loop life support systems
11 p3230 N93-29728
Measurements over distributed high performance computing and storage systems
11 p3622 N93-30476
Strategic management: Managing change by managing participation
[AD-A265796] 12 p3834 N93-32311

MANDRELS
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145

MANEUVERABILITY
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle
[AD-A247261] 02 p0208 N93-12053
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Motion simulation of underwater vehicles
[VTT-PUBS-97] 06 p1623 N93-18698
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208

Dynamic airfoil stall investigations
10 p2935 N93-27453
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

MANEUVERABLE REENTRY BODIES
NT LIFTING REENTRY VEHICLES
Maneuvering a reentry body via magneto-gasdynamic forces
09 p2615 N93-25207

MANEUVERABLE SPACECRAFT
NT AEROSPACE PLANES
NT RENDEZVOUS SPACECRAFT
NT X-30 VEHICLE

MANEUVERS
NT AIRCRAFT MANEUVERS
NT EARTH ORBITAL RENDEZVOUS
NT EVASIVE ACTIONS
NT HOVERING
NT ORBITAL MANEUVERS
NT ORBITAL RENDEZVOUS
NT SIDESLIP
NT SPACECRAFT DOCKING
NT SPACECRAFT MANEUVERS
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
An investigation of a prototype OASYS effectiveness in maneuvering flight
[AD-A257901] 06 p1439 N93-18339
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
Entry Systems Panel 08 p2175 N93-22097
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
A simplified dynamic game model for anti-missile defense scenarios
10 p2925 N93-27206

MANGANESE
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750

MANGANESE ALLOYS
NT MANGANIN (TRADEMARK)
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
The influence of microgravity on the microstructure and properties of eutectics. phase 2
[CTN-93-60627] 05 p1131 N93-16427
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
Spin density waves in dilute CuMn alloys
[DE93-001628] 05 p1117 N93-17578
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
The magnetism of metallic manganese alloys
[DE93-005153] 08 p2233 N93-24037

MANGANESE COMPOUNDS
NT MANGANESE OXIDES
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974

MANGANESE OXIDES
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750

MANGANIN (TRADEMARK)
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587

MANIFOLDS (MATHEMATICS)
NT RIEMANN MANIFOLD
The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412
Physically-based methods for polygonization of implicit surfaces
04 p0956 N93-15562
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
The Lagrangian approach to stochastic variational principles on curved manifolds
[PREPRINT-825] 05 p1277 N93-17221
Global stabilization of linear analytic systems
[RR-403] 07 p2051 N93-20738
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems
[NASA-CR-4503] 08 p2466 N93-22672
Symmetries and motions in manifolds
[NIKHEF-H/92-08] 10 p3128 N93-27510
Topology of hybrid objects
[ETN-93-93594] 11 p3546 N93-28466
A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783
Abelian gauge theories on homogeneous spaces
[DE92-644730] 11 p3607 N93-30921
Topology and statistics in zero dimensions
[DE93-604080] 11 p3607 N93-30932
Equivariant elliptic homology
[DE92-641338] 11 p3557 N93-30981
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
On global bifurcations caused by the unfolding of a homoclinic orbit
[W-9221] 12 p3806 N93-31524
Lie bialgebras with triangular decomposition
[DE93-604232] 12 p3808 N93-31820

MANIPULATION
U MANIPULATORS

MANIPULATORS
NT REMOTE MANIPULATOR SYSTEM
Dynamics of an orbiting flexible manipulator
01 p0054 N93-10519
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions
01 p0066 N93-10575
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices
01 p0066 N93-10577
Numerical analysis of right-half plane zeros for a single-link manipulator
[NASA-CR-190966] 02 p0426 N93-11547
Research on a reconfigurable modular manipulator system
[DE92-018943] 02 p0327 N93-11865
Fuzzy logic control of telerobot manipulators
02 p0399 N93-11959
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970
Self mobile space manipulator project
02 p0331 N93-11973
Research and development at ORNL/CESAR towards cooperating robotic systems for hazardous environments
02 p0331 N93-11979
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
A fundamental study of the effect of gravity on the static and dynamic behavior of robots
03 p0610 N93-12760
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
Manipulation strategies for massive space payloads
[NASA-CR-190844] 03 p0611 N93-12952
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
Optimal coordination of robotic systems with redundancy 03 p0693 N93-13336
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment
03 p0614 N93-13452
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Nonholonomic motion of free-flying space robots
03 p0615 N93-13638
Force-closure grasping with two hands
03 p0616 N93-13742
A unified approach to the analysis and design of manipulator systems with environmental contact
03 p0573 N93-13805
Experiments in two-cooperating-arm manipulation from a platform with unknown motion
03 p0617 N93-13931
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Near-minimum-time control of a flexible arm
03 p0695 N93-14039
Position and force control of flexible and rigid manipulators using the sliding-mode technique
03 p0695 N93-14065
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
A collision avoidance algorithm for the mobile robot and the robot manipulator in multi-robot system
03 p0618 N93-14094
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
Manipulation strategies for redundant manipulators
04 p0960 N93-14203
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Force and position control of robot manipulators: Learning and repetitive control approach
04 p0888 N93-14473
Model reduction of flexible manipulators
[AD-A255251] 04 p0889 N93-14528
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Dynamics and control of a rigid/flexible manipulator
04 p0890 N93-14684
Optimal and robust control of robot manipulators
04 p0890 N93-14685
Position and vibration control of flexible space robots
04 p0892 N93-15102
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
Robot learning of contact tasks
[F-3-2] 04 p0949 N93-15303
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
Path planning for assembly of strut-based structures
[NASA-CR-191874] 05 p1260 N93-16622
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
The M68HC11 gripper controller software
[NASA-CR-191873] 05 p1241 N93-16674

A Petri net controller for distributed hierarchical systems
[NASA-CR-191862] 05 p1276 N93-16675
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators
[NASA-CR-191852] 05 p1261 N93-16708
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU] 05 p1261 N93-17275
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Predesign of a simulator for inverse robot kinematics
[NLR-TP-91098-U] 05 p1180 N93-17583
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms 06 p1465 N93-18839
Adaptive control of robotic manipulators 06 p1640 N93-19031
Computational kinematics of multi-arm manipulators 06 p1549 N93-19033
Voice control of a dual-arm telerobot 06 p1549 N93-19044
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
Teleprogramming: Remote site robot task execution 06 p1641 N93-19046
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Kinematic analysis of the ARID manipulator 06 p1552 N93-19393
Calibration of the ARID robot 06 p1552 N93-19394
ARID relative calibration experimental data and analysis 06 p1552 N93-19395
Nonlinear robust controller design for multi-robot systems with unknown payloads 06 p1552 N93-19462
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle 06 p1552 N93-19463
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
Modelling of multi-link spatial flexible manipulators employing the finite element method 07 p1941 N93-20707
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Comparison of the efficiency of the various methods for rigid-body displacement analyses 07 p1941 N93-20709
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Modelling robot trajectory errors using time series 07 p1942 N93-20716
Structural shape optimization of robotic links 07 p1918 N93-20717
Polynomial solution of the direct geometric problem of a parallel spherical manipulator 07 p1918 N93-20718
Linear passive impedance 07 p1943 N93-20719
Grasp admittance center. A concept 07 p1918 N93-20720
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
Lecture materials for the CTOS/MCS introductory course
[NASA-CR-192734] 07 p2048 N93-21308
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
Autonomous pre-alignment of a docking mechanism 07 p1814 N93-21418
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
Autonomous prealignment of a docking mechanism 08 p2137 N93-22238
Path planning for manipulators
[DE93-004050] 08 p2457 N93-22756
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology
[DE93-003602] 08 p2279 N93-22819
Adaptive control of a flexible manipulator 08 p2458 N93-23201
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
Modeling and control of flexible manipulators 08 p2318 N93-24182
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Probabilistic analysis of manipulation tasks: A research agenda
[DE93-000713] 09 p2827 N93-25103
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
A control structure for fault-tolerant operation of robotic manipulators
[DE93-005783] 09 p2717 N93-25413
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
The induction of elastic fine motion in robotic grasps 09 p2718 N93-25727
Modeling of a full vision system using combined Visual/Haptic search for remote object identification
[AD-A260977] 09 p2801 N93-25867
Parametric motion control of robotic arms: A biologically based approach using neural networks 09 p2822 N93-25964
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
Flight telerobotic servicer 10 p2970 N93-27820
Extended task space control for robotic manipulators
[NASA-CASE-NPO-18902-1-CU] 10 p3052 N93-28129
Parallel manipulators. Part 5: Determination of the workspace for a constant orientation
[INRIA-RR-1645] 10 p3053 N93-28439
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
A closed-form formula for the manipulator regressor 11 p3355 N93-30218
An information theoretic approach to stochastic adaptive control application to manipulators with active inertia 11 p3359 N93-30247
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
A testbed for autonomous reflexive grasping
[AD-A264557] 11 p3446 N93-30384
Drive-reinforcement learning system applications
[AD-A264514] 11 p3446 N93-30404
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick 11 p3291 N93-30953
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103
Man-machine cooperation in advanced teleoperation 12 p3784 N93-32106
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development 12 p3784 N93-32112
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
Constrained motion models for insertion/extraction operations applied to the Hermes robot arm: A feasibility study
[NLR-TP-91485-U] 12 p3736 N93-32204
Modified dynamics modelling for maneuvering flexible space manipulators
[NLR-TP-91280-U] 12 p3737 N93-32333
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373

MANITOBA

The technology advantage: A guide to science, technology, and innovation in Manitoba
[CTN-92-60571] 01 p0192 N93-10654
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655

MANNED MANEUVERING UNITS

MMU applications for automated rendezvous and capture 07 p1817 N93-21438
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
A navigation and control system for an autonomous rescue vehicle in the space station environment 08 p2146 N93-22289

MANNED MARS MISSIONS

A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary
[NASA-CR-184473] 02 p0227 N93-12442
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
A voyage to Mars: A challenge to collaboration between man and machines 04 p0777 N93-14614
Mission and technology assessment of human exploration to the Moon and Mars 04 p0809 N93-14944
Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Nuclear safety for the space exploration initiative
[NASA-CR-189180] 06 p1659 N93-18032
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048

Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
Space transfer concepts and analysis for exploration missions
[NASA-CR-192482] 08 p2178 N93-22705
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Power management and distribution technology 10 p2983 N93-26978
Radiator technology 10 p2983 N93-26979
JPL nuclear electric propulsion task 10 p2983 N93-26980
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985
The 1990/1991 project summaries 11 p3229 N93-29725
Mars integrated transportation system multistage Mars mission 11 p3232 N93-29741
Single-stage Mars mission 11 p3232 N93-29742
Mars habitat 11 p3233 N93-29747
NASA's progress in nuclear electric propulsion technology
[NASA-TM-106272] 12 p3698 N93-31858

MANNED ORBITAL LABORATORIES
NT SKYLAB 1
NT SPACELAB
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
The European astronauts training programme 08 p2156 N93-24346
Training facilities at the Crew Training Complex 08 p2156 N93-24347
The strategic role of automation and robotics for Columbus utilization 08 p2164 N93-24389
Columbus automation testbed: A tool for users 08 p2164 N93-24390

MANNED ORBITAL SPACE STATIONS
U SPACE STATIONS

MANNED REENTRY
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Anthropometric data from launch and entry suited test subjects for the design of a recumbent seating system
[NASA-TM-104769] 11 p3505 N93-29044

MANNED SPACE FLIGHT
NT APOLLO 17 FLIGHT
NT MANNED REENTRY
NT SPACE SHUTTLE MISSION 51-L
NT SPACE SHUTTLE MISSIONS
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
JPRS report: Science and technology. Central Eurasia: Space. Development of Soviet spacecraft for manned missions
[JPRS-USP-92-003] 02 p0224 N93-11162
Physiologically constrained aerocapture for manned Mars missions
[NASA-TM-103954] 03 p0521 N93-12720
Fully energy-dependent HZETRN (a galactic cosmic-ray transport code)
[NASA-TP-3243] 03 p0771 N93-13020
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-006] 03 p0508 N93-13151
Introduction to the International Asteroid Mission 03 p0513 N93-13549
Asteroid search program 03 p0514 N93-13550
Conceptual design of a human piloted mining mission 03 p0514 N93-13552
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326
Study on environment control and life support technology 07 p1789 N93-20413
Future space transportation systems. Part 1: Safety aspects. Part 2: Technical aspects
[MBB-UK-0180-90-PUB-PT-1-2] 07 p1821 N93-20847
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
New approach to the interaction of cosmic rays with nuclei in spacecraft shielding and the human body
[DE93-006263] 08 p2559 N93-22544
French Mir missions 08 p2156 N93-24348
Mir '92 project 08 p2157 N93-24350
Systems engineering and integration and management for manned space flight programs 09 p2666 N93-24684
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
Evolving EVA system capability for the evolving Space Station Freedom requirements 10 p2966 N93-27791
Simplified Aid For Crew Rescue (SAFR) 10 p2967 N93-27793
Manned systems technology discipline 10 p2972 N93-27860
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063
Technology transfer from the viewpoint of a NASA prime contractor 11 p3626 N93-30701

MANNED SPACECRAFT
NT AEROSPACE PLANES
NT ATLANTIS (ORBITER)
NT AURORA 7
NT BURAN SPACE SHUTTLE
NT CHALLENGER (ORBITER)
NT COLUMBIA (ORBITER)
NT COLUMBUS SPACE STATION
NT DISCOVERY (ORBITER)
NT ENDEAVOUR (ORBITER)
NT HERMES MANNED SPACEPLANE
NT LUNAR MODULE
NT MAN TENDED FREE FLYERS
NT MANNED ORBITAL LABORATORIES
NT MIR SPACE STATION
NT ORBITAL WORKSHOPS
NT SALYUT SPACE STATION
NT SKYLAB 1
NT SOYUZ SPACECRAFT
NT SPACE SHUTTLE ORBITERS
NT SPACE SHUTTLES
NT SPACELAB
NT X-30 VEHICLE
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary
[NASA-CR-184473] 02 p0227 N93-12442
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Manned testing in a simulated space environment 04 p0820 N93-15602
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Research on advanced spacecraft 07 p1789 N93-20411
Manned versus unmanned rendezvous and capture 08 p2137 N93-22234
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
EVA/manned systems 10 p2966 N93-27789
Manned systems technology discipline 10 p2972 N93-27860
Manned engineering test satellites 10 p2948 N93-28016
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Conceptual study of manned lunar transportation system 10 p2951 N93-28030
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover 10 p2951 N93-28032
Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736
Spacely's rockets: Personnel launch system/family of heavy lift launch vehicles 11 p3234 N93-29752
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881

MANPOWER
NT ENGINEERS
NT SCIENTISTS
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

MANTLE (EARTH STRUCTURE)
U EARTH MANTLE

MANUAL
Fundamentals of PC operation and maintenance
[PB93-117471] 07 p2029 N93-21453

MANUAL CONTROL
NT VISUAL CONTROL
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021
Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
Manned versus unmanned rendezvous and capture 08 p2137 N93-22234
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU] 08 p2314 N93-23078
Orbiter Autoland reliability analysis
[NASA-TM-4464] 08 p2194 N93-23139
An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
Handedness and motor programming effects of manual control and movement
[AD-A264022] 11 p3499 N93-30027
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100

MANUALS
NT INSTALLATION MANUALS
NT USER MANUALS (COMPUTER PROGRAMS)
Probability forecasting: A guide for forecasters and staff weather officers
[AD-A254216] 01 p0126 N93-10264
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Directory interchange format manual, version 4.0
[NASA-TM-107991] 02 p0478 N93-11911
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
Ultrashort-pulse laser system: Theory of operation and operating procedures
[AD-A257023] 04 p0887 N93-15472
User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel
[NASA-TM-105626] 04 p0804 N93-15498
Flight dynamics system software development environment (FDS/SDE) tutorial
[NASA-TM-108580] 04 p0952 N93-15502
User's guide for the longitudinal scalogram analysis program
[AD-A256817] 05 p1232 N93-15682
Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429
Advanced imaging system
[NASA-CR-191800] 05 p1303 N93-16712
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609

Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
Video animation system operators manual
[DE93-007425] 08 p2435 N93-22533
Technical report writing
[NASA-TM-105419] 08 p2523 N93-23002
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Writer's guide for technical procedures
[DE93-007746] 08 p2529 N93-24573
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990)
09 p2665 N93-24679
NASA Lewis 8- by 6-foot supersonic wind tunnel user manual
[NASA-TM-105771] 09 p2597 N93-25080
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support
09 p2815 N93-26075
Arc Digital Raster Imagery (ADRI) development
[AD-A261850] 09 p2812 N93-26275
Guide for conducting convective windstorm surveys
[PB93-148427] 09 p2787 N93-26570
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
Programmer's reference guide to FDMS file formats
[PB93-182038] 11 p3354 N93-29663
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200
Manual for data administration
[PB93-182053] 12 p3834 N93-31431
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

MANUFACTURING
NT COMPUTER AIDED MANUFACTURING
NT LOW GRAVITY MANUFACTURING
NT SPACE MANUFACTURING
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
Processing of ceramic matrix composites
[PNR-90914] 02 p0263 N93-11018
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
Silicon carbide matrix composites
[REPT-921-430-103] 02 p0239 N93-11588
Aerospatiale processes for three dimensional preforms
[REPT-921-430-147] 02 p0239 N93-11590
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF)
[NASA-TM-108382] 03 p0526 N93-13429
Scientists, engineers, and technicians in manufacturing industries: 1989. Detailed statistical tables
[NSF-92-312] 03 p0730 N93-13437
Cost analysis methodology: Photovoltaic Manufacturing Technology Project
[DE92-016441] 03 p0639 N93-13528
An update of ERC's carbonate fuel cell development program
[DE92-019971] 03 p0640 N93-13621
Considerations for the transition from fuel cell R/D to manufacturing
[DE92-019977] 03 p0640 N93-13622
Optimum design of aircraft structures with manufacturing and buckling constraints 03 p0501 N93-13815
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
SETA support for the DARPA microelectronics technology insertion program of the Microelectronics Technology Office
[AD-A255551] 04 p0866 N93-14555
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
Flow behavior in liquid molding 04 p0833 N93-14747
Advances in 3-dimensional braiding 04 p0833 N93-14748
In-situ lunar oxygen extraction 04 p0806 N93-14929
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473
High performance titanium plate fin heat exchanger using a novel manufacturing process
[PNR-90933] 04 p0880 N93-15488
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
Fingerprinting of Materials
[NASA-CR-184482] 05 p1199 N93-15916
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus industry
[LR-677] 05 p1061 N93-16283
Recent developments of carbon fiber in Japan
[MTL-TR-92-48] 05 p1098 N93-16591
Development of a commercial photovoltaic concentrator module
[DE93-002594] 05 p1196 N93-16655
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Manufacturing and fabrication, part 3 --- extraterrestrial resources 05 p1382 N93-16898
Glass and ceramics --- lunar resources 05 p1383 N93-16900
Cement and concrete 05 p1383 N93-16901
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Evaluation and recommendations for work group integration within the Materials and Processes Lab 05 p1341 N93-17293
Manufacturing and inspection of artificial delaminations in composite materials
[NLR-TP-91085-U] 05 p1099 N93-17582
Preliminary investigation into the development of hardening devices using vacuum microelectronic technology
[AD-A258009] 05 p1152 N93-17750
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Data modelization for manufacturing planning and scheduling: Aggregation and disaggregation mechanisms
[LAAS-92263] 06 p1682 N93-17813
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Method of preparing a diamond-abrasive mixture
[AD-A258228] 06 p1492 N93-18123
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Method of processing composites on a latex base (Description of an invention for an author's certificate)
[AD-A258455] 06 p1478 N93-18423
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Method and apparatus for three dimensional braiding
[NASA-CASE-LAR-14047-1] 06 p1500 N93-19038
Measurement process error determination and control
[DE93-002948] 06 p1553 N93-19753
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview
06 p1443 N93-19906
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Review on Schottky barrier diode development
07 p1798 N93-20464
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
Development of radiation resistant HCMOSIC
07 p1798 N93-20467
Development of 10 k gate-gate array
07 p1799 N93-20472
Review on radiation resistant 32 bit MPU
07 p1799 N93-20474
Survey and review on adhesives
07 p1799 N93-20475
Research on large capacity Ni-Cd batteries
07 p1799 N93-20476
Establishment of high density installation technology
07 p1800 N93-20478
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Development of cure cycles: From laboratory analysis and testing to production of large scale composites
[MBB-Z-0442-92-PUB] 07 p1833 N93-20845
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept
07 p1803 N93-21078
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Fiber development in Japan 07 p1834 N93-21130
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
Thermoplastic tape winding parameters
07 p1835 N93-21135
Production of highly integrated FRP parts in the braiding technology 07 p1835 N93-21136
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials
07 p1836 N93-21141
New types of textile fabrics for fibre composites
07 p1836 N93-21142
Predesign of the tubular braiding process using a mathematical process description
07 p1836 N93-21143
The total quality approach in the development of technical textiles 07 p1838 N93-21156
ASRM process development in aqueous cleaning
[NASA-CR-191949] 07 p1829 N93-21355
An overview of autonomous rendezvous and docking system technology development
07 p1816 N93-21431
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
National Launch System: Structures and materials
08 p2172 N93-22083

Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100
Thermal protection systems for space transportation vehicles 08 p2177 N93-22113
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping 08 p2259 N93-22174
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
Printed wiring assembly cleanliness [DE93-006040] 08 p2277 N93-22524
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects [DE93-002347] 08 p2384 N93-22972
Statistical process control program at a ceramics vendor facility [DE93-006043] 08 p2238 N93-23025
The Photovoltaic Manufacturing Technology Project, phase 1 [DE92-010597] 08 p2380 N93-23302
Automated manufacturing of continuous fibre composite structures for aerospace applications 08 p2212 N93-23942
A review of design and manufacturing methodologies for stiffened composite panels used in aircraft 08 p2128 N93-23943
Solar collector manufacturing activity 1991 [DE93-006559] 08 p2382 N93-24032
High reliability residual compressive stress processes. State-of-the-art assessment [PB93-127751] 08 p2331 N93-24207
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping [DE93-006722] 08 p2442 N93-24327
Technology transfer from NASA to targeted industries, volume 1 [NASA-CR-192757] 08 p2532 N93-24482
Technology transfer from NASA to targeted industries, volume 2 [NASA-CR-192758] 08 p2533 N93-24484
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction [PB93-146991] 08 p2259 N93-24635
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1 [NASA-CP-3189-VOL-1] 09 p2901 N93-25561
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Firmware development improves system efficiency 09 p2807 N93-25606
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC [AD-A261178] 09 p2690 N93-25820
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
Special tooling disposition for aircraft entering post production support [AD-A261614] 09 p2573 N93-26168
RF vacuum microelectronics [AD-A261343] 09 p2691 N93-26311
Multivariable control for flexible IC processing [AD-A261685] 09 p2692 N93-26366
Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan [PB93-165249] 09 p2641 N93-26589
Aviation production engineering: Selected articles [AD-A261231] 10 p2919 N93-27056
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability) [AD-A262809] 10 p3033 N93-28381
Application of quality function deployment to the design of a lithium battery [DE93-008346] 10 p3033 N93-28459
Process optimization of Hexoloy SX-SiC towards improved mechanical properties [DE93-007913] 11 p3320 N93-28564
Lightweight flexible composite tent materials [AD-A263021] 11 p3295 N93-28660
Transient response of embedded thermocouples [DE93-009889] 11 p3431 N93-29325
The 17th Annual Electronics Manufacturing Seminar proceedings [AD-A261963] 11 p3409 N93-29435
Issues, concepts, and standard techniques in assessing accuracy of coordinate measuring machines [PB93-184331] 11 p3354 N93-29666
Lessons learned for composite structures 11 p3302 N93-30444
Memory driven feature-based design [AD-A264697] 11 p3534 N93-30495
Process and assembly plans for low cost commercial fuselage structure 11 p3306 N93-30865
Silicon Film(trademark) photovoltaic manufacturing technology [DE93-010008] 11 p3466 N93-30891
Application of hardness testing in foundry processing operations: A university and industry partnership 11 p3292 N93-30961
Thermoforming from a systems viewpoint 11 p3293 N93-30967
Electropneumatic actuator, phase 1 [PB93-174951] 12 p3720 N93-31876
The technology base for agile manufacturing 12 p3715 N93-32104
Large-area, triple-junction a-Si alloy production scale-up [DE93-010007] 12 p3750 N93-32177
Buckling and postbuckling of stiffened thin skinned carbon fibre composite panels [ATN-9301] 12 p3742 N93-32331

MANY BODY PROBLEM
Automated multi-body system dynamics via bond graph modelling and interactive graphics 01 p0066 N93-10576
Theory of transport for interacting many-body systems [AD-A253789] 01 p0169 N93-10871
Diagnostics and modeling of H(-) ion sources [AD-A250664] 02 p0440 N93-11867
Stabilization and projection methods for multibody dynamics [PB92-133883] 03 p0698 N93-12890
Investigations of the structure and electromagnetic interactions of few-body systems [DE92-040011] 03 p0563 N93-13042
Fermi molecular dynamics [DE92-015351] 03 p0703 N93-13187
Hydrodynamical calculations of stellar interactions 03 p0755 N93-13764
Stochastic reaction diffusion equations and interacting particle systems [PREPRINT-796] 05 p1265 N93-16417
Two loop calculation of the anomalous dimension of four-fermion operators with static heavy quarks [PREPRINT-873] 05 p1291 N93-17073
Strongly interacting fermion systems [DE93-002839] 05 p1295 N93-17656
Structural simulation coupling for transient analysis [AD-A258192] 06 p1643 N93-17861
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
The linear invariants of the composition of two rotations 07 p1941 N93-20711
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems [DE93-004531] 07 p2064 N93-21742
Many-body effects in Cu(2+)(H2O)(sub m) clusters [DE93-002988] 07 p2082 N93-21752
Peculiarities of structures and meltinglike transition in gold clusters [DE93-004810] 08 p2228 N93-22741
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres [AD-A260304] 08 p2223 N93-24235
Diabaticity of nuclear motion: Problems and perspectives [DE93-007252] 09 p2847 N93-25148
Correlated wavefunction quantum Monte Carlo approach to solids [DE93-007730] 09 p2863 N93-25367
Molecular interactions and properties with many-body methods [AD-A261688] 09 p2850 N93-26367
Mechanics and control of multibody structural systems [AD-A261576] 09 p2619 N93-26456
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
Galaxy tracers in N-body simulations 10 p3176 N93-26732
The large-scale morphology of IRAS galaxies 10 p3176 N93-26733
The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Enrichment and heating of the intracluster medium by ejection from galaxies 10 p3180 N93-26758
A new method to simulate vertical and horizontal structure in galactic disks 10 p3188 N93-26809
Intermediate/high energy nuclear physics [DE93-005927] 10 p3140 N93-28353
How to write fast and clear parallel programs using algebra [DE93-000797] 11 p3524 N93-28640
Numerical simulation of quantum many-body systems [DE93-008300] 11 p3603 N93-28958
Implementation of parallel algorithms [AD-A263126] 11 p3529 N93-29496
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging [AD-A264712] 11 p3551 N93-30503
Schroedinger equations of higher (greater than 2) order [DE92-644677] 11 p3552 N93-30984
The Lipkin model second order phase transition in the deformed su(2) algebra description [DE93-608201] 12 p3807 N93-31661

MANY ELECTRON EFFECTS
Semiempirical studies of atomic structure [DE93-005117] 07 p2063 N93-21707
Excited states in electronic structure calculations [DE93-007704] 11 p3592 N93-28642

MANY PARTICLE THEORY
U MANY BODY PROBLEM

MAP MATCHING GUIDANCE
Hybrid guidance for maneuvering flight vehicles [AD-A254110] 02 p0225 N93-11798
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178

MAPPING
NT CADASTRAL MAPPING
NT COMPUTER AIDED MAPPING
NT ICE MAPPING
NT PHOTOMAPPING
NT PLANETARY MAPPING
NT SOIL MAPPING
NT THEMATIC MAPPING
NT THERMAL MAPPING
Geographic Information System (GIS) development assistance for Nuclear Regulatory Commission (NRC) incident response capability [DE92-017595] 01 p0176 N93-10867
Density equalizing map projections: A new algorithm [DE92-017088] 02 p0413 N93-12110
GRASS 4.0 map digitizing user's manual: V. Digit [AD-A256859] 04 p1009 N93-15642
The SWOOPE experience: Precollege students mapping the environment [DE92-040390] 05 p1198 N93-15663
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed [DE93-000512] 05 p1216 N93-17074
Utilization of geographic information system in lunar mapping 05 p1389 N93-17257
The division of a circle or spherical surface into equal-area cells or pixels [AD-A257770] 05 p1192 N93-17726
Differential cartography [AD-A257772] 05 p1192 N93-17728
Code vector density in topographic mappings [AD-A258222] 06 p1492 N93-18122
Mapping of sea bottom topography with spaceborne SAR [BCRS-91-14] 06 p1589 N93-18430
Airborne Remote Sensing [VTT-SYMPOSIUM-127] 06 p1569 N93-19871
What is the aerial telemapping system? 06 p1569 N93-19872
Microwave instruments 06 p1569 N93-19874
Present and future imaging spectrometers in telemapping 06 p1570 N93-19877
Reports on cartography and geodesy, series 1, number 106 [ETN-93-92583] 07 p1967 N93-20528
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement 07 p1967 N93-20532
The importance of the PC in the cartographic-photogrammetric service field 07 p1967 N93-20535
Scanner technology as an alternative to manual digitizing. The data acquisition of the 1990s 07 p1968 N93-20539
MAPPER: A personal computer map projection tool [NASA-TM-4445] 07 p2034 N93-20778

Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Mapping the Universe: Statistical measures of the galaxy distribution
[ETN-93-93456] 08 p2542 N93-23116
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
Image maps 08 p2348 N93-23537
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
Comparison of mapping with different satellite images 08 p2348 N93-23540
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Mapping from SPOT data 08 p2349 N93-23544
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia 08 p2352 N93-23561
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques 09 p2746 N93-24823
NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS 09 p2751 N93-24855
Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857
Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument 09 p2711 N93-25614
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Near real-time GIS in deep-ocean exploration
[AD-A262073] 11 p3487 N93-29003
Toward a coordinated spatial data infrastructure for the nation
[B-149] 11 p3456 N93-30634
GDF: A digitizing format for geographical data 12 p3744 N93-31260
Code vector density in topographic mappings
[RSRE-MEMO-4669] 12 p3746 N93-31611

MAPS
NT ASTRONOMICAL MAPS
NT LUNAR MAPS
NT METEOROLOGICAL CHARTS
NT RADAR CLUTTER MAPS
NT RADAR MAPS
NT RELIEF MAPS
Indexes of maps of the planets and satellites, 1992
[NASA-TM-4395] 01 p0189 N93-10832
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil 04 p0905 N93-14450
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991] 04 p0911 N93-15460
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
Image maps 08 p2348 N93-23537
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
System design for ARTEMIS environmental monitoring 08 p2349 N93-23545
Data for map algebra 08 p2350 N93-23553
Operational geocoding of ERS-1 SAR imagery 08 p2359 N93-23765
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map 09 p2743 N93-24807
Supporting the Portuguese fisheries with satellites 09 p2745 N93-24821
Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822
US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574
The fate of captured gas: NGC 3077 and star formation in the M81 system 10 p3186 N93-26798
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
A representation result for nonlinear filter maps on a white noise framework
[MEMO-1062] 10 p3129 N93-28013
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423
Data quality statements for spatial databases
[AD-A264125] 11 p3616 N93-30195
Aerial cartography using SICAD NAV-AIR 12 p3744 N93-31258

MAPSAT
Reports on Cartography and Topography, series 1, report no. 103
[ETN-90-97325] 12 p3744 N93-31256

MARANGONI CONVECTION
Structure of thermocapillary flow in narrow cavities 01 p0061 N93-10552
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Marangoni-convection in a rotating liquid container
[LRT-WE-9-FB-14-1991] 05 p1164 N93-17552
Preparation results for a Marangoni-Benard experiment with Soret effect under microgravity conditions 07 p1805 N93-21088
Marangoni convection in a spinning liquid column
[LRT-WE-9-FB-13-1991] 08 p2289 N93-22678
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating 08 p2247 N93-22835
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation 08 p2251 N93-22857
Experimental investigation of the influence of the temperature gradient on the thermocapillary convection in spherical drops under low-gravity 08 p2251 N93-22862
Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process
[NASA-CR-192695] 08 p2252 N93-23122
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems 09 p2700 N93-25472

MARIA
NT LUNAR MARIA

MARINE BIOLOGY
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Phytoplankton photosynthesis in natural mixed layers
[AD-A255010] 03 p0671 N93-12871
Comparison of the prevalence index and average wetland values for identification of wetland vegetation
[DE92-016701] 04 p0910 N93-15209
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
Aquatic plant control research program. Biological control of Pistia stratiotes L. (waterlettuce) using Neohydronomus affinis hustache (coleoptera: curculionidae)
[AD-A257463] 06 p1574 N93-18945
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion
[AD-A258803] 06 p1590 N93-18982
How do zooplankton feed? A critical microgravity experiment 07 p1806 N93-21097
Gravity as a factor in the orientation and vertical migration of marine zooplankton 07 p1806 N93-21098
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
The environmental biogeochemistry of open ocean and partially enclosed marine systems 08 p2413 N93-23130
Chemical and biological variability in the upper water column
[AD-A262207] 10 p3080 N93-27684
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

MARINE CHEMISTRY
The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
The JGOFS North Atlantic Bloom Experiment: An overview 09 p2735 N93-24934

MARINE ENVIRONMENTS
Spatial models of ecological systems and processes: The role of GIS
[DE92-016884] 01 p0175 N93-10788
Bibliography of publications from the Texas A and M Sea Grant College Program, 1968-1992
[PB92-205517] 02 p0372 N93-11253
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Characteristics of phytoplankton as monitors of the physical environment
[AD-A255009] 03 p0642 N93-12870
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada 06 p1582 N93-18975

Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion
[AD-A258803] 06 p1590 N93-18982
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Remote sensing: Environmental effects of surface films
[AD-A258571] 07 p1980 N93-21754
Microstructure and texture control of fatigue in hydrogen and marine environments
[AD-A259808] 08 p2231 N93-23642
Ocean colour programmes for the European marine environment 08 p2366 N93-23808
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292
Modeling studies of ice-ocean dynamics and thermodynamics
[AD-A264084] 12 p3769 N93-31082
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
Research platforms FLIP and ORB support
[AD-A265910] 12 p3771 N93-32320

MARINE METEOROLOGY
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I 01 p0127 N93-10851
Mariners Weather Log, volume 36, number 1, Winter 1992
[PB92-161025] 02 p0368 N93-11256
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
A modeling study of marine boundary layer clouds 07 p2010 N93-20105
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
Selected worldwide Marine weather broadcasts
[PB93-118164] 07 p2013 N93-21294
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Mariners weather log, volume 36, number 3, summer 1992
[PB93-132033] 08 p2405 N93-23282
Mariners weather log, volume 36, number 4, fall 1992
[PB93-132041] 08 p2405 N93-23283
Proceedings of the Ocean Climate Data Workshop
[NASA-TM-108711] 09 p2732 N93-24915
The role of ocean climate data in operational Naval oceanography 09 p2732 N93-24916
Role of the ocean in climate changes 09 p2732 N93-24918
The role of the World Data Centers in handling ocean climate data 09 p2732 N93-24919
Operational seasonal and interannual predictions of ocean conditions 09 p2733 N93-24921
Ocean climate data for user community in West and Central Africa: Needs, opportunities, and challenges 09 p2735 N93-24933
Computer systems 09 p2737 N93-24942
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220
Tropical cyclogenesis in the western North Pacific 09 p2783 N93-25714
An investigation into the causative mechanisms for explosive cyclone development over the Atlantic
[AD-A261831] 09 p2786 N93-26273
Mariners weather log, volume 37, number 1, winter 1993
[PB93-174308] 10 p3077 N93-27516
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Ocean aerosol measurements and models in the straits of Florida (The KEY-90 experiment)
[AD-A264777] 11 p3487 N93-29659
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922

MARINE NAVIGATION
U SURFACE NAVIGATION

MARINE PROPULSION
Pressure and noise induced by a cavitating marine screw propeller
[VTT-PUBS-87] 02 p0299 N93-11360
Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416
Interaction between ice and propeller
[VTT-TIED-1281] 10 p3051 N93-27832
On the verification of a theory for sculling propulsion
[ETN-93-94040] 12 p3725 N93-31519

MARINE RESOURCES
Bibliography of publications from the Texas A and M Sea Grant College Program, 1968-1992
[PB92-205517] 02 p0372 N93-11253
Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191989] 07 p1850 N93-21564
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR 08 p2337 N93-22141
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Susceptibility of East Coast estuaries to nutrient discharges: Passarnaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674

MARINE TECHNOLOGY
Bibliography of publications from the Texas A and M Sea Grant College Program, 1968-1992
[PB92-205517] 02 p0372 N93-11253
Advanced underwater lift device
[NASA-CR-185709] 08 p2169 N93-22877
High-performance visualization applied to computational electromagnetics: Method-of-moments on a silicon graphics workstation
[AD-A260820] 09 p2675 N93-25700
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426

MARINE TRANSPORTATION
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293

MARITIME SATELLITES
NT ERS-1 (ESA SATELLITE)
Maritime satellite communication and navigation 08 p2275 N93-23508
Mobile satellite communications in the 1990's 08 p2275 N93-23520
SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522
Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642
Mobile communication via satellite towards the year 2000 10 p3023 N93-26646

MARKARIAN GALAXIES
Very high energy gamma ray astrophysics
[DE93-007625] 08 p2551 N93-24453
The nature of faint emission-line galaxies 10 p3173 N93-26716
The environments of Seyfert and Markarian galaxies 10 p3185 N93-26789
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875

MARKERS
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Solar-powered light emitting diode power line avoidance marker design
[AD-A259886] 08 p2381 N93-23983

MARKET RESEARCH
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned 02 p0472 N93-11163
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
International energy outlook 1992
[PB93-107951] 07 p1988 N93-21550
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
NASA's commercial research plans and opportunities 08 p2183 N93-22612
An environmental rating for heat pump equipment
[DE93-004526] 08 p2379 N93-22983
Space business indicators 09 p2886 N93-26158
Description of the global petroleum supply and demand outlook updated for the 1993 edition of the GRI baseline projection of US energy supply and demand, December 1992
[PB93-165744] 10 p3008 N93-26633
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region 10 p3022 N93-26641
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Design of a turbofan powered regional transport aircraft 11 p3228 N93-29721
Helicopter training simulators: Key market factors 11 p3237 N93-30683
US space commerce, 1991 11 p3625 N93-30695

MARKETING
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607

The European space industry. Overall situation: Situation and prospects for the 23 leading companies concerned
02 p0472 N93-11163
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
An environmental rating for heat pump equipment
[DE93-004526] 08 p2379 N93-22983
Insurance cover for space ventures
08 p2344 N93-23510
Definition of a European promotion concept
08 p2162 N93-24381
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974
A fuzzy set preference model for market share analysis
11 p3514 N93-29548
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660
Coordination of production and sales
[ETN-93-94039] 12 p3834 N93-31518

MARKING
NT ISOTOPIC LABELING
Tagging insulin in microgravity
03 p0510 N93-13172
Software stamping
[NPL-DITC-198/92] 04 p0946 N93-15072
Marking of German plastic explosive for the enhancement of vapor detection
07 p1775 N93-21925
Program to tag military plastic/sheet explosives
07 p1775 N93-21926
An improved vapor taggant detector
07 p1775 N93-21927
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929

MARKOV CHAINS
A proof of convergence of the Markov chain simulation method
[AD-A255456] 04 p0970 N93-14487
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Approximate performability analysis using generalized stochastic Petri nets
[MEMO-INF-92-11] 04 p0971 N93-15119
Parallel algorithms for simulating continuous time Markov chains
[NASA-CR-189729] 05 p1238 N93-16550
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
Discrete-time Markovian jump linear systems
[REPT-92-37] 06 p1631 N93-17870
Denumerable constrained Markov decision problems and finite approximations
[INRIA-RR-1568] 07 p2058 N93-20867
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
Easy-to-apply results for establishing convergence of Markov chains in Bayesian analysis
[AD-A264015] 11 p3555 N93-29979

MARKOV PROCESSES
NT MARKOV CHAINS
The development of the speaker independent ARM continuous speech recognition system
[RSRE-MEMO-4473] 02 p0280 N93-11383
Preliminary results on the use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4511] 02 p0280 N93-11384
The use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4512] 02 p0280 N93-11385
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422
Modeling and estimation of reciprocal diffusion and Gauss-Markov random fields
[AD-A255034] 03 p0698 N93-12709
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
A segmental hidden Markov model for speech pattern processing
[AD-A258220] 06 p1501 N93-18023
On the optimality of LEPT and micron rules for parallel processors and dependent arrival processes
[TW-92-01] 06 p1630 N93-18443
Optimality of a threshold policy on the M/M/1 queue with repeated vacations
[INRIA-RR-1419] 06 p1632 N93-18515
Theoretical and experimental investigations of coincidences in Poisson distributed pulse trains and spectral distortion caused by pulse pileup
[ISBN-0-315-60449-2] 08 p2286 N93-24614
Failure monitoring in dynamic systems: Model construction without fault training data
09 p2672 N93-24666
Reliability analysis of complex models using sure bounds
[NASA-CR-191445] 10 p3091 N93-26897
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling
[MEMO-COSOR-92-08] 10 p3124 N93-27277
Upper and lower bounds for the waiting time in the symmetric shortest queue system
[MEMO-COSOR-92-09] 10 p3127 N93-27278
A general model for maintenance of complex systems
[CWI-BS-R9201] 10 p3124 N93-27393
The compensation approach applied to a 2 by 2 switch
[MEMO-COSOR-92-28] 10 p3115 N93-27397
A recurrence type characterization of mu-exponential ergodicity for Markov processes
[TW-92-03] 10 p3125 N93-27905
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Restoration of incomplete contour images using Markov random fields
[INRIA-RR-1688] 10 p3126 N93-28445
Flow control using the theory of zero sum Markov games
[INRIA-RR-1597] 11 p3553 N93-28507
Asymptotic properties of constrained Markov decision processes
[INRIA-RR-1598] 11 p3553 N93-28508
Image classification using Markov random fields with two new relaxation methods: Deterministic pseudo annealing and modified metropolis dynamics
[INRIA-RR-1606] 11 p3553 N93-28510
Optimal control of the M/G/1 queue with repeated vacations of the server
[INRIA-RR-1637] 11 p3541 N93-28637
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
Speech recognition by recursive stochastic modelling
[ISBN-90-9005038-8] 11 p3382 N93-29266
Easy-to-apply results for establishing convergence of Markov chains in Bayesian analysis
[AD-A264015] 11 p3555 N93-29979
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU] 11 p3449 N93-30413
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
Regularity of stochastic processes: A theory based on directional convexity
[REPT-92-70] 12 p3811 N93-31503
A segmental hidden Markov model for speech pattern processing
[RSRE-MEMO-4599] 12 p3716 N93-31610
Automatic specification of reliability models for fault-tolerant computers
[NASA-TP-3301] 12 p3812 N93-31869
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037

MARS (PLANET)
A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
The real world and lunar base activation scenarios
03 p0680 N93-14014
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Alternative scenarios utilizing nonterrestrial resources
05 p1379 N93-16872
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Conceptual design of a Mars transportation system
[NASA-CR-192039] 06 p1545 N93-18047
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
Mars: A reassessment of its interest to biology
06 p1591 N93-18550
Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557
Near term NEP missions and systems
06 p1661 N93-18637
Aerobraking technology studies
08 p2173 N93-22089
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
The upper atmosphere and ionosphere of Mars
09 p2897 N93-26393
The Martian lower atmosphere
09 p2897 N93-26394
Representative systems for space exploration
09 p2897 N93-26395
Mars exploration planning 09 p2898 N93-26399
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Modeling, simulation, and high-autonomy control of a Martian oxygen production plant
10 p3021 N93-26693
Mars exploration program 10 p2976 N93-26909
The challenges and benefits of lunar exploration
10 p3211 N93-27957
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-27969
Options for a lunar base surface architecture
10 p3214 N93-27974
The use of automation and robotic systems to establish and maintain lunar base operations
10 p3111 N93-27982
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Detail design of Mars transfer orbit
10 p2953 N93-28046
Optimism experiment and development of space-qualified seismometers in France
11 p3646 N93-28796
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance
11 p3646 N93-28798
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy
11 p3648 N93-28812
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle
12 p3855 N93-31691
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft
12 p3856 N93-31699
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals
12 p3862 N93-31935
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Identification of pigmentary phases 12 p3864 N93-31950

Chemical transport during formation and alteration of Martian impact and volcanic deposits
12 p3865 N93-31953
The Martian ocean: First acid, then alkaline
12 p3866 N93-31958
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961

MARS ATMOSPHERE
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
Remote sounding of the Martian atmosphere
01 p0189 N93-10378
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars
[NASA-CR-191638] 05 p1377 N93-16630
Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
Evolution of the Martian atmosphere: The role of the polar caps 06 p1741 N93-19809
Is CO2 ice permanent? 06 p1742 N93-19813
Dust transport into Martian polar latitudes
06 p1742 N93-19815
Mars observer radio science (MORS) observations in polar regions 06 p1743 N93-19818
Modeling interannual variability in the Martian seasonal CO2 cycle 06 p1743 N93-19820
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres
[NASA-CR-192145] 07 p2099 N93-21642
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
Modeling of forced planetary waves in the Mars atmosphere 08 p2555 N93-24579
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
The upper atmosphere and ionosphere of Mars
09 p2897 N93-26393
The Martian lower atmosphere
09 p2897 N93-26394
The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements
11 p3649 N93-28815
The thermal structure, dust loading, and meridional transport in the Martian atmosphere during late southern summer 11 p3651 N93-29616
The 1990/1991 project summaries
11 p3229 N93-29725
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C
12 p3862 N93-31940
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947
Mars brine formation experiment
12 p3864 N93-31949
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959

MARS CRATERS
Spacecraft studies of Phobos and Mars
[NASA-CR-193298] 11 p3651 N93-30635

MARS ENVIRONMENT
NT MARS ATMOSPHERE
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Degradation of radiator performance on Mars due to dust 04 p0823 N93-15616
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Mars: A reassessment of its interest to biology
06 p1591 N93-18550
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies
06 p1741 N93-19810
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814
Numerical simulations of drainage flows on Mars
06 p1742 N93-19816
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
The interaction of high voltage systems with the environments of the Moon and Mars
[NASA-TM-106107] 09 p2618 N93-26148
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Modeling and analysis tools 09 p2897 N93-26397
Mars exploration planning 09 p2898 N93-26399
An integrated database with system optimization and design features 10 p3168 N93-26697
An integrated XRF/XRD instrument for Mars exobiology and geology experiments 11 p3645 N93-28792
The MESUR mission 11 p3649 N93-28816
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars
12 p3862 N93-31936
Effect of purity on adsorption capacities of a Mars-like clay mineral at different pressures
12 p3863 N93-31945
Mars brine formation experiment
12 p3864 N93-31949
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956
The Martian ocean: First acid, then alkaline
12 p3866 N93-31958
Chemical reactivity of the Martian soil
12 p3867 N93-31963

MARS EXCURSION MODULE
Propulsion needs for lunar/Mars missions
10 p2967 N93-27798

MARS GEOSCIENCE CLIMATOLOGY ORBITER
U MARS OBSERVER

MARS LANDING
Power requirements for the first lunar outpost (FLO)
[NASA-TM-105925] 04 p0909 N93-15523
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Mars exploration mission 10 p2953 N93-28045
Outline of Mars explorer system
10 p2953 N93-28048
Mars integrated transportation system multistage Mars mission 11 p3232 N93-29741
Single-stage Mars mission 11 p3232 N93-29742
Mars Aquarius Mission and Titan Explorer
11 p3235 N93-29756

MARS OBSERVER
Remote sounding of the Martian atmosphere
01 p0189 N93-10378
Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario
06 p1454 N93-18899
Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909
Martian volatiles determined using the Mars observer gamma ray spectrometer 06 p1741 N93-19807
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814
Mars observer radio science (MORS) observations in polar regions 06 p1743 N93-19818
NASA Center update: Jet Propulsion Laboratory
07 p1983 N93-20492
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Mars exploration planning 09 p2898 N93-26399
DSN support of Mars Observer
11 p3385 N93-29598

MARS PHOTOGRAPHS
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae
03 p0768 N93-14092
An unusual spectral unit in West Candor Chasma: Evidence for hydrothermal or aqueous alteration?
12 p3863 N93-31942

MARS PROBES
NT MARS OBSERVER
NT VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
NT VIKING ORBITER SPACECRAFT
Research on lunar and planet development and utilization 07 p1789 N93-20412
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Mars exploration mission 10 p2953 N93-28045
Mars revolving observation satellite
10 p2953 N93-28047
Outline of Mars explorer system
10 p2953 N93-28048
The MESUR mission 11 p3649 N93-28816

MARS ROVER SAMPLE RETURN MISSION
U MARS SAMPLE RETURN MISSIONS

MARS SAMPLE RETURN MISSIONS
MRSR: Rationale for a Mars Rover/Sample Return mission 06 p1593 N93-18560
Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Knowledge-based control for robot self-localization
09 p2822 N93-25963
Mars exploration planning 09 p2898 N93-26399
Outline of Mars explorer system
10 p2953 N93-28048
Benefits of in situ propellant utilization for a Mars sample return mission
[NASA-TM-106243] 11 p3341 N93-28695
Mars sample return mission: Two alternate scenarios
11 p3233 N93-29746

MARS SATELLITES
NT DEIMOS
NT PHOBOS
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
Composition of near-Earth asteroids
10 p3205 N93-26690

MARS SURFACE
Martian water frost: Control of global distribution by small-scale processes 04 p1047 N93-14868
Degradation of radiator performance on Mars due to dust 04 p0823 N93-15616
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Glaciation in Elysium 06 p1740 N93-19802
Condensation phase of the Martian south polar cap
06 p1740 N93-19804
Water on Mars: Inventory, distribution, and possible sources of polar ice 06 p1740 N93-19805
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits? 06 p1741 N93-19808
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies
06 p1741 N93-19810
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain
06 p1741 N93-19811
Possible recent and ancient glacial ice flow in the south polar region of Mars 06 p1742 N93-19812
Dust transport into Martian polar latitudes
06 p1742 N93-19815
Antarctic lakes (above and beneath the ice sheet): Analogues for Mars 06 p1743 N93-19817
Mars observer radio science (MORS) observations in polar regions 06 p1743 N93-19818

Modeling interannual variability in the Martian seasonal CO2 cycle 06 p1743 N93-19820
Workshop on chemical weathering on Mars, part 2 [NASA-CR-192261] 08 p2554 N93-23192
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix [NASA-CP-10093-PT-2] 09 p2897 N93-26392
Erosional and depositional history of central Chryse Planitia [NASA-CR-193068] 10 p3210 N93-27497
Mars aqueous chemistry experiment [NASA-CR-193134] 10 p3211 N93-27604
Outline of Mars explorer system 10 p2953 N93-28048
The APX spectrometer for Martian missions 11 p3434 N93-28776
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777
Optimism experiment and development of space-qualified seismometers in France 11 p3646 N93-28796
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
The MESUR mission 11 p3649 N93-28816
Mars Aquarius Mission and Titan Explorer 11 p3235 N93-29756
Spacecraft studies of Phobos and Mars [NASA-CR-193298] 11 p3651 N93-30635
MSATT Workshop on Chemical Weathering on Mars [NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals 12 p3862 N93-31935
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
On the weathering of Martian igneous rocks 12 p3862 N93-31941
An unusual spectral unit in West Candor Chasma: Evidence for hydrothermal or aqueous alteration? 12 p3863 N93-31942
Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments 12 p3863 N93-31943
Aqueous geochemistry on Mars: Possible clues from salts and clays in SNC meteorites 12 p3863 N93-31944
Effect of purity on adsorption capacities of a Mars-like clay mineral at different pressures 12 p3863 N93-31945
Low-temperature formation of magnetic iron oxides 12 p3863 N93-31946
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars 12 p3864 N93-31948
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Chemical transport during formation and alteration of Martian impact and volcanic deposits 12 p3865 N93-31953
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars 12 p3865 N93-31954
Using the Viking biology experimental results to obtain chemical information about Martian regolith 12 p3865 N93-31955
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
The Martian ocean: First acid, then alkaline 12 p3866 N93-31958
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960
Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites 12 p3867 N93-31962
Chemical reactivity of the Martian soil 12 p3867 N93-31963

MARS SURFACE SAMPLES
Mars aqueous chemistry experiment [NASA-CR-193134] 10 p3211 N93-27604
Outline of Mars explorer system 10 p2953 N93-28048

MARS VOLCANOES
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae 03 p0768 N93-14092
Glaciation in Elysium 06 p1740 N93-19802
Water on Mars: Inventory, distribution, and possible sources of polar ice 06 p1740 N93-19805
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits? 06 p1741 N93-19808
Spacecraft studies of Phobos and Mars [NASA-CR-193298] 11 p3651 N93-30635
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939

MARSHES
U MARSHLANDS

MARSHLANDS
Bibliography of remote sensing techniques used in wetland research [AD-A261704] 09 p2757 N93-26440
Florida's estuaries: A citizen's guide to coastal living and conservation [PB93-189330] 12 p3751 N93-31113

MARTENSITE
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel [AD-A254617] 03 p0541 N93-12616
Ordering energies and mechanisms in beta-phase NiAl [DE92-040031] 03 p0542 N93-13043
Fastening apparatus having shape memory alloy actuator [NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Twin boundaries, interfaces and modulated structures in martensites [DE93-002136] 05 p1118 N93-17759
Formability of type 304 stainless steel sheet [DE92-018619] 08 p2229 N93-22924
International Conference on Martensitic Transformations (ICOMAT 92) [AD-A262739] 11 p3321 N93-28591
Transformation toughening [DE93-011805] 11 p3321 N93-28631

MARTENSITIC STAINLESS STEELS
Fatigue life of two steels under variable amplitude loading 07 p1948 N93-21323
Pretransformation strain modulations in proper ferroelastics [DE93-005468] 08 p2226 N93-22340
Mechanical properties of martensitic alloy AISI 422 [DE93-004834] 08 p2229 N93-22882
Mechanical properties of martensitic alloy AISI 422 [DE93-006563] 09 p2649 N93-25255

MARTENSITIC TRANSFORMATION
Electronic and structural properties of metallic microclusters [DE92-016917] 01 p0033 N93-10411
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys [DE92-014782] 02 p0256 N93-11519
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel [AD-A254617] 03 p0541 N93-12616
The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels [DE92-041208] 05 p1111 N93-16149
Twin boundaries, interfaces and modulated structures in martensites [DE93-002136] 05 p1118 N93-17759
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
Martensitic phase transitions with surface effects [AD-A262886] 10 p3000 N93-28228
Ordering and displacive transformations in Ni-Al alloys [DE93-009553] 10 p3001 N93-28371
International Conference on Martensitic Transformations (ICOMAT 92) [AD-A262739] 11 p3321 N93-28591
Transformation toughening [DE93-011805] 11 p3321 N93-28631
Transformation plasticity in ductile solids [DE93-008636] 11 p3321 N93-28902

MARYLAND
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia [PB93-110948] 08 p2520 N93-24157

MASER RESONATORS
U MASERS

MASERS
NT HYDROGEN MASERS
NT INTERSTELLAR MASERS
NT TRAVELING WAVE MASERS
Chaotic dynamics of atoms 06 p1659 N93-18491
Minimizing noise-temperature measurement errors 06 p1507 N93-18919
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge [AD-A258680] 06 p1543 N93-19950
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
Experiments on a diode-laser-pumped Rb-87 maser 09 p2716 N93-25030
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop 09 p2716 N93-25068
Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118
Efficient nonlinear optical conversion of 1.319-micron laser radiation [AD-A261309] 09 p2715 N93-26297
Infrared coronal emission lines and the possibility of their maser emission in Seyfert nuclei 10 p3196 N93-26853
Thermal analysis of transmissive elements in high average power laser beam delivery systems [DE93-009235] 10 p3049 N93-28451

MASKING
NT TARGET MASKING
Auditory perception [AD-A255061] 02 p0385 N93-12469
Spatio-temporal masking: Hyperacuity and local adaptation [AD-A257934] 06 p1595 N93-18006
Electron optical defect inspection in x ray lithography masks [ETN-93-92570] 07 p1919 N93-20884
RF vacuum microelectronics [AD-A261343] 09 p2691 N93-26311
Monaural and binaural processing of complex waveforms [AD-A261659] 09 p2846 N93-26358
Auditory spectro-temporal pattern analysis [AD-A264691] 12 p3773 N93-31981

MASKS
NT OXYGEN MASKS
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21) [AD-A253393] 01 p0133 N93-10217
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21) [AD-A253394] 01 p0134 N93-10288
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21) [AD-A253395] 01 p0091 N93-10290
Evaluation of multilayer mask concept for RESPO 21 [AD-A253392] 02 p0389 N93-12079
Reflection masks for soft x ray projection lithography [DE92-014779] 02 p0293 N93-12121
RF vacuum microelectronics [AD-A257320] 05 p1144 N93-15984
Evaluation and optimization of a flexible filtration system for respiratory protection system 21 [AD-A262467] 11 p3493 N93-28758
Improved field emitter current densities and stability through the application of a proprietary process [AD-A263464] 11 p3411 N93-29833

MASONRY
NT BRICKS

MASS
NT CENTER OF MASS
NT ELECTRON MASS
NT GALACTIC MASS
NT PARTICLE MASS
NT PLANETARY MASS
NT STELLAR MASS
EUROMET project no. 231: Uncertainties in mass measurement. NPL's analysis of data from the calibration of weight set NPLW43
[NPL-MOM-107] 02 p0432 N93-11666
Dual mass and torsion 03 p0728 N93-13498
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
A body mass measurement device based on the oscillation principle 08 p2166 N93-24400
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
QuickStar: System design, capabilities, and tactical applications of a small, smart space system 11 p3284 N93-29905
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430
A universal mass in (2+1)-dimensions
[DE93-609888] 12 p3832 N93-31911

MASS BALANCE
Doppler velocities in the ion tail of comet Levy 1990c 06 p1708 N93-19176
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228
Mass balance assessment using GPS 12 p3761 N93-31892

MASS DISTRIBUTION
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley 03 p0753 N93-13602
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
Burst of the 1969 Leonids and 1982 Lyrids 06 p1714 N93-19222
X ray morphology and the mass of clusters of galaxies 08 p2534 N93-23887
Stochastic inflation and inflationary density fluctuations 08 p2473 N93-24457
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
A study of mass size distributions and particle deposition velocities in ambient air 09 p2763 N93-25263
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Galaxy tracers in N-body simulations 10 p3176 N93-26732
The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889
The mass balance of the ice plain of Ice Stream B and Crary Ice Rise 12 p3760 N93-31888
Radar studies of the West Antarctic ice streams 12 p3760 N93-31891

MASS FILTERS
U FLUID FILTERS

MASS FLOW
Performance parameters and assessment 01 p0077 N93-10052
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196
Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
A numerical investigation for supersonic inlet 06 p1415 N93-19315
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295
CFD mixing analysis of axially opposed rows of jets injected into confined crossflow
[NASA-TM-106179] 10 p2944 N93-27128
By-passing of heat exchangers in gas turbines 10 p2922 N93-27189
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
Thermal control of ice-stream margins 12 p3762 N93-31897
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037

MASS FLOW RATE
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985

MASS RATIOS
NT MASS TO LIGHT RATIOS
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714
The nature of comet nuclei 06 p1718 N93-19250
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317

MASS SPECTRA
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment 03 p0752 N93-13469
QCD spectroscopy and phenomenology with improved actions
[PREPRINT-857] 05 p1106 N93-17015
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H8
[AD-A258764] 06 p1658 N93-19868
Charm physics at Fermilab E791
[DE93-006020] 08 p2480 N93-22543
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
Volatiles in interplanetary dust particles: A comparison with CI and CM chondrites 09 p2896 N93-26062
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Mass spectra of the particle-antiparticle system with a Dirac oscillator interaction 10 p3146 N93-27351
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721

MASS SPECTROMETERS
Portable tandem mass spectrometer analyzer
[AD-A254065] 01 p0125 N93-10784
Thermochemistry of transition metal clusters
[DE92-018713] 02 p0262 N93-12480
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment 03 p0752 N93-13469
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer 04 p1027 N93-14312
Laser-based studies with an ion-trap mass spectrometer: Ion tomography and analytical applications
[DE92-017529] 04 p0887 N93-15135
Mass spectrometer use in a large chamber 04 p0823 N93-15619
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover 05 p1386 N93-17236
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Hydrogen leak detection in the Space Shuttle 06 p1457 N93-19392
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
An improved vapor taggant detector 07 p1775 N93-21927
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
Laser desorption in an ion trap mass spectrometer
[DE93-007330] 09 p2712 N93-25150
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798
A low-cost, lightweight, and miniaturized Time-Of-Flight Mass Spectrometer (TOFMS) 11 p3434 N93-28817
Scanning ionic microscopy with high spatial resolution: Parallel acquisition of elementary images by high resolution mass spectrometry
[ONERA-NT-1990-7] 11 p3314 N93-30139
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
Solar wind abundances from Ulysses 12 p3878 N93-31409

MASS SPECTROMETRY
U MASS SPECTROSCOPY

MASS SPECTROSCOPY
Detonation reactions frozen by free expansion and analyzed by mass spectrometry
[DE92-018605] 02 p0274 N93-11566
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711

Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Thermochemistry of atmospheric metal reactions
[AD-A248651] 03 p0543 N93-13733
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer
04 p1027 N93-14312
Development of laser-ion beam photodissociation methods
[DE92-040512] 04 p0886 N93-15058
Laser-based studies with an ion-trap mass spectrometer: Ion tomography and analytical applications
[DE92-017529] 04 p0887 N93-15135
Mass spectrometer use in a large chamber
04 p0823 N93-15619
Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144
New high temperature plasmas and sample introduction systems for analytical atomic emission and mass spectrometry
[DE92-040602] 05 p1308 N93-16145
Remote hydrogen sensing techniques
[NASA-CR-192416] 05 p1169 N93-17203
Meson spectroscopy and decay constants with Wilson fermions at beta = 6.4
[PREPRINT-823] 05 p1291 N93-17213
Infrared sensor technology and applications
06 p1664 N93-18474
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
Cation production and reactions induced by electron impact on tetraethoxysilane
[AD-A258830] 06 p1675 N93-19064
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Detection of explosives material on single microparticles 07 p1774 N93-21916
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Modifications to the ionization process to enhance the detection of explosives by API/MS/MS
07 p1774 N93-21918
The role of mass spectrometry in the detection of explosives 07 p1774 N93-21919
Modification to the ionization process to enhance the detection of explosives by IMS
07 p1774 N93-21920
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives
07 p1774 N93-21921
Detection of trace explosive evidence by ion mobilty spectrometry 07 p1774 N93-21922
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
New methods and instrumentation for the characterization of biopolymers using electrospray ionization-mass spectrometry
[DE93-005100] 08 p2239 N93-23323
The design and construction of an ion trap based system for laser pyrolysis/mass spectrometry of single organic aerosol particles
[AD-A260455] 08 p2222 N93-24115
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Laser desorption in an ion trap mass spectrometer
[DE93-007330] 09 p2712 N93-25150
The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry
09 p2627 N93-26025
Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033
Development of rate expressions for the thermal decomposition of RDX 09 p2629 N93-26034
Accelerator Mass Spectrometry facility (AMS)
[AD-A262458] 10 p3134 N93-27829
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance
11 p3646 N93-28798
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066
Detonation mass spectrometry
11 p3319 N93-30076
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means
11 p3319 N93-30081
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers
12 p3880 N93-31423
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995

MASS TO LIGHT RATIOS

Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848
The interstellar medium of elliptical galaxies
03 p0757 N93-14071

MASS TRANSFER

Mass transfer in oscillating flows: Efficient drying via pulse combustors
[PB92-204403] 01 p0081 N93-10449
Kinetics of diffusional droplet growth in a liquid/liquid two-phase system
[NASA-CR-190805] 02 p0297 N93-11142
A new two-phase flow and transport model with interphase mass exchange
[PB92-206564] 02 p0298 N93-11251
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
Development of an electrical impedance computed tomographic two-phase flows analyzer
[DE92-040527] 05 p1155 N93-15923
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity
08 p2247 N93-22836
Heat and mass transfer in polyphase flows
08 p2248 N93-22844
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Numerical simulation of permeation from deposited droplets: Model expansion
[MTL-TR-92-23] 09 p2706 N93-25953
Solid state research
[AD-A262874] 10 p3154 N93-28247
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces
11 p3255 N93-29944
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations 12 p3857 N93-31705
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037

MASSIFS

Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503
06 p1735 N93-18788
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810

MASSIVE STARS

Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A
03 p0757 N93-13962
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars
04 p1050 N93-14242
Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies
04 p1020 N93-14869
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
Heavy element abundances and massive star formation 10 p3172 N93-26709
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
Far-infrared line images of dwarf galaxies
10 p3186 N93-26797
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
The ring around SN1987A 10 p3199 N93-26868

MASSIVELY PARALLEL PROCESSORS

NT CONNECTION MACHINE
Calculation of elastic-plastic wave propagation on the connection machine
[AD-A252429] 01 p0095 N93-10427
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395

Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
Analog Very Large Scale Integration (VLSI) implementations of artificial neural networks
[AD-A256621] 04 p0966 N93-15408
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
Proposal for massively parallel data storage system 04 p0960 N93-15510
ATOMIC: A low-cost, very high-speed LAN
[AD-A257140] 05 p1233 N93-15855
High speed networks, visualization, and massive parallelism in the Advanced Computing Laboratory
[DE92-017412] 05 p1254 N93-15880
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
A discrete ordinate response matrix method for massively parallel computers
[DE93-003463] 06 p1631 N93-19621
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Research in models for massively parallel computing
[DE93-003748] 07 p2045 N93-21852
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management 08 p2452 N93-22221
Efficiently modeling neural networks on massively parallel computers 08 p2453 N93-22353
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Efficiently modeling neural networks on massively parallel computers
[DE93-003787] 08 p2447 N93-22937
Applications and accuracy of the parallel diagonal dominant algorithm
[NASA-CR-191431] 08 p2438 N93-23173
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Massively parallel implementation of the Penn State/NCAR mesoscale model
[DE93-004874] 08 p2394 N93-23320
RAMA: A file system for massively parallel computers
[NASA-CR-192906] 09 p2815 N93-25297
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
Image analysis by integration of disparate information 09 p2824 N93-25973
Massively-parallel computational fluid dynamics
[AD-A261815] 09 p2707 N93-26269
USRA/RIACS
[NASA-CR-193216] 10 p3092 N93-27224
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Parallel computation and the basis system
[DE93-008755] 11 p3537 N93-28544
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Computing for magnetic fusion energy research: An updated vision
[DE93-010394] 11 p3587 N93-29190
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
High performance computing: Advanced Research Projects Agency should do more to foster program goals. Report to the Chairman, Committee on Armed Services, House of Representatives
[GAO/IMTEC-93-24] 11 p3533 N93-30202
LANL High-Performance Data System (HPDS) 11 p3622 N93-30478
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Generalized steady-state, applied to 2-D, 3-D massively parallel computing
[REPT-92-71] 12 p3795 N93-31504
Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986
Massively parallel support for a case-based planning system 12 p3797 N93-32135

MATCHED FILTERS
ACTA Aeronautica et Astronautica Sinica (selected articles)
[AD-A255070] 03 p0491 N93-13946
Sonar processing on CESAR
[FFI-92/7007] 04 p0974 N93-15074
Comparison of synchronization techniques for the AFIT direct sequence spread spectrum system
[AD-A256440] 04 p0861 N93-15316
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879

MATCHING
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953
Associative matching for linear terms
[CWI-CS-R9224] 10 p3094 N93-27377
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441

MATERIAL ABSORPTION
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839

MATERIAL BALANCE
NT WATER BALANCE

MATERIAL REMOVAL (MACHINING)
U MACHINING

MATERIAL STRENGTH
U MECHANICAL PROPERTIES

MATERIALS
Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012
Space resources. Volume 3: Materials
[NASA-SP-509-VOL-3] 05 p1379 N93-16875
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
Standard Reference Materials: Handbook for SRM users
[PB93-183796] 12 p3699 N93-31830

MATERIALS HANDLING
NT GROUND HANDLING
NT PROPELLANT TRANSFER
NT REMOTE HANDLING
Automated resupply of consumables: Enhancement of space commercialization opportunities 02 p0403 N93-11980
Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Performance oriented packaging testing for liquid propellant, XM1846
[AD-A258430] 06 p1496 N93-17865
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
Space biology initiative program definition review. Trade study 1: Automation costs versus crew utilization 08 p2417 N93-23070
Handbook of chemical hazard analysis procedures
[PB93-158756] 09 p2766 N93-26315
Lunar materials processing system integration 10 p3021 N93-27972
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick 11 p3291 N93-30953
Prometheus in space: Survey report of Research Committee on Functional New Material 12 p3710 N93-31728

MATERIALS RECOVERY
NT NUCLEAR FUEL REPROCESSING
NT WATER RECLAMATION
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
The evaluation of a concept for a Canadian-made automated multipurpose materials extraction facility 04 p0810 N93-14947
Lunar exploration for resource utilization 05 p1380 N93-16877
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191991] 07 p2099 N93-21553
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191992] 07 p2103 N93-21554
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
Tool grinding and spark testing 11 p3291 N93-30954
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870

MATERIALS SCIENCE
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Materials processing in low gravity
[NASA-CR-184421] 02 p0276 N93-12401
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
Federal Aviation Administration pavement modeling
05 p1071 N93-16315
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
Ultrastructure processing of advanced materials
[AD-A258805] 06 p1479 N93-18984
Application of surrogate materials in process study of actinides
[DE93-002257] 07 p1856 N93-20024
The LDEF experience. Materials
07 p1847 N93-20811
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Microgravity science activities in Canada
07 p1803 N93-21075
CSAR-1: The first Canadian microgravity sounding rocket flight
07 p1807 N93-21103
Midwest Superconductivity Consortium
[DE93-006146] 08 p2276 N93-22054
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 2
[NASA-CP-3189-VOL-2] 08 p2560 N93-22149
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2
[NASA-CR-192474] 08 p2302 N93-22347
Materials science research in microgravity
08 p2191 N93-22645
Consortium for materials development in space interaction with Space Station Freedom
08 p2192 N93-22650
Solid state research
[AD-A259726] 08 p2509 N93-24024
Activities of the Industrial Materials Institute
[NRC-34380] 08 p2207 N93-24288
Gravity-related phenomena in materials science
08 p2161 N93-24372
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561
Materials And Processes Technical Information System (MAPTIS) LDEF materials data base
10 p3168 N93-28286
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-003] 11 p3327 N93-30623
National Educators' Workshop. Update 92: Standard Experiments in Engineering Materials Science and Technology
[NASA-CP-3201] 11 p3290 N93-30948
Near net shape processing: A necessity for advanced materials applications 11 p3290 N93-30949
New materials: Fountainhead for new technologies and new science 11 p3291 N93-30952
Materials education activities
11 p3291 N93-30958
Experiments in materials science from household items 11 p3293 N93-30971
Taguchi method of experimental design in materials education 11 p3294 N93-30975
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870

MATERIALS TESTING REACTORS
U NUCLEAR RESEARCH AND TEST REACTORS

MATERIALS TESTS
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF
02 p0270 N93-11994
Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
Element Material Exposure Experiment by EFFU
03 p0548 N93-12783
Fiber pulling apparatus modification
[NASA-CR-184498] 04 p0891 N93-14763
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Application of surrogate materials in process study of actinides
[DE93-002257] 07 p1856 N93-20024
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
A summary of laboratory testing performed to characterize and select an elastomeric O-ring material to be used in the redesigned solid rocket motors of the space transportation system
[NASA-TM-108395] 08 p2236 N93-22557
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
An overview of materials testing in DND
08 p2213 N93-23946
MSFC nuclear thermal propulsion technology program
10 p2979 N93-26932
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964
The characterization of materials using x ray diffraction 11 p3293 N93-30968
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979

MATHEMATICAL ANALYSIS
U APPLICATIONS OF MATHEMATICS

MATHEMATICAL LOGIC
NT ALGORITHMS
NT AXIOMS
NT BOOLEAN ALGEBRA
NT BOOLEAN FUNCTIONS
NT BOREL SETS
NT EQUIVALENCE
NT GENETIC ALGORITHMS
NT LATTICES (MATHEMATICS)
NT PARSING ALGORITHMS
NT SET THEORY
NT SIMPLEX METHOD
NT THRESHOLD LOGIC
Symbolic Boolean manipulation with ordered binary decision diagrams
[AD-A253822] 01 p0142 N93-10828
On recursive free types in Z
[RSRE-91028] 02 p0425 N93-11437
A brief overview of NASA Langley's research program in formal methods 03 p0684 N93-12958
Compactness and Loewenheim-Skolem properties in pre-institution categories
[MEMO-INF-92-27] 04 p0968 N93-15094
An introduction mechanism for recursive functions: A case study
[MEMO-INF-92-34] 05 p1264 N93-16337
Proof elimination in type theory
[CS-9202] 05 p1278 N93-16351
A short proof of the decidability of bisimulation for normal BPA processed
[CWI-CS-R9151] 05 p1267 N93-16731
Quantification and partiality
[CWI-CS-R9152] 05 p1242 N93-16732
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
Semantics and comparative logic
[LP-91-09] 05 p1272 N93-17713
Logic and the flow of information
[LP-91-10] 05 p1357 N93-17714
Modal logic and attribute value structures
[LP-92-02] 05 p1273 N93-17716
The Schoenmaker's paradox: Its solution in a belief dependence framework
[LP-91-05] 05 p1273 N93-17725
Belief dependence, revision and persistence
[LP-91-06] 05 p1273 N93-17727
Choice of working languages in a European working group for multi-criteria decision aid
[REPT-92-27] 05 p1253 N93-17733
Finite type structures within combinatory algebras
[ML-91-06] 05 p1273 N93-17781
Modal derivation rules
[ML-91-07] 05 p1274 N93-17784
A note on the diagonalizable algebras of PA and ZF
[ML-91-09] 05 p1274 N93-17792
Sahlqvist's theorem for boolean algebras with operators
[ML-91-10] 05 p1274 N93-17794
Methodologies of automatic control including fuzzy logic
[LAAS-92257] 06 p1631 N93-17814
Shavrukov's theorem on the subalgebras of diagonalizable algebras for theories containing I(delta(sub 0)) + exp
[ML-92-05] 06 p1642 N93-17825
The Lambek calculus enriched with additional connectives
[LP-91-04] 06 p1642 N93-17826
Categorical grammar and natural reasoning
[LP-91-08] 06 p1642 N93-17828
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
A note on interrogatives and adverbs of quantification
[LP-92-07] 06 p1615 N93-17830
A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
An update semantics for dynamic predicate logic
[LP-92-04] 06 p1615 N93-17841
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
Modal frame classes revisited
[ML-91-12] 06 p1643 N93-17869
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
On the structure of Kripke models of Heyting arithmetic
[ML-92-03] 06 p1644 N93-17914
A modal theory of arrows: Arrows logics 1
[ML-92-04] 06 p1644 N93-17915
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
A Gentzen-system for CTL
[RR-865-I-IMAG-122-LIFIA] 07 p2051 N93-20803
Fast theorem proving in intuitionistic propositional logic
[CWI-CS-R9157] 07 p2051 N93-20840
Resolution in modal propositional logic
[REPT-91-59] 07 p2052 N93-20853
Maximal Kripke-type semantics for modal and superintuitionistic predicate logics
[ML-92-02] 07 p2054 N93-21009

Algorithms for optimal redundancy allocation
[DE93-005709] 09 p2827 N93-24973
Provably recursive programs
[CWI-CS-R9212] 10 p3097 N93-27500
A resolution method for some systems of modal logic
[ISBN-90-9005125-2] 10 p3119 N93-27940
Dynamic modal predicate logic
[CWI-CS-R9237] 10 p3101 N93-28001
The LAZYRMS: Avoiding work in the ATMS
[RUU-CS-92-20] 10 p3101 N93-28062
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420
Fuzzy knowledge base construction through belief networks based on Lukasiewicz logic
11 p3515 N93-29550
Polynomial space polynomial delay algorithms for listing families of graphs
[DE93-010677] 11 p3530 N93-29808
Integration and implementation of the automated natural deduction in demonstrators using resolution
[ETN-93-94239] 12 p3803 N93-31208
Workshop on Fuzzy Control Systems and Space Station Applications
[NASA-CR-193202] 12 p3688 N93-31439
Undecidability of modal and intermediate first-order logics with two individual variables
[ML-92-06] 12 p3804 N93-31480
Realizability
[ML-92-09] 12 p3804 N93-31482
Weak equivalence: Theory and applications
[CT-92-02] 12 p3788 N93-31529
Meeting some neighbours: A dynamic modal logic meets theories of change and knowledge representation
[LP-92-10] 12 p3806 N93-31531
A note on dynamic arrow logic
[LP-92-11] 12 p3788 N93-31532
Sequent calculi for normal modal propositional logics
[LP-92-12] 12 p3806 N93-31533
Iterated quantifiers
[LP-92-13] 12 p3806 N93-31534
Generic modal resolution
[REPT-92-90] 12 p3807 N93-31635

MATHEMATICAL MODELS
NT ANALOG SIMULATION
NT BIOLOGICAL MODELS (MATHEMATICS)
NT DIGITAL SIMULATION
NT K-EPSILON TURBULENCE MODEL
NT PETRI NETS
NT TURBULENCE MODELS

A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
An inverse design method for radial turbomachines 01 p0078 N93-10057
Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10085
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing 01 p0124 N93-10318
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Effects of gravity in folding --- of geological layers 01 p0124 N93-10324
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
Materials compatibility and lubricants research on CFC-refrigerant substitutes: Thermophysical properties
[DE92-015116] 01 p0043 N93-10397
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
New directions in computational mechanics 01 p0044 N93-10467
Non-linear thermoelasticity of rubberlike solids 01 p0045 N93-10474
Integrated finite element model of composite materials 01 p0046 N93-10477
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination 01 p0047 N93-10480
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Numerical simulation of transient crack growth 01 p0048 N93-10488
Dynamic crack division in brittle solids 01 p0048 N93-10489
Stress patterns in the dynamic tear test 01 p0049 N93-10491
A multilayered shell finite element 01 p0049 N93-10495
A new non-Gausssian approximation technique for random vibration of general hysteresis 01 p0050 N93-10496
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
Vibration of a damped double-beam system 01 p0056 N93-10527
On the vibration of axisymmetric shells 01 p0057 N93-10535
A comparative study of semi-empirical dynamic stall models 01 p0005 N93-10544
A reappraisal of compound equilibrium finite elements 01 p0063 N93-10561
On the use of coupled finite element boundary element models in numerical design analysis 01 p0063 N93-10563
Numerical considerations for structural system identification from modal information 01 p0063 N93-10564
A boundary element super-element method for coupling with the finite element method of substructures 01 p0064 N93-10566
Partial solution of the generalized eigenvalue problem using the Woodbury transformation 01 p0064 N93-10567
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids 01 p0064 N93-10568
Optimal robot trajectory planning 01 p0065 N93-10570
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
Modelling of flexible multibody dynamics and a computer method via the bond graph method 01 p0065 N93-10573
Automated multi-body system dynamics via bond graph modelling and interactive graphics 01 p0066 N93-10576
Self-programming of matter and the evolution of proto-biological organizations
[DE92-015244] 01 p0129 N93-10628
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
The development of computational methods of adhesion and adhesive science and technology
[AD-A253758] 01 p0092 N93-10740
Unified viscoplastic behavior of metal matrix composites
[NASA-TM-105819] 01 p0096 N93-10777
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
The total time on test statistic and age-dependent censoring
[AD-A253622] 01 p0147 N93-10798
An example secure system specified using the Terry-Wiseman approach
[RSRE-90011] 01 p0134 N93-10804
The Terry-Wiseman security policy model and examples of its use
[RSRE-90001] 01 p0134 N93-10807
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858
Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126] 01 p0083 N93-10859
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Small scale processes in solar and stellar plasmas 01 p0181 N93-10917
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
Current scaling of plasma focus devices
[IPF-90-1] 02 p0449 N93-11029
Modelling short crack growth behaviour in nickel-base superalloys
[PNR-90912] 02 p0255 N93-11033
The role of turbomachinery testing for stability in distorted flow
[PNR-90943] 02 p0210 N93-11040
The prediction of convective heat transfer in rotating square ducts
[PNR-90985] 02 p0296 N93-11067
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Micromechanics of metal matrix composites using the Generalized Method of Cells model (GMC) user's guide
[NASA-CR-190756] 02 p0335 N93-11175
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
A new two-phase flow and transport model with interphase mass exchange
[PB92-206564] 02 p0298 N93-11251
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere 02 p0360 N93-11270
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
Stationary time series analysis using information and spectral analysis
[AD-A257279] 02 p0425 N93-11431
A theoretical study of the performance of a small permanent magnet, three-phase alternator when driving a purely resistive load via a full-wave rectification circuit
[RAE-TR-84009] 02 p0289 N93-11434
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503

The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540
Thermal stress and strain analysis in traveling autogenous welds
[DE92-019363] 02 p0326 N93-11556
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599
Measurement of AC electrical characteristics of SSC superconducting dipole magnets
[DE92-018888] 02 p0431 N93-11625
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
Modeling the dispersion of tracer plumes in the Colorado front range boundary layer during night- and day-time conditions
[DE92-019384] 02 p0354 N93-11676
A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
An analytic description of thick-wall bubbles
[DE92-016465] 02 p0432 N93-11759
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
Numerical modeling of a vortex stabilized arcjet 02 p0232 N93-11889
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Dynamics of space debris 02 p0219 N93-11904
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
Lunar PMAD technology assessment
[NASA-CR-189225] 02 p0347 N93-12017
Laser material interaction in confined medium 02 p0319 N93-12035
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A 02 p0321 N93-12046
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142
Mechanisms associated with electrorheology 02 p0294 N93-12198
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids 02 p0340 N93-12199
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Modeling and model simplification of aeroelastic vehicles: An overview
[NASA-TM-107691] 02 p0215 N93-12216
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
Advanced modeling and optimization of piezoelectric composites
[AD-A253800] 02 p0242 N93-12296
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Static assignment of complex stochastic tasks using stochastic majorization
[NASA-CR-189716] 02 p0416 N93-12403
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Superplastic forming of ceramic insulation 02 p0228 N93-12452
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles 02 p0229 N93-12460
The uses and limits of economic models as a climate change policy tool
[DE92-015792] 02 p0356 N93-12474
Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Self-consistent one-dimensional modelling of x ray laser plasmas
[DE92-019543] 03 p0712 N93-12571
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Hierarchic models for laminated plates 03 p0528 N93-12629
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY
[DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
Bayesian analysis of linear and nonlinear population models using the Gibbs sampler
[AD-A254769] 03 p0697 N93-12702
LDEF atomic oxygen fluence update 03 p0546 N93-12771
Long Duration Exposure Facility (LDEF) contamination modeling 03 p0547 N93-12775
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Dense-gas dispersion advection-diffusion model
[DE92-019617] 03 p0642 N93-12884
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Solar prediction analysis
[NASA-CR-184422] 03 p0769 N93-13014
Compression strength of composite primary structural components
[NASA-CR-190949] 03 p0624 N93-13019
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
Basic principles of SAR 03 p0563 N93-13050
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
Simulation of forward-backward extrusion with numerical and model material techniques
[DE92-016299] 03 p0558 N93-13298
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
A Fourier series method for polygonal domains: Large element computation for plates 03 p0627 N93-13484
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Thermodynamically consistent theories for elastoplasticity coupled with damage
[DE92-018283] 03 p0627 N93-13515
Summary on comparison of radiative heat transfer solutions for a specified problem
[DE92-040098] 03 p0588 N93-13575
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-191365] 03 p0654 N93-13719
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities 03 p0501 N93-13807
Climate sensitivity study with energy balance models 03 p0666 N93-13817
Formulation and validation of high-order mathematical models of helicopter flight dynamics 03 p0501 N93-13821
Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip 03 p0496 N93-13822
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors 03 p0725 N93-13845
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Optical model analysis of gravity wave-critical layer interaction 03 p0658 N93-13888
Formal aspects of human-computer interaction 03 p0679 N93-13909
Solar water heating system for a lunar base 03 p0641 N93-14005
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media 03 p0568 N93-14044
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects 03 p0594 N93-14077
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081
A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae 03 p0768 N93-14092
Diffusing wave spectroscopy 04 p0980 N93-14169
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278
Venusian hydrology: Steady state reconsidered 04 p1028 N93-14318
Variations in lithospheric thickness on Venus 04 p1030 N93-14329
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350

A model for the formation of the extended paraboloidal halos around some impact craters on Venus
04 p1037 N93-14352
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Macroscopic properties of random and quasiperiodic media
[AD-A255984] 04 p0990 N93-14413
A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574
Systems modeling
[AD-A255215] 04 p0944 N93-14575
Introduction to spray combustion modelling
04 p0841 N93-14626
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
An investigation of genuinely multidimensional schemes for the Euler equations 04 p0876 N93-14694
Modeling of Euclidean braided fiber architectures to optimize composite properties 04 p0834 N93-14755
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
Recursively generated networks and dynamical learning
[AD-A255441] 04 p0963 N93-14783
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
A new device to aid in the conception and optimization of monolithic millimeter circuits: A distributed and nonliner model of a field effect transistor
04 p0807 N93-14932
Simulation and nonlinear modelling of microwave transistors 04 p0807 N93-14936
Advances in TMG 04 p0811 N93-14956
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
Fitting microphysical observations to a numerical model through an optimal control theory technique
04 p0924 N93-15100
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Development of advanced seal verification
[NASA-CR-184502] 04 p0892 N93-15117
Asymmetric natural damped frequencies of a rotating infinitely long viscous liquid column
[LRT-WE-9-FB-23-1991] 04 p0878 N93-15120
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Reliability modelling for non-electronic systems
[REPT-921-440-103] 04 p0894 N93-15139
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
Study of the mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions
[CTN-93-60619] 04 p0855 N93-15201
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
VHDL (VHSIC hardware description language) in the test environment
[VH-6] 04 p0948 N93-15267
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
The use of ultrasonics for oleo compression measurements on a S-70B-2 (Seahawk) helicopter
[AD-A256315] 04 p0792 N93-15328
Numerical modeling of anti-icing systems and comparison to test results on a NASA 0012 airfoil
[NASA-TM-105975] 04 p0787 N93-15345
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
A method of representating dimensions and tolerances in solid based freeform surfaces
[PNR-90998] 04 p0951 N93-15386
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0788 N93-15522
Non-uniform patch luminance for global illumination
04 p0957 N93-15569
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480] 04 p0880 N93-15643
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
A finite element-boundary integral method for cavities in a circular cylinder
[NASA-CR-191381] 05 p1136 N93-15715
Composite material damage and fracture models for numerical simulations in support of fracture control
05 p1080 N93-15743
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
Modeling of turbulent shear flows
05 p1153 N93-15797
Two equation modelling and the pseudo compressibility technique 05 p1153 N93-15799
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847
Melt spinning of intermetallic alloys: Heat transfer and microstructure
[AD-A257455] 05 p1109 N93-15877
Impact modeling with smooth particle hydrodynamics
[DE92-017506] 05 p1155 N93-15882
Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Software measures and the capability maturity model
[AD-A257238] 05 p1234 N93-15962
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
Optimization of an internally finned rotating heat pipe
[AD-A256725] 05 p1329 N93-15980
Conservation laws for elastic systems with dissipation
[AD-A257168] 05 p1280 N93-15999
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Adhesion in atomic scale metal contacts
[AD-A257137] 05 p1121 N93-16142
A correlation of welding solidification parameters to weld macrostructure
[AD-A256702] 05 p1176 N93-16154
Natural and anthropogenic climate change
[DE93-000898] 05 p1200 N93-16162
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Experimental and numerical investigation of vortex flow over a 76/60-deg double-delta wing
[LR-680] 05 p1054 N93-16210
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281
Unified Airport Design and Analysis Concepts Workshop
[DOT/FAA/RD-92/17] 05 p1069 N93-16309
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Development of user guidelines for a three-dimensional finite element pavement model
05 p1070 N93-16311
Federal Aviation Administration pavement modeling
05 p1071 N93-16315
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
Development of a unified airport pavement analysis and design system 05 p1071 N93-16317
Unified airport pavement design procedure
05 p1071 N93-16318
Three-dimensional stress analysis of multilayered airport pavements: Integral transform approach
05 p1072 N93-16319
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA
[NIKHEF-H/92-02] 05 p1297 N93-16340
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
Hereditarily-finite sets and complete metric spaces
[CWI-CS-R9148] 05 p1265 N93-16366
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 1
[CTN-93-60610] 05 p1157 N93-16425
The variable polarity plasma arc welding process: Mathematical model of welding system
[NASA-CR-192435] 05 p1177 N93-16452
Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478
TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490
Common analysis of the Relativistic Klystron and the Standing-Wave Free-Electron Laser two-beam accelerator
[DE92-041205] 05 p1173 N93-16529
Impact on ceramic faced armour
[ETN-92-92797] 05 p1124 N93-16569
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
Note on the average rank of LYM-sets
[MEMO-1036] 05 p1266 N93-16640
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
A Petri net controller for distributed hierarchical systems
[NASA-CR-191862] 05 p1276 N93-16675
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791

Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
Calculate categorically
[CWI-CS-R9132] 05 p1268 N93-16850
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934
Theoretical studies of a molecular beam generator
[NASA-CR-191716] 05 p1288 N93-16945
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Integrable cellular automata
[PREPRINT-869] 05 p1269 N93-16967
An exact solution in gauge theory of strait disclinations in an isotropic elastic medium
[PREPRINT-875] 05 p1187 N93-16979
Instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
Mathematical models of hysteresis
[DE93-001837] 05 p1281 N93-17034
Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene
05 p1209 N93-17093
Power spectrum modelling of the x ray variability of NGC4051
05 p1367 N93-17108
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Preliminary reservoir engineering studies of the Miravalles geothermal field, Costa Rica
[DE93-000631] 05 p1210 N93-17193
Statistical error in a chord estimator of correlation dimension: The rule of five
[DE93-000687] 05 p1276 N93-17195
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Object-oriented simulation for the Superconducting Super Collider
[DE92-015962] 05 p1299 N93-17205
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment
05 p1386 N93-17240
The kappa distribution as a variational solution for an infinite plasma
05 p1313 N93-17319
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
Automating the design of scientific computing software
05 p1249 N93-17516
A domain-specific design architecture for composite material design and aircraft part redesign
05 p1250 N93-17522
Automating FEA programming
05 p1251 N93-17524
Mathematical models of hysteresis
[DE93-001836] 05 p1281 N93-17530
Response of an annular cylindrical liquid layer with anchored edges in zero-gravity
[LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
The Hahn-Exton q-Bessel function
[ISBN-90-9004649-6] 05 p1271 N93-17587
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Generation of integrated circuit tests based on functional models
[ETN-92-92674] 05 p1151 N93-17628
Internal gravity waves in the equatorial Pacific
[DE93-001517] 05 p1211 N93-17653
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258028] 05 p1277 N93-17674
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Computer models used by AFGWC and NMC for weather analysis and forecasting
[AD-A257985] 05 p1218 N93-17744
Going stable in graph models
[ML-91-08] 05 p1274 N93-17786
Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Coupling losses in multiple beam antennas
[AD-A257494] 06 p1500 N93-17903
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
On the structure of Kripke models of Heyting arithmetic
[ML-92-03] 06 p1644 N93-17914
Prediction of rigid silica based insulation conductivity
[NASA-TP-3276] 06 p1524 N93-17925
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Modeling process redesign
[AD-A257561] 06 p1617 N93-17983
A microwave scattering model for layered vegetation
06 p1565 N93-18074
Analytical surface singularity distributions for flow about elliptical cylinders
[AERO-REPT-9202] 06 p1526 N93-18132
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity
06 p1450 N93-18143
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
International Workshop on Mathematical Methods in Combustion
[AD-A258478] 06 p1482 N93-18312
Evolution of attached and detached slabs and their associated mantle dynamics
[NASA-CR-191920] 06 p1576 N93-18320
Decision paths in complex tasks
[NASA-CR-192121] 06 p1603 N93-18359
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Identification of system dynamics of a high incidence research model
[RR-407] 06 p1440 N93-18507
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
Finite element modeling of fluids
06 p1529 N93-18543
Titan
06 p1592 N93-18553
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Robust control with structured perturbations
[NASA-CR-192195] 06 p1633 N93-18579
Finite difference time domain modeling of spiral antennas
[NASA-CR-192237] 06 p1503 N93-18586
On corner and vertex detection
[INRIA-RR-1439] 06 p1646 N93-18594
Evaluating auroral processes within a magnotospheric model
[NASA-CR-192122] 06 p1577 N93-18606
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648
Influence of the physical modelling of viscous terms on hypersonic flow computations
[INRIA-RR-1493] 06 p1408 N93-18652
Stall transients including effects of inlet distortion and intake geometry
06 p1530 N93-18726
Axial Flow Compressors, volume 2
[VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field
06 p1531 N93-18732
Simulation of ionosphere-magnetosphere mesoscale coupling: Letting ionospheric conductivities depend on upward field-aligned currents
06 p1578 N93-18742
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Mathematical modelling of materials
06 p1557 N93-18753
Model reduction for the dynamics and control of large structural systems via neutral network processing direct numerical optimization
06 p1461 N93-18820
Physical insight into the simultaneous optimization of structure and control
06 p1461 N93-18821
Determination of coronal magnetic fields from vector magnetograms
[NASA-CR-191386] 06 p1744 N93-18869
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Mathematical modeling of bent-axis hydraulic piston motors
06 p1507 N93-18916

Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives
06 p1507 N93-18917

A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924

Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946

Model determination using predictive distributions with implementation via sampling-based methods
[AD-A258777] 06 p1650 N93-18947

The non-linear dynamics of composite cylindrical shells
[AD-A259026] 06 p1558 N93-18953

Geodynamic contributions to global climatic change
06 p1575 N93-18963

Precessional quantities for the Earth over 10 Myr
06 p1579 N93-18964

Modeling orbital changes on tectonic time scales
06 p1581 N93-18971

Inverse problems for orthogonal matrices, Toda flows, and signal processing
[AD-A258810] 06 p1647 N93-18987

Formulation of a structural model for flutter analysis of low aspect ratio composite aircraft wings
06 p1450 N93-19019

Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020

Aircraft landing gear shimmy
06 p1441 N93-19029

Circular dislocation loops and their application to the micromechanics of fibrous composites
06 p1480 N93-19043

The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126

Bias correction factors for near-Earth asteroids
06 p1701 N93-19127

Comet P/Tempel: Some highlights and conclusions from the 1988 apparition 06 p1702 N93-19130

A preliminary model of the coma of 2060 Chiron
06 p1702 N93-19132

Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134

The origin and evolution of the zodiacal dust cloud
06 p1704 N93-19148

Modeling of asteroidal dust production rates
06 p1705 N93-19150

Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances
06 p1717 N93-19240

Melting, vaporization, and energy partitioning for impacts on asteroidal and planetary objects
06 p1718 N93-19244

Forced precession of the cometary nucleus with randomly placed active regions
06 p1719 N93-19251

Rotation of split cometary nuclei
06 p1719 N93-19258

Formation of the Leonid meteor stream and storm
06 p1721 N93-19267

Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339

Radar cross section models for limited aspect angle windows
[AD-A258918] 06 p1510 N93-19341

Stratified plate model for composite plate analysis
[AD-A259001] 06 p1481 N93-19359

Retinal modeling: Segmenting motion from spatio-temporal inputs using neural networks
[AD-A258854] 06 p1599 N93-19369

Inexpensive capillary discharge x ray laser driver, phase 1
[AD-A259032] 06 p1542 N93-19372

Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421

A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423

A model for the cost of doing a cost estimate
06 p1515 N93-19436

Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442

Numerical and physical modelling of bubbly flow phenomena
[DE93-003145] 06 p1535 N93-19500

Fast algorithms for transport models
[DE93-003881] 06 p1657 N93-19508

Computer codes for RF cavity design
[DE93-004002] 06 p1515 N93-19509

HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512

The ionospheric response to atmospheric gravity waves in the EISCAT region 06 p1729 N93-19567

Electric fields and currents in the cusp region as a result of diffusion effects on the magnetopause
06 p1730 N93-19575

Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620

Physically transparent formulation of a free-electron laser in the linear gain regime
[DE93-002577] 06 p1542 N93-19626

Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635

Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640

A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647

Occupant simulation as an aspect of flight safety research 06 p1423 N93-19665

Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703

Machine discovery approach to dynamic systems in the real laboratory 06 p1689 N93-19719

Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720

Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721

Discovery of physical principles from design experiences 06 p1690 N93-19722

Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723

Machine discovery by model driven analogy
06 p1629 N93-19724

Informal qualitative models in scientific discovery
06 p1690 N93-19725

ARC.2: Linear regression in ABACUS
06 p1629 N93-19731

Evaluation of discovery systems
06 p1692 N93-19736

Algorithms and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787

Numerical simulations of drainage flows on Mars
06 p1742 N93-19816

Multi-fluid modeling of interpenetrating plasmas
[DE93-002893] 06 p1668 N93-19829

Geometry of energy minimizing surfaces
[AD-A258694] 06 p1678 N93-19863

Survey of antenna design computer models
[AD-A258765] 06 p1516 N93-19869

A kinetic simulation of low-frequency electromagnetic phenomena in inhomogeneous plasmas of three-dimensions
[NIFS-199] 06 p1669 N93-19883

Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896

On-line aircraft state and parameter estimation
06 p1446 N93-19929

Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942

A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945

Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961

The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972

Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009

The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil
[NASA-CR-192161] 07 p1760 N93-20018

Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037

Cyclic behavior modelling
[ECL-92-09] 07 p1920 N93-20060

H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064

Interactive access and management for four-dimensional environmental data sets using McIDAS
07 p1965 N93-20070

Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071

Basic studies of baroclinic flows
07 p2003 N93-20073

Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074

Life cycles of transient planetary waves
07 p2004 N93-20077

Global water cycle 07 p2004 N93-20078

Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves
07 p2007 N93-20090

Tropical Pacific moisture variability
07 p2007 N93-20093

A modeling study of marine boundary layer clouds
07 p2010 N93-20105

A unified model of program behavior
[AD-A259142] 07 p2030 N93-20128

Pyrotechnic modeling for the NSI and pin puller
07 p1866 N93-20153

Modeling of microgravity combustion experiments
07 p1853 N93-20197

Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198

On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199

The effects of gravity on wrinkled laminar flames
07 p1853 N93-20200

Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205

Flame spread across liquid pools
07 p1854 N93-20209

Status of the CNRS-LCSR program on high pressure droplet vaporization and burning
07 p1854 N93-20215

Multiple-body simulation with emphasis on integrated Space Shuttle vehicle
[NASA-CR-192289] 07 p1821 N93-20234

Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236

Eigenfunction for dissipative dynamics operator and attractor of dissipative structure
[NIFS-194] 07 p2050 N93-20267

Transverse effects in a model of semiconductor laser arrays 07 p1909 N93-20284

Evaluation of candidate working fluid formulations for the electrothermal - chemical wind tunnel
[NASA-CR-192196] 07 p1788 N93-20312

Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321

Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325

Discriminating experiments for multiaxial fatigue damage models 07 p1921 N93-20331

An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334

The predicting crack growth for mixed mode fracture under biaxial loads 07 p1922 N93-20336

Probabilistic chain fatigue model
07 p1922 N93-20338

Discrete statistical model of fatigue crack growth in a Ni-base superalloy, capable of life prediction
07 p1923 N93-20344

Probabilistic aspects of growth of the fatigue cracks in the railroad axles 07 p1924 N93-20348

Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359

Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373

Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404

Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405

Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549

Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564

Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586

On homogenization method and large deformations
07 p1845 N93-20634

Viscoelastic analysis of bonded connections
07 p1929 N93-20638

Two-D to three-D global/local finite element analysis of symmetric finite composite laminates with holes
07 p1930 N93-20645

Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646

Numerical stabilities aspects of cable dynamics simulation 07 p1931 N93-20650

Resonant response analysis of a high speed gear
07 p1917 N93-20662

Buckling and dynamic instability phenomena of tapered bar with localized flaw subjected to an intermediate periodic axial load 07 p1935 N93-20675
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
Prediction of fracture initiation in surface flaws 07 p1935 N93-20678
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
A boundary element formulation for thermo-hydrodynamic lubrication problem 07 p1918 N93-20704
Modelling of multi-link spatial flexible manipulators employing the finite element method 07 p1941 N93-20707
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Modelling robot trajectory errors using time series 07 p1942 N93-20716
Linear passive impedance 07 p1943 N93-20719
The next revolution in computer-aided engineering 07 p1943 N93-20722
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Multifrequency backscatter modelling of bare soil: Attema, Kats, and Krul model applied in Agriscatt 1987 data
[BCRS-91-43] 07 p1884 N93-20739
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Long range percolation in stationary point processes
[REPT-91-54] 07 p2058 N93-20864
Denumerable constrained Markov decision problems and finite approximations
[INRIA-RR-1568] 07 p2058 N93-20867
The linear program approach in Markov decision processes revisited
[INRIA-RR-1569] 07 p2058 N93-20868
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Nocturnal temperature forecasting
[MISC-SER-A-126] 07 p2012 N93-20888
Effect of design selection on response surface performance
[NASA-CR-192275] 07 p2036 N93-20895
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
Fuzzy connectivity and mathematical morphology
[TELECOM-PARIS-92-D-001] 07 p2053 N93-20940
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941
Forcing colorations, intervals and the perfect graph conjecture (an extended abstract)
[RR-867-M] 07 p2053 N93-20945
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
Numerical modeling and optimization for the reconstruction of a polyhedron from its generalized gaussian image
[ETN-93-92683] 07 p2039 N93-21060
Modeling and simulation of a formal neural network: Implementation on a 'Hypercube FPS T-40' parallel machine
[ETN-93-92688] 07 p2045 N93-21065
Reference model for the description of graphic data processing and for the integration of graphic systems with other data processing fields
[ETN-93-93417] 07 p2039 N93-21066
On the modelling of the dissolution and liquid phase epitaxial growth processes in a horizontal sandwich system 07 p1803 N93-21080
Predesign of the tubular braiding process using a mathematical process description 07 p1836 N93-21143
On the structure of gaseous confined laminar diffusion flames: Numerical investigation
[NASA-TM-106039] 07 p1902 N93-21198
Prediction of damage of laminated composite structures under quasi-static and cyclic loadings
[ESA-TT-1282] 07 p1839 N93-21289
Axial response and pulse behavior of a cylindrical liquid column. Part 2
[LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296
Natural axisymmetric frequencies of cylindrical liquid column with anchored free surface
[LRT-WE-9-FB-3-1991] 07 p1903 N93-21297
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
The Shapley value for cooperative games under precedence constraints
[MEMO-1025] 07 p2056 N93-21398
Research in LMSS propagation
[NASA-CR-191915] 07 p1885 N93-21400
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport
[PB92-221605] 07 p1991 N93-21501
Free edge delamination prevention in composite laminates 07 p1840 N93-21508
Initiation and prevention of edge delamination with and without residual stresses 07 p1841 N93-21510
Predicting failure by debonding/delamination 07 p1841 N93-21512
Modelisation and computation of composite materials 07 p1842 N93-21518
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites 07 p1843 N93-21525
Review of modelling of environment-assisted cracking
[NPL-DMM(A)-44] 07 p1951 N93-21566
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields 07 p1955 N93-21580
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
Satellite data assimilation in the wave model 3G-WAM 07 p1965 N93-21638
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
Electromagnetic finite element analysis of a solenoid
[DE93-004635] 07 p1894 N93-21724
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
A literature review of time-deterioration prediction techniques
[PB92-229202] 07 p1919 N93-21822
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836
Applications of neural networks in polymer simulations
[DE93-004110] 07 p1862 N93-21843
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
Recognition of partially occluded threat objects based on hybrid Hopfield neural network 07 p1777 N93-21939
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
Numerical models of planetary dynamos
[DE93-003848] 07 p2098 N93-21970
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
Electron transfer, ionization, and excitation in atomic collisions
[DE93-005918] 08 p2478 N93-22050
Report of the working group on magnetotail/plasma sheet structure
[DE93-003857] 08 p2391 N93-22077
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
Applicability of relative GPS to automated rendezvous between the space shuttle and space station 08 p2138 N93-22241
IMP: A performance code 08 p2139 N93-22245
Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Position calibration software for the form assessment of complex workpieces
[NPL-DITC-203/92] 08 p2435 N93-22450
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
Improved techniques for thermomechanical testing in support of deformation modeling
[NASA-TM-105944] 08 p2323 N93-22555
On the prior probabilities for two-stage Bayesian estimates
[DE93-006389] 08 p2472 N93-22593
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
Modal identification experiment 08 p2188 N93-22635
Integrated oxygen recovery system
[NASA-CR-192343] 08 p2426 N93-22663
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
Electron-phonon driven spin frustration in multi-band Hubbard models: MX chains and oxide superconductors
[DE93-003697] 08 p2503 N93-22754
Theoretical and pragmatic modelling of governing equations for a two-phase flow in bubbly and annular flow regimes
[DE93-004200] 08 p2289 N93-22757
Controlling chaos in spark-ignition engines
[DE93-005754] 08 p2312 N93-22761
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764

The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea
[DE93-000796] 08 p2392 N93-22807
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity
08 p2247 N93-22836
Action of an acceleration field on premixed methane/air flames 08 p2226 N93-22838
The study of surface tension tanks from the neutral buoyancy to the space flight 08 p2248 N93-22842
Adsorption kinetics at liquid-liquid interfaces in microgravity conditions. Experimental approach and theoretical background 08 p2248 N93-22843
Heat and mass transfer in polyphase flows
08 p2248 N93-22844
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature
08 p2249 N93-22849
Surface tension and buoyancy driven Stokes flow in cavities 08 p2250 N93-22856
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation
08 p2251 N93-22857
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels data sets
[AD-A260220] 08 p2220 N93-22917
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
Aerosol phase transformation in the atmosphere
[DE93-001903] 08 p2384 N93-22936
Efficiently modeling neural networks on massively parallel computers
[DE93-003787] 08 p2447 N93-22937
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects
[DE93-004524] 08 p2494 N93-22942
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
Statistical process control program at a ceramics vendor facility
[DE93-006043] 08 p2238 N93-23025
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
VASGEN: A finite element model generation program for VAST. User's manual, version 4.0
[DREA-CR-91-447] 08 p2437 N93-23089
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces
08 p2290 N93-23110
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Planetary gear train ring gear and support structure investigation 08 p2314 N93-23188
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223
System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
New analysis of KrF picosecond pulse experiment
[DE93-003805] 08 p2308 N93-23290
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310
Consideration of history dependent damage in creep crack growth
[DE93-004398] 08 p2328 N93-23317
Dynamic stability of maglev systems
[DE93-004796] 08 p2315 N93-23335
Stability and heat transfer in time-modulated flows
[DE93-006423] 08 p2293 N93-23339
Model of Venus ionopause formation
08 p2554 N93-23354
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
Macroscopic models of superconductivity
08 p2508 N93-23500
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
The creation of a DEM from SPOT data
08 p2355 N93-23582
Fractal theory for large lacunar antenna arrays
08 p2269 N93-23624
A direct mathematical approach to optimize the age-depth relation of deep-sea sediment cores
[MPIM-77] 08 p2414 N93-23636
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Neutron stars, strange stars, and the nuclear equation of state
[DE93-004704] 08 p2550 N93-23952
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
A systematic study of the effects of crust and upper mantle structure on regional seismograms
[AD-A260231] 08 p2399 N93-24086
Blade Assessment for Ice Impact (BLASIM). User's manual, version 1.0
[NASA-CR-191075] 08 p2331 N93-24102
A new index for the crevice corrosion resistance of materials
[AD-A260437] 08 p2233 N93-24112
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Understanding and modeling the behavior of a harmonic drive gear transmission
[AD-A259610] 08 p2317 N93-24152
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Mathematical analysis of gasdynamic wave initiation
[AD-A260382] 08 p2297 N93-24174
Modeling and control of flexible manipulators
08 p2318 N93-24182
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension
08 p2318 N93-24184
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247
Computation of nonlinear optical scattering by droplets
[AD-A260333] 08 p2490 N93-24267
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis
08 p2158 N93-24361
Computation in mechanics of materials
[AD-A260060] 08 p2332 N93-24409
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
New Micro- and macroscopic models of contact and friction
[AD-A259925] 08 p2319 N93-24442
Use of system identification techniques for improving airframe finite element models using test data
[NASA-CR-192699] 08 p2128 N93-24481
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
Three-dimensional turbulent boundary layer flow over a spinning cylinder
[NASA-TM-102240] 08 p2300 N93-24533
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
User's guide to Flexible Membrane Liner Advisory Expert System, Flex version 3.0
[PB93-134872] 08 p2259 N93-24559
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Performance and state-space analyses of systems using Petri nets
[NASA-CR-193195] 08 p2443 N93-24604
A semi-empirical analysis of strong-motion peaks in terms of seismic source, propagation path, and local site conditions
[PB93-150266] 08 p2402 N93-24629
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Rate determination from vector observations
09 p2603 N93-24713
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
Crashworthiness of composite seats for civil aircraft
09 p2582 N93-24773
Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Numerical modelling of induced effects of lightning strike on an all composite helicopter 09 p2583 N93-24879

A computational approach to predicting the extent of arc root damage in CFC panels
09 p2642 N93-24890
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Zoning of aircraft by electric field modelling
09 p2583 N93-24894
Lightning phenomenology bases for full threat return stroke occurrence following extended leader sweep at flight altitudes 09 p2780 N93-24895
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture
09 p2833 N93-24995
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
Time stability: An improvement of the multi-variance method for the oscillator noise analysis
09 p2839 N93-25036
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
Probabilistic analysis of manipulation tasks: A research agenda
[DE93-000713] 09 p2827 N93-25103
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121
The AFTAC model integration project
[DE93-003334] 09 p2761 N93-25122
The effects of sampling frequency on the climate statistics of the ECMWF general circulation model
[DE93-003338] 09 p2761 N93-25145
Global warming potential for CF4
[DE93-005740] 09 p2762 N93-25146
A correlated K-distribution model of the heating rates for H2O and a molecular mixture in the 0-2500 cm(exp -1) wavelength region in the atmosphere between 0 and 60 km
[DE93-005741] 09 p2762 N93-25147
Empirical wind model for the middle and lower atmosphere. Part 1: Local time average
[NASA-TM-104581] 09 p2770 N93-25160
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
Summary of progress in inertial confinement fusion
[DE93-007350] 09 p2858 N93-25187
Maneuvering a reentry body via magneto-gasdynamic forces 09 p2615 N93-25207
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
A method for transient, three-dimensional neutron transport calculations
[DE93-007243] 09 p2847 N93-25256
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases
09 p2712 N93-25280
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312
The Sudbury Neutrino Observatory
[DE93-007697] 09 p2899 N93-25327
A numerical and experimental studies of flow characteristics in centrifugal fans
09 p2577 N93-25339
Combining particles and waves for fluid animation
09 p2699 N93-25348
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
A preliminary sizing method for unmanned aircraft using multi-variate optimisation 09 p2587 N93-25408
Elastic modeling and migration in Earth models
09 p2771 N93-25433
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Numerical and experimental analyses of large composite skeletal satellite systems 09 p2616 N93-25463
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness
09 p2701 N93-25483
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
Intraplate deformation, stress in the lithosphere and the driving mechanism for plate motions
[NASA-CR-192782] 09 p2772 N93-25529
Numerical modeling of barred spiral galaxies
09 p2893 N93-25537
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Numerical modelling of viscous turbomachinery flows with a pressure correction method
09 p2594 N93-25702
Vector radiative transfer model: Application to rainfall retrieval with microwave radiometric data
09 p2784 N93-25743
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
Anatomy and physiology of plant conductive systems
[PB93-156032] 09 p2793 N93-25877
The rapid solution of the Laplace equation on regions with fractal boundaries
[AD-A260585] 09 p2828 N93-25905
On the cross-stream spectral method for the Orr-Sommerfeld equation
[NASA-TM-107737] 09 p2845 N93-26086
Goldstone solar system radar signal processing
09 p2680 N93-26130
Finite element modeling of the hydroforming press
[KCP-613-4999] 09 p2668 N93-26206
Substantiation of a stochastic model of rhythmic phenomena
[AD-A261232] 09 p2830 N93-26262
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
Modeling and analysis tools 09 p2897 N93-26397
EnviroNET 09 p2886 N93-26398
Computational methods for flow problems: Parallel algorithms, flow control, and novel approaches
[AD-A261400] 09 p2707 N93-26400
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192937] 09 p2767 N93-26427
Rain rate and modeled fade distributions at 20 GHz and 30 GHz derived from five years of network rain gauge measurements 09 p2683 N93-26468
Computational modeling of MAGO and other magnetized target fusion concepts
[DE93-007354] 09 p2861 N93-26504
Approximate techniques for predicting size effects on cleavage fracture toughness (J(sub c))
[AD-A261591] 09 p2731 N93-26516
A three-dimensional study of the influence of mountains on a front
[AD-A261927] 09 p2787 N93-26545
Computation of complex solidification morphologies using a phase-field model
[PB93-156743] 09 p2869 N93-26547
Effects of surface thermal forcing on stratified flow past an isolated obstacle
[PB93-156776] 09 p2776 N93-26548
METal matrix composite ANalyzer (METCAN): Theoretical manual
[NASA-TM-106025] 09 p2641 N93-26552
Interaction of an eddy with a continental slope
[AD-A261550] 09 p2791 N93-26578
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601
A comparison of ionospheric propagation mode delay predictions from ADVANCED PROPHET 4.3 with measured data
[AD-A261782] 09 p2686 N93-26604
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Fiber shape effects on metal matrix composite behavior
[NASA-TM-106067] 10 p2989 N93-26704
Testing the pressure-confined Ly alpha cloud model
10 p3181 N93-26764
Gas distribution and starbursts in shell galaxies
10 p3183 N93-26780
The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem
10 p3188 N93-26810
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905
Enabler 1 and 2 engine system design modeling and comparisons 10 p2978 N93-26924
Nuclear thermal propulsion technology overview
10 p2978 N93-26927
NTR plume modeling 10 p2978 N93-26929
Nuclear gas core propulsion research program
10 p2979 N93-26933
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Particle bed reactor modeling
10 p2980 N93-26954
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling 10 p2980 N93-26955
Computational modeling of nuclear thermal rockets
10 p2980 N93-26956
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
SAFSIM overview 10 p2981 N93-26959
The ILS mathematical modeling study of the Runway 10 ILS Localizer at Luis Munoz Marin International Airport, San Juan, Puerto Rico
[DOT/FAA/CT-TN93/10] 10 p2941 N93-27017
Composite micromechanical modeling using the boundary element method
[NASA-TM-106127] 10 p3056 N93-27030
HZEFRG1: An energy-dependent semiempirical nuclear fragmentation model
[NASA-TP-3310] 10 p3138 N93-27031
Contact stress analysis of spiral bevel gears using nonlinear finite element static analysis
[NASA-TM-106176] 10 p3049 N93-27037
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Robust controller design for flexible structures using normalized coprime factor plant descriptions
[NASA-TP-3325] 10 p2958 N93-27083
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
1991 NASA Life Support Systems Analysis workshop
[NASA-CR-4466] 10 p3085 N93-27100
1992 NASA Life Support Systems Analysis workshop
[NASA-CR-4467] 10 p3085 N93-27101
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Physics of solar activity
[NASA-CR-193139] 10 p3217 N93-27114
Research summary
[NASA-CR-193082] 10 p3129 N93-27127
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192988] 10 p3068 N93-27163

Regional tectonic analysis of Venus equatorial highlands and comparison with Earth-based Magellan radar images
[NASA-CR-192996] 10 p3210 N93-27164
Regression rate mechanism in a solid fuel ramjet 10 p2922 N93-27185
Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase 10 p2922 N93-27186
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface 10 p2928 N93-27222
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Introduction to a behavioral approach of continuous-time systems, part 2
[MEMO-COSOR-92-17] 10 p3112 N93-27245
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
An invitation to structured (meta)population models
[CWI-AM-R9113] 10 p3124 N93-27294
Mathematics as technology: Mathematical engineering
[CWI-AM-R9202] 10 p3113 N93-27296
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Numerical modeling of runback water on ice protected aircraft surfaces 10 p2933 N93-27438
Contributions to the Twente Workshop on Hamiltonian Graph Theory
[MEMO-1043] 10 p3115 N93-27469
On Hamilton-connectedness of Cayley graphs 10 p3115 N93-27470
Toughness and the cycle structure of graphs 10 p3115 N93-27472
The Hopping Lemma 10 p3115 N93-27473
Cycles containing all vertices of maximum degree 10 p3115 N93-27474
Long paths and cycles in tough graphs 10 p3115 N93-27475
The complete closure of a graph 10 p3115 N93-27476
Generalized closures of graphs 10 p3116 N93-27477
Two problems related to results of Chvatal-Erdos 10 p3116 N93-27478
Concerning the circumference of certain families of graphs 10 p3116 N93-27479
Ore-type conditions for cycles through specified vertices 10 p3116 N93-27480
Hamilton cycles in path-tough graphs 10 p3116 N93-27481
Cubic graphs containing k vertex-disjoint subgraphs of given cyclomatic number 10 p3116 N93-27482
International survey of industrial applications of formal methods. Volume 1: Purpose, approach, analysis, and conclusions
[PB93-178556] 10 p3010 N93-27517
International survey of industrial applications of formal methods. Volume 2: Case studies
[PB93-178564] 10 p3010 N93-27518
Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561
Design and test of a magnetic thrust bearing 10 p2961 N93-27567
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
Active magnetic bearings applied to industrial compressors 10 p2961 N93-27570
Practical limits to the performance of magnetic bearings: Peak force, slew rate, and displacement sensitivity 10 p2961 N93-27571
A prediction model for noise from low-altitude military aircraft
[AD-A262494] 10 p3130 N93-27662
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
Noise in Josepson effect mixers and the RSJ model 10 p3016 N93-27762
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781
The identification of analytical device models
[ISBN-90-6275-764-2/CIP] 10 p3100 N93-27874
Finite element model and identification procedure 10 p3058 N93-27890
A stochastic approach to robust broadband structural control 10 p3058 N93-27892
The middeck active control experiment: Gravity and suspension effects 10 p3010 N93-27897
Finite element mesh generation from CSG models
[ETN-93-93614] 10 p3119 N93-27932
The use of satellites in gravity field determination and model adjustment
[ISBN-90-6275-802-9/CIP] 10 p2973 N93-27946
Rectenna thermal model development 10 p3022 N93-27986
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
A representation result for nonlinear filter maps on a white noise framework
[MEMO-1062] 10 p3129 N93-28013
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Active impedance matching of complex structural systems 10 p3060 N93-28169
Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-28171
Cost averaging techniques for robust control of flexible structural systems 10 p3061 N93-28175
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
Semantic models for distributed data base management. Part 1: Development of a metamodel for fragmentation
[REPT-92-33] 10 p3168 N93-28390
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Effect of extended tooth contact on the modeling of spur gear transmissions
[NASA-TM-106174] 10 p3052 N93-28411
Modelling of plasmaspheric flows 10 p3150 N93-28412
Elastohydrodynamic lubrication of multilayered elastic solids 10 p3053 N93-28413
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
Robust and fast computation of edge characteristics in image sequences
[INRIA-RR-1689] 10 p3105 N93-28446
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Deformation mechanisms in Be(sub 12)X compounds
[DE93-009080] 11 p3320 N93-28548
Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Influence of optical feedback on the pulse behavior of semiconductor lasers
[ETN-93-93798] 11 p3436 N93-28614
The dynamics and control of space tethers 11 p3274 N93-28629
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
A one-dimensional continuum model for shape-memory alloys
[AD-A262505] 11 p3321 N93-28656
Control-structures interaction test of the LACE satellite 11 p3263 N93-28706
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710
Orbital Debris Environment Monitor (ODEM) 11 p3267 N93-28735
Numerical simulation of perfect fluid flows around complex 3D configurations by a multidomain solver using the MUSCL approach 11 p3417 N93-28745
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Studies in premixed combustion
[DE93-007955] 11 p3310 N93-29051
The meteorological database
[DE93-007289] 11 p3481 N93-29054
Atmospheric and Geophysical Sciences Program report, 1990-1991
[DE93-007390] 11 p3470 N93-29055
A survey of problems in divertor and edge plasma theory
[DE93-007531] 11 p3586 N93-29056
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
Modeling the effects of drop drag and breakup on fuel sprays
[AD-A263650] 11 p3445 N93-29388
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer
[AD-A263661] 11 p3324 N93-29391
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit
[ESA-TT-1267] 11 p3248 N93-29464
Evaluating the bias of alternative cost progress models: Tests using aerospace industry acquisition programs
[AD-A262870] 11 p3624 N93-29477
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
LDEF microenvironments, observed and predicted 11 p3283 N93-29623
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments 11 p3428 N93-29624
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments 11 p3573 N93-29640
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
The basics of weather models
[AD-A263386] 11 p3483 N93-29850
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Automated modeling of physical systems
[NASA-CR-193256] 11 p3531 N93-29873
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877

Some statistical inference problems in linear models and variance components models and their applications
[AD-A264062] 11 p3555 N93-29923
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers
11 p3257 N93-29955
Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades
11 p3258 N93-29962
Analysis of a simulation of the seasonal cycle in the tropical Pacific Ocean in an eddy-resolving global ocean model
[AD-A264007] 11 p3488 N93-29977
Rapidly activated dynamic phase transitions in nonlinear solids
[AD-A263601] 11 p3299 N93-29982
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991
Space station attitude disturbance arising from internal motions 11 p3280 N93-29995
Modeling earthquakes with local and regional broadband data 11 p3478 N93-30005
Applications of three-dimensional modeling in electromagnetic exploration 11 p3391 N93-30010
A preliminary review of global CO2 exchange between ocean and atmosphere
[AD-A264019] 11 p3472 N93-30015
Modelling the dynamics of a large sea area
[DE93-778330] 11 p3488 N93-30040
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Numerical modeling of multidimensional flames with application to energetic materials
11 p3319 N93-30079
Damage growth in composite propellants
11 p3348 N93-30088
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
Models of star formation in interacting and merging disk galaxies 11 p3635 N93-30148
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Environmental studies: Mathematical, computational and statistical analyses
[AD-A264223] 11 p3473 N93-30360
Numerical modeling and parameterization of gravity wave processes and effects in the atmosphere
[AD-A264331] 11 p3478 N93-30367
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370
Young open clusters as probes of the star formation process 11 p3635 N93-30377
Analytical and experimental study of laminar free convective heat transfer from isothermal convex bodies of arbitrary shape
[ISBN-0-315-72512-5] 11 p3426 N93-30379
Catastrophic collisions: Laboratory impact experiments, hydrocode simulations, and the scaling problem
11 p3635 N93-30411
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448
Analysis of cache for streaming tape drive
11 p3435 N93-30477
Two-dimensional and three-dimensional time-dependent MHD model of extended corona
11 p3653 N93-30496
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CO2 and H2O
[DE93-007391] 11 p3474 N93-30504
A ceramic fracture model for high velocity impact
[AD-A264728] 11 p3454 N93-30545
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
Topics in inflationary universe models and cosmic string theories 11 p3637 N93-30579
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Validation and upgrading of physically based mathematical models 11 p3237 N93-30688
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
General scalar-tensor theories for induced gravity inflation
[DE93-602505] 11 p3479 N93-30940
Fourth-rank cosmology
[DE92-641346] 11 p3637 N93-30997
Manifold shape: From differential geometry to mathematical morphology
[CS-9204] 11 p3552 N93-31012
The contact mechanical nonlinearities of a mathematical model of a railway wheel rolling over corrugated rail
[ILR-MITT-266(1991)] 11 p3454 N93-31015
The steady-state tangential contact problem for a falling drop type of contact area on corrugated rail by simplified theory of rolling contact
[ILR-MITT-267(1991)] 11 p3455 N93-31016
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028
Structural design using neural networks
11 p3545 N93-31029
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks 12 p3687 N93-31069
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073
Overall properties of composite materials: A general model based on periodic microstructure
12 p3699 N93-31143
Digital processing for positioning with one satellite
[ETN-93-93732] 12 p3685 N93-31318
Viscosities of molten slags
[NPL-DMM(A)-55] 12 p3705 N93-31321
Modeling solar coronal streamers
12 p3869 N93-31356
Predicting Ly-alpha intensities in coronal streamers
12 p3870 N93-31360
Observational constraints on coronal hole density model 12 p3871 N93-31364
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt
12 p3871 N93-31366
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377
The prominence-corona interface: Models and observations 12 p3873 N93-31378
The physics of solar prominences
12 p3874 N93-31383
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
Radiative modeling of solar prominences, two-dimensional transfer plus partial frequency redistribution 12 p3875 N93-31389
Temperature dependent morphology of untwisted coronal loops 12 p3875 N93-31393
Evolution and oscillations of coronal loops
12 p3876 N93-31395
Coronal heating: The role of resonant absorption
12 p3876 N93-31396
Temperature measurements in the inner corona
12 p3877 N93-31402
Observational tests of coronal heating models
12 p3877 N93-31403
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465
Protection and regulation on direct-direct chopping converters
[CNES-NT-129] 12 p3719 N93-31475
Finite volume methods constructed by mixed variational formulation. Part 2: Error estimates in discrete energetic norms
[REPT-92-86] 12 p3805 N93-31488
Finite volume methods constructed by mixed variational formulation. Part 1: Description of the discretization technique
[REPT-92-85] 12 p3805 N93-31489
Tidally averaged models for dispersion in shallow water
[REPT-92-66] 12 p3769 N93-31497
Generalized steady-state, applied to 2-D, 3-D massively parallel computing
[REPT-92-71] 12 p3795 N93-31504
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508
On the verification of a theory for sculling propulsion
[ETN-93-94040] 12 p3725 N93-31519
Kinetics of adsorption from liquid phase on activated carbon
[ETN-93-94042] 12 p3703 N93-31521
Web crippling of cold-formed steel members
[ISBN-9-03-860122-0] 12 p3705 N93-31540
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center
12 p3696 N93-31574
Constitutive and damage material modeling in a high pressure hydrogen environment
12 p3696 N93-31577
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598
Homoclinic twist bifurcations with Z2 symmetry
[W-9215] 12 p3807 N93-31627
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637
Reconnection in the solar corona
12 p3855 N93-31695
Time-varying reconnection in a stagnation-point flow geometry 12 p3827 N93-31697
Nonlinear interaction of Alfven waves in solar atmosphere 12 p3860 N93-31724
Crack growth prediction models
12 p3682 N93-31747
Crack growth prediction results
12 p3682 N93-31748
Large angle magnetic suspension test fixture
[NASA-CR-193123] 12 p3684 N93-31836
On the quantitative interpretation of uranium series disequilibria
[VTT-TIED-1404] 12 p3821 N93-31863
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
Modeling ice streams: Derived quantities
12 p3763 N93-31904
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
A survey of codes for modeling electromagnetic launch
[AD-A264946] 12 p3687 N93-32074
Infinite volume extrapolations of finite cluster calculations. How correct are these?
[AD-A265648] 12 p3809 N93-32170
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238
On the superconductivity existence within the Hubbard model
[DE93-613987] 12 p3830 N93-32280
Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

MATHEMATICAL PROGRAMMING

NT DYNAMIC PROGRAMMING
NT LINEAR PROGRAMMING
NT NONLINEAR PROGRAMMING
NT QUADRATIC PROGRAMMING

A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
From totally unimodular to balanced O, +/- 1 matrices: A family of integer polytopes
[AD-A254552] 03 p0696 N93-12640
Compactness and Loewenheim-Skolem properties in pre-institution categories
[MEMO-INF-92-27] 04 p0968 N93-15094
Implementation of a parallel stochastic solving method for linearly constrained concave global optimization problems using parallel computing
[AD-A257112] 05 p1255 N93-16119
Calculate categorically
[CWI-CS-R9132] 05 p1268 N93-16850
Position calibration software for the form assessment of complex workpieces
[NPL-DITC-203/92] 08 p2435 N93-22450
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
Computation and theory in large-scale optimization
[AD-A261419] 09 p2813 N93-26450
Preprocessing and probing techniques for mixed integer programming problems
[MEMO-COSOR-92-26] 10 p3093 N93-27253
MP-DIT: Mathematical program data interchange tool
[MEMO-COSOR-92-31] 10 p3095 N93-27385
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087

MATHEMATICS

The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
A summer program in mathematics and computer science for academically oriented students, June 24 - July 26, 1991, Washington, DC
[AD-A249139] 02 p0427 N93-12061
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
On computing accurate singular values and eigenvalues of acyclic matrices
[AD-A255892] 03 p0697 N93-14036
Purposive discovery of operations
[NASA-TM-108116] 04 p0963 N93-14765
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195
Studies in beamforming tracking neural networks mathematics
[AD-A255574] 05 p1258 N93-16039
Ventures in science
[DE93-003044] 05 p1331 N93-16521
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
The 1992 Science Olympiad National Tournament
[NASA-CR-191379] 06 p1679 N93-18385
The 1991 lectures in complex systems
[AD-A259428] 07 p2050 N93-20008
Mathematics as technology: Mathematical engineering
[CWI-AM-R9202] 10 p3113 N93-27296
ICASE
[NASA-CR-193257] 11 p3520 N93-29864

MATRICES (CIRCUITS)

High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704

MATRICES (MATHEMATICS)

NT ADJOINTS
NT CANONICAL FORMS
NT EIGENVALUES
NT EIGENVECTORS
NT HESSIAN MATRICES
NT JORDAN FORM
NT STIFFNESS MATRIX

A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids
01 p0064 N93-10568
LABAN-PEL: A two-dimensional, multigroup diffusion, high-order response matrix code
[DE92-626845] 01 p0144 N93-10624
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Equivalence transformations of rational matrices
[MATHS-REPT-A-163] 02 p0423 N93-11121
Equivalence transformations of rational matrices and applications
[MATHS-REPT-A-169] 02 p0424 N93-11124
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Krylov subspace methods for complex non-Hermitian linear systems
[NASA-CR-190931] 02 p0409 N93-11458
Optimization of expressions involving array classes
[DE92-019421] 02 p0411 N93-11536
Decomposition of balanced matrices. Part 5: Goggles
[AD-A247462] 02 p0430 N93-12217
Perturbation theory for the solution of systems of linear equations
[AD-A254994] 02 p0428 N93-12511
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
From totally unimodular to balanced O, +/- 1 matrices: A family of integer polytopes
[AD-A254552] 03 p0696 N93-12640
Implementation details of the coupled QMR algorithm
[NASA-CR-191213] 03 p0684 N93-12801
Fast multiresolution algorithms for matrix-vector multiplication
[NASA-CR-189721] 03 p0696 N93-12942
Identifiability of linear systems in physical coordinates
[NASA-TM-107695] 03 p0625 N93-13125
TRASYS form factor matrix normalization
03 p0585 N93-13391
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
On computing accurate singular values and eigenvalues of acyclic matrices
[AD-A255892] 03 p0697 N93-14036
Application of partition matrix methods to solve large eigenproblems in structural dynamics
04 p0896 N93-14188
Analysis of projections of the transfer matrix in 2D Ising models
[AD-A256583] 04 p0967 N93-14271
Implementing the multiprefix operation on parallel and vector computers
[AD-A256367] 04 p0959 N93-15207
The covariance matrix of derived quantities and their combination
[DE92-019066] 04 p0969 N93-15212
Matrix animation and polar decomposition
04 p0956 N93-15563
Minimum eigenvalue separation
[AD-A256570] 05 p1262 N93-15848
Studies in estimation theory, applications, and implementation
[AD-A256964] 05 p1275 N93-16250
D decays, B-physics, and CP-violation from lattice QCD
[PREPRINT-799] 05 p1287 N93-16419
Vertex operator representation of some quantum tori Lie algebras
[PREPRINT-834] 05 p1269 N93-16956
Stiffnesses by (TtN) ensemble molecular dynamics
05 p1274 N93-17331
From the rotation group to the Poincare group
[DE93-000864] 05 p1279 N93-17386
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
More box codes 06 p1505 N93-18906
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
Kinematic analysis of the ARID manipulator
06 p1552 N93-19393
Data compression by wavelet transforms
06 p1513 N93-19426
An improved method of structural dynamic test design for ground flying and its application to the SH-2F and SH-2G helicopters 06 p1446 N93-19928
Neural-network dedicated processor for solving competitive assignment problems
[NASA-CASE-NPO-17781-1-CU]
07 p2028 N93-20116
Higher order crossings
[AD-A258727] 07 p2050 N93-20327
Calculation of the Jordan form of a matrix with rational coefficients (using the formal computation system Axiom)
[RR-882-M] 07 p2051 N93-20782
A necessary and sufficient condition for the existence of the maximum likelihood estimate in autoregressive models
[RR-866-M] 07 p2058 N93-20944
Direct and inverse unitary eigenproblems in signal processing: An overview
[AD-A259348] 07 p2055 N93-21242
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-003365] 07 p2057 N93-21963
Variational nodal solution algorithms for multigroup criticality problems
[DE93-003462] 07 p2042 N93-21964
Generation of covariance data among values from a single set of experiments
[DE93-004192] 08 p2522 N93-22435
Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512
The canonical forms of a lattice rule
[DE93-005686] 08 p2466 N93-22759
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-004119] 08 p2468 N93-22938
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061
Parallel-vector unsymmetric Eigen-Solver on high performance computers
[NASA-CR-191417] 08 p2433 N93-24491
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Combining spectral information with crop rotation knowledge for crop classifications
09 p2752 N93-24861
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis
09 p2724 N93-25273
Parallel matrix computations
[AD-A260783] 09 p2828 N93-25687
Golay and other box codes 09 p2678 N93-26116
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
On the treewidth and pathwidth of permutation graphs
[RUU-CS-92-13] 10 p3113 N93-27305
A tourist guide through treewidth
[RUU-CS-92-12] 10 p3114 N93-27370
Extended pure Yang Mills gauge theories with scalar and tensor gauge fields
[SSCL-PREPRINT-769] 10 p3156 N93-27583
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
Two counterexamples related to the Kreiss matrix theorem
[TW-92-08] 10 p3118 N93-27917
The improvement of hadronic matrix elements in lattice QCD
[SSCL-PREPRINT-737] 10 p3157 N93-28162
Final state interactions from Euclidean Correlation Functions
[SSCL-PREPRINT-742] 10 p3122 N93-28196
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
A summary of block schemes for reducing a general matrix to Hessenberg form
[DE93-010621] 11 p3525 N93-28877
A simple parallel prefix algorithm for compact finite-difference schemes
[NASA-CR-191448] 11 p3525 N93-28976
Index mappings for interactive editing of symbolic matrices
[DE93-009316] 11 p3549 N93-29060

Exploiting the memory hierarchy in sequential and parallel sparse Cholesky factorization
[AD-A262849] 11 p3539 N93-29508
Division by polynomial matrix and its application to multivariable linear systems 11 p3357 N93-30233
A robust model for finding optimal evolutionary trees
[DE93-010682] 11 p3491 N93-30483
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810
Manifold shape: From differential geometry to mathematical morphology
[CS-9204] 11 p3552 N93-31012
Iterative equation solving techniques in boundary element analysis 12 p3802 N93-31141
Building Hadamard matrices in steps of 4 to order 200
[PB93-189835] 12 p3786 N93-31200
A generalized asymptotic problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
Isocliny, Souillart matrices, quaternions and four-dimensional rotations
[REPT-92-57] 12 p3813 N93-31502
Necessary and sufficient conditions for J-spectral factorizations with a J-lossless property for infinite-dimensional systems in continuous and discrete time
[W-9217] 12 p3798 N93-31512
Graph theoretic methods for the computation of disturbance decoupling feedback matrices for structured systems
[REPT-92-54] 12 p3789 N93-31614
Three lectures on quantum groups: Representations, duality, real forms
[DE93-608159] 12 p3832 N93-31807
Linear algebra for signal processing
[AD-A264677] 12 p3808 N93-32017
On the real symmetric inverse eigenvalue problem
[DE93-619667] 12 p3809 N93-32284

MATRIX ANALYSIS
U MATRICES (MATHEMATICS)

MATRIX MANAGEMENT
A new route for fibre management in metal matrix composites 03 p0534 N93-13779

MATRIX MATERIALS
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Fracture mechanics of model fiber composites 02 p0237 N93-11247
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual
[NASA-TP-3292] 02 p0241 N93-12015
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
The role of the fiber/matrix interphase in the static and fatigue behavior of polymeric matrix composite laminates 03 p0535 N93-13968
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745
Structural study of thermohardening matrices: Deformation of composite matrices in relation to their molecular structure
[ONERA-RT-12/3521-M] 04 p0836 N93-15253
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Surface analyses of composites exposed to the space environment on LDEF
[AD-A257141] 05 p1096 N93-15997
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
The prediction of the overall behavior of viscous composites
[ITN-93-85184] 05 p1098 N93-16855
The thermoviscoelastic behavior of composite materials
[ITN-93-85185] 05 p1098 N93-16856
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Thermoplastic composites for structural applications: Past and future 07 p1834 N93-21131
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Modeling the thermal properties and processing of composite materials 08 p2214 N93-24206
Thick-section structural composites and composite structures
[AD-A260081] 08 p2215 N93-24316
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Analysis of matrix damage in unidirectional composites 09 p2634 N93-25338
Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
A new class of high strength molding resins, phase 1
[AD-A262691] 10 p3005 N93-28117
Probabilistic simulation of multi-scale composite behavior
[NASA-TM-106196] 11 p3451 N93-28633
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Processing and property evaluation of silver or aluminum matrix YBa2Cu3O(6+x) superconducting materials
[AD-A263382] 11 p3595 N93-29333
Advanced fiber/matrix material systems 11 p3305 N93-30854
Introduction to high performance composites 11 p3291 N93-30957
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

MATRIX METHODS
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556
Partial solution of the generalized eigenvalue problem using the Woodbury transformation 01 p0064 N93-10567
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices 01 p0066 N93-10577
LABAN-PEL: A two-dimensional, multigroup diffusion, high-order response matrix code
[DE92-626845] 01 p0144 N93-10624
Efficient solution of parabolic equations by Krylov approximation methods
[NASA-CR-191235] 03 p0697 N93-13409
The free and forced vibrations of structures using the finite dynamic element method 03 p0630 N93-13935
Application of partition matrix methods to solve large eigenproblems in structural dynamics 04 p0896 N93-14188
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
MGMtool: A performance modelling tool based on matrix geometric techniques
[MEMO-INF-92-35] 05 p1236 N93-16338
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Structures research 06 p1447 N93-19453
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures 06 p1561 N93-19459
A discrete ordinate response matrix method for massively parallel computers
[DE93-003463] 06 p1631 N93-19621
A method of continuous coordinate condensation 07 p1932 N93-20657
Damped vibration of engine valve train by recent transfer matrix and matrix procedures 07 p1933 N93-20665
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088

MATRIX STRESS CALCULATION
U MATRIX METHODS

MATRIX THEORY
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Perturbation theory for the solution of systems of linear equations
[AD-A254994] 02 p0428 N93-12511
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
Two counterexamples related to the Kreiss matrix theorem
[TW-92-08] 10 p3118 N93-27917

MATTER (PHYSICS)
NT DARK MATTER
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Neutron stars, strange stars, and the nuclear equation of state
[DE93-004704] 08 p2550 N93-23952
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242
Three-neutrino oscillations in matter and topological phases
[DE93-608386] 12 p3813 N93-31290

MATURING
U GROWTH

MAXIMA
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
Comparison of the maximum stress and the stress intensity approach in the analysis of bonded joints 01 p0053 N93-10514
Graphs with maximum number of minimum cuts
[RR-880-M] 07 p2054 N93-21168
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
Cycles containing all vertices of maximum degree 10 p3115 N93-27474
Concerning the circumference of certain families of graphs 10 p3116 N93-27479

MAXIMUM ENTROPY METHOD
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636

Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
On the prior probabilities for two-stage Bayesian estimates
[DE93-006389] 08 p2472 N93-22593
A parameter-controlled relaxation algorithm for Bayesian restoration of images using the maximum entropy method (design, analysis, Mach band simulation and parallelization)
[ISBN-0-315-64776-0] 08 p2444 N93-24608
Experimental results of the performance of the new phase and frequency controller
09 p2839 N93-25035
Maximum entropy approach to fuzzy control
[NASA-CR-192949] 09 p2818 N93-25141
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
Information-theoretic and Wigner function approaches to the nonclassical states dynamics for the variable frequency harmonic oscillator
[DE93-608166] 12 p3813 N93-31301

MAXIMUM LIKELIHOOD ESTIMATES
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
Identification and estimation of sources of transmitted variation
[DE92-015246] 02 p0429 N93-11820
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method
[NASA-CR-191216] 03 p0503 N93-12903
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem
[INRIA-RR-1495] 06 p1647 N93-18653
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
The flight test and data analysis program for the development of a Boeing/De Havilland Dash 8 simulator model 06 p1446 N93-19930
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
A necessary and sufficient condition for the existence of the maximum likelihood estimate in autoregressive models
[RR-866-M] 07 p2058 N93-20944
Evaluation and detection of a signal containing an autoregressive noise
[ETN-93-92684] 07 p1885 N93-21061
Estimation methods for parameters of multivariate autoregressive models
[ETN-93-92685] 07 p2059 N93-21062
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm
08 p2354 N93-23576
Digital processing for positioning with one satellite
08 p2270 N93-23629
Models and analysis for multivariate failure time data
08 p2322 N93-24198
Simulation of a NC-FSK maximum likelihood receiver for fast Rayleigh fading
[ISBN-0-315-59024-6] 08 p2274 N93-24627
An analytical solution to the consistency problem for the Littlewood model in software reliability
[CWI-BS-R9129] 10 p3096 N93-27392
Filtering, statistical signal processing and variational problems
[AD-A262276] 10 p3028 N93-28238
A modified Anderson Darling goodness-of-fit test for the gamma distribution with unknown scale and location parameters
[AD-A262486] 11 p3553 N93-28760
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845
New classification methods 11 p3459 N93-28932
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
Digital processing for positioning with one satellite
[ETN-93-93732] 12 p3685 N93-31318
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060

MAXIMUM PRINCIPLE
Optimal control computer programs
[NASA-TM-108384] 03 p0693 N93-13289
Time optimal paths for high speed maneuvering
[DE93-006251] 08 p2458 N93-23338
Optimal control problems for parabolic boundary control systems 12 p3800 N93-32216

MAXIMUM USABLE FREQUENCY
A current assessment of single site locating technology 08 p2267 N93-23608

MAXWELL EQUATION
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
On the time dependent hydrodynamic model for semiconductors
[ETN-93-93027] 06 p1518 N93-18098
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1665 N93-18100
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Time-reversible Maxwell's demon
[AD-A260170] 08 p2460 N93-23709
A constitutive model for the forces of a magnetic bearing including eddy currents 10 p2960 N93-27560
Upwind finite element schemes for solving the Maxwell equations
[INRIA-RR-1601] 11 p3546 N93-28509
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783
A generalization of Dirac non-linear electrodynamics, and spinning charged particles
[DE93-609847] 12 p3821 N93-31907
Free Maxwell equations, Dirac equation, and non-dispersive De Broglie wave packets
[DE93-609848] 12 p3832 N93-31908

MAXWELL-BOLTZMANN DENSITY FUNCTION
Equilibria and stability of non-adiabatic Vlasov-Maxwellian plasmas 08 p2497 N93-23998

MAXWELLIAN DISTRIBUTION (DENSITY)
U MAXWELL-BOLTZMANN DENSITY FUNCTION

MCDONNELL AIRCRAFT
NT F-4 AIRCRAFT

MCDONNELL DOUGLAS AIRCRAFT
NT DOUGLAS AIRCRAFT
NT F-4 AIRCRAFT
NT F-18 AIRCRAFT
MD-11: When appearances deceive
[ETN-93-93695] 08 p2126 N93-23416

MCMURDO SOUND
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881

MEADOWLANDS
U GRASSLANDS

MEAN
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857

MEAN FREE PATH
The two-point correlation function of randomly distributed Lyman alpha clouds
10 p3181 N93-26767

MEAN SQUARE VALUES
Hierarchical Poisson disk sampling distributions
04 p0954 N93-15545
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
A comparison of variable selection criteria for multiple linear regression: A second simulation study
[AD-A262512] 10 p3125 N93-27664
Adaptive filtering methods: On methods to use a priori information in order to reduce complexity while maintaining convergence properties
[ISBN-90-9005143-0] 10 p3121 N93-28109
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Iterative encoding methods for computer generated holograms
[AD-A263705] 11 p3431 N93-29297
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423

MEAN TIME BETWEEN FAILURES
U MTBF

MEANDERS
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354

MEASURE AND INTEGRATION
NT BOREL SETS
NT FUNCTIONAL INTEGRATION
NT INTEGRAL CALCULUS
NT J INTEGRAL
NT NUMERICAL INTEGRATION
NT RUNGE-KUTTA METHOD
NT STIELTJES INTEGRAL
NT WEIGHTING FUNCTIONS
The dynamics of spatially extended lasers
04 p0883 N93-14123
A comparative assessment of R. M. Young and tipping bucket rain gauges 09 p2685 N93-26483
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
A remark on the invariant measure for the nonlinear Schroedinger equation
[DE93-609840] 11 p3552 N93-30946

MEASURE THEORY
U MEASURE AND INTEGRATION

MEASUREMENT
Comparisons of theoretical limits for source coding with practical compression algorithms
06 p1513 N93-19428
A method of measuring the interfacial tension of two liquids of the same mass volume: The cylindrical method
08 p2251 N93-22860
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Ways to improve your correlation functions
10 p3172 N93-26712
An algebraic approach to the quantization of constrained systems: Finite dimensional examples
11 p3548 N93-28671

MEASURING
U MEASUREMENT

MEASURING INSTRUMENTS
NT ACCELEROMETERS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
NT ALTIMETERS
NT AMMETERS
NT ANALYZERS
NT ANEMOMETERS
NT APPROACH INDICATORS
NT ATOMIC CLOCKS
NT ATTITUDE INDICATORS
NT BALLOON-BORNE INSTRUMENTS
NT BATHYMETERS
NT BATHYTHERMOGRAPHS
NT BOLOMETERS
NT CALORIMETERS
NT CERENKOV COUNTERS
NT CLOCKS
NT CLOUD HEIGHT INDICATORS
NT CONDUCTIVITY METERS

NT COUNTERS
NT DEFORMETERS
NT DENSIMETERS
NT DIFFRACTOMETERS
NT DISTANCE MEASURING EQUIPMENT
NT DOSIMETERS
NT DYNAMOMETERS
NT ELASTOMETERS
NT ELECTROMETERS
NT ELECTRON COUNTERS
NT ELECTROPHOTOMETERS
NT ELECTROSTATIC PROBES
NT ELLIPSOMETERS
NT ENGINE ANALYZERS
NT ENGINE MONITORING INSTRUMENTS
NT ERGOMETERS
NT ETALONS
NT EXTENSOMETERS
NT FABRY-PEROT INTERFEROMETERS
NT FIELD INTENSITY METERS
NT FLAME PROBES
NT FLIGHT RECORDERS
NT FLIR DETECTORS
NT FLOWMETERS
NT GAMMA RAY SPECTROMETERS
NT GAS METERS
NT GEIGER COUNTERS
NT GONIOMETERS
NT GRAVIMETERS
NT GRAVITY GRADIOMETERS
NT HODOSCOPES
NT HOT-FILM ANEMOMETERS
NT HOT-WIRE ANEMOMETERS
NT HOT-WIRE FLOWMETERS
NT HYGROMETERS
NT IMAGING SPECTROMETERS
NT IMPEDANCE PROBES
NT INFRARED DETECTORS
NT INFRARED INSTRUMENTS
NT INFRARED INTERFEROMETERS
NT INFRARED RADIOMETERS
NT INFRARED SCANNERS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
NT INTERFEROMETERS
NT ION PROBES
NT ION TRAPS (INSTRUMENTATION)
NT IONOSONDES
NT KNUDSEN GAGES
NT LASER ALTIMETERS
NT LASER ANEMOMETERS
NT LASER DOPPLER VELOCIMETERS
NT LASER RANGE FINDERS
NT LASER SPECTROMETERS
NT MACH-ZEHNDER INTERFEROMETERS
NT MAGNETIC PROBES
NT MAGNETOMETERS
NT MASS SPECTROMETERS
NT METEOROLOGICAL INSTRUMENTS
NT MICHELSON INTERFEROMETERS
NT MICROBALANCES
NT MICROMETERS
NT MICROWAVE INTERFEROMETERS
NT MICROWAVE RADIOMETERS
NT MICROWAVE REFLECTOMETERS
NT MICROWAVE SENSORS
NT MICROWAVE SPECTROMETERS
NT MONOCHROMATORS
NT NEPHELOMETERS
NT NEUTRON COUNTERS
NT NEUTRON SPECTROMETERS
NT OCULOMETERS
NT OMEGA NAVIGATION SYSTEM
NT OPTICAL MEASURING INSTRUMENTS
NT OPTICAL PYROMETERS
NT OPTICAL RANGE FINDERS
NT OXYGEN ANALYZERS
NT PARTICLE TELESCOPES
NT PENETROMETERS
NT PHOTOMETERS
NT PIEZOELECTRIC GAGES
NT PLASMA PROBES
NT POLARIMETERS
NT POSITION INDICATORS
NT PRESSURE GAGES
NT PROFILOMETERS
NT PROPORTIONAL COUNTERS
NT PYRANOMETERS
NT PYROHELIOMETERS
NT PYROMETERS
NT RADIATION COUNTERS
NT RADIATION DETECTORS
NT RADIATION MEASURING INSTRUMENTS
NT RADIATION PYROMETERS
NT RADIO ALTIMETERS
NT RADIO DIRECTION FINDERS
NT RADIO FREQUENCY IMPEDANCE PROBES
NT RADIO INTERFEROMETERS
NT RADIOGONIOMETERS
NT RADIOMETERS
NT RADIOSONDES
NT RAIN GAGES
NT RANGE FINDERS
NT RAWINSONDES
NT REFLECTOMETERS
NT RESISTANCE THERMOMETERS
NT RHEOMETERS
NT RIOMETERS
NT SATELLITE-BORNE INSTRUMENTS
NT SCATTEROMETERS
NT SCINTILLATION COUNTERS
NT SEISMOGRAPHS
NT SEXTANTS
NT SHOCK MEASURING INSTRUMENTS
NT SIGNAL ANALYZERS
NT SILICON RADIATION DETECTORS
NT SMOKE DETECTORS
NT SOLAR SPECTROMETERS
NT SONDES
NT SPECTROHELIOGRAPHS
NT SPECTROMETERS
NT SPECTROPHOTOMETERS
NT SPECTRORADIOMETERS
NT SPEED INDICATORS
NT STRAIN GAGE ACCELEROMETERS
NT STRAIN GAGE BALANCES
NT STRAIN GAGES
NT TEMPERATURE MEASURING INSTRUMENTS
NT TEMPERATURE PROBES
NT THERMOCOUPLE PYROMETERS
NT THERMOMETERS
NT TIME OF FLIGHT SPECTROMETERS
NT TIMING DEVICES
NT TORQUEMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT TRANSMISSOMETERS
NT ULTRAVIOLET DETECTORS
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
NT VACUUM GAGES
NT VIBRATION METERS
NT VISCOMETERS
NT WATTMETERS
NT WEIGHT INDICATORS
NT X RAY DETECTORS

Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048

Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757

Repeatable sensitivity of optical-time-domain-reflectometry-based strain measurement
[DE92-016910] 02 p0338 N93-11792

The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141

Compensated high temperature strain gage
[NASA-CASE-LAR-14776-1] 02 p0313 N93-12205

Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215

Precision liquid-level measurement in deep tanks using a swept-RF resonant cavity
[DE92-017236] 03 p0597 N93-13267

Variable path length spectrophotometric probe
[DE92-019834] 04 p0881 N93-14716

Sensor fault detection using nonlinear observer and polynomial classifier 04 p0797 N93-15182

Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192

Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135

In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609

Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB] 06 p1406 N93-18275

Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991 06 p1578 N93-18741

Low level measurements of atmospheric DMS, H2S, and SO2 for GTE/CITE-3
[NASA-CR-191635] 06 p1573 N93-18863

Program overview: 1991 flight test objectives 06 p1418 N93-19591

Measurement process error determination and control
[DE93-002948] 06 p1553 N93-19753

High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022

Method and apparatus for determination of material residual stress
[NASA-CASE-GSC-13451-1] 07 p1921 N93-20118

Dielectric constant measurement probe assembly and apparatus and method
[AD-D015537] 07 p1890 N93-20766

Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836

Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926

Electromagnetic characterization measurements at 1000 C in Aerospatiale Microwave Department
[REPT-921-430-114] 07 p1884 N93-20938

History of geodesy 07 p1975 N93-20997

Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139

Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414

Technical digest-symposium on optical fiber measurements, 1992
[PB93-102259] 07 p2068 N93-21505

Field screening for environmental pollutants: Defining user instrumentation needs
[PB93-117885] 07 p1993 N93-21791

Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941

A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079

Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080

Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895

Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175

Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682

A body mass measurement device based on the oscillation principle 08 p2166 N93-24400

A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889

Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897

Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 4
[NASA-CR-192834] 09 p2769 N93-24910

Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088

Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228

Application of an on-machine gage for diameter measurements 09 p2711 N93-25578

Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB] 09 p2706 N93-26000

Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution
[NASA-CR-192832] 09 p2775 N93-26084

Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943

A system for measurement and control of weld pool geometry in automatic arc welding
[ETN-93-93154] 10 p3050 N93-27380

Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448

Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27566

Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625

Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084

Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402

Method of continuously determining crack length
[NASA-CASE-LAR-14480-1-CU] 11 p3452 N93-29612

Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779
Advanced coordinate measuring machine at Sandia National Laboratories
[DE93-010618] 11 p3432 N93-29842
Measurement of electromagnetic properties of composite materials
[AD-A264725] 11 p3303 N93-30555
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733
Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
Calibration system for testing laboratory
[VTT-TIED-1401] 12 p3738 N93-31172
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
The NPL reference hazemeter
[NPL-QU-94] 12 p3729 N93-31325
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission 12 p3860 N93-31725
Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420

MECHANICAL DEVICES
Cable-line shortening device
[AD-D015427] 04 p0891 N93-14822
Portable seat lift
[NASA-CASE-MFS-28610-1] 05 p1228 N93-17045
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258028] 05 p1277 N93-17674
Minimum size of disc cams with radial translating roller followers
[ESDU-92005] 06 p1544 N93-17998
Integral fill yarn insertion and beatup method using inflatable membrane
[NASA-CASE-LAR-14046-1] 06 p1500 N93-18857
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
An apparatus for gripping test specimens
[NASA-CASE-LEW-15345-2] 10 p3052 N93-28127
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Rotational fluid flow experiment 11 p3235 N93-29761
Automated failure mode effects and criticality analyses for reliability prediction of multibody mechanical systems 12 p3738 N93-31107
Service equipment for use in hostile environments
[NASA-CASE-LEW-14906-2] 12 p3734 N93-31314

MECHANICAL DRAWINGS
U ENGINEERING DRAWINGS

MECHANICAL DRIVES
NT HELICOPTER PROPELLER DRIVE
NT TRANSMISSIONS (MACHINE ELEMENTS)
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Retractable tool bit having slider type catch mechanism
[NASA-CASE-GSC-13358-1] 04 p0890 N93-14710
Variable speed rotary compressor and adjustable speed drive efficiencies measured in the laboratory
[DE92-040026] 04 p0893 N93-15278
The trajectory analysis of bevel planetary gear trains
[DE92-040898] 04 p0893 N93-15380
A systematic approach for the DRSS IOL APM design 05 p1081 N93-15753
Mechanical Design Engineering Enabler Project wheel and wheel drives
[NASA-CR-192060] 06 p1546 N93-18051
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives 06 p1507 N93-18917
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
The design and modelling of a comb-drive-based microengine for mechanism drive applications
[DE93-009826] 11 p3443 N93-29185
Joint drive development for the Space Station Remote Manipulator System 11 p3370 N93-30313

MECHANICAL ENGINEERING
Proceedings of the Twelfth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-03] 01 p0044 N93-10466
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
Mechanical and thermal design of the SUN instrument 01 p0014 N93-10956
Energy efficient drivepower: An overview
[PB92-199173] 02 p0294 N93-12191
Design features of a seven-cell high-gradient superconducting cavity
[DE92-040229] 04 p0870 N93-15424
Spacecraft Structures and Mechanical Testing, volume 2
[ESA-SP-321-VOL-2] 05 p1076 N93-15718
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258028] 05 p1277 N93-17674
NASA/USRA advanced design program activity, 1991-1992
[NASA-CR-192063] 05 p1135 N93-17778
Blending profiles of disc cams with radial translating roller followers. Part 1: To reduce segment angle, reduce reference circle radius or increase follower lift
[ESDU-92014] 06 p1545 N93-18041
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
Interagency Advanced Power Group semi-annual compilation of briefs, September 1992
[DE93-000703] 06 p1571 N93-19613
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
Activities of the Institute for Mechanical Engineering
[NRC-33578] 08 p2319 N93-24287
Turbine turbobrake systems 09 p2717 N93-25268
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
Engineering: Research development and technology
[UCRL-53868-91] 09 p2917 N93-26326
Configuration optimization of space structures 09 p2670 N93-26415
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
The 1990-1991 project summaries 11 p3230 N93-29731

MECHANICAL FINGERS
U END EFFECTORS

MECHANICAL HANDS
U END EFFECTORS

MECHANICAL IMPEDANCE
Linear passive impedance 07 p1943 N93-20719
Trajectory generation for dual-arm robots using artificial impedance approach 11 p3370 N93-30310

MECHANICAL MEASUREMENT
NT DISPLACEMENT MEASUREMENT
NT DRAG MEASUREMENT
NT FLOW MEASUREMENT
NT FRICTION MEASUREMENT
NT PRESSURE MEASUREMENT
NT STRESS MEASUREMENT
NT THRUST MEASUREMENT
NT VELOCITY MEASUREMENT
NT VIBRATION MEASUREMENT
NT WIND MEASUREMENT
NT WIND VELOCITY MEASUREMENT
Apparatus for checking threaded hole perpendicularity
[NASA-CASE-LEW-15444-1] 04 p0882 N93-14840
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368

MECHANICAL OSCILLATORS
NT PENDULUMS
Quantum non-demolition measurements and generalized states at thermal equilibrium
[SSCL-PREPRINT-743] 10 p3158 N93-28386

MECHANICAL PROPERTIES
NT ABRASION RESISTANCE
NT AEROELASTICITY
NT AEROSERVOELASTICITY
NT ANELASTICITY
NT BRITTLENESS
NT BULK MODULUS
NT COMPRESSIBILITY
NT COMPRESSIVE STRENGTH
NT CREEP PROPERTIES
NT CREEP RUPTURE STRENGTH
NT CREEP STRENGTH
NT DIMENSIONAL STABILITY
NT DUCTILITY
NT ELASTIC PROPERTIES
NT ELASTOPLASTICITY
NT ELECTROSTRICTION
NT FATIGUE LIFE
NT FIBER STRENGTH
NT FLEXIBILITY
NT FRACTURE STRENGTH
NT HARDNESS
NT HIGH STRENGTH
NT HYDROELASTICITY
NT IMPACT STRENGTH
NT LOAD CARRYING CAPACITY
NT MAGNETOSTRICTION
NT MICROHARDNESS
NT MICROYIELD STRENGTH
NT MODULUS OF ELASTICITY
NT NOTCH SENSITIVITY
NT NOTCH STRENGTH
NT PHOTOELASTICITY
NT PHOTOPLASTICITY
NT PIEZOELECTRICITY
NT PLASTIC PROPERTIES
NT POISSON RATIO
NT SHEAR CREEP
NT SHEAR PROPERTIES
NT SHEAR STRENGTH
NT SHELL STABILITY
NT STIFFNESS
NT STRESS CYCLES
NT STRESS RATIO
NT STRESS RELAXATION
NT STRUCTURAL STABILITY
NT SUPERPLASTICITY
NT TENSILE CREEP
NT TENSILE PROPERTIES
NT TENSILE STRENGTH
NT THERMAL RESISTANCE
NT THERMOELASTICITY
NT THERMOPLASTICITY
NT THERMOVISCOELASTICITY
NT TOUGHNESS
NT VISCOELASTICITY
NT VISCOPLASTICITY
NT WEAR RESISTANCE
NT WELD STRENGTH
NT YIELD POINT
NT YIELD STRENGTH
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
GAP benefits 01 p0019 N93-10025
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Composite failure analysis handbook. Volume 2: Technical handbook. Part 2: Atlas of fractographs
[AD-A249130] 01 p0028 N93-10325
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Protective coatings for niobium alloys and their properties
[AD-A254252] 01 p0033 N93-10706
Hierarchical structure in polymeric solid and its influence on properties
[AD-A253818] 01 p0041 N93-10825

Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012
Corrosion protection of materials for aircraft using ion beam processes. Corrosion and bonding strength examinations. Physical analysis of laser composition
[MBB-Z-0405-91-PUB] 02 p0255 N93-11026
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143
International ADI-Seminar: Austempered Ductile Iron
[PB92-180660] 02 p0256 N93-11244
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Mechanisms associated with electrorheology
02 p0294 N93-12198
Mechanical properties of centrifugally cast metal matrix composites
[AD-A254321] 02 p0243 N93-12483
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
Investigation of properties and performance of ceramic composite components
[DE92-019911] 03 p0550 N93-12858
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Industrial applications of multiaxial warp knit composites 04 p0833 N93-14750
Properties of textile grade ceramic fibers
04 p0833 N93-14751
Mechanical response of composite materials with through-the-thickness reinforcement
04 p0834 N93-14753
Tensile properties of textile composites
04 p0834 N93-14754
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Morphological analysis of ionomers
[DE92-040162] 04 p0852 N93-15415
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Sample container technology
05 p1078 N93-15728
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core
05 p1082 N93-15759
Mechanical properties of structural polymers. Computer simulations and key experiments
[AD-A257439] 05 p1119 N93-15866
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
Micro mechanical behavior of pavements
05 p1070 N93-16312
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906
Polycrystalline tetragonal zirconia in the system CeO2-ZrO2 (Ce-TZP)
[INPE-5285-TAE/007] 06 p1676 N93-19643
Research on Ni-H2 batteries
07 p1800 N93-20477
Advanced structural ceramics
07 p1862 N93-20627
Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Fiber development in Japan 07 p1834 N93-21130
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
New types of textile fabrics for fibre composites
07 p1836 N93-21142
Relationships between layer linkage and mechanical properties of 3D woven textile structures
07 p1836 N93-21144
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites
07 p1836 N93-21146
Special fibres from natural polymers
07 p1837 N93-21151
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
Multilayered elastoplastic homogenization and anisotropic plasticity
[ECL-92-24] 07 p1839 N93-21359
Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Relating porosity and mechanical properties in spray formed alloy 625
[AD-A260341] 08 p2234 N93-24269
Thick-section structural composites and composite structures
[AD-A260081] 08 p2215 N93-24316
Computation in mechanics of materials
[AD-A260060] 08 p2332 N93-24409
Use of block copolymer as polymer blend compatibilizer
[AD-A260435] 08 p2242 N93-24417
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Dynamic test apparatus for electro-rheological fluids
[AD-D015632] 09 p2643 N93-25284
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Development and mechanical properties of construction materials from lunar simulant 10 p3021 N93-26687
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Considerations concerning fatigue life of metal matrix composites
[NASA-TM-106144] 10 p3056 N93-27009
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation
[ETN-93-93604] 10 p2999 N93-27877
Material analysis of austempered ductile iron
[AD-A261953] 10 p3000 N93-27921
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
Evaluation of seals, lubricants, and adhesives used on LDEF 10 p3007 N93-28275
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Soft computing in design and manufacturing of advanced materials
[NASA-TM-106032] 11 p3295 N93-28624
Probabilistic simulation of multi-scale composite behavior
[NASA-TM-106196] 11 p3451 N93-28633
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Hydrostatic and uniaxial behavior of a high density polyurethane foam (FR-3720) at various temperatures
[DE93-011486] 11 p3330 N93-28838
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Aligned, short-fiber composites by novel flow processing methods
[DE93-008701] 11 p3296 N93-28904
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Advanced NDE technology program
[AD-A262008] 11 p3449 N93-29443
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863

Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067
Energetic material response to abnormal environments 11 p3350 N93-30095
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538
Wetting and dispersion in ceramic/polymer melt injection molding systems
[DE93-013240] 11 p3338 N93-30601
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-003] 11 p3327 N93-30623
Mechanical properties of composite materials 11 p3290 N93-30951
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick 11 p3291 N93-30953
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
A 69 cent look at thermoplastic softening 11 p3292 N93-30963
Computer simulation of 3D material microstructure and its application in the determination of mechanical behavior of polycrystalline materials and engineering structures 12 p3708 N93-31134
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains
[ETN-93-94041] 12 p3709 N93-31520
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993
Ceramic technology project database
[DE93-012429] 12 p3710 N93-32161
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176

MECHANICAL RESONANCE
U RESONANT VIBRATION

MECHANICAL SHOCK
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101

MECHANICAL TWINNING
Deformation twinning in ordered alloys transformation induced ductility in intermetallics
[DE93-002879] 05 p1111 N93-16148

MECHANICS (PHYSICS)
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291

MECHANIZATION
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347

MEDIA
NT ANISOTROPIC MEDIA
NT ELASTIC MEDIA
NT INTERGALACTIC MEDIA
NT INTERPLANETARY DUST
NT INTERPLANETARY GAS
NT INTERPLANETARY MEDIUM
NT ZODIACAL DUST
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087

MEDIAN (STATISTICS)
Order statistics and nonparametric statistics
[AD-A253574] 01 p0146 N93-10699

MEDICAL ELECTRONICS
In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428

MEDICAL EQUIPMENT
NT ENDOSCOPES
NT PROSTHETIC DEVICES
NT RESPIRATORS
NT X RAY APPARATUS
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Functional MRI studies of human vision on a clinical imager
[DE92-017448] 03 p0674 N93-12566
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s
[AD-A255691] 04 p0933 N93-14103
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3
[AD-A255849] 04 p0881 N93-14105
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Improved head support stand adjustable by compoundturnbuckle
[AD-D015384] 04 p0936 N93-15249
Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098
Cardiovascular stress test with non-invasive techniques 08 p2165 N93-24399
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Transcutaneous analyte measuring methods
[AD-A262861] 11 p3494 N93-29509

MEDICAL PERSONNEL
NT FLIGHT SURGEONS
Guide for aviation medical examiners
[PB92-219690] 07 p2024 N93-21047

MEDICAL PHENOMENA
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321

MEDICAL SCIENCE
NT ANESTHESIOLOGY
NT CARDIOLOGY
NT CLINICAL MEDICINE
NT ENDOCRINOLOGY
NT EPIDEMIOLOGY
NT GERIATRICS
NT HISTOLOGY
NT HUMAN PATHOLOGY
NT IMMUNOLOGY
NT NEUROLOGY
NT NUCLEAR MEDICINE
NT OPHTHALMOLOGY
NT ORTHOPEDICS
NT PATHOLOGY
NT RADIOBIOLOGY
NT RADIOLOGY
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
Center of Excellence in laser medicine
[DE92-018760] 02 p0384 N93-11445
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
Walter Reed Army Institute of Research biannual report
[AD-A255630] 04 p0933 N93-14162
Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom 08 p2192 N93-22649
Medical subject headings: Supplementary chemical records, 1993
[PB93-115244] 08 p2525 N93-23279
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
Hyperbaric treatment 12 p3689 N93-31454
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917

MEDICAL SERVICES
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Walter Reed Army Institute of Research biannual report
[AD-A255630] 04 p0933 N93-14162
A paradigm shift in Air Force medicine
[AD-A258334] 06 p1596 N93-18159
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus 06 p1431 N93-19707
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
Medical aspects of cold weather operations: A handbook for medical officers
[AD-A263559] 11 p3496 N93-30588
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810
Health maintenance facility system effectiveness testing
[NASA-TM-104737] 12 p3783 N93-32328

MEDICINE
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712

MEDITERRANEAN SEA
NT ADRIATIC SEA
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
BETELGUEUSE '90 campaign
[PREPRINT-751] 10 p3064 N93-27942
BOOTES '90 campaign
[PREPRINT-768] 10 p3064 N93-27943

MEETINGS
U CONFERENCES

MEISSNER EFFECT
U DIAMAGNETISM
U SUPERCONDUCTIVITY

MELANIN
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

MELT SPINNING
The influence of processing atmosphere on twin-roll melt-spinning of aluminum alloys
[DE92-017895] 02 p0257 N93-11595
Melt spinning of intermetallic alloys: Heat transfer and microstructure
[AD-A257455] 05 p1109 N93-15877
Microstructural control of complex alloys 06 p1490 N93-18485
Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880
Recrystallization of amorphous and nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE93-004469] 08 p2508 N93-23950
Melt-processing of lunar ceramics 10 p3007 N93-26685
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation
[ETN-93-93604] 10 p2999 N93-27877

MELTING
NT ARC MELTING
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105

Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments
01 p0110 N93-10140
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation
04 p1042 N93-14381
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Unsolved problems of crystallization and melting of flexible macromolecules
[DE92-040876] 05 p1125 N93-16597
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Peculiarities of structures and meltinglike transition in gold clusters
[DE93-004810] 08 p2228 N93-22741
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742
Experimental study of the electrolysis of silicate melts
10 p2997 N93-26679
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite
[AD-A262980] 11 p3298 N93-29425
Interfacial melting in cracked explosives
11 p3349 N93-30089
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Viscosities of molten slags
[NPL-DMM(A)-55] 12 p3705 N93-31321
Electrical conductivities of molten slags
[NPL-DMM(A)-79] 12 p3705 N93-31324

MELTING POINTS
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
High flux film and transition boiling
[DE93-010917] 10 p3157 N93-28350
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086

MELTS (CRYSTAL GROWTH)
NT CONTAINERLESS MELTS
NT IMPACT MELTS
NT MELT SPINNING
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Dynamics and pattern selection at the crystal-melt interface
[DE92-040210] 03 p0724 N93-13577
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces
04 p0995 N93-15311
Characterization of semi-insulating gallium arsenide
[AD-A257295] 05 p1316 N93-16081
Growth and characterization of single crystals
[NOTA-INTERNA-984] 06 p1670 N93-17935
On the drag of model dendrite fragments at low Reynolds number
[NASA-TM-105916] 07 p1855 N93-19974
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214

MEM (EXCURSION MODULE)
U MARS EXCURSION MODULE

MEMBRANE ANALOGY
U MEMBRANE STRUCTURES
U STRUCTURAL ANALYSIS

MEMBRANE STRUCTURES
NT SKIN (STRUCTURAL MEMBER)
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
The numerical simulation of the inflation process of space rigidized antenna structures
05 p1083 N93-15771
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
INEL spray-forming research
09 p2658 N93-25562
Slot-line end-fire antennas for THz frequencies
10 p3015 N93-27751
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201

MEMBRANE THEORY
U STRUCTURAL ANALYSIS

MEMBRANES
NT CELL MEMBRANES (BIOLOGY)
NT ION EXCHANGE MEMBRANE ELECTROLYTES
NT MEMBRANE STRUCTURES
NT SKIN (STRUCTURAL MEMBER)
Research in the optical sciences
[AD-A253188] 01 p0158 N93-10446
Chronorheological characterization of elastomers
01 p0046 N93-10476
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading
03 p0628 N93-13728
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
Networking electrochemical membrane separation devices: Theory and application
[DE93-001381] 05 p1106 N93-17066
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Photochemical observation of ion flows in membrane channels
[AD-A259869] 08 p2219 N93-22731
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
User's guide to Flexible Membrane Liner Advisory Expert System, Flex version 3.0
[PB93-134872] 08 p2259 N93-24559
Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater
[PB93-150001] 08 p2375 N93-24638
Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
Luminescence probe studies of ionomers. 3: Distribution of decay rate constants for tris bipyridyl ruthenium(2) in Nafion membranes
[AD-A260764] 09 p2645 N93-25916
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172
Template synthesis of electronically conductive polymers: A new route for achieving higher electronic conductivities
[AD-A261616] 09 p2658 N93-26437
Selectivity and permeability of microporous block copolymer membranes
[AD-A263189] 10 p3006 N93-28382
NASA in-step: Permeable membrane experiment
11 p3267 N93-28736
Membrane-based photochemical systems as models for photosynthetic cells
[DE93-009758] 11 p3310 N93-28911
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

MEMORY
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
Long term memory for different types of classroom knowledge
[AD-A255235] 04 p0999 N93-14526
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Representation of research paradigms as a function of familiarity with research domains
[AD-A256553] 05 p1263 N93-16266
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962

Automatic information processing and high performance skills: Individual differences and mechanisms of performance improvement in search-detection and complex tasks
[AD-A257711] 05 p1226 N93-17684
Comparing performance on implicit memory tests
[AD-A258168] 06 p1602 N93-17921
The central executive component of working memory
[AD-A258724] 07 p2025 N93-20326
Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
Analysis of neural systems involved in modulation of memory storage
[AD-A262418] 10 p3084 N93-27654
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233

MEMORY (COMPUTERS)
Parallel sparse Cholesky factorization algorithms for shared-memory multiprocessor systems
[DE92-016829] 01 p0141 N93-10334
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
Concurrent file operations in a high performance FORTRAN
[NASA-CR-189711] 02 p0412 N93-11618
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
A specification of the Soar cognitive architecture in Z
[AD-A256198] 04 p0940 N93-14491
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 3
[NASA-CP-3165-VOL-3] 04 p1002 N93-14771
Network issues for large mass storage requirements
04 p1002 N93-14773
Enterprise storage report for the 1990's
04 p1004 N93-15028
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038] 04 p0878 N93-15187
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Transactional distributed shared memory
[AD-A256222] 04 p0941 N93-15240
Dynamics of analog electronic neural networks
[AD-A257019] 04 p0966 N93-15352
Implementation and analysis of NP-complete algorithms on a distributed memory computer
[AD-A256564] 04 p0951 N93-15405
Parallel simulation today
[NASA-CR-189733] 04 p0951 N93-15432
The challenge of a data storage hierarchy
05 p1354 N93-16325
Data storage and retrieval system abstract
05 p1170 N93-16332
Open systems storage platforms
05 p1355 N93-16333
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Error detection and correction unit with built-in self-test capability for spacecraft applications
[NASA-CR-190847] 05 p1089 N93-17771
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
System for simultaneously loading program to master computer memory devices and corresponding slave computer memory devices
[NASA-CASE-MSC-21387-1] 06 p1623 N93-18855
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
A unified model of program behavior
[AD-A259142] 07 p2030 N93-20128
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Performance studies of cache consistency and concurrency control algorithms in a distributed client/server DBMS architecture
09 p2876 N93-25554
Thin rechargeable batteries for CMOS SRAM memory protection 09 p2694 N93-25583
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596
An investigation of memory latency reduction using an address prediction buffer
[AD-A261010] 09 p2806 N93-25858
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934
Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294
A single-transistor memory cell and sense amplifier for a gallium arsenide dynamic random access memory
[AD-A261975] 10 p3153 N93-27953
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
Exploiting the memory hierarchy in sequential and parallel sparse Cholesky factorization
[AD-A262849] 11 p3539 N93-29508
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
An adaptive algorithm for linear associative memory problem 11 p3360 N93-30255
RAID 7 disk array 11 p3537 N93-30462
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495
The midway distributed shared memory system
[AD-A264645] 11 p3534 N93-30523
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Investigations into database management system support for expert system shells, volumes 1 and 2
12 p3835 N93-31108
The performance of integrity control through transaction modification in a parallel main-memory database system
[MEMO-INF-92-54] 12 p3839 N93-31615
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361

MENINGITIS
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304

MENISCI
CO2 laser beam propagation with ZnSe optics
[DE93-002927] 08 p2308 N93-23307

MENTAL HEALTH
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function
02 p0379 N93-11299
Life support and self-sufficiency in space communities
05 p1229 N93-16866

MENTAL PERFORMANCE
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Relating cognitive function to military aviator performance in early HIV infection
02 p0379 N93-11298
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
Sleep inertia: Is there a worst time to wake up?
[AD-A256602] 04 p0934 N93-14240
Long term memory for different types of classroom knowledge
[AD-A255235] 04 p0999 N93-14526
Shared mental models and crew decision making
04 p0787 N93-15023
CAPS ReReader simulation model user's manual version 1.0
[AD-A257180] 05 p1234 N93-16000
Representation of research paradigms as a function of familiarity with research domains
[AD-A256553] 05 p1263 N93-16266
Cognitive and affective components of mental workload: Understanding the effects of each on human decision making behavior 05 p1226 N93-16783
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
An analysis of a sustained flight operation training mission in Navy attack aircraft
[AD-A258199] 06 p1602 N93-18205
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
The effects of iconic presentation on individuals
[AD-A258785] 06 p1603 N93-18949
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus 06 p1431 N93-19707
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
Expertise, text coherence, and constraint satisfaction: Effects on harmony and settling rate --- mental representations
[AD-A262703] 11 p3498 N93-28901
Predicting aircrew training performance with psychometric g
[AD-A264021] 11 p3498 N93-30026
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165
The air traffic controller's mental model and it's implications for equipment design and trainee selection
11 p3372 N93-30322
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556

Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
Background and objectives of the PARAT program
12 p3775 N93-31230
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability
12 p3776 N93-31237
The PARAT tests as examination system
12 p3776 N93-31238
Effects of caffeine on mental performance and mood: Implications for aircrew members
12 p3783 N93-32269

MENTAL STRESS
U STRESS (PSYCHOLOGY)

MERCAPTAN
U THIOLS

MERCAPTO COMPOUNDS
U THIOLS

MERCATOR PROJECTION
Differential cartography
[AD-A257772] 05 p1192 N93-17728

MERCURY (METAL)
NT MERCURY ISOTOPES
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Cosmology with liquid mirror telescopes
10 p3171 N93-26708

MERCURY CADMIUM TELLURIDES
Results of the laser sensor technology transition investigation
[AD-A255845] 03 p0608 N93-14085
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Influence of defects in HgCdTe grown by Molecular Beam Epitaxy (MBE) on electrical devices
[AD-A260457] 08 p2511 N93-24194
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Study of surface behavior in function of temperature of the quaternary system (Hg, Cd, Zn)Te
[AD-A260968] 09 p2867 N93-26223

MERCURY COMPOUNDS
NT MERCURY CADMIUM TELLURIDES
NT MERCURY TELLURIDES
Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612
Construction and evaluation of a metal ion biosensor
[AD-A259775] 08 p2304 N93-23452
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395

MERCURY ISOTOPES
Feeding and decay of superdeformed states
[DE93-007899] 09 p2848 N93-25371

MERCURY SPACECRAFT
NT AURORA 7

MERCURY TELLURIDES
NT MERCURY CADMIUM TELLURIDES
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept
07 p1803 N93-21078
IR materials producibility
[AD-A261099] 09 p2853 N93-25766

MERGING ROUTINES
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948

MERIDIONAL FLOW
Pattern recognition applied to H(sub alpha) spectroheliograms solar rotation and meridional circulation 01 p0182 N93-10924
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US
03 p0664 N93-13631
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
The thermal structure, dust loading, and meridional transport in the Martian atmosphere during late southern summer 11 p3651 N93-29616

MEROMORPHIC FUNCTIONS
NT ELLIPTIC FUNCTIONS
NT RATIONAL FUNCTIONS

MESFETS
U FIELD EFFECT TRANSISTORS

MESH
Mesh effect in a parallel plate analyzer
[NIFS-203] 06 p1669 N93-19931
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049

MESH (MATHEMATICS)
U COMPUTATIONAL GRIDS

MESH GENERATION (MATHEMATICS)
U GRID GENERATION (MATHEMATICS)

MESOMETEOROLOGY
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
A plan for accurate estimation of daily area-mean rainfall during the CaPE experiment 05 p1219 N93-17292
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Massively parallel implementation of the Penn State/NCAR mesoscale model
[DE93-004874] 08 p2394 N93-23320
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
The use of the Air Force cloud cover data to evaluate and improve cloud forecast and parameterization in mesoscale meteorology models
[AD-A260357] 08 p2409 N93-24171
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
Synoptic and Mesoscale Meteorology Instruction Workshop
[PB93-156347] 09 p2785 N93-25870
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876

MESON-MESON INTERACTIONS
Meson-meson interactions and phi-enhancement in nucleus collisions
[DE93-010725] 11 p3565 N93-28831

MESON-NUCLEON INTERACTIONS
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242
Theory of deep-inelastic scattering reactions and x-rescaling model
[DE93-604519] 12 p3820 N93-31821
Some outstanding issues in pion scattering at energies above the (delta) resonance
[DE93-012747] 12 p3822 N93-32300

MESONS
NT ETA-MESONS
NT HYPERONS
NT KAONS
NT MUONS
NT PIONS
NT RHO-MESONS
NT VECTOR MESONS
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Recent developments in the theory of heavy-quark decays
[DE92-017598] 03 p0704 N93-13250
Research in elementary particle physics
[DE92-017869] 03 p0704 N93-13251
Lattice calculations of f(D) and f(B)
[SSCL-PREPRINT-798] 05 p1286 N93-16394
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-792] 05 p1287 N93-16414
D decays, B-physics, and CP-violation from lattice QCD
[PREPRINT-799] 05 p1287 N93-16419
B(sub c) production --- pseudoscalar meson
[PREPRINT-806] 05 p1287 N93-16444
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
CP violation in B(sub C) decays
[PREPRINT-871] 05 p1288 N93-16977
Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016
Gribov copies and smeared correlation functions in lattice QCD
[PREPRINT-892] 05 p1330 N93-17027
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Meson spectroscopy and decay constants with Wilson fermions at beta = 6.4
[PREPRINT-823] 05 p1291 N93-17213
CP violation in the decays B(sup 0) yields (psi)K(sub s) and B(sup 0) yields (pi)(+)(pi)(-): A probe for new physics
[DE93-002413] 05 p1331 N93-17364
Measurement of the branching ratio for D(+) yields (bar-K)*(892)(sup 0)mu(+)nu
[DE93-002414] 05 p1295 N93-17624
High energy physics
[DE93-002411] 06 p1659 N93-17911
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
Medium energy meson research
[DE93-004133] 06 p1655 N93-18449
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-810] 07 p2062 N93-20923
Two loop calculation of the anomalous dimension of the axial current with static heavy quarks
[PREPRINT-813] 07 p2062 N93-20924
Meson form-factors and wave-functions with Wilson fermions
[DE93-003859] 08 p2479 N93-22542
Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Study of electroweak interactions
[DE93-007261] 08 p2484 N93-24510
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
B(sub c) decays
[SSCL-PREPRINT-774] 10 p3132 N93-27638
Summary talk --- particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
A lattice computation of the decay constant of the B-meson
[SSCL-PREPRINT-747] 10 p3135 N93-28198
Hadron structure on the lattice
[SSCL-PREPRINT-754] 10 p3157 N93-28211
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830

Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

MESOPAUSE
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519

MESOSCALE PHENOMENA
NT JET STREAMS (METEOROLOGY)
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring 03 p0664 N93-13643
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations 03 p0655 N93-13757
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
Adding explanation capability to a knowledge-based system for interpretation of oceanographic images
[AD-A255887] 03 p0671 N93-13943
Convective parameterization in mesoscale models 03 p0659 N93-14062
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Simulations of the Amazon Basin circulation using the Pennsylvania State University/National Center for Atmospheric Research mesoscale model 04 p0919 N93-14197
Four-dimensional data assimilation of GALE data using a multivariate analysis scheme and a mesoscale model with diabatic initialization 04 p0919 N93-14198
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Equatorial and eastern boundary current variability in the North and South Pacific Oceans 04 p0931 N93-14994
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique 04 p0923 N93-15088
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center
[NASA-CR-4474] 04 p0924 N93-15581
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
A plan for accurate estimation of daily area-mean rainfall during the CaPE experiment 05 p1219 N93-17292
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Simulation of ionosphere-magnetosphere mesoscale coupling: Letting ionospheric conductivities depend on upward field-aligned currents 06 p1578 N93-18742
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
Nonhydrostatic effects in numerical modeling of mesoscale convective systems and baroclinic waves 07 p2007 N93-20090
A numerical investigation of squall lines
[ISBN-0-315-69244-8] 07 p2011 N93-20280
CLEOPATRA: A step towards GEWEX on the regional scale 07 p1963 N93-21628
User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions 08 p2393 N93-23207
Massively parallel implementation of the Penn State/NCAR mesoscale model
[DE93-004874] 08 p2394 N93-23320
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
Southward burst mesoscale convective systems: An observational and modeling study 08 p2406 N93-23494
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
Dynamic and thermodynamic characteristics of a pre-frontal convective rainband in northern Taiwan determined form Tamex data 08 p2409 N93-24162
The use of the Air Force cloud cover data to evaluate and improve cloud forecast and parameterization in mesoscale meteorology models
[AD-A260357] 08 p2409 N93-24171
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
Positive cloud-to-ground flashes in severe storms 09 p2780 N93-24896
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Synoptic and Mesoscale Meteorology Instruction Workshop
[PB93-156347] 09 p2785 N93-25870
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
Sea breeze simulation with a static profile of the eddy viscosity
[FOA-B-40415-4.5] 10 p3078 N93-27831
Mesoscale and large-scale variability in California current system and its interaction with both California current and California undercurrent flows
[AD-A262195] 10 p3080 N93-27867
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217

MESOSPHERE
NT MESOPAUSE
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
A new instrument for the study of mesospheric gravity waves through nightglow observations 03 p0656 N93-13789
Middle atmosphere water vapour 03 p0667 N93-13892
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Observation of meteors by MST radar 06 p1697 N93-19180
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic) 06 p1584 N93-19555
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar 06 p1732 N93-19582
Atmospheric tides in the middle atmosphere
[INPE-5436-PUD/053] 06 p1583 N93-19791
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Empirical wind model for the middle and lower atmosphere. Part 1: Local time average
[NASA-TM-104581] 09 p2770 N93-25160
The pressure modulation system in the improved Stratospheric and Mesospheric Sounder 09 p2773 N93-25739

MESOZOIC ERA
NT CRETACEOUS PERIOD

MESSAGE PROCESSING
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833

An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
High performance interconnection between high data rate networks 02 p0279 N93-11118
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
Tradeoffs in implementing primary-backup protocols
[NASA-CR-190970] 02 p0472 N93-12212
Lazy checkpoint coordination for bounding rollback propagation
[NASA-CR-191281] 03 p0565 N93-13375
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
Progammable connection parallel architecture: Design and routing
[ETN-92-92676] 04 p0958 N93-15124
Nonblocking and orphan free message logging protocols
[NASA-CR-191631] 04 p0862 N93-15339
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
Domain specific software architectures: Command and control 05 p1247 N93-17503
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
Fully automatic transmission of information via HF and comparison to satellite transmission 08 p2275 N93-23516
EUTELTRACS: The European land mobile satellite service 08 p2276 N93-23526
The ECA critical requirements model
[AD-A259682] 08 p2440 N93-23659
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
The actor model
[AD-A260196] 08 p2442 N93-24469
Deterministic parallel FORTRAN
[DE93-008665] 09 p2816 N93-25522
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
A design and realization exercise of a mini message transfer system
[MEMO-INF-92-51] 10 p3095 N93-27386
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640
VDM specification of the Secure Hash algorithm
[NPL-DITC-212/92] 12 p3790 N93-31735

MESSAGES
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter
[CTN-92-60593] 01 p0135 N93-10088
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Deterministic parallel FORTRAN
[DE93-008665] 09 p2816 N93-25522
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135

METABOLIC DISEASES
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900

METABOLIC WASTES
NT FECES
NT HUMAN WASTES
NT URINE

METABOLISM
NT CARBOHYDRATE METABOLISM
NT ELECTROLYTE METABOLISM
NT ENZYME ACTIVITY
NT FERMENTATION
NT HORMONE METABOLISMS
NT HYPOGLYCEMIA
NT LIPID METABOLISM
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759
Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality
[AD-A263240] 11 p3494 N93-29620
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820
Trial of emergency ration of the Spanish Air Force 12 p3778 N93-32247

METABOLITES
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265

METAGALAXY
U UNIVERSE

METAL AIR BATTERIES
Air cell --- model aircraft power supplies
[CA-PATENT-APPL-SN-2001346] 01 p0072 N93-10368
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828

METAL BONDING
NT METAL-METAL BONDING
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction 01 p0054 N93-10516
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Method to produce ceramic superconducting filaments bonded to metals
[AD-D015595] 07 p1859 N93-20786
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801
Role of atomic size and valence in bonding and diffusion at metal surfaces
[DE93-003994] 07 p1857 N93-21972
Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
Fundamental aspects of metal joining: The study of strong interfaces
[AD-A261293] 09 p2653 N93-26304
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248

METAL COATINGS
NT ALUMINUM COATINGS
NT NICKEL COATINGS
NT ZINC COATINGS
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Vacuum deposition of copper on Type 304L stainless steel
[DE93-002704] 06 p1489 N93-19614
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274
Metal-coated, ordered void piezoelectric ceramic material
[AD-D015540] 07 p1859 N93-20304
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Issues/considerations and performance prediction of LEO protective coatings 07 p1847 N93-20813
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Electrodeposition in low gravity 09 p2663 N93-24774
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Fundamental studies of the morphology, chemistry, and electrical properties of metals on GaAs and other III-V semiconductor compounds
[AD-A264417] 11 p3597 N93-30120

METAL COMBUSTION
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Metal slurry droplet and spray combustion 02 p0245 N93-11138
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210

Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Material and method for fast generation of hydrogen gas and steam
[AD-D015559] 07 p1847 N93-20781
Microgravity combustion of dust clouds 07 p1806 N93-21094
Aerospace applications of metal combustion 10 p2920 N93-27175
Homogeneous gas phase kinetic model with gradient sensitivity analysis for high temperature particulate boron combustion in fluorine enriched environments 11 p3319 N93-30090

METAL CORROSION
U CORROSION

METAL CRYSTALS
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
Crack tip fields in ductile crystals and bicrystals 09 p2866 N93-25749
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796

METAL FATIGUE
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Improvements to the AC potential drop method of crack measurement 01 p0059 N93-10543
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C
[NASA-TM-105765] 03 p0625 N93-13153
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures 03 p0631 N93-13947
Fatigue in single crystal nickel superalloys
[AD-A256095] 04 p0844 N93-14264
Multiaxial fatigue analysis of metals 05 p1113 N93-16509
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Fatigue crack growth and coalescense in a notch region
[ISBN-0-315-68910-2] 06 p1559 N93-19042
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329
Probabilistic assessment of machine parts from Kymenite, austempered ductile iron 07 p1923 N93-20341
A comment on the role of machining induced residual stresses on fatigue crack initiation 07 p1949 N93-21334
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO 07 p1950 N93-21337
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987
An investigation into the multiaxial fatigue behavior of IMI 829 titanium alloy 08 p2327 N93-23182
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Fatigue in single crystal nickel superalloys
[AD-A260709] 09 p2651 N93-25843
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force 10 p2926 N93-27210
Fatigue in single crystal nickel superalloys
[AD-A262126] 10 p2999 N93-27674
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843
A miniature fatigue test machine 11 p3291 N93-30956

METAL FIBERS
Ceramic TBS/porous metal compliant layer 02 p0228 N93-12453
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579
Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579

METAL FILMS
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Scanning tunneling microscopy of semiconductor surfaces
[AD-A246853] 01 p0168 N93-10726
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
Novel interconnect deposition technology 06 p1523 N93-18465
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
X ray characterization of Au/Ni multilayer thin films
[NIAR-92-7] 06 p1678 N93-19881
Atomic and electronic structure of ultrathin films 07 p2078 N93-20287
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191989] 07 p1850 N93-21564
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films 08 p2505 N93-23100
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777

METAL FINISHING
NT ELECTROPOLISHING
NT SHOT PEENING
Ultrasonic polishing 09 p2670 N93-25580

METAL FLUORIDES
NT CALCIUM FLUORIDES
NT CESIUM FLUORIDES
NT STRONTIUM FLUORIDES
NT URANIUM FLUORIDES
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294

METAL FOAMS
An experiment on producing foam metals in a microgravity environment aboard NASA KC-135 aircraft 07 p1808 N93-21109

METAL FOILS
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Performance of blasting caps
[NASA-CASE-LAR-13832-1] 06 p1497 N93-18274
Protection of Radarsat SAR antenna graphite/epoxy support structure 07 p1848 N93-20819
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
Sensitivity of LDEF foil analyses using ultra-low background germanium vs. large NaI(Tl) multidimensional spectrometers 11 p3318 N93-29627
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539
The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628

METAL FORGING
U FORGING

METAL FORMING
U FORMING TECHNIQUES
U METAL WORKING

METAL FUELS
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Energy storage in supercritical solvents 06 p1498 N93-18492
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914

METAL GRINDING
Tool grinding and spark testing 11 p3291 N93-30954

METAL HALIDES
NT ALKALI HALIDES
NT ALUMINUM CHLORIDES
NT BARIUM FLUORIDES
NT CALCIUM CHLORIDES
NT CALCIUM FLUORIDES
NT CESIUM FLUORIDES
NT CESIUM IODIDES
NT COPPER CHLORIDES
NT IRON CHLORIDES
NT LITHIUM CHLORIDES
NT METAL FLUORIDES
NT SILVER BROMIDES
NT SILVER IODIDES
NT SODIUM CHLORIDES
NT STRONTIUM FLUORIDES
NT URANIUM FLUORIDES

Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996

ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997

Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515

Continuous production of granular or powder Ti, Zr, and Hf or their alloy products
[PB93-135051] 08 p2227 N93-22592

Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218

Spectroscopic effects of disorder and vibrational localization in mixed-halide metal-halide chain solids
[DE93-007361] 09 p2646 N93-26505

Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667

Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052

Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900

METAL HARDENING
U HARDENING (MATERIALS)

METAL HYDRIDES
NT LITHIUM HYDRIDES
NT POTASSIUM HYDRIDES

Physics of hydrogen storage in metal-hydrides
04 p0854 N93-14630

First-principles studies of phase stability and the structural and dynamical properties of metal hydrides
[DE92-040855] 05 p1104 N93-16589

Nickel metal hydride, a flight experiment
07 p1986 N93-20522

Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813

Development of nickel/metal hydride secondary battery
[DE93-781330] 11 p3406 N93-28669

HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176

METAL INSULATOR SEMICONDUCTORS
U MIS (SEMICONDUCTORS)

METAL IONS

Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644

Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762

Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778

Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408

Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651

Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191

The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667

Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926

The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037

Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090

Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106

Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197

A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198

Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462

Polymer-based separations: Synthesis and application of polymers for ionic and molecular recognition
[DE93-001835] 05 p1127 N93-17529

Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424

Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470

Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170

X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266

Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides
[AD-A259136] 07 p1847 N93-20595

Electron impact excitation cross section measurements of highly charged heliumlike and lithiumlike ions
[DE93-003478] 08 p2478 N93-22031

Spectroscopy of highly-ionized atoms using position-sensitive detection
[DE93-002914] 08 p2482 N93-22985

Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341

Construction and evaluation of a metal ion biosensor
[AD-A259775] 08 p2304 N93-23452

Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478

The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170

Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324

The formation and characteristics of E-region thin ionization layers at high latitudes
09 p2861 N93-25829

Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672

Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301

A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775

Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133

Theoretical hyperfine structure constants for transition metal atoms and ions
[DE93-012325] 11 p3566 N93-29183

High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301

Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619

Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

Meteor impacts, sporadic E layer formation and the incoherent scatter method
[IRF-SF-210] 12 p3852 N93-31624

METAL JOINTS
NT SOLDERED JOINTS
NT SPOT WELDS
NT WELDED JOINTS

Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551

METAL MATRIX COMPOSITES
NT ALUMINUM BORON COMPOSITES
NT ALUMINUM GRAPHITE COMPOSITES
NT EUTECTIC COMPOSITES

Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254

Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277

Inhibiting corrosion in Gr/Al and Gr/Mg metal matrix composites using nonequilibrium alloying techniques
[AD-A253923] 01 p0034 N93-10752

Unified viscoplastic behavior of metal matrix composites
[NASA-TM-105819] 01 p0096 N93-10777

The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802

Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896

Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963

A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967

Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072

Micromechanics of metal matrix composites using the Generalized Method of Cells model (GMC) user's guide
[NASA-CR-190756] 02 p0335 N93-11175

Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399

Study of the behavior of titanium and ceramic fiber matrix composite alloy
[ETN-92-92087] 02 p0240 N93-11708

Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795

Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850

Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181

Mechanical properties of centrifugally cast metal matrix composites
[AD-A254321] 02 p0243 N93-12483

An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 c0530 N93-12929

Ductile fracture process of discontinuous fiber reinforced composites
[DE92-016298] 03 p0531 N93-13264

FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311

A new route for fibre management in metal matrix composites 03 p0534 N93-13779

An investigation into thermomechanical fatigue of metal matrix composites 03 p0534 N93-13810

Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954

X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022

Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056

Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy
04 p0829 N93-14192

On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484

Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672

Evaluation of corrosion protection methods for aluminum metal matrix composites
[AD-A255375] 04 p0832 N93-14675

High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812

Analysis of OSPREY processes and conventional power aluminum alloys
[AD-A255764] 04 p0846 N93-15056

Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236

Superstrength metal composite material and process for making the same
[AD-D015379] 04 p0836 N93-15246

The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372

Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401

Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625

Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252

Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398

Prediction of thermal cycling induced matrix cracking
05 p1100 N93-16780
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Corrosion resistance of metal matrix composites
[AD-A258370] 06 p1478 N93-18266
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
Characterization and defect analysis of high temperature aluminum-based metal matrix composites
06 p1480 N93-19060
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Open and filled hole static tensile strength characterization of metal matrix composite SCS-9/Beta21s
[AD-A258829] 06 p1480 N93-19091
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
Combustion synthesis of ceramic and metal-matrix composites 07 p1854 N93-20203
Research on space structure materials
07 p1794 N93-20443
Adherence and reactivity of graphite base multimaterials
[ECL-92-04] 07 p1859 N93-20542
Advanced industrial materials. An overview
07 p1845 N93-20623
Dynamic stress-strain behavior in shear of SiCwhisker reinforced aluminum alloy composites
07 p1930 N93-20643
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801
Experimental and theoretical study of the elastic and microplastic properties of particles reinforced metal matrix composites
[ISAL-92-0014] 07 p1833 N93-20942
Studies of dispersed phase systems: Ostwald ripening and metal matrix composites 07 p1808 N93-21106
Free edge delamination prevention in composite laminates 07 p1840 N93-21508
Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Pressure-reaction synthesis of titanium composite materials
[PB93-135036] 08 p2208 N93-22591
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
Residual stress measurements in continuous fiber titanium matrix composites
[DE93-003733] 08 p2232 N93-23686
The diffusion of lead toward the interface of a rapidly solidified carbon fiber reinforced aluminum-lead matrix composite 08 p2210 N93-23719
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Effects of processing parameters on the microstructure of a 30 w/o SiCw-2080 aluminum composite
[NRC-IAR-CR-20] 08 p2216 N93-24651
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072
Dynamic deformations and analysis of a metal matrix composite 09 p2634 N93-25234
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
The corrosion of metal matrix composites
09 p2638 N93-25723
Electrostatic fiber spreader
[AD-D015677] 09 p2640 N93-26143
METal matrix composite ANalyzer (METCAN): Theoretical manual
[NASA-TM-106025] 09 p2641 N93-26552
An overview of elevated temperature damage mechanisms and fatigue behavior of a unidirectional SCS-6/Ti-15-3 composite
[NASA-TM-106131] 10 p2989 N93-26702
Fiber shape effects on metal matrix composite behavior
[NASA-TM-106067] 10 p2989 N93-26704
Considerations concerning fatigue life of metal matrix composites
[NASA-TM-106144] 10 p3056 N93-27009
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation
[ETN-93-93604] 10 p2999 N93-27877
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
Metal Matrix Laminate Tailoring (MMLT) code: User's manual
[NASA-TM-106052] 11 p3295 N93-28681
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Design of interfaces in metal matrix composites
[AD-A262052] 11 p3296 N93-29001
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130
Processing and property evaluation of silver or aluminum matrix YBa2Cu3O(6+x) superconducting materials
[AD-A263382] 11 p3595 N93-29333
Mechanical properties of several magnesium and aluminum composites
[AD-A262481] 11 p3299 N93-30137
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643
Investigation of the electrochemical polarisation behaviour of SiC/6061 Al metal matrix composites
[NPL-DMM(A)-31] 12 p3700 N93-31736
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982

METAL NITRIDES
NT ALUMINUM NITRIDES
NT GALLIUM NITRIDES
NT TANTALUM NITRIDES
NT TITANIUM NITRIDES
NT ZIRCONIUM NITRIDES

Scaling laws for the critical current density of NbN films in high magnetic fields
[DE93-000604] 05 p1318 N93-16277
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

METAL ORGANIC CHEMICAL VAPOR DEPOSITION
U METALORGANIC CHEMICAL VAPOR DEPOSITION

METAL OXIDE SEMICONDUCTORS
NT CMOS
NT SOS (SEMICONDUCTORS)

Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
High temperature rectifiers and MOS devices in 6H-silicon carbide
[AD-A254725] 02 p0295 N93-12340
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Gate-all-around device
[AD-A255287] 04 p0866 N93-14534
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
A timing analysis of level-clocked circuitry
[AD-A256796] 05 p1143 N93-15888
Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Feasibility assessment and applications development of a radiobiological dosimeter for space applications, phase 2
[CTN-93-60609] 05 p1168 N93-16745
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
VLSI microelectronics research
06 p1523 N93-18462
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893
Characterization and snubbing of a bidirectional MCT in a resonant ac link converter
[NASA-CR-192230] 07 p1889 N93-20258
Development of power MOSFET (150 W class)
07 p1797 N93-20461
Review on radiation resistant 32 bit MPU
07 p1799 N93-20474
Industrial IC evaluation test: 256 kbit EEPROM
07 p1800 N93-20481
Research on single event resistance evaluation technology: Research by heavy ion irradiation
07 p1801 N93-20483
Positron studies of defected metals, metallic surfaces
[DE93-006089] 08 p2499 N93-22051
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Quantum conductance fluctuations in self-aligned, pinch-narrowed MOSFETs 09 p2863 N93-25265
Smart microsensors for high temperature applications
[AD-A260747] 09 p2710 N93-25677
Quantum transport of electrons in nanostructured silicon MOSFET's
[ETN-93-93597] 10 p3031 N93-27871
Proposal for a universal particle detector experiment
11 p3286 N93-28795
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

METAL OXIDES
NT ALUMINUM OXIDES
NT BARIUM OXIDES
NT BERYLLIUM OXIDES
NT BISMUTH OXIDES
NT BSCCO SUPERCONDUCTORS

NT CALCIUM OXIDES
NT CERIUM OXIDES
NT CHROMIUM OXIDES
NT COBALT OXIDES
NT COPPER OXIDES
NT GALLIUM OXIDES
NT HEMATITE
NT ILMENITE
NT IRON OXIDES
NT LANTHANUM OXIDES
NT LEAD OXIDES
NT LITHIUM OXIDES
NT MAGNESIUM OXIDES
NT MANGANESE OXIDES
NT MIXED OXIDES
NT MOLYBDENUM OXIDES
NT NICKEL OXIDES
NT RUTILE
NT SAPPHIRE
NT STRONTIUM OXIDES
NT TIN OXIDES
NT TITANIUM OXIDES
NT TUNGSTEN OXIDES
NT URANIUM OXIDES
NT VANADIUM OXIDES
NT YBCO SUPERCONDUCTORS
NT YTTRIUM OXIDES
NT ZINC OXIDES
NT ZIRCONIUM OXIDES

Development of high temperature superconductors for magnetic field applications
[DE92-015930] 01 p0168 N93-10733

Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807

Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118

The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition
03 p0726 N93-13904

Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909

Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151

Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516

Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193

Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218

Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926

Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929

The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539

X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631

Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803

Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829

Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423

Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422

Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219

Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303

Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060

Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552

METAL PARTICLES
NT METAL POWDER
NT POWDERED ALUMINUM

Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101

Metal slurry droplet and spray combustion
02 p0245 N93-11138

Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281

Corrosion of metal particle and metal evaporated tapes 04 p0883 N93-15039

A system approach to archival storage
04 p1006 N93-15040

An empirical approach to predicting long term behavior of metal particle based recording media
04 p0883 N93-15043

Stability of metal particle and metal particulate media
05 p1170 N93-16329

An empirical approach to predicting long term behavior of metal particle based recording media
05 p1170 N93-16330

Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231

Active microparticle media
[AD-A259722] 08 p2487 N93-23639

A study of mass size distributions and particle deposition velocities in ambient air 09 p2763 N93-25263

Homogeneous gas phase kinetic model with gradient sensitivity analysis for high temperature particulate boron combustion in fluorine enriched environments
11 p3319 N93-30090

METAL PLATES

Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads
02 p0335 N93-11200

The effects of aluminum oxide on inertial welding of aluminum in space applications
[AD-A255100] 02 p0329 N93-12274

Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301

The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473

Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures
06 p1504 N93-18901

Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013

High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329

A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270

Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479

An impact technique to accelerate flier plates to velocities over 12 km/s
[DE93-002467] 07 p1820 N93-21485

Barely visible damage threshold in a BMI
07 p1843 N93-21524

Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507

Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253

Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325

Damage areas on selected LDEF aluminum surfaces
11 p3283 N93-29374

METAL POLISHING
NT ELECTROPOLISHING

METAL POWDER
NT POWDERED ALUMINUM

Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472

Analysis of OSPREY processes and conventional power aluminum alloys
[AD-A255764] 04 p0846 N93-15056

Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229

Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795

Agglomeration of fractals in simulated reduced gravity
07 p1806 N93-21093

Synthesis, processing, and properties of Ti5Si3
[DE93-004465] 08 p2229 N93-22820

A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691

Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014

Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016

Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272

Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976

METAL PROPELLANTS

Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416

Semi-propellants for ducted rockets
05 p1092 N93-17612

Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795

Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412

Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231

Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913

Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914

Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique
09 p2631 N93-26043

Propulsion and detonics research in France
11 p3344 N93-30070

METAL SHEETS

Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453

Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet
[NASA-TM-105921] 04 p0847 N93-15524

Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937

Damage tolerance behaviour of aluminium-lithium sheet alloys
[NLR-TP-91244-U] 05 p1117 N93-17540

The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806

Formability of type 304 stainless steel sheet
[DE92-018619] 08 p2229 N93-22924

Finite element modeling of the hydroforming press
[KCP-613-4999] 09 p2668 N93-26206

Diffusion bonding
[DE93-011480] 11 p3442 N93-28837

An experimental/analytical evaluation of biaxial sheet failure
[DE93-010620] 11 p3453 N93-29843

Study on the improvement of the properties of Zr alloys
[DE93-605265] 12 p3706 N93-31827

METAL SPINNING

Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755

METAL SPRAYING

INEL spray-forming research
09 p2658 N93-25562

METAL STRIPS

Method and devices for the in situ repair of damaged threads
[AD-D015416] 04 p0891 N93-14881

INEL spray-forming research
09 p2658 N93-25562

METAL SURFACES

Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786

Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600

Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces
[AD-A252544] 02 p0250 N93-11808

Application of spin-sensitive electron spectroscopies to investigations of electronic and magnetic properties of solid surfaces and epitaxial systems
[DE92-018597] 02 p0470 N93-12499

Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581

Photochemical dynamics of surface oriented molecules
[DE92-019813] 03 p0703 N93-13106

Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
Excimer laser irradiation of metal surfaces
04 p0884 N93-14175
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Physics of hydrogen storage in metal-hydrides
04 p0854 N93-14630
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects
[AD-A256660] 05 p1101 N93-15913
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
Theory of field adsorption of hydrogen
[AD-A257139] 05 p1102 N93-15996
A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198
Above-surface neutralization of highly charged ions: The formation of hollow atoms
[DE93-001371] 05 p1288 N93-16603
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
Studies of metal-semiconductor clusters
06 p1678 N93-18493
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
ASRM process development in aqueous cleaning
[NASA-CR-191949] 07 p1829 N93-21355
Role of atomic size and valence in bonding and diffusion at metal surfaces
[DE93-003994] 07 p1857 N93-21972
Positron studies of defected metals, metallic surfaces
[DE93-006089] 08 p2499 N93-22051
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Theory of the dissociation dynamics of small molecules on metal surfaces: Finite temperature studies
[DE93-005870] 08 p2482 N93-23298
Formation of defect-free metal/semiconductor contacts
[AD-A259604] 08 p2284 N93-24151
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Laser welding of selected aerospace alloys
09 p2718 N93-25435
Theoretical studies of surface reactions on metals and electronic materials
[DE93-009761] 09 p2650 N93-25502
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Enhanced backscattering from rough surfaces
[AD-A261000] 09 p2676 N93-25855
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Process for bonding elastomers to metals
[NASA-CASE-LAR-13645-1] 09 p2656 N93-25995
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
Oxygen isotopes implanted in the LDEF spacecraft
10 p2997 N93-28256
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Surface diffusion: Atomistics and surface morphology (summary of MRS Symposium B panel discussion)
[DE93-009862] 11 p3594 N93-29188
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment
11 p3638 N93-29370
Damage areas on selected LDEF aluminum surfaces
11 p3283 N93-29374
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815

METAL VAPOR LASERS
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Electron-beam-pumped recombination lasers
09 p2712 N93-25344
Collisional recombination lasers
09 p2713 N93-25393
Feasibility experiment for sodium-layer laser guide stars at the Lawrence Livermore National Laboratory
[DE93-007115] 09 p2715 N93-26503
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

METAL VAPORS
NT SODIUM VAPOR
AMTEC vapor-vapor series connected cells
[NASA-CASE-NPO-18667-1-CU]
06 p1522 N93-19330
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
The physics of spin polarized gases
[AD-A261396] 09 p2850 N93-26288

METAL WHISKER REINFORCEMENT
U WHISKER COMPOSITES

METAL WORKING
NT BULGING
NT CLADDING
NT EXPLOSIVE FORMING
NT FORGING
NT HYDROFORMING
NT METAL SPINNING
Large plastic deformations by sequential limit analysis: A finite element approach with applications in metal forming 04 p0899 N93-14471
High temperature alloys 07 p1858 N93-20626
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Advanced engineering analysis
[KCP-613-4967] 09 p2669 N93-26212
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396

METAL-GAS SYSTEMS
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043

METAL-INSULATOR-METAL SEMICONDUCTORS
U MIM (SEMICONDUCTORS)

METAL-METAL BONDING
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
Adhesion in atomic scale metal contacts
[AD-A257137] 05 p1121 N93-16142
Molecular orbital studies of the bonding in heavy element organometallics
[DE93-005291] 06 p1658 N93-19756
A maskless flip-chip solder bumping technique
[DE93-009631] 10 p3021 N93-28372

METAL-SEMICONDUCTOR-METAL SEMICONDUCTORS
U MSM (SEMICONDUCTORS)

METALLIC GLASSES
The third Workshop on Non-Crystalline Solids, programme and abstracts
[AD-A250739] 01 p0036 N93-10244
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
[CTN-93-60630] 05 p1133 N93-16918
Colloid formation in implanted glasses
[DE93-006763] 09 p2653 N93-24971
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359
Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047

METALLIC HYDROGEN
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497

METALLIC PLASMAS
Laser material interaction in confined medium
02 p0319 N93-12035
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Gain in a confined aluminum plasma
02 p0320 N93-12043
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies
02 p0320 N93-12044
Laser formation of lithium plasma ion sources for applied-B ion diodes on the PBFA-2 accelerator
[DE92-016091] 03 p0716 N93-13191
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
Diagnostic behavior of the Wire Arc Plasma spray process
[DE93-000717] 05 p1308 N93-16229

METALLIC STARS
Constraints on chemical evolution models from QSOALS abundances 10 p3182 N93-26769

METALLICITY
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
Chemical abundances in low surface brightness galaxies: Implications for their evolution
10 p3178 N93-26748
The hot interstellar medium in NGC 1399
10 p3179 N93-26753
Metal abundances at z = 3.4
10 p3179 N93-26757
Evidence for a multiphase, inhomogeneous interstellar medium in damped Ly alpha systems
10 p3180 N93-26760
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772

METALLIZING
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497

Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398
High energy and high power density ultracapacitors and supercapacitors
[NASA-CASE-NPO-18568-1-CU] 05 p1149 N93-17274
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications 07 p1838 N93-21158
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Metallization at detonation fronts in solids 11 p3319 N93-30087
Unexpected increase in the thermal generation rate of bulk GaAs due to electron-beam metallization
[DE93-009829] 11 p3598 N93-30511
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962

METALLOGRAPHY
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959

METALLOIDS
NT AMORPHOUS SILICON
NT ARSENIC
NT BORON
NT BORON ISOTOPES
NT BORON 10
NT GERMANIUM
NT GERMANIUM ISOTOPES
NT POLONIUM 210
NT SILICON
NT SILICON ISOTOPES
NT TELLURIUM ISOTOPES
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079

METALLORGANIC COMPOUNDS
U ORGANOMETALLIC COMPOUNDS

METALLURGY
Iron and alloys of iron --- lunar resources 05 p1382 N93-16899
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Welding and metallurgy
[DE93-010926] 12 p3735 N93-31790

METALORGANIC CHEMICAL VAPOR DEPOSITION
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
CVD of AlN and SiC using cyclic organometallic precursors
[AD-A246910] 02 p0266 N93-11413
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Basic principles of organometallic vapor phase epitaxy
[AD-A250665] 02 p0464 N93-11868
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Growth of 2-6 thin-films from single-source precursors based on sterically encumbered sitel ligands
[DE92-017077] 02 p0466 N93-12099
Growth of solid solutions of aluminum nitride and silicon carbide by metalorganic chemical vapor deposition
[AD-A255000] 02 p0254 N93-12518
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Oriented, single-phase thin films of potassium tantalate-niobate
[AD-D015543] 07 p2077 N93-20027
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Innovative optoelectronic materials and structures using OMVPE
[AD-A262202] 10 p3152 N93-27683
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180

METALS
NT ACTINIDE SERIES
NT ALKALI METALS
NT ALKALINE EARTH METALS
NT ALUMINUM
NT ALUMINUM ISOTOPES
NT AMERICIUM 241
NT BARIUM
NT BERYLLIUM
NT BERYLLIUM 10
NT BISMUTH
NT CADMIUM
NT CALCIUM
NT CALCIUM ISOTOPES
NT CALIFORNIUM ISOTOPES
NT CERIUM
NT CESIUM
NT CESIUM 137
NT CHROMIUM
NT CHROMIUM ISOTOPES
NT COBALT
NT COBALT 60
NT COPPER
NT DYSPROSIUM
NT ERBIUM
NT ERBIUM ISOTOPES
NT FERMIUM
NT FERROUS METALS
NT GADOLINIUM
NT GALLIUM
NT GALLIUM ISOTOPES
NT GOLD
NT GOLD ISOTOPES
NT HAFNIUM ISOTOPES
NT HOLMIUM
NT HOLMIUM ISOTOPES
NT INDIUM
NT IRIDIUM
NT IRON
NT IRON ISOTOPES
NT LANTHANUM ISOTOPES
NT LEAD (METAL)
NT LEAD ISOTOPES
NT LIQUID METALS
NT LIQUID SODIUM
NT LITHIUM
NT LITHIUM ISOTOPES
NT MAGNESIUM
NT MAGNESIUM ISOTOPES
NT MANGANESE
NT MERCURY (METAL)
NT MERCURY ISOTOPES
NT METAL VAPORS
NT MOLYBDENUM
NT NEODYMIUM
NT NEODYMIUM ISOTOPES
NT NEPTUNIUM ISOTOPES
NT NICKEL
NT NICKEL ISOTOPES
NT NIOBIUM
NT NOBLE METALS
NT NONFERROUS METALS
NT PALLADIUM
NT PLATINUM
NT PLUTONIUM
NT PLUTONIUM 239
NT POTASSIUM
NT PROTACTINIUM
NT RARE EARTH ELEMENTS
NT REFRACTORY METALS
NT RHENIUM
NT RHODIUM
NT RUBIDIUM
NT RUBIDIUM ISOTOPES
NT RUTHENIUM
NT SAMARIUM
NT SCANDIUM ISOTOPES
NT SILVER
NT SODIUM
NT SODIUM VAPOR
NT STRONTIUM
NT STRONTIUM ISOTOPES
NT TANTALUM
NT THALLIUM
NT THORIUM
NT THULIUM ISOTOPES
NT TIN ISOTOPES
NT TITANIUM
NT TRANSITION METALS
NT TRANSURANIUM ELEMENTS
NT TUNGSTEN
NT URANIUM
NT VANADIUM
NT YTTERBIUM ISOTOPES
NT YTTRIUM
NT ZINC
NT ZIRCONIUM
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Theory of normal metals
[DE92-016828] 02 p0262 N93-12476
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Electronic structure of microclusters and defect complexes
[AD-A254807] 03 p0720 N93-12750
Simulation of forward-backward extrusion with numerical and model material techniques
[DE92-016299] 03 p0558 N93-13298
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Thermochemistry of atmospheric metal reactions
[AD-A248651] 03 p0543 N93-13733
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Atomic and electronic structure of metals and alloys: Clean surfaces and chemisorbed molecules
[DE93-004371] 06 p1487 N93-18452
Dissipation in adiabatic shear bands
[DE93-002280] 07 p1856 N93-20025
Metals combustion in normal gravity and microgravity 07 p1854 N93-20211
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Compression-after-impact behavior of ARALL(trade name)-1 laminates
[AD-A259203] 07 p1832 N93-20550
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals
[DE93-004432] 08 p2228 N93-22724
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426

Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Metals production 10 p3214 N93-27970
Nanophase materials assembled from atom clusters
[DE93-005559] 10 p3005 N93-28345
Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668
Tool grinding and spark testing 11 p3291 N93-30954
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115

METAMORPHIC ROCKS
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia 01 p0110 N93-10136
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195

METAMORPHISM (GEOLOGY)
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure 01 p0106 N93-10115
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence 01 p0108 N93-10128
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe? 01 p0109 N93-10134
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Report on the international Cambodian crater expedition, 1992 01 p0113 N93-10147
Thermobarometric studies on the Levack Gneisses: Footwall rocks to the Sudbury Igneous Complex 01 p0114 N93-10152
Influence of the preshock temperature on shock effects in quartz 01 p0115 N93-10157
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study 01 p0117 N93-10163
Impactites from Popigai Crater 01 p0117 N93-10164
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067

METASTABILITY
U METASTABLE STATE

METASTABLE STATE
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Recombination and metastability in amorphous silicon and silicon germanium alloys
[DE92-010593] 02 p0463 N93-11816
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
The onset of vortex turbulence 10 p2938 N93-28251
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Nuclear isomers as ultra-high-energy-density materials
[DE93-009520] 11 p3568 N93-29784
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359
The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063

METATHESIS
Synthesis of side chain liquid crystal polymerization by living ring opening metathesis polymerization. Report 1: Influence of molecular weight, polydispersity, and flexible spacer length (n=2-8) on the thermotropic behavior of the resulting polymers
[AD-A248699] 01 p0040 N93-10727
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314
Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169

METAZOA
U ANIMALS

METEOR BURSTS
U METEOROID SHOWERS

METEOR CRATERS
U CRATERS

METEOR HAZARDS
U METEOROID HAZARDS

METEOR TRAILS
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
Observation of meteors by MST radar 06 p1697 N93-19180
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757

METEORITE COLLISIONS
International Conference on Large Meteorite Impacts and Planetary Evolution
[NASA-CR-190677] 01 p0105 N93-10112
Large meteorite impacts: The K/T model 01 p0107 N93-10120
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe? 01 p0109 N93-10134
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud 01 p0109 N93-10135
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia 01 p0110 N93-10136
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
New perspectives on the Popigai impact structure 01 p0110 N93-10138
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments 01 p0110 N93-10140
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications 01 p0111 N93-10143
Melt production in large-scale impact events: Implications and observations at terrestrial craters 01 p0112 N93-10144
Where's the Beaverhead beef? --- meteorite impact structure 01 p0112 N93-10146
Report on the international Cambodian crater expedition, 1992 01 p0113 N93-10147
The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Large impacts in the Baltic shield with special attention to the Uppland structure 01 p0113 N93-10149
Geomechanical models of impact cratering: Puchezh-Katunki structure 01 p0114 N93-10151
Thermobarometric studies on the Levack Gneisses: Footwall rocks to the Sudbury Igneous Complex 01 p0114 N93-10152
The Cretaceous-Tertiary (K/T) impact: One or more source craters? 01 p0114 N93-10153
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters 01 p0114 N93-10154
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Influence of the preshock temperature on shock effects in quartz 01 p0115 N93-10157
Search for a meteoritic component at the Beaverhead impact structure, Montana 01 p0116 N93-10158
Ordovician impacts at sea in Baltoscandia 01 p0116 N93-10159
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160
Impact origin of the Sudbury structure: Evolution of a theory 01 p0116 N93-10161
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
A history of the Lonar crater, India: An overview 01 p0118 N93-10168
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia 01 p0119 N93-10171
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173

The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Bronzite Granophyre: New insight on Vredefort 01 p0121 N93-10186
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome 01 p0122 N93-10189
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana 01 p0122 N93-10191
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Hypervelocity impact effects on solar cells [NASA-CR-192444] 06 p1571 N93-18601
The Apollo 17 regolith 06 p1737 N93-18799
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221 06 p1738 N93-18807
Simulated families: A test for different methods of family identification 06 p1701 N93-19125
Comet nongravitational forces and meteoritic impacts 06 p1712 N93-19207
Impact contribution of prebiotic reactants to Earth [NASA-CR-192785] 08 p2552 N93-24480
TSS tether cable meteoroid/orbital debris damage analysis [NASA-TM-108404] 10 p2957 N93-27023
Proposal for a universal particle detector experiment 11 p3286 N93-28795
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF) 11 p3638 N93-29371
The production and evolution of plasma and associated magnetic fields during hypervelocity impacts: Implications for planetary paleomagnetism 11 p3589 N93-30000
Hypervelocity impact testing of the Space Station utility distribution system carrier [NASA-TM-104771] 11 p3289 N93-30507

METEORITE COMPRESSION TESTS

U COMPRESSION TESTS
U MECHANICAL PROPERTIES
U METEORITES

METEORITE CRATERS

International Conference on Large Meteorite Impacts and Planetary Evolution [NASA-CR-190677] 01 p0105 N93-10112
Research core drilling in the Manson impact structure, Iowa 01 p0105 N93-10114
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure 01 p0106 N93-10115
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation 01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Structural aspects of the Araguainha impact structure (Brazil) 01 p0106 N93-10118
Large meteorite impacts: The K/T model 01 p0107 N93-10120
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling 01 p0108 N93-10125
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia 01 p0110 N93-10136
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications 01 p0111 N93-10143
Melt production in large-scale impact events: Implications and observations at terrestrial craters 01 p0112 N93-10144
Venusian impact basins and cratered terrains 01 p0112 N93-10145
Report on the international Cambodian crater expedition, 1992 01 p0113 N93-10147
The distribution and modes of occurrence of impact melt at lunar craters 01 p0113 N93-10148
Large impacts in the Baltic shield with special attention to the Uppland structure 01 p0113 N93-10149
The Panther Mountain circular structure, a possible buried meteorite crater 01 p0113 N93-10150
Geomechanical models of impact cratering: Puchezh-Katunki structure 01 p0114 N93-10151
The Cretaceous-Tertiary (K/T) impact: One or more source craters? 01 p0114 N93-10153
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters 01 p0114 N93-10154
Ordovician impacts at sea in Baltoscandia 01 p0116 N93-10159
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160
Impact origin of the Sudbury structure: Evolution of a theory 01 p0116 N93-10161
Imaging radar investigations of the Sudbury structure 01 p0117 N93-10162
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study 01 p0117 N93-10163
Impactites from Popigai Crater 01 p0117 N93-10164
Sudbury Breccia and suevite as glacial indicators transported 800 km to Kentland Astrobleme, Indiana 01 p0117 N93-10165
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Sudbury project (University of Muenster-Ontario Geological Survey): New investigations on Sudbury breccia 01 p0118 N93-10167
A history of the Lonar crater, India: An overview 01 p0118 N93-10168
Sudbury Igneous Complex: Impact melt or igneous rock? Implications for lunar magmatism 01 p0118 N93-10169
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia 01 p0119 N93-10171
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
Search for the 700,000-year-old source crater of the Australasian tektite strewn field 01 p0120 N93-10177
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome 01 p0122 N93-10189
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana 01 p0122 N93-10191
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa 01 p0123 N93-10192
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Microwave scattering and emission properties of large impact craters on the surface of Venus 04 p1043 N93-14384
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Low-emissivity impact craters on Venus 04 p1044 N93-14392
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF 11 p3283 N93-29362
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF) 11 p3638 N93-29371
Interplanetary meteoroid debris in LDEF metal craters 11 p3638 N93-29372
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
Damage areas on selected LDEF aluminum surfaces 11 p3283 N93-29374
LDEF data: Comparisons with existing models 11 p3283 N93-29375
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces 11 p3638 N93-29378

METEORITES

NT ACHONDRITES
NT CARBONACEOUS CHONDRITES
NT CHONDRITES
NT MICROMETEORITES
NT MURCHISON METEORITE
NT NAKHLITES
NT TEKTITES

Thin-sectioning and analysis of fine-grained meteoritic materials [NASA-CR-185693] 02 p0485 N93-11546
Asteroid resources 05 p1380 N93-16880
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
Injecting asteroid fragments into resonances 06 p1705 N93-19152
Did Earth-approaching asteroids 3551, 3908, or 4055 produce meteorites? 06 p1707 N93-19164
Near-earth object interception workshop summary [DE93-003793] 08 p2546 N93-22403
Volatiles in interplanetary dust particles: A comparison with CI and CM chondrites 09 p2896 N93-26062
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps 11 p3283 N93-29369
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961

Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites
12 p3867 N93-31962

METEORITIC COMPOSITION
Ruthenium/iridium ratios in the Cretaceous-Tertiary boundary clay: Implications for global dispersal and fractionation within the ejecta cloud
01 p0109 N93-10135
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177
Asteroid resources 05 p1380 N93-16880
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
The orbital evolution of real asteroids near the 4:1 mean-motion resonance with Jupiter
06 p1704 N93-19146
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C
12 p3862 N93-31940
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961
Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites
12 p3867 N93-31962

METEORITIC DAMAGE
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia
01 p0110 N93-10136
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
Impact cratering record of Fennoscandia
01 p0119 N93-10171
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary
01 p0122 N93-10188
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
Phobos and Deimos are sources of meteoroids
06 p1700 N93-19116
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey
11 p3638 N93-29361
Analysis of LDEF micrometeoroid/debris data and damage to composite materials
11 p3309 N93-29366
Damage areas on selected LDEF aluminum surfaces
11 p3283 N93-29374
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507

METEORITIC DIAMONDS
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364

METEORITIC DUST
U MICROMETEOROIDS

METEORITIC IONIZATION
U ATMOSPHERIC IONIZATION
U METEOR TRAILS

METEORITIC MICROSTRUCTURES
Studies of cosmic dusts using synchrotron radiation
08 p2549 N93-23390

METEOROID CONCENTRATION
Phobos and Deimos are sources of meteoroids
06 p1700 N93-19116
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
Fragmentation and densities of meteoroids
06 p1700 N93-19118
Burst of the 1969 Leonids and 1982 Lyrids
06 p1714 N93-19222
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets
11 p3638 N93-29358
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376

METEOROID CRATERS
U METEORITE CRATERS

METEOROID DUST CLOUDS
NT ZODIACAL DUST

METEOROID HAZARDS
Hypervelocity impact effects on solar cells
[NASA-CR-192444] 06 p1571 N93-18601
Repeatability and uncertainty analyses of NASA/MSFC light gas gun test data
[NASA-CR-192496] 08 p2325 N93-23012
Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716] 11 p3634 N93-29246
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets
11 p3638 N93-29358

METEOROID PROTECTION
Propulsion Systems Panel 08 p2174 N93-22096
Contamination measurements on experiment M0003
10 p2998 N93-28273
Ablative shielding for hypervelocity projectiles
[NASA-CASE-MSC-21884-1] 11 p3331 N93-29088
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507

METEOROID SHOWERS
NT GEMINID METEOROIDS
NT LEONID METEOROIDS
NT QUADRANTID METEOROIDS
NT TAURID METEOROIDS
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
Meteor burst communication system
[AD-D015470] 05 p1139 N93-16466
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
Determination of meteor flux distribution over the celestial sphere 06 p1700 N93-19117
P/Machholz 1986 8 and quadrantid meteoroid stream. Orbital evolution and relationship
06 p1700 N93-19119
Evolution of the Quadrantid meteor stream
06 p1708 N93-19177
Forward-scatter radiant mapping
06 p1697 N93-19178
Observation of meteors by MST radar
06 p1697 N93-19180
Activity of the Lyrid meteor stream
06 p1712 N93-19200
Burst of the 1969 Leonids and 1982 Lyrids
06 p1714 N93-19222
Visual data of minor meteor showers limits of the method 06 p1715 N93-19229
Diurnal variation of overdense meteor echo duration and ozone 06 p1718 N93-19243
Meteor radiant mapping with MU radar
06 p1699 N93-19259
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529

METEOROIDS
NT BOLIDES
NT GEMINID METEOROIDS
NT LEONID METEOROIDS
NT MICROMETEOROIDS
NT QUADRANTID METEOROIDS
NT RADIO METEORS
NT SPORADIC METEOROIDS
NT TAURID METEOROIDS
NT ZODIACAL DUST
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
About distribution and origin of the peculiar group of sporadic meteors 06 p1700 N93-19115
Fragmentation and densities of meteoroids
06 p1700 N93-19118
P/Machholz 1986 8 and quadrantid meteoroid stream. Orbital evolution and relationship
06 p1700 N93-19119
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
A Southern Hemisphere radar meteor orbit survey
06 p1701 N93-19121
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records
06 p1703 N93-19137
Modeling of asteroidal dust production rates
06 p1705 N93-19150
Forward-scatter radiant mapping
06 p1697 N93-19178
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
Observation of meteors by MST radar
06 p1697 N93-19180
Meteor fireball sounds identified
06 p1709 N93-19184
Activity of the Lyrid meteor stream
06 p1712 N93-19200
The spatial distribution of large cometary meteoroids in the inner solar system 06 p1712 N93-19208
On associations of Apollo asteroids with meteor streams 06 p1715 N93-19223
Wake in faint television meteors
06 p1716 N93-19233
Analysis of the results of the first year of operation of the Munich Dust Counter 08 p2537 N93-23910
The initial flight anomalies of Skylab 1
09 p2619 N93-24692
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
Approaches to dealing with meteoroid and orbital debris protection on the Space Station
10 p2971 N93-27838
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716] 11 p3634 N93-29246
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey
11 p3638 N93-29361
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF)
11 p3638 N93-29371
Interplanetary meteoroid debris in LDEF metal craters
11 p3638 N93-29372
LDEF data: Comparisons with existing models
11 p3283 N93-29375
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757
Meteor impacts, sporadic E layer formation and the incoherent scatter method
[IRF-SF-210] 12 p3852 N93-31624

METEOROLOGICAL CHARTS
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293
Technology reconciliation in the remote sensing era of US civilian weather forcasting: 1957 - 1987
04 p0918 N93-14114
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Satellite-images in secondary education in Baden-Wuerttemberg (Germany)
08 p2370 N93-23830
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925

METEOROLOGICAL INSTRUMENTS
NT CLOUD HEIGHT INDICATORS
NT IONOSONDES
NT RADIOSONDES
NT RAIN GAGES
NT RAWINSONDES
Optimization of a Counterflow Virtual Impactor (CVI) for studying aerosol effects on cloud droplet number
04 p0914 N93-14861
Geostationary earth climate sensor: Scientific utility and feasibility, phase A
[NASA-CR-191919] 07 p1996 N93-20248

Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements 11 p3649 N93-28815
The MESUR mission 11 p3649 N93-28816
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

METEOROLOGICAL PARAMETERS
Shortened Test Heating Season (STHS) 01 p0043 N93-10314
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Long-term data collection and empirical background temperature modeling
[AD-A254044] 01 p0127 N93-10780
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data 02 p0365 N93-12182
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
The vertical distribution of heating in the tropical atmosphere
[AD-A254982] 02 p0372 N93-12507
Interannual variabilities of the East Asian summer monsoon and tropical sea surface temperatures 02 p0372 N93-12534
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
NOAA Atmospheric Sciences Modeling Division support to the US Environmental Protection Agency
[PB92-217835] 03 p0644 N93-12974
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
JARE data reports no. 179 (meteorology 29). Meteorological data at Asuka Station, Antarctica in 1990 03 p0663 N93-13287
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
The assimilation of marine surface data into the Navy operational global atmospheric prediction system
[AD-A255559] 03 p0667 N93-13877
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Modern methods in meteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
ARM Fourier transform spectrometer data analysis tools
[DE93-004648] 06 p1586 N93-18454
Effects of clouds on the Earth radiation budget; Seasonal and inter-annual patterns
[NASA-CR-191619] 06 p1574 N93-18870
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna 06 p1505 N93-18903
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
A numerical field experiment approach for determining probabilities of microburst intensity 06 p1419 N93-19599
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Production of teaching materials from Geostationary Meteorological Satellite Himawari images 07 p1978 N93-21544
Changing weather information: Roles of meteorological information through meteorological satellites 07 p1979 N93-21545
The influence of high clouds on climate 07 p1956 N93-21588
Microwave radiometry for monitoring the diverse cloudiness regimes on Earth: A review 07 p1958 N93-21600
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Regional-scale analysis and forecasting
[AD-A259894] 08 p2403 N93-22733
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
Data ingest and objective analysis for the PSU/NCAR modeling system. Programs DATAGRID and RAWINS
[PB93-138519] 08 p2393 N93-23252
Mariners weather log, volume 36, number 3, summer 1992
[PB93-132033] 08 p2405 N93-23282
Mariners weather log, volume 36, number 4, fall 1992
[PB93-132041] 08 p2405 N93-23283
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651
The use of the Air Force cloud cover data to evaluate and improve cloud forecast and parameterization in mesoscale meteorology models
[AD-A260357] 08 p2409 N93-24171
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
Aerosol measurements at the South Pole during 1987
[PB93-137016] 08 p2390 N93-24567
The Global Ocean Observing System: One perspective 09 p2733 N93-24920
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
Propagation at microwave frequencies in the presence of tropospheric stratified layers 09 p2674 N93-25340
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
The ACTS propagation program 09 p2683 N93-26465
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
The relationship between satellite-derived cloud parameters and measured maximum wind speed in the typhoon genesis stage 10 p3075 N93-26993
CSU FIRE 2 cirrus field experiment: Description of field deployment phase
[NASA-CR-193162] 10 p3077 N93-27292
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Next Generation Weather Radar (NEXRAD) Principal User Processor (PUP) Operational Test and Evaluation (OT&E) operational test plan
[DOT/FAA/CT-TN93/22] 10 p3027 N93-28054
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
Seasonal snowfall statistics for selected stations
[AD-A263173] 11 p3481 N93-28991
The meteorological database
[DE93-007289] 11 p3481 N93-29054
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491
The basics of weather models
[AD-A263386] 11 p3483 N93-29850
TACSAT meteorological payloads 11 p3391 N93-29913
Meteorological information for aviation: A systems approach 11 p3367 N93-30298
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
Preliminary evaluation of aviation-impact variables derived from numerical models
[PB93-190197] 12 p3767 N93-31202
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

METEOROLOGICAL PROBES
U SONDES

METEOROLOGICAL RADAR
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251

Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans
04 p0784 N93-14847
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
TDWR 1991 Program Review
04 p0785 N93-14852
Systems issues in airborne Doppler radar/LIDAR certification 04 p0785 N93-14855
Cloud and aerosol characterization for the ARM central facility: Multiple remote sensor techniques development
[DE93-000915] 05 p1202 N93-16535
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
Research relative to weather radar measurement techniques
[NASA-CR-191911] 06 p1504 N93-18598
RAWS 1992 progress report
[NASA-CR-191382] 06 p1507 N93-18849
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
Observation of meteors by MST radar
06 p1697 N93-19180
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives
06 p1418 N93-19591
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Doppler radar results 06 p1419 N93-19595
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
A satellite-borne radar wind sensor (RAWS)
07 p2008 N93-20096
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
The vertical profile of reflectivity and errors in radar estimates of rainfall 08 p2406 N93-23350
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
A satellite-based Radar Wind Sounder (RAWS)
08 p2406 N93-23384
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
Positive cloud-to-ground flashes in severe storms
09 p2780 N93-24896
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Setting values for TDWR/LLWAS 3 integration parameters
[AD-A260740] 09 p2783 N93-25645
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A260779] 09 p2756 N93-25679
Status of the Olympus experiment at CRC
09 p2685 N93-26480
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095
Next Generation Weather Radar (NEXRAD) Principal User Processor (PUP) Operational Test and Evaluation (OT&E) operational test plan
[DOT/FAA/CT-TN93/22] 10 p3027 N93-28054
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

METEOROLOGICAL RESEARCH AIRCRAFT
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818

METEOROLOGICAL ROCKETS
U SOUNDING ROCKETS

METEOROLOGICAL SATELLITES
NT DMSP SATELLITES
NT METEOSAT SATELLITE
NT NIMBUS 7 SATELLITE
NT NOAA SATELLITES
NT NOAA 10 SATELLITE
NT TIROS N SERIES SATELLITES
NT TIROS SATELLITES
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Production of teaching materials from Geostationary Meteorological Satellite Himawari images
07 p1978 N93-21544
Changing weather information: Roles of meteorological information through meteorological satellites
07 p1979 N93-21545
Requirements and projects for high-resolution atmospheric sounding 07 p1959 N93-21607
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
A land-surface testbed for EOSDIS
09 p2878 N93-25797
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
The relationship between satellite-derived cloud parameters and measured maximum wind speed in the typhoon genesis stage 10 p3075 N93-26993
DCP communication link monitoring program
10 p3076 N93-26994
A comparison of GMS low-level cloud motion winds with sea surface winds observed by ships over western part of the North Pacific Ocean 10 p3076 N93-26995
A usage and maintenance of meteorological satellite data 10 p3076 N93-26996
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites
10 p2924 N93-27200
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922

METEOROLOGICAL SERVICES
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
On implementation (World Weather Watch)
[WMO-753] 05 p1217 N93-17597
Selected worldwide Marine weather broadcasts
[PB93-118164] 07 p2013 N93-21294
The global climate system. Climate system monitoring
07 p2014 N93-21450
Federal plan for meteorological services and supporting research, FY 1993
[PB92-233188] 07 p2014 N93-21502
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Data sets for weather information services
08 p2337 N93-22140
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616
National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775
Experimenter's laboratory for visualized interactive science 09 p2879 N93-25802
Synoptic and Mesoscale Meteorology Instruction Workshop
[PB93-156347] 09 p2785 N93-25870
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
A prototype climate information system
[AD-A261799] 10 p3075 N93-26630
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Next Generation Weather Radar (NEXRAD) Principal User Processor (PUP) Operational Test and Evaluation (OT&E) operational test plan
[DOT/FAA/CT-TN93/22] 10 p3027 N93-28054
Cloudiest year study: An analysis of the 3DNEPH and RTNEPH databases
[AD-A263409] 11 p3483 N93-29967
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758

METEOROLOGICAL STATIONS
U WEATHER STATIONS

METEOROLOGY
NT AEROLOGY
NT AGROMETEOROLOGY
NT ALPINE METEOROLOGY
NT AVIATION METEOROLOGY
NT HYDROMETEOROLOGY
NT LONG RANGE WEATHER FORECASTING
NT MARINE METEOROLOGY
NT MESOMETEOROLOGY
NT MICROBURSTS (METEOROLOGY)
NT MICROMETEOROLOGY
NT NOWCASTING
NT NUMERICAL WEATHER FORECASTING
NT PLANETARY METEOROLOGY
NT POLAR METEOROLOGY
NT RADIO METEOROLOGY
NT STATISTICAL WEATHER FORECASTING
NT SYNOPTIC METEOROLOGY
NT TROPICAL METEOROLOGY
NT WEATHER FORECASTING
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064

Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
CCL working group on climate data
[WCDMP-18] 02 p0370 N93-11897
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989 03 p0663 N93-13446
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
A comparison of data from SOLMET/ERSATZ and the National Solar Radiation Data Base
[DE93-000018] 05 p1399 N93-17174
Wintertime meteorology of the Grand Canyon region
[DE93-001557] 05 p1216 N93-17179
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
Numerical simulations of drainage flows on Mars 06 p1742 N93-19816
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
Remote sensing of water vapor features 07 p2010 N93-20107
An investigation of the role of current and future remote sensing data systems in numerical meteorology 07 p2010 N93-20108
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit 08 p2361 N93-23775
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061
Meteorological data assimilation by adaptive Bayesian optimization 08 p2409 N93-24272
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813
Global Temperature and Salinity Pilot Project 09 p2733 N93-24924
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
Compression of spectral meteorological imagery 09 p2804 N93-25925
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
NOAA Aeronomy Laboratory quadrennial report, 1989-1992: A summary of the past four years and a look ahead
[PB93-167401] 10 p3071 N93-26609
CSU FIRE 2 cirrus field experiment: Description of field deployment phase
[NASA-CR-193162] 10 p3077 N93-27292
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
Syllabus physical meteorology, part 1
[KNMI-TR-140-PT-1] 11 p3484 N93-30114
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
The 3rd national heavy precipitation workshop
[PB93-186625] 12 p3767 N93-31329
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

METEORS

U METEOROIDS

METEOSAT SATELLITE

Operational cloud classification with Meteosat data 07 p1962 N93-21622
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images 07 p1962 N93-21624
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Meteosat operational programme current missions and services 08 p2357 N93-23752
Meteosat second generation: A look to the future 08 p2357 N93-23753
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential 08 p2362 N93-23780
Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries 09 p2743 N93-24808

METERS

U MEASURING INSTRUMENTS

METHACRYLATE RESINS

U ACRYLIC RESINS

METHANATION

Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
Benefits of in situ propellant utilization for a Mars sample return mission
[NASA-TM-106243] 11 p3341 N93-28695

METHANE

The current and future environmental role of atmospheric methane: Model studies and uncertainties
[NASA-CR-190662] 01 p0104 N93-10256
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Formic acid: Development of an analytical method and use as process indicator in anaerobic systems
[AD-A250668] 02 p0253 N93-12267
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer 04 p1027 N93-14312
Viscosity of liquids. Halogenated methanes
[ESDU-92028] 04 p0839 N93-14539
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991] 04 p0911 N93-15460
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414

Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
Development of vanadium-phosphate catalysts for methanol production by selective oxidation of methane
[DE93-012568] 10 p2996 N93-28374
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435

METHANOL
U METHYL ALCOHOL

METHOD OF CHARACTERISTICS
Difference approximations for hyperbolic conservation laws and consistency with characteristics
[NAL-TR-1098T] 02 p0428 N93-12350
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467

METHOD OF MOMENTS
Far-zone field of a monopole element on a disk ground plane above flat earth
[AD-A253580] 01 p0070 N93-10091
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418
Method of moments analysis of symmetric dual reflector antennas with feeds
[AD-A255171] 02 p0286 N93-12407
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects
03 p0568 N93-14048
Scattering from arbitrarily shaped microstrip patch antennas
[NASA-TP-3291] 05 p1140 N93-16943
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Monopole elements with disk ground planes on flat earth: Atlas of directivity, radiation efficiency, radiation resistance, and input impedance
[AD-A257911] 06 p1503 N93-18366
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers
[NASA-CR-192094] 06 p1515 N93-19483
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
High-performance visualization applied to computational electromagnetics: Method-of-moments on a silicon graphics workstation
[AD-A260820] 09 p2675 N93-25700
An efficient method for analyzing microstrip antennas with a dielectric cover using a spectral domain moment method
[EUT-91-E-255] 10 p3026 N93-27228
Moment method analysis of linearly tapered slot antennas
[NASA-CR-191474] 10 p2955 N93-27261
An analysis of the Generalized Lambda Distribution
[AD-A262485] 11 p3555 N93-29447
Scattering through apertures and by three-dimensional structures. Application to the measurement of the surface impedance of conductive materials
[ONERA-P-1990-2] 11 p3392 N93-30018
Characterizing transient vibrations using band limited temporal moments
[DE93-009639] 11 p3453 N93-30185
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995
A 17 keV neutrino and large magnetic moment solution of the solar neutrino puzzle
[DE93-608264] 12 p3819 N93-31662

METHODOLOGY
Analysis of methods — information systems evolution environment
[NASA-CR-190278] 02 p0407 N93-11368
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211

METHODS
U METHODOLOGY
U PROCEDURES

METHOXY SYSTEMS
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429

METHYL ALCOHOL
Selective carbon oxygen bond scission during reactions of oxygenates on single crystal catalysts
[DE92-018687] 02 p0247 N93-11439
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
Alternative Fuel Evaluation Program: Alternative Fuel Light Duty Vehicle Project. Data collection responsibilities, techniques, and test procedures
[DE92-010598] 02 p0275 N93-12171
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
A novel process for methanol synthesis
[DE92-019719] 03 p0539 N93-13617
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels
05 p1107 N93-17408
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
The electrochemical oxidation of methane for fuel cells
[PB93-110120] 07 p1987 N93-21353
Evaluation of a Schatz heat battery on a flexible-fueled vehicle. Phase 2
[PB92-204585] 07 p1893 N93-21377
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Assessment of costs and benefits of flexible and alternative fuel use in the US transportation sector
[DE93-004659] 08 p2244 N93-22325
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Conversion of methanol-fueled 16-valve, 4-cylinder engine to operation on gaseous 2H2/CO fuel
[PB93-144376] 08 p2313 N93-22902
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
High octane ethers from synthesis gas-derived alcohols
[DE93-006476] 08 p2245 N93-24031
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Design of a high activity and selectivity alcohol catalyst
[DE93-008100] 08 p2225 N93-24575
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
A novel process for methancl synthesis
[DE93-008037] 09 p2659 N93-25118
Probe molecule studies: Active species in alcohol synthesis
[DE93-008097] 09 p2659 N93-25119
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Deuteron and oxygen-17 NMR studies of molecular motion in methanol-saturated Nafion membranes
[AD-A261579] 09 p2851 N93-26514
Development of vanadium-phosphate catalysts for methanol production by selective oxidation of methane
[DE93-012568] 10 p2996 N93-28374
Design of a high activity and selectivity alcohol catalyst
[DE93-012277] 11 p3309 N93-28750
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188
Magnetic character investigation of higher alcohol synthesis Cu-Co-Cr catalysts
[DE93-009732] 11 p3316 N93-30653
Session of alcohol and biomass energy technology
[DE93-768440] 12 p3749 N93-32056
Feasibility study on introduction of petroleum substituting energy for transportation
[DE93-768472] 12 p3750 N93-32058

METHYL COMPOUNDS
NT ACETONITRILE
NT METHYL POLYSILOXANES
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions
[AD-A250931] 02 p0236 N93-12177
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Lithium rechargeable cell with a poly 3-methylthiophene cathode
[AD-A255436] 04 p0866 N93-14552
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
X ray crystal structure of an organoindium alkoxide dimer, (Ph2InOSiMe3)2
[AD-A257404] 05 p1315 N93-15862
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Spectroscopic investigation of the vibrational quasi-continuum arising from internal rotation of a methyl group
[DE92-040509] 05 p1104 N93-16586
Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685

METHYL CYANIDE
U ACETONITRILE

METHYL POLYSILOXANES
The role of entanglements in the swelling of poly(dimethylsiloxane) networks
[AD-A255359] 04 p0849 N93-14561
Lareg area solar cells from lunar materials
10 p3066 N93-26688

METHYLENE
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150

METHYLHYDRAZINE
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Active Hydrazine Vapor Sampler (AHVS)
08 p2225 N93-22165

METRIC CONVERSION
U METRICATION

METRIC SPACE
NT HILBERT SPACE
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225

Recursive construction of fractals
[ISBN-951-41-0689-X] 03 p0697 N93-13271
Solitons and instantons in string theory
03 p0728 N93-13753
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Hereditarily-finite sets and complete metric spaces
[CWI-CS-R9148] 05 p1265 N93-16366
A metric for line segments
[CWI-BS-R9126] 05 p1268 N93-16832
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
A generalized cut condition for multiflows in matroids
[RR-869-M] 07 p2054 N93-20947
Bisimulation semantics for concurrency with atomicity and action refinement
[CWI-CS-R9210] 10 p3116 N93-27498
Processes as terms: Non-well-founded models for bisimulation
[CWI-CS-R9211] 10 p3097 N93-27499
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
On the scalar curvature of self-dual manifolds
[DE93-608194] 12 p3804 N93-31306

METRIC SYSTEM
U INTERNATIONAL SYSTEM OF UNITS

METRICATION
A metric America: A decision whose time has come - for real
[PB92-205459] 02 p0277 N93-11902
Metrication report to the Congress
[NASA-TM-108600] 06 p1499 N93-18281
Metric transition
[NASA-TM-108599] 06 p1499 N93-18354
Metrication report to the Congress
[NASA-TM-108601] 06 p1499 N93-18355
Metrication report to the Congress
[NASA-TM-108602] 06 p1499 N93-18356
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
Metric transition plans and activities of Federal Government Agencies
[PB92-222249] 07 p1878 N93-21468
NASA metric transition plan
[NASA-TM-108606] 08 p2258 N93-23209
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Metrication: An economic wake-up call for US industry
[PB93-188969] 12 p3714 N93-31109

METROLOGY
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
The Columbus Metrology Science Team: Report on activities 09 p2670 N93-24987
Designing for frequency and time metrology at the 10 to the minus 18 power level 09 p2842 N93-25059
Issues, concepts, and standard techniques in assessing accuracy of coordinate measuring machines
[PB93-184331] 11 p3354 N93-29666
Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
Thermoforming from a systems viewpoint
11 p3293 N93-30967
Measurement uncertainty considerations for coordinate measuring machines
[PB93-189819] 12 p3714 N93-31196
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430
Standard Reference Materials: Handbook for SRM users
[PB93-183796] 12 p3699 N93-31830

METROPOLITAN AREAS
U CITIES

MEXICO
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854

MGCO
U MARS OBSERVER

MICE
Photoreceptors regulating circadian behavior: A mouse model
[AD-A264881] 11 p3497 N93-30908

MICHAEL REACTION
Applications of molecular modeling to transition state energies and conformations
[AD-A257130] 05 p1284 N93-16074

MICHELSON INTERFEROMETERS
Arm length matching in 10 m delay-line interferometer
[ISAS-TN-649] 03 p0596 N93-12639
Radio and optical interferometric imaging
03 p0744 N93-13580
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Measurement of the expansion coefficient between -150 C and +150 C for material composites for space applications
[REPT-921-430-115] 07 p1833 N93-20939
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
Calibration of a standard transducer using a laser interferometer (TTCP calibration round-robin)
[NRC-34387] 08 p2305 N93-24289
Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345

MICHIGAN
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158

MICROANALYSIS
Reliability of sublattice occupancies determined by ALCHEMI
[DE92-014592] 01 p0168 N93-10623
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
Interfacial microchemical characterization needs in surface processing
[DE92-018269] 02 p0277 N93-11672
Fingerprinting of materials: Technical supplement
05 p1199 N93-15917
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Corrosion resistance of metal matrix composites
[AD-A258370] 06 p1478 N93-18266
Nanotechnology 06 p1678 N93-18489
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362

MICROBALANCES
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

MICROBE
U MICROORGANISMS

MICROBIOLOGY
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters
[NASA-TM-108375] 02 p0375 N93-12174
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365

MICROBURSTS (METEOROLOGY)
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
A millimeter-wave radiometer for detecting microbursts
04 p0784 N93-14850
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
Experimental evaluation of candidate graphical microburst alert displays 04 p0785 N93-14853
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
NASA wind shear flight test in situ results
06 p1418 N93-19593
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Flight test of an infrared wind shear detector
06 p1419 N93-19596
A numerical field experiment approach for determining probabilities of microburst intensity
06 p1419 N93-19599
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Optimal recovery from microburst wind shear
08 p2107 N93-22574
A statistical characterization of Denver-area microbursts
[AD-A260925] 08 p2404 N93-23094
A statistical characterization of Denver-area microbursts
[AD-A262127] 10 p3078 N93-27675
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty
11 p3246 N93-31005

Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

MICROCALORIMETERS
U CALORIMETERS

MICROCHANNEL PLATES
Development of microchannel plates in advanced wind-tunnel instrumentation
[NASA-CR-181947] 05 p1166 N93-15716
Microchannel plate intensifier gain uniformity improvement in sealed tubes by selective scrubbing
[DE92-041082] 05 p1147 N93-16548
Microchannel electron source
[AD-D015555] 07 p1891 N93-20768
Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614
New technologies for UV detectors
11 p3582 N93-28786
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

MICROCHANNELS
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598
High performance microchannel heat exchanger for cooling high heat load x ray optical elements
[DE93-004245] 08 p2296 N93-23688
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300

MICROCIRCUITS
U MICROELECTRONICS

MICROCLIMATOLOGY
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
A microclimate model to investigate greenhouse warming of a sub-Alpine ecosystem
[DE93-005290] 08 p2388 N93-24011

MICROCOMPUTERS
NT IBM PERSONAL COMPUTERS
NT MACINTOSH PERSONAL COMPUTERS
NT PERSONAL COMPUTERS
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices
04 p1000 N93-14205
A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
Use of the microcomputer to solve large p-median problems
[INPE-5336-PRE/1735] 06 p1628 N93-19786
NTIA Microcomputer Spectrum Analysis Models (MSAM). Version 4.0, August 1992
[PB93-108348] 08 p2432 N93-23269
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Object-oriented tools for distributed computing
09 p2817 N93-25576
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

MICROCRACKS
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB] 02 p0333 N93-12204
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel
10 p2992 N93-28265
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Damage growth in composite propellants
11 p3348 N93-30088
The initiation, propagation, and effect of matrix microcracks in cross-ply and related laminates
11 p3304 N93-30847
Probabilistic fracture finite elements
12 p3695 N93-31571

MICROCRYSTALS
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Prometheus in space: Survey report of Research Committee on Functional New Material
12 p3710 N93-31728

MICROELECTRONICS
NT LARGE SCALE INTEGRATION
NT VERY LARGE SCALE INTEGRATION
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
RF vacuum microelectronics
[AD-A253910] 02 p0290 N93-11491
An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Electronics reliability fracture mechanics. Volume 2: Fracture mechanics
[AD-A256200] 04 p0900 N93-14498
SETA support for the DARPA microelectronics technology insertion program of the Microelectronics Technology Office
[AD-A255551] 04 p0866 N93-14555
Solid state research
[AD-A256019] 04 p0992 N93-14576
A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191
RF vacuum microelectronics
[AD-A257320] 05 p1144 N93-15984
RF vacuum microelectronics
[AD-A257208] 05 p1145 N93-16004
Center for High-Frequency Microelectronics
[AD-A257003] 05 p1145 N93-16030
The CRRES Microelectronics Package (MEP) data processing system
[AD-A256709] 05 p1145 N93-16168
Solid state research
[AD-A256965] 05 p1318 N93-16251
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
Preliminary investigation into the development of hardening devices using vacuum microelectronic technology
[AD-A258009] 05 p1152 N93-17750
Field-emitter arrays for RF vacuum microelectronics
[AD-A258211] 06 p1518 N93-18203
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems
[AD-A257790] 06 p1519 N93-18236
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
VLSI microelectronics research
06 p1523 N93-18462
CIME of microsystems
[MBB-Z-0428-92-PUB] 07 p2037 N93-20844
Smart Integrated Microsensor System (SIMS)
[AD-A259430] 07 p1907 N93-21247
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, January to March 1992, with 1992/1993 EEEL events calendar
[PB93-120715] 07 p1893 N93-21256
Electronics and Electrical Engineering Laboratory technical publications announcements covering laboratory programs, October to December 1991, with 1992/1993 EEEL events calendar
[PB93-120723] 07 p1893 N93-21257
MIT Space Engineering Research Center testbed programs
[NASA-CR-192115] 07 p2103 N93-21660
Microelectronics packaging automation
[DE93-004822] 07 p1894 N93-21725
Covalent nitrides for maskless laser writing of microscopic metal lines
[DE93-004105] 07 p1858 N93-22001
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
Center for Space Microelectronics Technology
[NASA-CR-192799] 08 p2279 N93-22812

Solid state research
[AD-A259726] 08 p2509 N93-24024
Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225
Infrared vacuum soldering process for thick-film hybrid microcircuits
[DE93-007483] 08 p2285 N93-24451
Microelectronic and micromechanical sensors and actuators in CMOS technology: A novel scheme toward s regularization and integration
[ISBN-0-315-60192-2] 08 p2305 N93-24609
Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311
SiC microsensor with piezoresistive diamond sensing elements
[AD-A261346] 09 p2868 N93-26312
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
RF vacuum microelectronics
[AD-A261784] 09 p2692 N93-26565
An overview of MCC and its research 10 p2965 N93-27717
Solid state research
[AD-A262874] 10 p3154 N93-28247
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Field-emitter arrays for RF vacuum microelectronics
[AD-A262677] 11 p3404 N93-28483
Electronics research report
[AD-A262733] 11 p3405 N93-28589
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects
[PB93-181261] 11 p3410 N93-29671
New developments in vacuum microelectronics
[AD-A263103] 11 p3410 N93-29798
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
An application protocol for CAD to CAD transfer of electronic information
[AD-A264554] 11 p3533 N93-30383
RF vacuum microelectronics
[AD-A264528] 11 p3412 N93-30409
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

MICROFIBERS
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989

MICROGRAPHY
U PHOTOMICROGRAPHY

MICROGRAVITY
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Structure of thermocapillary flow in narrow cavities 01 p0061 N93-10552
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Space flight and immune system 02 p0376 N93-11284
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
Materials processing in low gravity
[NASA-CR-184421] 02 p0276 N93-12401
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
Establishing laboratory standards for biological flight experiments
[NASA-CR-184402] 03 p0671 N93-12901
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report
[NASA-TM-108379] 03 p0551 N93-13115
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
A decade of discovery: Experiments with the Get Away Special (GAS) canister 03 p0509 N93-13162
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads 03 p0509 N93-13165
A study of the effects of micro-gravity on seed germination 03 p0510 N93-13167
Investigation of microgravity effects on solidification phenomena of selected materials 03 p0510 N93-13168
Tagging insulin in microgravity 03 p0510 N93-13172
G254 undergraduate experiment 03 p0511 N93-13174
A Pennsylvania State University/General Electric Get Away Special (GAS) experiment 03 p0511 N93-13177
CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity 03 p0511 N93-13178
The ROMPS robot in HitchHiker 03 p0511 N93-13179
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
The VTRE Program: An overview 03 p0512 N93-13182
FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Spacelab J: Microgravity and life sciences
[NASA-CR-191353] 03 p0516 N93-13564
Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691
A growing dimension in space
[ESA-BR-37-F] 03 p0517 N93-13902
The possibility of concrete production on the Moon 03 p0554 N93-13988
Bone loss and human adaptation to lunar gravity 03 p0676 N93-14002
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
Combustion of gaseous fuels under reduced-gravity conditions 03 p0557 N93-14012
An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
Passive zero-gravity leg restraint
[NASA-CASE-ARC-11882-1-CU] 04 p0939 N93-14713
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353
Nucleate pool boiling in the long duration low gravity environment of the Space Shuttle
[NASA-TM-105973] 04 p0855 N93-15420
Vehicle/payload interface specification for the reusable reentry satellite
[NASA-CR-187883] 04 p0824 N93-15631
System specification for the reusable reentry satellite
[NASA-CR-187882] 04 p0824 N93-15632
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
On canonical cylinder sections for accurate determination of contact angle in microgravity
[DE93-000635] 05 p1130 N93-16377
Study of precision accelerometers and fractal aggregates in microgravity, phase 2
[CTN-93-60616] 05 p1130 N93-16426
The influence of microgravity on the microstructure and properties of eutectics, phase 2
[CTN-93-60627] 05 p1131 N93-16427
Nucleation, crystal growth, and liquid/liquid phase separation in materials in microgravity, phase 3
[CTN-93-60612] 05 p1131 N93-16493
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Preliminary definition of experiments and procedures for terrestrial and space examination of flame structure
[APRL-X13-8] 05 p1105 N93-16728
Development of equipment and technique to study solidification in microgravity, phase 1
[CTN-93-60608] 05 p1132 N93-16729
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
A study of the dynamics of droplet break-up
[CTN-93-60621] 05 p1132 N93-16746
Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60520] 05 p1133 N93-16934
Study of precision accelerometers and fractal aggregates in microgravity
[CTN-93-60622] 05 p1168 N93-16935
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
[CTN-93-60631] 05 p1133 N93-16937
An experiment to study fullerene formation under reduced gravity 05 p1134 N93-17335
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Protein crystal growth in low gravity
[NASA-CR-191770] 06 p1498 N93-17886
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
Microstructural development during directional solidification of peritectic alloys
[NASA-CR-192090] 06 p1488 N93-18603
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
A proposal to determine properties of the gravitropic response of plants in the absence of a complicating g-force (GTHRES)
[NASA-CR-192219] 06 p1593 N93-19377
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127
The Second International Microgravity Combustion Workshop
[NASA-CP-10113] 07 p1868 N93-20178
The world of NASA microgravity science 07 p1868 N93-20179
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180

An overview of European activities on microgravity combustion 07 p1868 N93-20181
Japan's microgravity combustion science program 07 p1868 N93-20182
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Capabilities and constraints of NASA's ground-based reduced gravity facilities 07 p1819 N93-20184
Capabilities and constraints of combustion diagnostics in microgravity 07 p1869 N93-20185
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
An experimental and theoretical study of radiative extinction of diffusion flames 07 p1853 N93-20191
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Visualization and imaging methods for flames in microgravity 07 p1853 N93-20193
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Modeling of microgravity combustion experiments 07 p1853 N93-20197
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
On the structure and stabilization mechanisms of planar and cylindrical premixed flames 07 p1853 N93-20199
The effects of gravity on wrinkled laminar flames 07 p1853 N93-20200
Microgravity combustion of dust suspensions 07 p1853 N93-20201
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Ignition and subsequent flame spread over a thin cellulosic material 07 p1854 N93-20205
Opposed-flow flame spreading in reduced gravity 07 p1854 N93-20206
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
A fundamental study of smoldering combustion in microgravity 07 p1854 N93-20208
Flame spread across liquid pools 07 p1854 N93-20209
Metals combustion in normal gravity and microgravity 07 p1854 N93-20211
Studies of droplet burning and extinction 07 p1854 N93-20212
Computational/experimental studies of isolated, single component droplet combustion 07 p1854 N93-20213
Combustion experiments in reduced gravity with two-component miscible droplets 07 p1854 N93-20214
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
High-pressure droplet combustion studies 07 p1854 N93-20216
Combustion of interacting droplet arrays in a microgravity environment 07 p1854 N93-20217
Characterizing droplet combustion of pure and multi-component liquid fuels in a microgravity environment 07 p1855 N93-20219
Spacebound 1991 [CTN-93-60604] 07 p1802 N93-21070
Space station user development program: Future prospects 07 p1802 N93-21072
Long duration human exposure to microgravity 07 p1802 N93-21073
Microgravity science activities in Canada 07 p1803 N93-21075
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept 07 p1803 N93-21078
Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study 07 p1803 N93-21079
Development of a Knudsen cell for molecular beam epitaxial growth of GaAs films in the microgravity environment 07 p1804 N93-21082
Crystallization of a protein aboard the US Space Shuttle flight STS-31 07 p1804 N93-21086
Preparation results for a Marangoni-Benard experiment with Soret effect under microgravity conditions 07 p1805 N93-21088
Isopycnic systems as models for the behavior of liquids in a microgravity environment 07 p1805 N93-21089
Gas bubble generation in low gravity 07 p1805 N93-21090
Dynamics of sessile droplets distortion and disruption by electric field in microgravity conditions 07 p1805 N93-21091
Agglomeration of fractals in simulated reduced gravity 07 p1806 N93-21093
Quenching of a tube and filling of a vessel under microgravity 07 p1806 N93-21096
Canadian microgravity experiments flown in 1990-1991 07 p1807 N93-21101
Experiments aboard the Caravelle for the 3 ESA campaigns in 1990 07 p1807 N93-21102
International and commercial sub-orbital program for microgravity research 07 p1807 N93-21104
Studies of dispersed phase systems: Ostwald ripening and metal matrix composites 07 p1808 N93-21106
Polymer foam cell growth in microgravity 07 p1808 N93-21108
An experiment cn producing foam metals in a microgravity environment aboard NASA KC-135 aircraft 07 p1808 N93-21109
Eye movements under altered gravitoinertial forces 07 p1809 N93-21111
The production of high iron glasses by RST in microgravity 07 p1810 N93-21117
Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace 07 p1811 N93-21123
Acceleration levels on the KC-135 07 p1784 N93-21124
Laser welding of plastics under low and high gravity conditions 07 p1811 N93-21125
Discussion of the optical effects created by a laser source on particles under microgravity 07 p1811 N93-21126
Recent results and new hardware developments for protein crystal growth in microactivity [NASA-CR-191994] 07 p1875 N93-21356
Report on microgravity experiment by TR-1A rocket [NASDA-EG-920021] 07 p1875 N93-21950
NASA PPO microgravity projects support [NASA-CR-192460] 08 p2246 N93-22038
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2 [NASA-CR-192474] 08 p2302 N93-22347
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports [NASA-CR-192477] 08 p2302 N93-22349
Space Station Freedom Utilization Conference [NASA-TM-108742] 08 p2182 N93-22606
Space Station Freedom Utilization Conference: Executive summary 08 p2182 N93-22607
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Commercial researcher perspective 08 p2184 N93-22615
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Precursor SSF utilization: The MODE experiments 08 p2188 N93-22633
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Zero-G life support for Space Station Freedom 08 p2189 N93-22640
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Space Station Freedom combustion research 08 p2190 N93-22643
Microgravity fluid physics research in the Space Station Freedom era 08 p2191 N93-22644
Materials science research in microgravity 08 p2191 N93-22645
Protein crystal growth in microgravity 08 p2191 N93-22646
Office of Commercial Programs' research activities for Space Station Freedom utilization 08 p2191 N93-22647
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change 08 p2191 N93-22648
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom 08 p2192 N93-22649
Materials dispersion and biodynamics project research 08 p2192 N93-22651
Integration and use of Microgravity Research Facility: Lessons learned by the crystals by vapor transport experiment and Space Experiments Facility programs 08 p2193 N93-22652
Fluids in Space [ESA-SP-353] 08 p2246 N93-22830
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832
Continuous-flow electrophoresis: Hydrodynamics, heat and mass transfer with and without gravity 08 p2247 N93-22836
Adsorption kinetics at liquid-liquid interfaces in microgravity conditions. Experimental approach and theoretical background 08 p2248 N93-22843
Boiling under microgravity conditions 08 p2249 N93-22847
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature 08 p2249 N93-22849
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation 08 p2251 N93-22857
Investigation of hot wire anemometers at very low velocities under microgravity 08 p2251 N93-22858
Polyreactions in microgravity environment 08 p2251 N93-22859
Experimental investigation of the influence of the temperature gradient on the thermocapillary convection in spherical drops under low-gravity 08 p2251 N93-22862
Thermocapillary instabilities in the presence of a homogeneous magnetic field 08 p2252 N93-22865
Materials science on parabolic aircraft: The FY 1987-1989 KC-135 microgravity test program [NASA-TM-4456] 08 p2252 N93-23171
Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179
Microgravity science and applications: Program tasks and bibliography for FY 1992 [NASA-TM-4469] 08 p2253 N93-23428
Proposed ground-based control of accelerometer on Space Station Freedom [NASA-TM-105960] 08 p2201 N93-23738
Usage of small-sized aerospace plane in the infrastructure of space research of the Earth 08 p2362 N93-23781
User support for the Spacelab mission D-2 08 p2155 N93-24340
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
CogiMir: A study of cognitive functions in microgravity 08 p2159 N93-24364
AudiMir: Directional hearing at microgravity 08 p2159 N93-24365
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation 08 p2160 N93-24366
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
The effect of microgravity on tremor (microvibration) 08 p2160 N93-24368
Altered fluid shift dynamics with 6 days in microgravity 08 p2160 N93-24369
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
Gravity-related phenomena in materials science 08 p2161 N93-24372
The Microgravity User Support Center (MUSC) 08 p2161 N93-24374
Microgravity Advanced Research and Support (MARS) Center update 08 p2161 N93-24375
The USO-concept applied to a biological model experiment 08 p2162 N93-24379
Fluid science users requirements 08 p2163 N93-24385
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue 08 p2164 N93-24394
Gravity and root morphogenesis 08 p2166 N93-24403
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
Sample positioning in microgravity [NASA-CASE-NPO-18448-1-CU] 08 p2253 N93-24600

Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission
09 p2603 N93-24717
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
Electrodeposition in low gravity
09 p2663 N93-24774
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
A simple and compact source of cold atoms for cesium fountains and microgravity clocks
09 p2831 N93-24981
The Columbus Metrology Science Team: Report on activities 09 p2670 N93-24987
NASA Microgravity Science and Applications Program
[NASA-TM-108775] 09 p2663 N93-25194
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Modeling of bubble and drop formation in flowing liquids in terrestrial and microgravity environments
09 p2664 N93-25390
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Modelling of microgravity ignition phenomena
09 p2664 N93-25465
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems
09 p2700 N93-25478
Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Investigation of the effects of Extra Vehicular Activity (EVA) and Launch and Entry (LES) gloves on performance 09 p2803 N93-26061
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
Acceleration Studies
[NASA-CR-192547] 10 p2947 N93-26948
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
Growth factor involvement in tension-induced skeletal muscle growth
[NASA-CR-193023] 10 p3083 N93-27113
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Magnetic Actuators and Suspension for Space Vibration Control
[NASA-CR-193038] 10 p3057 N93-27594
Evaluation of actuators for the SDOF and MDOF active microgravity isolation systems 10 p3057 N93-27595
Metals production 10 p3214 N93-27970
Rapid Thermal Processing (RTP) of semiconductors in space
[NASA-CR-193110] 10 p3009 N93-28408
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694
The MODE family of facility class experiments
11 p3263 N93-28705
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP)
11 p3264 N93-28711
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713
Sodium-Sulfur Cell Technology flight experiment (SSCT) 11 p3264 N93-28715
Thermal energy storage flight experiment in microgravity 11 p3265 N93-28720
Cryogenic Heat Pipe Experiment (CRYOHP)
11 p3265 N93-28721
Heat pipe performance experiment
11 p3265 N93-28722
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field
11 p3266 N93-28725
Effect of microgravity on several visual functions during STS Shuttle missions: Visual Function Tester-Model 1 (VFT-1) 11 p3268 N93-28740
Effect of microgravity on visual contrast threshold during STS Shuttle missions: Visual Function Tester-Model 2 (VFT-2) 11 p3268 N93-28741
Effect of microgravity on the visual near point: Visual Function Tester-Model 4 (VFT-4)
11 p3268 N93-28742
NASA supporting studies for microgravity research on eye movements
[NASA-CR-193233] 11 p3493 N93-29041
Anthropometric data from launch and entry suited test subjects for the design of a recumbent seating system
[NASA-TM-104769] 11 p3505 N93-29044
Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194
Issues on human acceleration tolerance after long-duration space flights
[NASA-TM-104753] 11 p3495 N93-29651
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723
Rotational fluid flow experiment
11 p3235 N93-29761
Planar reorientation of a free-free beam in space using embedded electromechanical actuators
11 p3280 N93-29993
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Prediction of gas-liquid two-phase flow regime in microgravity
[NASA-TM-106274] 11 p3352 N93-30939
Effects of buoyancy on gas jet diffusion flames
[NASA-CR-191109] 11 p3352 N93-31031
Vibration isolation 12 p3690 N93-31458
Towards distributed control systems for experiments under micro gravity
[NLR-TP-92027-U] 12 p3714 N93-32387

MICROGRAVITY APPLICATIONS

Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
A microgravity processing plant for the manufacturing of propellant and water from asteroid ore
03 p0515 N93-13558
Spacelab J: Microgravity and life sciences
[NASA-CR-191353] 03 p0516 N93-13564
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
A study of the dynamics of droplet break-up
[CTN-93-60621] 05 p1132 N93-16746
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
[ETN-93-93362] 06 p1498 N93-17811
Protein crystal growth in low gravity
[NASA-CR-191770] 06 p1498 N93-17886
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
The Second International Microgravity Combustion Workshop
[NASA-CP-10113] 07 p1868 N93-20178
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Space station user development program: Future prospects 07 p1802 N93-21072
Microgravity science activities in Canada
07 p1803 N93-21075
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
The production of high iron glasses by RST in microgravity 07 p1810 N93-21117
Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights
07 p1810 N93-21119
Grain refinement of Al-Cu-Ti alloys in microgravity
07 p1810 N93-21120
NASA PPO microgravity projects support
[NASA-CR-192460] 08 p2246 N93-22038
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
Microgravity fluid physics research in the Space Station Freedom era 08 p2191 N93-22644
Protein crystal growth in microgravity
08 p2191 N93-22646
Electrically driven convection
08 p2247 N93-22837
Materials science on parabolic aircraft: The FY 1987-1989 KC-135 microgravity test program
[NASA-TM-4456] 08 p2252 N93-23171
Space Station Furnace Facility. Volume 1: Requirements definition and conceptual design study, executive summary
[NASA-CR-192471] 08 p2199 N93-23225
Microgravity science and applications: Program tasks and bibliography for FY 1992
[NASA-TM-4469] 08 p2253 N93-23428
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
Gravity-related phenomena in materials science
08 p2161 N93-24372
The Microgravity User Support Center (MUSC)
08 p2161 N93-24374
Telescience opportunities in the precursor flights
08 p2161 N93-24376
The surface plasmon spectroscopy applications in microgravity: The measurement theory and preliminary experimental layout 08 p2165 N93-24396
NASA Microgravity Science and Applications Program
[NASA-TM-108775] 09 p2663 N93-25194
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
Laser ignition application in a space experiment
[NASA-TM-106133] 09 p2664 N93-25337
Acceleration Studies
[NASA-CR-192547] 10 p2947 N93-26948
DADiSP processing guide 10 p2947 N93-26949
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
SPE (tm) regenerative hydrogen/oxygen fuel cells for extraterrestrial surface and microgravity applications
10 p2969 N93-27813
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554
NASA in-step: Permeable membrane experiment
11 p3267 N93-28736
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723

MICROHARDNESS

Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate
11 p3350 N93-30094
Corrosion-erosion of alloys exposed in fluidised bed combustors
[NPL-DMM(A)-80] 12 p3705 N93-31602

MICROINDENTATION

U MICROHARDNESS

MICROMECHANICS

Failure processes in elastomeric composites
01 p0046 N93-10475
Integrated finite element model of composite materials
01 p0046 N93-10477
Dynamic crack division in brittle solids
01 p0048 N93-10489
Status of dynamic fracture in brittle solids
01 p0049 N93-10493
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
Analysis of failure modes in ceramic matrix composite
01 p0028 N93-10508
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896

Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Micromechanics of metal matrix composites using the Generalized Method of Cells model (GMC) user's guide
[NASA-CR-190756] 02 p0335 N93-11175
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Scanning electron microscopy of the effects of moisture and elevated temperature on the fibre/matrix bond in CFRP
[RAE-TM-MAT/STR-1183] 02 p0240 N93-11905
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual
[NASA-TP-3292] 02 p0241 N93-12015
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Micromechanical combined stress analysis: MICSTRAN, a user manual
[NASA-CR-189694] 02 p0243 N93-12306
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Theoretical and experimental studies on the foundation theoretical and experimental studies on the foundation of mesomechanics
[AD-A254385] 03 p0623 N93-12863
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Vibration damping response of composite materials 03 p0533 N93-13748
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
Circular dislocation loops and their application to the micromechanics of fibrous composites 06 p1480 N93-19043
A micromechanical fastening system and its applications 06 p1550 N93-19059
Interface fracture in composite materials 06 p1560 N93-19381
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Microstatic study of the behavior of granular media
[ECL-90-31] 08 p2236 N93-22460
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Microstructure and texture control of fatigue in hydrogen and marine environments
[AD-A259808] 08 p2231 N93-23642
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
Thick-section structural composites and composite structures
[AD-A260081] 08 p2215 N93-24316
High Temperature Composite Analyzer (HITCAN) theoretical manual, version 1.0
[NASA-TM-106001] 09 p2723 N93-24913
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
Finite element micromechanics modeling of inelastic deformation of unidirectionally fiber-reinforced composites 09 p2637 N93-25680
A three-dimensional model for the residual stresses in a unidirectional composite plate 09 p2728 N93-25825
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382
METal matrix composite ANalyzer (METCAN): Theoretical manual
[NASA-TM-106025] 09 p2641 N93-26552
Composite micromechanical modeling using the boundary element method
[NASA-TM-106127] 10 p3056 N93-27030
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Fracture micromechanics of ceramic composites 10 p2920 N93-27172
The design and modelling of a comb-drive-based microengine for mechanism drive applications
[DE93-009826] 11 p3443 N93-29185
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Overall properties of composite materials: A general model based on periodic microstructure 12 p3699 N93-31143

MICROMETEORITES
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368

MICROMETEOROIDS
NT ZODIACAL DUST
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
Characterisation and dynamic modelling of the near-earth space particulate environment 04 p1019 N93-14637
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
Micrometeoroids and debris on LDEF 11 p3638 N93-29356
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Damage areas on selected LDEF aluminum surfaces 11 p3283 N93-29374
LDEF data: Comparisons with existing models 11 p3283 N93-29375
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379

MICROMETEOROLOGY
NT MICROBURSTS (METEOROLOGY)
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254

MICROMETEORS
U MICROMETEOROIDS

MICROMETERS
Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14086

MICROMINIATURIZATION
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects
[PB93-181261] 11 p3410 N93-29671

MICROMINIATURIZED ELECTRONIC DEVICES
Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502

MICROMOTORS
Tuned circuit electric levitation bearings for microactuators 09 p2689 N93-25619
The design and modelling of a comb-drive-based microengine for mechanism drive applications
[DE93-009826] 11 p3443 N93-29185

MICROORGANISMS
NT ARCHAEBACTERIA
NT BACTERIA
NT CLOSTRIDIUM
NT ESCHERICHIA
NT HUMAN IMMUNODEFICIENCY VIRUS
NT KLEBSIELLA
NT PROTOZOA
NT PSEUDOMONAS
NT STREPTOMYCETES
NT VIRUSES
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters
[NASA-TM-108375] 02 p0375 N93-12174
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
Ground testing of bioconvective variables such as morphological characterizations and mechanisms which regulate macroscopic patterns 05 p1224 N93-17303
UPT scenarios: Implications for system reliability 05 p1182 N93-17332
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Regenerable biocide delivery unit
[NASA-CASE-MSC-21763-1-SB] 06 p1590 N93-18351
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Measuring variation in ecosystem sensitivity to stress
[AD-A259521] 08 p2387 N93-23450
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943
Process for selectively recovering algae and protozoa
[NASA-CASE-MFS-26124-1-NPO] 11 p3491 N93-29174
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665

Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027
Micro-organisms, cytotoxins and radioactive preparation: Risks at rescue operations in hospital environment
[FOA-A-40065-4.5] 12 p3772 N93-32423

MICROPARTICLES
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Microparticle-based fluorescence immunoassay
[DE92-040704] 05 p1103 N93-16195
Detection of explosives material on single microparticles 07 p1774 N93-21916
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV) 10 p2935 N93-27454
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces 11 p3638 N93-29378
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883

MICROPHONES
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288
Developments on high temperature fiber optic microphone 03 p0601 N93-13680
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175
Fiber optic microphone having a pressure sensing reflective membrane and a voltage source for calibration purpose
[NASA-CASE-LAR-14402-2-CU] 08 p2478 N93-24602

MICROPHOTOGRAPHS
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827

MICROPHOTOMETERS
U PHOTOMETERS

MICROPLASMAS
An in situ technique for elemental analysis of lunar surfaces 05 p1388 N93-17254

MICROPOROSITY
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Template synthesis of electronically conductive polymers: A new route for achieving higher electronic conductivities
[AD-A261616] 09 p2658 N93-26437
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Selectivity and permeability of microporous block copolymer membranes
[AD-A263189] 10 p3006 N93-28382
Method for preparation of a microporous structure with layered interstitial surface treatment
[NASA-CASE-MSC-21487-2] 11 p3296 N93-29023
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units
[AD-A262504] 11 p3594 N93-29138
Ordered molecular arrays as templates: A new approach to synthesis of mesoporous materials
[AD-A264631] 11 p3570 N93-30540
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759

MICROPROCESSORS
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341
Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
Formal specification of the VIPER microprocessor in HOL
[RSRE-90009] 02 p0405 N93-12430
Formal design specification of a Processor Interface Unit
[NASA-CR-189698] 02 p0406 N93-12538
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
An automated version of the dichotic listening test: Hardware, software, and procedural details
[AD-A258114] 06 p1594 N93-17895
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Mechanical Engineering Design Project report: Enabler control systems
[NASA-CR-192058] 06 p1546 N93-18062
Architecture/environment evaluation
[AD-A257849] 06 p1613 N93-18348
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training 06 p1430 N93-19706
Development of 32 bit MPU 07 p1799 N93-20473
Review on radiation resistant 32 bit MPU 07 p1799 N93-20474
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM 07 p1801 N93-20484
Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
Formal verification of a microcoded VIPER microprocessor using HOL
[NASA-CR-4489] 07 p2044 N93-21043
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
A fault-tolerant RISC microprocessor for spacecraft applications 10 p2964 N93-27708
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Parallel software tools at Langley Research Center
[NASA-TM-108995] 11 p3520 N93-29070
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
A PC-based simulation of the National Transonic Facility's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224

MICROPROGRAMMING
Applying algebraic techniques to microcode compilation
[RSRE-MEMO-4568] 02 p0409 N93-11392

MICROPULSATIONS
NT GEOMAGNETIC MICROPULSATIONS
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955

MICROROCKET ENGINES
NT ORBIT MANEUVERING ENGINE (SPACE SHUTTLE)

MICROSCALES
U MICROBALANCES

MICROSCOPES
NT ELECTRON MICROSCOPES
NT ION MICROSCOPES
NT OPTICAL MICROSCOPES
Field emission current-voltage curves as a diagnostic for scanning tunneling microscope tips
[AD-A251171] 01 p0165 N93-10245
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
The x ray microscopy resource center at the advanced light source
[DE93-010443] 11 p3433 N93-30531

MICROSCOPY
NT ELECTRON MICROSCOPY
NT LASER MICROSCOPY
NT SCANNING ELECTRON MICROSCOPY
NT SCANNING TUNNELING MICROSCOPY
NT TRANSMISSION ELECTRON MICROSCOPY
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Nuclear magnetic resonance microscopy: New theoretical and technical developments 02 p0313 N93-11907
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
A differential equation design method for finite-conjugate, multi-mirror imaging systems 04 p0979 N93-14165
Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy 04 p0829 N93-14192
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Advanced light source
[DE92-041181] 05 p1302 N93-16196
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Tunneling magnetic force microscopy 08 p2514 N93-22194
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384

Internal current probing of integrated circuits using magnetic force microscopy
[DE93-006752] 09 p2692 N93-26501
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
Atomic force microscopy of ammmonium perchlorate 11 p3349 N93-30091
Fundamental studies of friction, lubrication, and wear by atomic force microscopy
[AD-A264647] 11 p3446 N93-30524
The x ray microscopy resource center at the advanced light source
[DE93-010443] 11 p3433 N93-30531
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178

MICROSTRIP ANTENNAS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
Scattering from arbitrarily shaped microstrip patch antennas
[NASA-TP-3291] 05 p1140 N93-16943
A class of hybrid finite element methods for electromagnetics: A review
[NASA-CR-192631] 08 p2260 N93-22467
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Microstrip antennas on/in anisotropic material layers
[AD-A261700] 09 p2681 N93-26383
Development of novel ferrite antennas
[AD-A261690] 10 p3022 N93-26629
An efficient method for analyzing microstrip antennas with a dielectric cover using a spectral domain moment method
[EUT-91-E-255] 10 p3026 N93-27228
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Parallel and series fed microstrip array with high efficiency and low cross polarization
[NASA-CASE-NPO-18678-1-CU] 10 p3029 N93-28422
Planar microstrip YAGI antenna array
[NASA-CASE-NPO-17873-2-CU] 11 p3384 N93-29507
Efficient numerical techniques for the analysis of complex microstrip-antennas and microstrip-arrays
[ESA-TT-1259] 12 p3717 N93-31861

MICROSTRIP DEVICES
NT MICROSTRIP ANTENNAS
NT MICROSTRIP TRANSMISSION LINES
Full wave characterization of microstrip open end discontinuities patterned on anisotropic substrates using potential theory
[NASA-TM-106037] 07 p1889 N93-20259
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Results on Monte-Carlo simulations of a microstrip gas counter
[NIKHEF-H/92-10] 10 p3040 N93-27541

MICROSTRIP TRANSMISSION LINES
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
Unequal stub length diplexing microwave frequency discriminator circuit
[AD-D015352] 02 p0288 N93-11051
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246
Nonlinear characteristics of superconducting transmission lines
[AD-A256388] 05 p1143 N93-15901
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies 10 p3016 N93-27758
Parallel and series fed microstrip array with high efficiency and low cross polarization
[NASA-CASE-NPO-18678-1-CU] 10 p3029 N93-28422
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875

MICROSTRUCTURE
NT METEORITIC MICROSTRUCTURES
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Growth defects in diamond films
[AD-A253618] 01 p0040 N93-10778
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A253660] 01 p0041 N93-10779
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
[DE92-014782] 02 p0256 N93-11519
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
The physics of pattern formation at liquid interfaces
[DE92-016971] 02 p0462 N93-11747
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys 02 p0259 N93-11895
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Nonlinear mechanics of composite materials with periodic microstructure
[NASA-CR-190750] 03 p0531 N93-13309
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Microstructure-failure mode correlations in braided composites 04 p0834 N93-14756
In-service considerations affecting component life 04 p0800 N93-14898
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Analysis of OSPREY processes and conventional power aluminum alloys
[AD-A255764] 04 p0846 N93-15056
A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet
[NASA-TM-105921] 04 p0847 N93-15524
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Mechanical properties of structural polymers. Computer simulations and key experiments
[AD-A257439] 05 p1119 N93-15866
Melt spinning of intermetallic alloys: Heat transfer and microstructure
[AD-A257455] 05 p1109 N93-15877
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086
Heteroepitaxial diamond growth
[AD-A257356] 05 p1317 N93-16175

Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors
[DE92-040760] 05 p1318 N93-16202
The pyro-metallurgical, physical, and mechanical behavior of weldments
[AD-A256998] 05 p1112 N93-16234
Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269
Scaling laws for the critical current density of NbN films in high magnetic fields
[DE93-000604] 05 p1318 N93-16277
The influence of microgravity on the microstructure and properties of eutectics, phase 2
[CTN-93-60627] 05 p1131 N93-16427
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
Aspects of electron transport in semiconductor nanostructures
[ETN-92-92787] 05 p1321 N93-16486
The influence of microgravity on the microstructure and properties of eutectics, phase 4
[CTN-93-60629] 05 p1132 N93-16690
Development of equipment and technique to study solidification in microgravity, phase 1
[CTN-93-60608] 05 p1132 N93-16729
Fatigue damage study in aluminum-2024 T3 alloys
05 p1118 N93-16767
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
Microstructure/mechanical-property relationships and R-curve behavior in Si3N4/Si3N4(w) composites
[DE92-041096] 05 p1098 N93-17004
The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065
X-ray studies of microstructures in semiconductors and superconducting materials
[DE93-001953] 05 p1324 N93-17198
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
Microstructural control of complex alloys
06 p1490 N93-18485
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys
[NASA-CR-191932] 06 p1674 N93-18593
Microstructural development during directional solidification of peritectic alloys
[NASA-CR-192090] 06 p1488 N93-18603
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
A geometrical description of microstructure with application to Al powder metallurgy processing
06 p1489 N93-19061
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels
06 p1490 N93-19391
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Numerical and physical modelling of bubbly flow phenomena
[DE93-003145] 06 p1535 N93-19500
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Principles of weld solidification and microstructures
[DE93-003012] 06 p1490 N93-19629
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
High temperature alloys 07 p1858 N93-20626
Advanced structural ceramics
07 p1862 N93-20627
Interfacial wave theory on formation of dendritic structure in binary alloy system 07 p1810 N93-21121
Modelisation and computation of composite materials
07 p1842 N93-21518
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Processing and microstructural development of Ag-clad Bi-Sr-Ca-Cu-O tapes
[DE93-004201] 08 p2500 N93-22078
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Microstatic study of the behavior of granular media
[ECL-90-31] 08 p2236 N93-22460
Flux pinning structures in melt-processed YBa2Cu3O(7-x)
[DE93-005151] 08 p2501 N93-22497
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Materials science research in microgravity
08 p2191 N93-22645
Fracture properties of 7010 and 7050 aluminium alloys under inert and aggressive environmental conditions
[DLR-FB-91-35] 08 p2228 N93-22658
Micromagnetic surface studies of materials for nondestructive evaluation
[DE93-006303] 08 p2321 N93-22695
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Synthesis, processing, and properties of Ti5Si3
[DE93-004465] 08 p2229 N93-22820
Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880
Solid-particle erosion of in-situ reinforced Si3Ni4
[DE92-014868] 08 p2209 N93-22911
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
Microstructure and texture control of fatigue in hydrogen and marine environments
[AD-A259808] 08 p2231 N93-23642
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials
[AD-A260129] 08 p2210 N93-23703
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Computation in mechanics of materials
[AD-A260060] 08 p2332 N93-24409
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Studies of microstructure/critical current density relationships for grain boundaries in YBa2Cu3O(7-delta) bicrystals
[DE93-003000] 08 p2513 N93-24512
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Laser welding of selected aerospace alloys
09 p2718 N93-25435
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites
09 p2638 N93-25760
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
[DE93-006737] 09 p2653 N93-26500
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579

Magnetic thin films and nanostructures: Anisotropy, microstructure, and their inter-relationship
[DE93-007714] 10 p3002 N93-26611
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Fracture micromechanics of ceramic composites
10 p2920 N93-27172
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
Transport of electron-waves and single-charges in semiconductor nanostructures
[ETN-93-93609] 10 p3031 N93-27880
Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912
Material analysis of austempered ductile iron
[AD-A261953] 10 p3000 N93-27921
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Microstructural understanding and critical current optimization of advanced high field superconductors
[DE93-011046] 11 p3592 N93-28643
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Micrcstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate
11 p3319 N93-30092
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate
11 p3350 N93-30094
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
The electrodeposition of low contraction chromium using high/low current pulsing
[AD-A264475] 11 p3327 N93-30538
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
A miniature fatigue test machine
11 p3291 N93-30956
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
Computer simulation of 3D material microstructure and its application in the determination of mechanical behavior of polycrystalline materials and engineering structures
12 p3708 N93-31134
Overall properties of composite materials: A general model based on periodic microstructure
12 p3699 N93-31143
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance
[ONERA-NT-1992-9] 12 p3709 N93-31597
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33
12 p3681 N93-31744
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804

MICROWAVE ABSORPTION
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
Laboratory evaluation and application of microwave absorption properties under simulated conditions for planetary atmospheres
[NASA-CR-191298] 04 p1047 N93-15081
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures
[ONERA-NT-1992-3] 06 p1501 N93-18190
Microwave absorption measurements and interference: Effects for a liquid fuel between 2.5 and 18 GHz
[AD-A260607] 09 p2675 N93-25635

MICROWAVE AMPLIFIERS
NT CYCLOTRON RESONANCE DEVICES
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
On some practical consideration of the electron beam breakup transit time oscillator
[DE92-017406] 02 p0445 N93-11919
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves
[DE92-015974] 02 p0293 N93-12089
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
Minimizing noise-temperature measurement errors
06 p1507 N93-18919
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Research on space communication equipment technology: Study on relay system
07 p1790 N93-20420
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Space power amplification with active linearly tapered slot antenna array
[NASA-TM-106036] 08 p2277 N93-22485
Field-emitter arrays for RF vacuum microelectronics
[AD-A262677] 11 p3404 N93-28483
Study of gain in C-band deflection cavities for a frequency-doubling magnicon amplifier
[AD-A263132] 11 p3409 N93-29478
High-power Ka-band amplifier
11 p3385 N93-29590
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765

MICROWAVE ANTENNAS
NT HORN ANTENNAS
NT LENS ANTENNAS
NT RECTENNAS
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Millimeter-wave quasi-optical and spatial power combining techniques
[AD-A255438] 03 p0574 N93-13865
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Guided wave phenomena in millimeter wave integrated circuits and components
[AD-A260407] 08 p2262 N93-22946
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas)
08 p2264 N93-23504
Antenna pattern control using impedance surfaces
[NASA-CR-192712] 08 p2273 N93-24471
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview
09 p2680 N93-26128
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
High-power Ka-band amplifier
11 p3385 N93-29590
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252

MICROWAVE ATTENUATION
Microwave propagation and attenuation in magnetoplasmas
[AD-A250197] 01 p0069 N93-10728
Rain rate and modeled fade distributions at 20 GHz and 30 GHz derived from five years of network rain gauge measurements 09 p2683 N93-26468
More rain compensation results
09 p2686 N93-26486

MICROWAVE CIRCUITS
Unequal stub length diplexing microwave frequency discriminator circuit
[AD-D015352] 02 p0288 N93-11051
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246
Simulation and nonlinear modelling of microwave transistors 04 p0807 N93-14936
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Theoretical analysis of microwave and millimeter wave integrated circuits based on magnetic films
[AD-A257512] 06 p1518 N93-18173
Nonlinear circuits and components
06 p1523 N93-18463
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A259441] 07 p1888 N93-20125
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Guided wave phenomena in millimeter wave integrated circuits and components
[AD-A260407] 08 p2262 N93-22946
A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379
Simulation of TunneLadder traveling-wave tube cold-test characteristics: Implementation of the three-dimensional, electromagnetic circuit analysis code micro-SOS
[NASA-TP-3294] 08 p2281 N93-23394
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656

Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Special technology area review on microwave packaging technology
[AD-A261852] 09 p2681 N93-26276
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
International Journal of Numerical Modeling: Electronic Networks, Devices, and Fields, volume 5, number 3, August 1992
[AD-A263765] 11 p3387 N93-29877
Design and integration of high bit rate four phase monolithic demodulators and modulators at X band
[LAAS-92354] 11 p3414 N93-31030
Synthesis and realization of a monolithic active bandpass filter for the Ku band
[LAAS-92365] 12 p3719 N93-31173
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190

MICROWAVE COUPLING

Coupling gain computation between antennas on circular cylinders at SHF/EHF frequencies
11 p3369 N93-30309

MICROWAVE EMISSION

Cosmic microwave background anisotropies from plausible double inflation
[DE92-016195] 01 p0192 N93-10616
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Full wave characterization of microstrip open end discontinuities patterned on anisotropic substrates using potential theory
[NASA-TM-106037] 07 p1889 N93-20259
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
Propagation at microwave frequencies in the presence of tropospheric stratified layers
09 p2674 N93-25340
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880

MICROWAVE EQUIPMENT

NT BACKWARD WAVE TUBES
NT CYCLOTRON RESONANCE DEVICES
NT HORN ANTENNAS
NT KLYSTRONS
NT LENS ANTENNAS
NT MAGNETRONS
NT MICROWAVE AMPLIFIERS
NT MICROWAVE ANTENNAS
NT MICROWAVE FILTERS
NT MICROWAVE INTERFEROMETERS
NT MICROWAVE OSCILLATORS
NT MICROWAVE RADIOMETERS
NT MICROWAVE TUBES
NT RECTENNAS
NT THYRATRONS
NT TRAVELING WAVE TUBES

Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
A new model for interpreting experimental data from a circular waveguide cavity
[AD-A254067] 01 p0075 N93-10785
SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Transport in heterostructures and device in microwave and millimeter wave regimes
[AD-A255975] 04 p0858 N93-14408
Definition study PHARUS
[AD-A256560] 04 p0860 N93-14805
Nonlinear characteristics of superconducting transmission lines
[AD-A256388] 05 p1143 N93-15901
Solid state research
[AD-A256965] 05 p1318 N93-16251
Logarithmic-periodic microwave multiplexer
[AD-D015475] 05 p1147 N93-16482
Interim report on the analysis of the microwave power module
[NASA-TM-106012] 05 p1148 N93-16713
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954
Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871
Microwave instruments 06 p1569 N93-19874
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A259441] 07 p1888 N93-20125
High power microwave generator
[AD-D015560] 07 p1891 N93-20783
Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367
A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408

MICROWAVE FILTERS

Design and evaluation of a quasi-active delay-line limiter/filter RF protection device
[AD-A254179] 01 p0071 N93-10255
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A256109] 04 p0865 N93-14246

MICROWAVE FREQUENCIES

NT C BAND
NT EXTREMELY HIGH FREQUENCIES
NT SUPERHIGH FREQUENCIES

Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Unequal stub length diplexing microwave frequency discriminator circuit
[AD-D015352] 02 p0288 N93-11051
Experimental studies of high-power plasma-filled backward wave oscillators 03 p0717 N93-13495
Direct optical to microwave conversion
[RL-TR-91-375] 04 p0859 N93-14728
Microwave observations of Uranus
04 p1046 N93-14863
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Microwave heating of lunar materials. Appendix A
05 p1383 N93-16903
DSS-13 beam waveguide antenna frequency stability
06 p1513 N93-19424
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970

MICROWAVE IMAGERY

Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
Spatial resolution enhancement of SSM/I microwave brightness temperatures and its impact on rainfall retrieval algorithms
[AD-A254382] 03 p0661 N93-12861
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755
Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192098] 06 p1583 N93-19886
Remote sensing of earth terrain
[NASA-CR-192139] 07 p1966 N93-19979
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water
07 p2005 N93-20082
Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083
Atmospheric electricity/meteorology analysis
07 p2006 N93-20086
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089
Microwave radiative transfer studies of precipitation
07 p2008 N93-20095
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
Remote sensing of latent heat fluxes at the air-sea interface 07 p1959 N93-21603
Explosive detection using microwave imaging
07 p1771 N93-21902
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia
08 p2407 N93-23721
Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619
Remote sensing of non-renewable resources
09 p2744 N93-24814
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
A model-based approach for detection of objects in low resolution passive millimeter wave images
[NASA-CR-193161] 10 p2943 N93-28418
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448

Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

MICROWAVE INTERFEROMETERS
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance
04 p1047 N93-14918

MICROWAVE LANDING SYSTEMS
DME-derived positions compared with MLS- and ILS-derived positions
[NLR-TP-90119-U] 05 p1058 N93-16343
Flight simulation evaluation of the flyability of curved MLS approaches with wide-body aircraft
[NLR-TP-90238-U] 06 p1452 N93-17875
Manual flying of curved precision approaches to landing with electromechanical instrumentation. A piloted simulation study
[NASA-TP-3255] 06 p1447 N93-18408
A model-based approach for detection of objects in low resolution passive millimeter wave images
[NASA-CR-193161] 10 p2943 N93-28418
Evaluation of category 3 MLS designs
11 p3247 N93-30358
Evaluation of the flyability of MLS curved approaches for wide-body aircraft
[NLR-TP-91396-U] 12 p3680 N93-32416

MICROWAVE OSCILLATORS
NT MAGNETRONS
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Experimental studies of high-power plasma-filled backward wave oscillators 03 p0717 N93-13495
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
Space-qualified submillimeter radiometer
[NASA-CR-190886] 03 p0603 N93-13709
Quasi-optical power combining of solid state millimeter-wave sources: A proposal for graduate fellowship
[AD-A256644] 05 p1143 N93-15909
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
An experimental investigation of a tandem relativistic backward wave oscillator-travelling wave tube amplifier system for generating high-power microwaves
06 p1521 N93-19058
Remotely controlled C band signal generator
[AD-D015602] 07 p1880 N93-20014
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems
08 p2287 N93-22179
Study of a plasma-filled X-band backward wave oscillator 08 p2281 N93-23498
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise
09 p2693 N93-24982
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774
Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
Advanced microwave frequency sources and filters based on superconducting Photonic Band Gap (PBG) structures
[AD-A264404] 11 p3597 N93-30175

MICROWAVE POWER BEAMING
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas)
08 p2264 N93-23504
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Power beaming options for the Space Station
10 p2969 N93-27812
Choice of antenna geometry for microwave power transmission from solar power satellites
10 p2988 N93-27987

MICROWAVE RADIATION
U MICROWAVES

MICROWAVE RADIOMETERS
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
A millimeter-wave radiometer for detecting microbursts
04 p0784 N93-14850
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089
Microwave radiative transfer studies of precipitation
07 p2008 N93-20095
Research on advanced Earth observing sensors
07 p1790 N93-20416
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Microwave radiometry for monitoring the diverse cloudiness regimes on Earth: A review
07 p1958 N93-21600
Air/sea latent heat flux measurements with microwave radiometers 07 p1959 N93-21604
Specialist meeting on microwave radiometry and remote sensing applications, murad 92
[PB93-105757] 07 p1979 N93-21657
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Observation in Arctic 08 p2336 N93-22133
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790
Influence due to antenna pattern change in brightness temperature estimation for a space-based microwave radiometer 09 p2753 N93-24868
Vector radiative transfer model: Application to rainfall retrieval with microwave radiometric data
09 p2784 N93-25743
Cross-switched MICRAD seeker
[AD-D015676] 09 p2691 N93-26142
Brightness temperature and attenuation diversity statistics at 20.6 and 31.65 GHz for the Colorado Research Network 09 p2684 N93-26473
EOS/AMSU-A NASA/Aerojet Interface Meeting
[NASA-TM-108234] 10 p3063 N93-27288
Miniature modular microwave end-to-end receiver
[NASA-CASE-NPO-18713-1-CU]
11 p3381 N93-29087
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
The microwave radiometer as a remote sensing device: Design and application
[ISBN-9-09-005507-X] 12 p3746 N93-31537
ESTAR: The Electronically Scanned Thinned Array Radiometer for remote sensing measurement of soil moisture and ocean salinity
[NASA-TM-4523] 12 p3747 N93-32362

MICROWAVE REFLECTOMETERS
An uncertainty budget for VHF and UHF reflectometers
[NPL-DES-120] 02 p0281 N93-11395

MICROWAVE RESONANCE
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
Basic design of a spaceborne hydrogen maser
09 p2716 N93-25024
Microwave synthesizers in space
09 p2693 N93-25038
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards
09 p2694 N93-25066
An improved linear ion trap physics package
11 p3384 N93-29587

MICROWAVE SCATTERING
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
A microwave scattering model for layered vegetation
06 p1565 N93-18074

MICROWAVE SENSORS
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 8: Aerothermodynamics Automation and Robotics (A/R) systems sensors, high-temperature superconductivity
[NASA-TM-108655] 07 p2085 N93-20775
Microwave remote sensing of ice
08 p2336 N93-22132
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281

MICROWAVE SIGNATURES
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525

MICROWAVE SOUNDING
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
An investigation of the role of current and future remote sensing data systems in numerical meteorology
07 p2010 N93-20108
EOS/AMSU-A NASA/Aerojet Interface Meeting
[NASA-TM-108234] 10 p3063 N93-27288
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

MICROWAVE SPECTRA
Cosmic microwave background anisotropies from plausible double inflation
[DE92-016195] 01 p0192 N93-10616
A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions
03 p0756 N93-13853
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres
[NASA-CR-192145] 07 p2099 N93-21642
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
H1 in RSA galaxies 10 p3203 N93-26891
ESTAR: The Electronically Scanned Thinned Array Radiometer for remote sensing measurement of soil moisture and ocean salinity
[NASA-TM-4523] 12 p3747 N93-32362

MICROWAVE SPECTROMETERS
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
Millimeter wave Atmospheric Sounder (MAS)
08 p2364 N93-23795

Isotopically selective detection of rubidium in krypton
[ETN-93-94051] 12 p3703 N93-31630

MICROWAVE SWITCHING
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481

MICROWAVE TRANSMISSION
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
Microwave propagation and attenuation in magnetoplasmas
[AD-A250197] 01 p0069 N93-10728
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Microwave-powered aircraft
[CA-PATENT-1-295-019] 08 p2128 N93-24591
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Development of Si(1-x)Ge(x) technology for microwave sensing applications
[NASA-TM-106157] 11 p3405 N93-28610
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Radiation-hardened microwave communications system
[DE93-007915] 11 p3394 N93-30631

MICROWAVE TUBES
NT BACKWARD WAVE TUBES
NT CYCLOTRON RESONANCE DEVICES
NT KLYSTRONS
NT MAGNETRONS
NT TRAVELING WAVE TUBES
Determining optimum C-field settings that minimize output frequency variations in cesium atomic frequency standards
[AD-A255902] 04 p0971 N93-14108
Conditioner for a helically transported electron beam
[DE92-041169] 05 p1297 N93-16526

MICROWAVES
NT CENTIMETER WAVES
NT MICROWAVE EMISSION
NT MILLIMETER WAVES
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440
Experimental studies of high-power plasma-filled backward wave oscillators 03 p0717 N93-13495
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
A search for anisotropy in the cosmic background radiation at millimeter wavelengths on angular scales from 0.3 to 3 degrees 04 p1050 N93-14244
Mechanisms of microwave induced damage in biologic materials
[AD-A255799] 04 p0933 N93-14648
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Two-dimensional computer calculation of high-power microwave bandwidth broadening by air breakdown in a rectangular waveguide
[DE92-041083] 05 p1138 N93-16072
Microwave processing of ceramics: Guidelines used at the Oak Ridge National Laboratory
[DE92-040862] 05 p1123 N93-16297
Microwave heating of lunar materials. Appendix A 05 p1383 N93-16903
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
Determining the effects of microwave power variations on the output frequency of a high-performance cesium frequency standard
[AD-A258342] 06 p1518 N93-17989
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
COBE Differential Microwave Radiometer (DMR) data processing techniques 06 p1562 N93-18715
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB] 08 p2216 N93-22036
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Plasma technology 08 p2496 N93-23263
Poloidal magnetic field profile measurements on the microwave tokamak experiment using far-infrared polarimetry 08 p2498 N93-24294
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Contactless microwave lifetime measurement
[ETN-93-93595] 10 p3027 N93-27870
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
Microwave processing of ceramics
[DE93-010708] 11 p3332 N93-29252
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408
Microwave processing of silicon nitride for advanced gas turbine applications
[DE93-007910] 11 p3334 N93-29767
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O
[DE93-010430] 11 p3596 N93-29868
Quantification of thermographic mapping techniques
[AD-A264020] 11 p3391 N93-30016
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation
[DE93-605693] 11 p3400 N93-30993
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035

MICROWEIGHING
U WEIGHT MEASUREMENT

MICROYIELD STRENGTH
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

MID-OCEAN RIDGES
Applications of marine gravimetry to mid-oceanic spreading centers and volcanos 06 p1590 N93-19382
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785

MID-OCEANIC RIDGES
U MID-OCEAN RIDGES

MIDAIR COLLISIONS
NT BIRD-AIRCRAFT COLLISIONS
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

MIDCOURSE TRAJECTORIES
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536

MIDDLE ATMOSPHERE
NT MESOPAUSE
NT MESOSPHERE
NT OZONOSPHERE
NT STRATOSPHERE
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083
Model studies of the middle atmosphere of Venus 03 p0759 N93-13831
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere 04 p1037 N93-14351
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV 04 p1045 N93-14397
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Trends in middle-atmosphere ozone 06 p1575 N93-18500
Atmospheric tides in the middle atmosphere
[INPE-5436-PUD/053] 06 p1583 N93-19791
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615
The quasi-biennial oscillation in the middle atmosphere 08 p2397 N93-23965
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148

The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics
09 p2896 N93-25285

MIDLATITUDE ATMOSPHERE
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system
02 p0358 N93-11184
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

MIDLATITUDES
U TEMPERATE REGIONS

MIE SCATTERING
NT RAYLEIGH SCATTERING
Light scattering from a sphere on or near an interface
02 p0448 N93-12531
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

MIE THEORY
U MIE SCATTERING

MIGRATION
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Elastic modeling and migration in Earth models
09 p2771 N93-25433

MILANKOVITCH THEORY
U CLIMATOLOGY

MILITARY AIR FACILITIES
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

MILITARY AIRCRAFT
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
Usage monitoring in the RNLN Fleet Air Arm (Marine Luchtvaardienst)
[NLR-TP-91070-U] 05 p1062 N93-17394
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
An investigation of the influence of advanced aircraft diagnostics on the technological sophistication of maintenance personnel
[AD-A258988] 06 p1403 N93-18887
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
A prediction model for noise from low-altitude military aircraft
[AD-A262494] 10 p3130 N93-27662
Project summary 11 p3227 N93-29714

MILITARY AVIATION
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
Aviation medicine research: A historical review
[AD-A258198] 06 p1596 N93-18217
RAFALE: Progress of the program
06 p1442 N93-19905
Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294

MILITARY HELICOPTERS
NT AH-64 HELICOPTER
NT BO-105 HELICOPTER
NT CH-47 HELICOPTER
NT H-53 HELICOPTER
NT H-60 HELICOPTER
NT OH-58 HELICOPTER
NT UH-60A HELICOPTER
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697
The effectiveness of airbags in reducing the severity of head injury from gunsight strikes in attack helicopters
06 p1428 N93-19691

MILITARY OPERATIONS
NT COMBAT
NT ELECTRONIC WARFARE
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem 01 p0148 N93-10667
Possibilities and limitations of flying training in the German Air Force 01 p0011 N93-10668
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source
01 p0148 N93-10671
Noise emission of low flying military airplanes
01 p0149 N93-10675
Combat aircraft noise 01 p0149 N93-10676
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Audibility-based annoyance prediction modeling
01 p0151 N93-10683
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
Mechanisms of immune failure in burn injury
02 p0376 N93-11285
AIDS/HIV in the US Military 02 p0377 N93-11291
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force
02 p0377 N93-11292
Global Climate Change (GCC) issues and their impacts on the US Army Corps of Engineers
[AD-A247279] 02 p0353 N93-11466
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
LINK user manual
[DE92-017987] 02 p0479 N93-12143
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
The future of carrier aviation
[AD-A254043] 02 p0430 N93-12260
Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941
Thermal stress in US Air Force operations
[AD-A255785] 03 p0676 N93-14027
Walter Reed Army Institute of Research biannual raport
[AD-A255630] 04 p0933 N93-14162
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Military space operations: Satellite control system improved, but serious problems remain
[AD-A256809] 04 p0971 N93-15626
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
An evolving joint space campaign concept and the Army's role
[AD-A258112] 06 p1453 N93-18022
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Space is a different place
[AD-A258336] 06 p1453 N93-18219
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain
06 p1639 N93-18694
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
Sustaining health and performance in the cold: A pocket guide to environmental medicine aspects of cold-weather operations
[AD-A259625] 08 p2422 N93-24021
Science, technology, and national security
09 p2886 N93-25232
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
Tactical satellites 11 p3284 N93-29893
Evolution or revolution: The Catch 22 of TACSATs
11 p3269 N93-29894

TACSAT ground control and data collection
11 p3388 N93-29895
TACSAT meteorological payloads
11 p3391 N93-29913
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158
Medical aspects of cold weather operations: A handbook for medical officers
[AD-A263559] 11 p3496 N93-30588
The Army and military in space
[AD-A264581] 12 p3812 N93-32013
Crisis action planning and replanning using SIPE-2
12 p3835 N93-32131
C-141 aircrew sleep and fatigue during the Persian Gulf conflict 12 p3782 N93-32265
Digital flight data as a measure of pilot performance associated with fatigue from continuous operations during the Persian Gulf conflict 12 p3782 N93-32268

MILITARY PSYCHIATRY
U MILITARY PSYCHOLOGY

MILITARY PSYCHOLOGY
Relating cognitive function to military aviator performance in early HIV infection
02 p0379 N93-11298
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function
02 p0379 N93-11299

MILITARY SPACECRAFT
NT DMSP SATELLITES
NT RECONNAISSANCE SPACECRAFT
Requirements and applications for robotic servicing of military space systems 02 p0230 N93-11953
Military space operations: Satellite control system improved, but serious problems remain
[AD-A256809] 04 p0971 N93-15626
Exploration of the utility of military man in space in the year 2025
[AD-A258378] 06 p1453 N93-18267
Military space capabilities and requirements
08 p2154 N93-23161
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
Tactical satellites 11 p3284 N93-29893
Evolution or revolution: The Catch 22 of TACSATs
11 p3269 N93-29894
TACSAT ground control and data collection
11 p3388 N93-29895
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO
11 p3284 N93-29896
Tactical satellites for air command and control
11 p3284 N93-29898
Considerations for NATO satellite communications in the post-2000 era 11 p3388 N93-29899
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
SAR sensors on TACSATS: A feasibility assessment
11 p3286 N93-29909
A TACSAT SAR concept 11 p3286 N93-29910
Cost effective TacSats for military support
11 p3285 N93-29912
Canadian EHF MILSATCOM research and development project 11 p3362 N93-30264
SAW technology for on-board processing in military satellite communications 11 p3362 N93-30265
FASSET: A development model for a Canadian EHF MILSATCOM system 11 p3363 N93-30268
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311

MILITARY TECHNOLOGY
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Acquisition 1: Stock acquisition processes in defence and aerospace documentation centres
01 p0173 N93-10598
Security considerations within military information systems 01 p0174 N93-10603
Speech recognition systems and their military applications
[BR91882] 02 p0280 N93-11366
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Proceedings of Joint RL/AFOSR Workshop on Intelligent Information Systems
[AD-A254795] 03 p0734 N93-12703
Air Force engineering research initiation grants (1990-1991)
[AD-A255004] 03 p0774 N93-12706
USAF 1990 research initiation program, volume 3
[AD-A254755] 03 p0775 N93-12849
Formulation and validation of high-order mathematical models of helicopter flight dynamics
03 p0501 N93-13821
First year testing of prototype magnesium/manganese dioxide BA-4590/U battery
[AD-A255503] 03 p0574 N93-13839
Air Force Office of Scientific Research
[AD-A255331] 04 p1051 N93-14523
The evolution of artificial intelligence and expert computer systems in the Army
[AD-A255221] 04 p0962 N93-14525
Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
Laser damage in thin film optical coatings
[AD-A259425] 07 p1909 N93-20005
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
The German national industry as a source of logistic support for armed forces facing new requirements
[MBB-UL-0002-91-PUB] 07 p1877 N93-21463
Military space capabilities and requirements
08 p2154 N93-23161
Industry perspectives 08 p2154 N93-23162
Interagency Advanced Power Group Steering Group meeting minutes
[DE93-005641] 08 p2382 N93-24324
Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435
Summary from a study group on neural networks at NDRE
[FFI-92/7015] 08 p2465 N93-24640
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Science, technology, and national security
09 p2886 N93-25232
Summary report of the Defense Sciences Research Council Summer Conference
[AD-A261375] 09 p2917 N93-26359
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 8: Phillips Laboratory
[AD-A261972] 10 p3163 N93-27642
Cognitive interface considerations for intelligent cockpits 11 p3503 N93-28865
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack
11 p3503 N93-28867
Computer assisted evaluation for air close combat based on time interval characterization
11 p3504 N93-28868
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
Advanced Construction Technology Center research
[AD-A263654] 11 p3432 N93-29390
Summer Faculty Research Program (SFRP), volume 1
[AD-A261988] 11 p3608 N93-29440
Defense conversion: Redirecting research and development
[OTA-ITE-552] 11 p3610 N93-29649
Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
Low cost TACSAT for NATO surveillance
11 p3285 N93-29911
Cost effective TacSats for military support
11 p3285 N93-29912
TACSAT meteorological payloads
11 p3391 N93-29913
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311
The Army and military in space
[AD-A264581] 12 p3812 N93-32013
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development
12 p3784 N93-32112

MILITARY VEHICLES
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549

MILKY WAY GALAXY
Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272
Molecular clouds in the distant outer galaxy
03 p0758 N93-14095
Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies
04 p1020 N93-14869
Investigation of a possible galactic chimney
[AD-A257133] 05 p1364 N93-16077
Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095
The kinematics of stars and gas in the galactic disk
08 p2550 N93-23991
Cape Photographic Durchmusterung, volume 1
[NASA-RP-1300-VOL-1] 09 p2890 N93-26002
Cape Photographic Durchmusterung, volume 2
[NASA-RP-1300-VOL-2] 09 p2890 N93-26003
Cape Photographic Durchmusterung, volume 3
[NASA-RP-1300-VOL-3] 09 p2890 N93-26004
Constraints on chemical evolution models from QSOALS abundances 10 p3182 N93-26769
Interstellar Mg II and C IV absorption by 1 1/2 galaxies along the sightline to MrK 205 10 p3182 N93-26770
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473
Young open clusters as probes of the star formation process 11 p3635 N93-30377

MILLIMETER WAVES
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Millimeter-wave quasi-optical and spatial power combining techniques
[AD-A255438] 03 p0574 N93-13865
WR-10 band noise measurement
[AD-A255526] 03 p0566 N93-13871
A search for anisotropy in the cosmic background radiation at millimeter wavelengths on angular scales from 0.3 to 3 degrees 04 p1050 N93-14244
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Transport in heterostructures and device in microwave and millimeter wave regimes
[AD-A255975] 04 p0858 N93-14408

Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
High power millimetre-wave polarizers
[AD-A256558] 04 p0867 N93-14803
A millimeter-wave radiometer for detecting microbursts 04 p0784 N93-14850
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
Experiences with large CFRP-radiotelescope reflectors 05 p1084 N93-15777
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Quasi-optical power combining of solid state millimeter-wave sources: A proposal for graduate fellowship
[AD-A256644] 05 p1143 N93-15909
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
Theoretical analysis of microwave and millimeter wave integrated circuits based on magnetic films
[AD-A257512] 06 p1518 N93-18173
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation
[AD-A259372] 06 p1522 N93-19853
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192098] 06 p1583 N93-19886
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
A bolometric radiometer for investigations in cosmology 08 p2303 N93-22684
Guided wave phenomena in millimeter wave integrated circuits and components
[AD-A260407] 08 p2262 N93-22946
Electron Cyclotron Resonance Heating (ECRH) 08 p2495 N93-23259
Millimeter wave Atmospheric Sounder (MAS) 08 p2364 N93-23795
Hexagonal ferrites for millimeter wave applications
[AD-A260483] 08 p2510 N93-24101
Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes 09 p2889 N93-25440
Microwave and millimeter wave monolithic integrated circuits (MIMIC) program. MIMIC briefs: Summaries of phase 3 technology support programs
[AD-A260914] 09 p2690 N93-25660
Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713
Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications 10 p3012 N93-27734
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves 10 p3012 N93-27737
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
Zone plate lens antennas for millimeter and submillimeter wavelengths 10 p3016 N93-27757
Embedding impedance approximations in the analysis of SIS mixers 10 p3016 N93-27760
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765
Modeling, design, fabrication, and testing of InP Gunn devices in the D-band (110 GHz - 170 GHz) 10 p3018 N93-27767
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Resonant tunneling diodes as sources for millimeter and submillimeter wavelengths 10 p3018 N93-27772
Monolithic millimeter-wave diode grid frequency multiplier arrays 10 p3019 N93-27775
Planar doped barrier subharmonic mixers 10 p3019 N93-27777
New results and applications for the quasioptical gyrotron
[AD-A261961] 10 p3046 N93-27950
Novel low temperature superconducting bolometers
[DE93-010433] 11 p3430 N93-28664
Superconducting submillimeter and millimeter wave detectors
[DE93-007656] 11 p3431 N93-29149
Department of defense advisory group on electron devices: Appendix to special technology area review on microwave packaging technology
[AD-A262136] 11 p3408 N93-29408
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
The 1st International Conference on Millimeter Wave and Far-Infrared Technology
[AD-A264268] 12 p3715 N93-31096

MILLING (MACHINING)
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691

MILLING (MIXING)
U COMPOUNDING

MILLING MACHINES
Thermal plastic strain fatigue life of the roll 07 p1924 N93-20354
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473

MIM (SEMICONDUCTORS)
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694

MIMD (COMPUTERS)
An implementation of a parallel MOL solver on the Intel Gamma parallel computer
[DE92-018947] 02 p0419 N93-12233
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038] 04 p0878 N93-15187
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
The design and implementation of a parallel persistent object system
[AD-A257447] 05 p1233 N93-15869
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Numerical Wind Tunnel hardware 06 p1411 N93-19289
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Survey of benchmarks
[NPL-DITC-192/91] 08 p2436 N93-22816
Synthetic-perturbation tuning of MIMD programs
[PB93-161339] 09 p2812 N93-26321
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
Data parallelism
[DE93-009300] 11 p3539 N93-29782
The performance of PAGOSA on several MIMD parallel computers
[DE93-003243] 12 p3786 N93-31183
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Feed-forward volume rendering algorithm for moderately parallel MIMD machines
[NASA-CR-191158] 12 p3792 N93-32322

MIMO (CONTROL SYSTEMS)
Flight-determined stability analysis of multiple-input-multiple-output control systems
[NASA-TM-4416] 02 p0214 N93-11178
Symposium proceedings on Quantitative Feedback Theory
[AD-A255527] 03 p0505 N93-13872
Adaptive control of nonlinear nonminimum phase systems 04 p0961 N93-14470
Development of an analog MIMO Quantitative Feedback Theory (QFT) CAD package
[AD-A256435] 04 p0950 N93-15313
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191943] 05 p1237 N93-16383
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
The Mini-Mast CSI testbed: Lessons learned 06 p1451 N93-18819
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Scalar gain interpretation of large order filters 09 p2606 N93-24729
Identification and control of lightly damped, large space structures: An experimental evaluation 09 p2616 N93-25351
Analytical and experimental study of control effort associated with model reference adaptive control 09 p2820 N93-25468
Identification for the control of MIMO industrial processes
[EUT-91-E-256] 10 p3010 N93-27229
Robust crossfeed design for hovering rotorcraft
[NASA-CR-193107] 10 p2942 N93-27241
Optical interferometer testbed 10 p3060 N93-28168
An adaptive controller for a class of MIMO non-minimum phase systems with disturbance rejection design 11 p3359 N93-30248

MINERAL DEPOSITS
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia 01 p0120 N93-10181
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment 03 p0766 N93-14007
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
To build a mine: Prospect to product 05 p1379 N93-16876
Lunar material resources: An overview 05 p1380 N93-16878
Lunar resource evaluation and mine site selection 05 p1380 N93-16881
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Survey of the Hokkaido development project
[DE93-761804] 08 p2382 N93-24013

Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115
Reconstruction of late Wisconsinan Ice Sheet and sea-level implications 12 p3758 N93-31879
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C
12 p3862 N93-31940

MINERAL EXPLORATION
Lunar site characterization and mining
05 p1380 N93-16882
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Unmanned lunar surface exploration
10 p2951 N93-28035
Moon revolving observation satellites
10 p2952 N93-28037
Research on lunar resources development and their utilization 10 p2952 N93-28039
Science missions for lunar resources exploration
10 p2953 N93-28044
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy
11 p3648 N93-28812

MINERAL OILS
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-000537] 05 p1121 N93-16192
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-168932] 10 p3067 N93-26621

MINERALOGY
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
Remote assessment of lunar resource potential
05 p1391 N93-17268
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
The Apollo 17 region: A compositional overview
06 p1736 N93-18796
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783
Remote sensing of non-renewable resources
09 p2744 N93-24814
Composition of near-Earth asteroids
10 p3205 N93-26690
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Laser-induced breakdown spectroscopy instrument for element analysis of planetary surfaces
11 p3434 N93-28769
The APX spectrometer for Martian missions
11 p3434 N93-28776
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy
11 p3648 N93-28812
Interplanetary meteoroid debris in LDEF metal craters
11 p3638 N93-29372
The mineralogy and formation processes of Mars soil
12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals
12 p3862 N93-31935
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957

MINERALS
NT CHROMITES
NT COESITE
NT CORDIERITE
NT CRYOLITE
NT DOLOMITE (MINERAL)
NT FELDSPARS
NT FLUORITE
NT GADOLINIUM-GALLIUM GARNET
NT GARNETS
NT GRAPHITE
NT HEMATITE
NT ILMENITE
NT KREEP
NT MONTMORILLONITE
NT OLIVINE
NT PEROVSKITES
NT PYRITES
NT PYROLYTIC GRAPHITE
NT PYROXENES
NT QUARTZ
NT SPINEL
NT STISHOVITE
NT TALC
NT WURTZITE
NT YTTRIUM-IRON GARNET
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Diaplectic transformation of minerals: Vorotilov drill core, Puchezh-Katunki impact crater, Russia
01 p0110 N93-10136
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Radar-anomalous, high-altitude features on Venus
04 p1036 N93-14349
The evaluation of a concept for a Canadian-made automated multipurpose materials extraction facility
04 p0810 N93-14947
Space resources. Volume 3: Materials
[NASA-SP-509-VOL-3] 05 p1379 N93-16875
Lunar beneficiation 05 p1381 N93-16887
Bioprocessing of ores: Application to space resources
05 p1382 N93-16894
Processing of metal and oxygen from lunar deposits
05 p1382 N93-16895
Lunar cement 05 p1382 N93-16897
Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979
Resource availability at Taurus-Littrow
06 p1736 N93-18792
Possible petrogenetic associations among igneous components in North Massif soils: Evidence in 2-4 mm soil particles from 76503 06 p1737 N93-18798
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
Lithologies contributing to the clast population in Apollo 17 LKFM basaltic impact melts
06 p1738 N93-18806
Magnetic susceptibility variations in Loess sequences and their relationship to astronomical forcing
06 p1580 N93-18967
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP]
06 p1593 N93-19054
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Fabrication and properties of Si3N4 with rare earth apatite grain boundary phases
[DE93-005752] 08 p2505 N93-23037
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Remote sensing of non-renewable resources
09 p2744 N93-24814
Low cost dewatering of waste slurries
09 p2769 N93-25573
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill
09 p2659 N93-25585
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Frequency dependent electrical properties of minerals and partial-melts
[DE93-009254] 11 p3410 N93-29793
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil
12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals
12 p3862 N93-31935
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956

MINIATURE ELECTRONIC EQUIPMENT
Flight experience with lightweight, low-power miniaturized instrumentation systems
[NASA-TM-4463] 08 p2128 N93-23102

MINIATURIZATION
NT MICROMINIATURIZATION
Microtube strip heat exchanger
[DE92-018709] 02 p0300 N93-11440
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU]
03 p0711 N93-13711
Nanotechnology 06 p1678 N93-18489
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827
Micro-video display with ocular tracking and interactive voice control 08 p2433 N93-22172
Space biology initiative program definition review. Trade study 3: Hardware miniaturization versus cost
08 p2418 N93-23080
Flight experience with lightweight, low-power miniaturized instrumentation systems
[NASA-TM-4463] 08 p2128 N93-23102
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Miniaturization and stability: A new generation of ovenised oscillators 09 p2693 N93-25004
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Miniature modular microwave end-to-end receiver
[NASA-CASE-NPO-18713-1-CU]
11 p3381 N93-29087

MINICOMPUTERS
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616

MINIMA
Graphs with maximum number of minimum cuts
[RR-880-M] 07 p2054 N93-21168

MINIMAL SURFACES
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
MINIMAX TECHNIQUE
An inverse dynamics approach to trajectory optimization for an aerospace plane
[NASA-CR-191277] 03 p0500 N93-13305
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
On a robust controller design using a minimax optimization approach 03 p0695 N93-14021
Real-time scheduling using minimum search 06 p1637 N93-18676
MINIMIZATION
U OPTIMIZATION
MINING
NT LUNAR MINING
Proceedings of the FY 1990 Workshop on Extraterrestrial Mining and Construction
[AD-A253399] 01 p0189 N93-10406
International Asteroid Mission 03 p0513 N93-13548
Conceptual design of a human piloted mining mission 03 p0514 N93-13552
Mining equipment and operations for mining the 1982HR (Orpheus) asteroid 03 p0515 N93-13557
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon 03 p0761 N93-13976
Issues for further study 05 p1379 N93-16874
Space resources. Volume 3: Materials
[NASA-SP-509-VOL-3] 05 p1379 N93-16875
To build a mine: Prospect to product 05 p1379 N93-16876
Lunar material resources: An overview 05 p1380 N93-16878
Lunar resource evaluation and mine site selection 05 p1380 N93-16881
Asteroid mining 05 p1381 N93-16884
Mining nonterrestrial resources: Information needs and research topics 05 p1381 N93-16885
Lunar resource assessment: An industry perspective 05 p1387 N93-17246
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
Apparatus and method for computer vision measurements
[PB93-135077] 08 p2432 N93-22536
Low cost dewatering of waste slurries 09 p2769 N93-25573
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
MINKOWSKI SPACE
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions 10 p3204 N93-28081
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
On the Dirac equation in three dimensions
[DE93-609915] 12 p3813 N93-31181
MINNESOTA
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
MINOR PLANET 1221
U AMOR ASTEROID
MINOR PLANET 2060
U CHIRON
MINOR PLANETS
U ASTEROIDS
MINORITIES
Science and engineering degrees, by race/ethnicity of recipients: 1977-1990
[NSF-92-327] 03 p0729 N93-12694
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
Blacks in undergraduate science and engineering education
[NSF-92-305] 03 p0730 N93-13015
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
Ventures in science
[DE93-003044] 05 p1331 N93-16521
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
Underrepresented groups 08 p2517 N93-23146
Focusing educational initiatives 08 p2517 N93-23150
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051
Materials education activities 11 p3291 N93-30958
MINORITY CARRIERS
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Minority carrier transport in heavily doped silicon
[ETN-92-92527] 05 p1327 N93-17563
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
MIR SPACE STATION
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
Soviet automated rendezvous and docking system overview 07 p1818 N93-21444
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
The scientific program of the Priroda project 08 p2360 N93-23771
High resolution stereo images from the Space Station Mir 08 p2365 N93-23800
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
French Mir missions 08 p2156 N93-24348
Mir '92 project 08 p2157 N93-24350
Mir 1992: Scientific program and payload 08 p2157 N93-24351
Mir 1992 operations and crew training 08 p2157 N93-24352
The joint Austro-Soviet space project Austromir-91 08 p2157 N93-24353
Physiological experiments within the project AustroMir 08 p2157 N93-24354
Flight experiences on board Space Station Mir 08 p2157 N93-24355
VideoMir: Satellite video conferencing during the AustroMir spaceflight 08 p2158 N93-24356
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
DataMir: A PC-based computer system for application at Space Station Mir 08 p2158 N93-24358
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis 08 p2158 N93-24361
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Development and implementation of the MotoMir experiment on the Mir Space Station 08 p2159 N93-24363
CogiMir: A study of cognitive functions in microgravity 08 p2159 N93-24364
DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402
Operational use of MOMS-02 (P2) data 09 p2752 N93-24866
MIRA VARIABLES
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
The galactic center stellar population in the near infrared 10 p3204 N93-28080
MIRAGE AIRCRAFT
Flight analysis of air intake/engine compatibility 03 p0502 N93-13212
MIRRORS
NT ETALONS
NT FRESNEL REFLECTORS
NT MAGNETIC MIRRORS
NT PARABOLOID MIRRORS
Research in the optical sciences
[AD-A253188] 01 p0158 N93-10446
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593
Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894
EURECA
[ESA-F-26] 03 p0522 N93-12964
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU] 03 p0605 N93-13418
Infrared image projector utilizing a deformable mirror device spatial light modulator
[AD-D015373] 03 p0710 N93-13500
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Self-collimated unstable resonator semiconductor laser
[NASA-CASE-NPO-18386-1-CU] 06 p1540 N93-18277
Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
The resonator handbook
[NASA-CR-192217] 07 p1894 N93-21559
LUTE primary mirror materials and design study report
[NASA-CR-192487] 08 p2487 N93-22961

Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
Low-damage multilayer mirror for the soft x ray region
[AD-D015621] 08 p2489 N93-24231
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
Precision of the calibration of the AXAF engineering test article (VETA) mirrors 09 p2855 N93-26189
Image analysis of the AXAF VETA-I x ray mirror 09 p2855 N93-26190
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I 09 p2855 N93-26191
The x ray reflectivity of the AXAF VETA-I optics 09 p2855 N93-26192
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Second LDEF Post-Retrieval Symposium interim results of experiment A0034 10 p3008 N93-28283
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
Problems in the implementation of x ray optics with x ray lasers
[DE93-009297] 11 p3438 N93-29781
An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228
A self-aligning interferometer suitable for white or monochromatic light consisting solely of a mirror and a reflection grating, part 2
[DE93-609517] 12 p3823 N93-31246
Mirror mode and other compressive ULF modes 12 p3719 N93-31711

MIS (SEMICONDUCTORS)
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Study of surface behavior in function of temperature of the quaternary system (Hg, Cd, Zn)Te
[AD-A260968] 09 p2867 N93-26223
Metallization at detonation fronts in solids 11 p3319 N93-30087

MISALIGNMENT
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
Flux concentrations on solar dynamic components due to mispointing
[NASA-TM-105756] 07 p1982 N93-20261
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience 07 p1816 N93-21429

MISCIBILITY
U SOLUBILITY

MISCIBILITY GAP
Phase separation under a weak concentration gradient 08 p2226 N93-22853

MISFETS
U FIELD EFFECT TRANSISTORS

MISORIENTATION
U MISALIGNMENT

MISS DISTANCE
A current assessment of single site locating technology 08 p2267 N93-23608
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209

MISSILE COMPONENTS
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Booster rocket range safety system
[AD-D015363] 02 p0221 N93-11428
Small ICBM Laser Firing Unit (LFU) 07 p1864 N93-20138
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
Laser diode ordnance design 07 p1864 N93-20140
Micro-t telemetry system
[AD-D015542] 07 p1822 N93-20305
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles
[DE93-008363] 10 p3025 N93-26670
Fabrication techniques and technologies for missile seeker microelectronic components (focusing on multi-chip module substrate reliability)
[AD-A262809] 10 p3033 N93-28381

MISSILE CONFIGURATIONS
New methods for predicting nonlinear lift, center of pressure, and pitching moment on missile configurations
[AD-A255078] 03 p0492 N93-12741
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
Clustered Lance Booster (CLB) feasibility study
[AD-A262746] 11 p3286 N93-28593

MISSILE CONTROL
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046
Parallel architecture for image processing with optic fiber guided missile
[REPT-921-320-101] 02 p0418 N93-11584
Advanced control for the design of STT missile autopilot
[REPT-921-320-102] 02 p0215 N93-11585
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407
Digital bank-to-turn control and guidance 04 p0802 N93-14447
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
Guided Weapons Division Spin Table Facility: Spin table control system
[AD-A259214] 07 p1788 N93-20555
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
System evaluation of a fiber optic guided missile with a simple guidance addition to improve system effectiveness 08 p2255 N93-22025
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026
An overview of autonomous rendezvous and docking system technology development at General Dynamics 08 p2145 N93-22281
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
Localization system based on data merging of images and inertia 08 p2269 N93-23623
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853

MISSILE DEFENSE
Dual use of distributed remote sensing satellites
[DE93-005442] 08 p2193 N93-22906
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185

MISSILE DESIGN
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Versatile attack weapon 08 p2256 N93-22027
Bank-to-turn missiles and autopilot design
[ETN-93-93488] 08 p2131 N93-23373
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990) 09 p2665 N93-24679
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627

MISSILE DETECTION
NT RADAR DETECTION
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250

MISSILE ENGINE CASES
U ROCKET ENGINE CASES

MISSILE GUIDANCE
U MISSILE CONTROL

MISSILE LAUNCHERS
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851

MISSILE RANGES
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Flight termination receiver catalog
[AD-A261558] 09 p2682 N93-26460

MISSILE STABILIZATION
U MISSILE CONTROL
U STABILIZATION

MISSILE SYSTEMS
Development testing of throttleable ducted rockets 05 p1092 N93-17610
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139

MISSILE TESTS
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619

MISSILE TRACKING
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
Test results of the advanced translator processing system 08 p2269 N93-23620
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420

MISSILE TRAJECTORIES
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208

MISSILES
NT AIR TO AIR MISSILES
NT AIR TO SURFACE MISSILES
NT ANTIMISSILE MISSILES
NT ANTIRADIATION MISSILES
NT ANTISHIP MISSILES
NT BALLISTIC MISSILES
NT CRUISE MISSILES
NT INTERCONTINENTAL BALLISTIC MISSILES
NT LANCE MISSILE
NT PERSHING MISSILE
NT PRECISION GUIDED PROJECTILES
NT RAMJET MISSILES
NT SURFACE TO SURFACE MISSILES
NT TOMAHAWK MISSILES
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Booster rocket range safety system
[AD-D015363] 02 p0221 N93-11428
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
Aerodynamic studies of supersonic air intakes 03 p0497 N93-13222
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407

Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications 05 p1092 N93-17611
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
Aerodynamic engine/airframe integration for high performance aircraft and missiles 05 p1065 N93-17618
Smaller expendable turbojets 05 p1067 N93-17621
A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
The avionic system of the experimental standoff dispenser ADW 08 p2129 N93-22026
System concept for an advanced stand-off weapon 08 p2256 N93-22029
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
The Fifth Symposium on Numerical and Physical Aspects of Aerodynamic Flows
[NASA-CR-193000] 10 p2931 N93-27427
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Tactical satellites 11 p3284 N93-29893
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427

MISSION ADAPTIVE WINGS
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863

MISSION PLANNING
Selection of rocket propulsion systems 01 p0022 N93-10034
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
Prospects with SIMURIS 01 p0179 N93-10904
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
Evaluation of transportation systems for advanced space flight missions
[ESA-TT-1256] 02 p0223 N93-11685
Manager's assistant systems for space system planning 02 p0398 N93-11952
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary
[NASA-CR-184473] 02 p0227 N93-12442
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Earth observation photography: Looking back 20 years after Skylab 03 p0509 N93-13164
International Asteroid Mission 03 p0513 N93-13548
Conceptual design of a human piloted mining mission 03 p0514 N93-13552
The program plan: An overview of the development and implementation of the International Asteroid Mission 03 p0514 N93-13553
Business analysis: The commercial mission of the International Asteroid Mission 03 p0514 N93-13554
Spacelab J: Microgravity and life sciences
[NASA-CR-191353] 03 p0516 N93-13564
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
The real world and lunar base activation scenarios 03 p0680 N93-14014
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
Mission critical system development: Design views and their integration
[AD-A255498] 04 p0940 N93-14644
Human exploration: Moon/Mars mission 04 p0805 N93-14922
Mission and technology assessment of human exploration to the Moon and Mars 04 p0809 N93-14944
Earth environment space initiative 04 p0811 N93-14953
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539
Space transfer vehicle concepts and requirements study, phase 2
[NASA-CR-192430] 05 p1075 N93-16660
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Baseline program 05 p1379 N93-16871
Alternative scenarios utilizing nonterrestrial resources 05 p1379 N93-16872
Impacts of sociopolitical conditions 05 p1379 N93-16873
Systems engineering process and organization assessment 05 p1340 N93-17281
Development of a prototype interactive learning system using multi-media technology for mission independent training program 05 p1227 N93-17310
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Lunar lander stage requirements based on the Civil Needs Data Base 05 p1394 N93-17427
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan
[NASA-CR-192037] 06 p1733 N93-17999
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection
[NASA-CR-192019] 06 p1734 N93-18233
Space station evolution: Planning for the future
[NASA-TM-108596] 06 p1460 N93-18353
An integrated mission planning approach for the Space Exploration initiative
[DE93-001512] 06 p1473 N93-18588
Near term NEP missions and systems 06 p1661 N93-18637
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations 06 p1634 N93-18660
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Iterative refinement scheduling 06 p1635 N93-18669
Future scientific exploration of Taurus-Littrow 06 p1739 N93-18814
Space and surface power for the space exploration initiative: Results from project outreach
[NASA-CR-191254] 06 p1474 N93-18848
The future of the US space launch capability 06 p1456 N93-18865
Analysis of Titan 4 launch responsiveness
[AD-A259021] 06 p1456 N93-18950
Low cost missions to explore the diversity of near Earth objects 06 p1453 N93-19124
The comet rendezvous asteroid flyby mission 06 p1720 N93-19260
Atlas mission planner's guide
[AD-A258845] 06 p1470 N93-19366
Proposal for a coordination between EISCAT and INTERBALL 06 p1726 N93-19544
A systems approach to the advanced aircraft man-machine interface 06 p1610 N93-19776
Implementation of the recommendations of the Presidential Commission on the Space Shuttle Challenger Accident
[NASA-TM-108646] 07 p1820 N93-19990
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Concept of overall operation of H-2 Orbiting Plane (HOPE) 07 p1791 N93-20424
Orbit re-entry experiment vehicle development 07 p1792 N93-20432
NASA issues
[GAO/OCG-93-27TR] 07 p2085 N93-20904
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Mission planning systems for tactical aircraft (pre-flight and in-flight)
[AGARD-AR-313] 07 p1764 N93-21187
ESA's report to the 29th COSPAR Meeting
[ESA-SP-1154] 07 p1811 N93-21360
On-orbit operational scenarios, tools, and techniques 07 p1817 N93-21442
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Activities report of the European Space Agency
[ETN-93-93509] 07 p2103 N93-21764
Cargo vehicle architecture options 08 p2172 N93-22082
Advanced Manned Launch System 08 p2172 N93-22084
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
Single stage to orbit/SDIO 08 p2173 N93-22086
Lunar transfer vehicle studies 08 p2173 N93-22087
Mars transfer vehicle studies 08 p2173 N93-22088
Aerobraking technology studies 08 p2173 N93-22089
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Advanced rocket propulsion 08 p2174 N93-22091
Vehicle systems 08 p2174 N93-22095
Entry Systems Panel 08 p2175 N93-22097
Vehicle Systems Panel deliberations 08 p2175 N93-22098
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100
Propulsion Systems Panel deliberations 08 p2175 N93-22101
Hybrid rocket propulsion 08 p2175 N93-22102
Reliability of solid rocket motor cases and nozzles 08 p2176 N93-22103
Solid Propulsion Integrity Program (SPIP) for verifiable enhanced solid rocket motor reliability 08 p2176 N93-22104
Entry Systems Panel deliberations 08 p2176 N93-22105
Space assembled entry systems certification 08 p2176 N93-22106
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
Thermal protection systems for all-weather reusable launch vehicles 08 p2176 N93-22109
Thermal protection systems for aerobrakes 08 p2176 N93-22110
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
Some materials perspectives for space transportation systems 08 p2177 N93-22115
Materials and structures technologies for hypersonics 08 p2177 N93-22116
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Entry systems technology assessment 08 p2177 N93-22118
Use of automated rendezvous trajectory planning to improve spacecraft operations efficiency 08 p2146 N93-22292
Approach range and velocity determination using laser sensors and retroreflector targets 08 p2147 N93-22297
Proposed CTV design reference missions in support of Space Station Freedom 08 p2148 N93-22300
The role of smart systems in rendezvous, close proximity operations and docking maneuvers 08 p2150 N93-22310
How to get on board Space Station Freedom 08 p2183 N93-22611
Space technology research plans 08 p2184 N93-22613

Space transfer concepts and analysis for exploration missions
[NASA-CR-192482] 08 p2178 N93-22705
Mission requirements and applications of integrated and multi-function navigation systems
08 p2119 N93-22781
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Public Congressional forum on space
08 p2154 N93-23165
1993 Earth Observing System reference handbook
[NASA-NP-202] 08 p2356 N93-23737
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
Payload operations for precursor mission E-1
08 p2155 N93-24342
Aids to Navigation Service Force Mix 2000 Project. Volume 3: Analysis of multi-mission requirements and development of planning factors for the Replacement Buoy Tender Fleet
[PB93-142370] 08 p2123 N93-24489
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990)
09 p2665 N93-24679
What is a system? NASA's phased project description
09 p2665 N93-24681
Systems engineering and integration processes involved with manned mission operations
09 p2666 N93-24688
Systems engineering considerations for operational support systems 09 p2666 N93-24689
Summary and recommendations on nuclear electric propulsion technology for the space exploration initiative
[NASA-TM-105707] 09 p2622 N93-24744
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
A mission concept for near term Lunar exploration
[DE93-007598] 09 p2896 N93-25321
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation
[NASA-CR-192525] 09 p2611 N93-25510
Space transfer vehicle concepts and requirements study. Volume 2, book 2: System and program requirements trade studies
[NASA-CR-192526] 09 p2611 N93-25511
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Using AI/expert system technology to automate planning and replanning for the HST servicing missions
09 p2822 N93-25962
Evaluating science return in space exploration initiative architectures
[NASA-TP-3339] 09 p2897 N93-26094
Knowledge-based decision support for Space Station assembly sequence planning
[NASA-CR-193048] 09 p2599 N93-26095
NLS operations concepts: Failure modes scenario simulation model analysis
[MCR-92-5013] 09 p2609 N93-26175
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
Representative systems for space exploration
09 p2897 N93-26395
Mars exploration planning 09 p2898 N93-26399
Department of Defense technical architecture framework for information management. Volume 2: Architecture guidance and design concepts, version 1.1
[AD-A261912] 09 p2884 N93-26532
Nuclear electric propulsion systems overview
10 p2955 N93-26970
The 20 kWe NEP system studies
10 p2982 N93-26971
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Scoping calculations of power sources for NEP
10 p2982 N93-26973
NEP power subsystem modeling
10 p2982 N93-26974
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report
10 p2983 N93-26976
The 20 kWe NEP flight system
10 p2983 N93-26983
Innovative electric propulsion thruster modeling
10 p2984 N93-26989
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043
NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290
The challenges and benefits of lunar exploration
10 p3211 N93-27957
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Artificial gravity experiment satellites
10 p2949 N93-28018
Study of satellite microminiaturization technology
10 p2949 N93-28021
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover
10 p2951 N93-28032
Lunar surface experiment system
10 p2951 N93-28034
Unmanned lunar surface exploration
10 p2951 N93-28035
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Conceptual study of lunar roving explorer
10 p2952 N93-28040
Lunar surface roving explorer
10 p2952 N93-28041
Lunar surface roving explorer
10 p2952 N93-28042
Conceptual study of lunar landing modules
10 p2952 N93-28043
Mars exploration mission 10 p2953 N93-28045
Mars revolving observation satellite
10 p2953 N93-28047
Outline of Mars explorer system
10 p2953 N93-28048
ROSETTA: The ESA sample return mission
10 p2953 N93-28049
Planning for air to air combat
11 p3501 N93-28852
A new class of mission support for combat air-crew
11 p3501 N93-28854
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
Mars integrated transportation system multistage Mars mission 11 p3232 N93-29741
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759
Launch vehicles for lightweight TACSAT deployment
11 p3271 N93-29903
The 1992 town meetings: Toward a shared vision
[NASA-NP-205] 11 p3608 N93-30134
Technology transfer within the NASA Goddard Space Flight Center 11 p3626 N93-30704
Technology coordination 11 p3626 N93-30706
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
SOHO overview and preparation for operations
12 p3867 N93-31344
Design for a complete SOHO mission under the ISTP
12 p3880 N93-31424
Space Interferometry Science Working Group
12 p3846 N93-31761
Protocols for distributive scheduling
12 p3835 N93-32129
Scheduling with partial orders and a causal model
12 p3835 N93-32130
Crisis action planning and replanning using SIPE-2
12 p3835 N93-32131
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring
12 p3835 N93-32132

MISSISSIPPI
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286

MISSOURI
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285

MIST
Systems description of MIVOS (mist forecast system), part 1
[KNMI-TR-141-PT-1] 11 p3483 N93-30013

MISTUNING (TURBOMACHINERY)
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561

MITOCHONDRIA
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796

MIXED FLOW
U MULTIPHASE FLOW

MIXED OXIDES
NT BSCCO SUPERCONDUCTORS
NT YBCO SUPERCONDUCTORS
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490

MIXERS
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Vortical and turbulent structure of planar and lobed mixer free-shear layers 06 p1533 N93-19055
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
Tank Pressure Control Experiment (TPCE)
11 p3264 N93-28712
Commissioning and operating instructions of one pint (US) mixer
[MRL-TN-634] 12 p3713 N93-31639

MIXING
NT COLLOIDING
NT COMPOUNDING
NT DISSOLVING
NT PREMIXING
NT SUSPENDING (MIXING)
NT TURBULENT MIXING
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
Regular and chaotic mixing of viscous fluids in eccentric rotating cylinders 02 p0305 N93-12157
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
Miscibility of lubricants with refrigerants
[DE93-000538] 05 p1122 N93-16244
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-792] 05 p1287 N93-16414
Mixing of vector and axial correlators at finite volume: Implications for lattice computations
[PREPRINT-804] 05 p1287 N93-16424
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-810] 07 p2062 N93-20923
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713
Methods for preparation of mixtures of gases in air at the parts-per-billion to parts-per-million concentration range for calibration of monitors
[DE92-642433] 11 p3317 N93-30982

MIXING CIRCUITS
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741

A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz 10 p3014 N93-27749
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
Embedding impedance approximations in the analysis of SIS mixers 10 p3016 N93-27760
Sub micron area Nb/AlO(x)/Nb tunnel junctions for submillimeter mixer applications 10 p3016 N93-27761
Noise in Josepson effect mixers and the RSJ model 10 p3016 N93-27762
Fabrication and characterization of high current-density, submicron, NbN/MgO/NbN tunnel junctions 10 p3017 N93-27763
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Submillimeter wave detection with superconducting tunnel diodes 10 p3018 N93-27769
Evaluation of integrated tuning elements with SIS devices 10 p3018 N93-27770
Source conductance scaling for high frequency superconducting quasiparticle receivers 10 p3018 N93-27771
Planar GaAs diodes for THz frequency mixing applications 10 p3019 N93-27776
Planar doped barrier subharmonic mixers 10 p3019 N93-27777
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781

MIXING DEPTH
U MIXING HEIGHT

MIXING HEIGHT
Middle atmosphere water vapour 03 p0667 N93-13892

MIXING LAYERS (FLUIDS)
A new energy transfer model for turbulent free shear flow [NASA-TM-105854] 01 p0081 N93-10454
Front tracking and the interaction of nonlinear waves [AD-A253544] 02 p0297 N93-11148
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer [AD-A254302] 02 p0302 N93-11756
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Compressible mixing layers with and without particles [AD-A254854] 02 p0308 N93-12435
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows [ISAS-RN-646] 03 p0491 N93-12716
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
Numerical study on mixing of sprayed liquid in an LNG storage tank 03 p0584 N93-13388
Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer 03 p0494 N93-13521
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Coherent structures in a simulated turbulent mixing layer [NASA-TM-103980] 06 p1532 N93-18885
Vortical and turbulent structure of planar and lobed mixer free-shear layers 06 p1533 N93-19055
Stability of mixing layers [NASA-CR-192225] 07 p1897 N93-19980
A visualization study of the diffusion process between two liquids of different densities under microgravity conditions 07 p1806 N93-21095
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence [NASA-TM-103926] 08 p2294 N93-23417
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
Modeling the tropical ocean response to westerly wind forcing [AD-A260230] 08 p2416 N93-24099
Initial streamwise vorticity formation in a two-stream mixing layer 09 p2579 N93-25752
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions [NASA-CR-191433] 10 p3037 N93-26998
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
The development of a mixing layer under the action of weak streamwise vortices [NASA-TM-106089] 11 p3418 N93-28947
Jet mixer noise suppressor using acoustic feedback [NASA-CASE-LEW-15170-1] 11 p3561 N93-28953
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs [NASA-TM-106235] 12 p3672 N93-31648
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number [NASA-TM-106186] 12 p3673 N93-31839
Structure and stability of reacting compressible free shear layers [AD-A265594] 12 p3727 N93-32095
Time accurate simulations of compressible shear flows [NASA-CR-193410] 12 p3728 N93-32371

MIXING LENGTH FLOW THEORY
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode [DE92-016686] 02 p0456 N93-12493
Coherent structures in compressible convection 03 p0592 N93-13964
The theory and numerical simulation of non-local mixing-length convection 04 p1015 N93-14147
Projectile base bleed technology. Part 1: Analysis and results [AD-A258459] 06 p1405 N93-17994
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL [AD-A258630] 07 p1897 N93-19999
Navier-Stokes analysis of airfoils with leading edge ice accretions [NASA-CR-191008] 08 p2109 N93-22822
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960

MIXTURES
NT AEROSOLS
NT AIR
NT AQUEOUS SOLUTIONS
NT BINARY FLUIDS
NT BINARY MIXTURES
NT COLLOIDS
NT COMPRESSED AIR
NT DETONABLE GAS MIXTURES
NT DISPERSIONS
NT EMULSIONS
NT EUTECTIC ALLOYS
NT EUTECTICS
NT FOG
NT GAS MIXTURES
NT HIGH TEMPERATURE AIR
NT LIQUID-GAS MIXTURES
NT NUCLEAR EMULSIONS
NT PHOTOGRAPHIC EMULSIONS
NT POLYMER BLENDS
NT SLURRIES
NT SMOKE
NT SOLID SOLUTIONS
NT SOLID SUSPENSIONS
NT SOLUTIONS
Contribution to the modelling of the electromagnetic properties of random dielectric-conductor mixtures [ONERA-NT-1992-3] 06 p1501 N93-18190
Oscillating-body viscometry and its application to phase-separating liquid mixtures 08 p2293 N93-23386
Some problems in the mechanics of solids with phase mixtures [AD-A263652] 11 p3311 N93-29291

MLA
U MULTISPECTRAL LINEAR ARRAYS

MOBILE COMMUNICATION SYSTEMS
NT LAND MOBILE SATELLITE SERVICE
Direct Broadcast Satellite: Radio Program [NASA-TM-105910] 02 p0224 N93-11430
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems 02 p0285 N93-12207
NPR and intermodulation in mobile satellite systems 04 p0806 N93-14931
A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960
L-band antenna design for MSAT mission 04 p0812 N93-14961
Next generation satellite communications networks 04 p0812 N93-14962
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite 05 p1078 N93-15731
Environmentally compliant thermoplastic powder coating, phase 1 [AD-A257232] 05 p1120 N93-15966
National Defense Science and Engineering Graduate Fellowship Program in electrical engineering [AD-A256975] 05 p1146 N93-16254
Spacecraft design project: Low Earth orbit communications satellite [NASA-CR-192038] 06 p1458 N93-17969
A technical review of cellular radio and analysis of a possible protocol [AD-A257560] 06 p1501 N93-17982
Mobile satellite services: A survey of business needs [AD-A259031] 06 p1470 N93-18955
The Canadian mobile satellite system 08 p2275 N93-23515
The future role of satellite communications in an improved air traffic management 08 p2275 N93-23518
Mobile satellite communications in the 1990's 08 p2275 N93-23520
OSI applied to aeronautical satellite mobile communications in EURATN 08 p2276 N93-23525
COMLINE 08 p2276 N93-23530
Fleet management based on satellite positioning and communication 08 p2276 N93-23531
An introduction to Doppler effect and fading in mobile communications [AD-A260976] 09 p2676 N93-25866
ETS-5, ETS-6, and COMETS projects in Japan 09 p2683 N93-26470
WARC 92 and some thoughts as to its impact on the NASA propagation program 09 p2684 N93-26475
Allocations by the 1992 World Administrative Radio Conference 09 p2684 N93-26476
The 1992 United Nations Workshop on Space Communication for Development: Proceedings 10 p3022 N93-26640
Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642
Iridium: Covering the globe with personal communication 10 p3022 N93-26644
Mobile communication via satellite towards the year 2000 10 p3023 N93-26646
Worldwide seamless cellular satellite communications: The global mobile communication by Globalstar system 10 p3024 N93-26653
In-step inflatable antenna experiment 11 p3263 N93-28701
A slotted Aloha satellite channel simulator 11 p3360 N93-30250
Teleglobe's international Mobile Earth Terminal service 11 p3371 N93-30317
The evolution of global mobile communications 11 p3376 N93-30349
Phased array for mobile satellite communications [ESA-TT-1280] 12 p3716 N93-31342

MOBILITY
NT CARRIER MOBILITY
NT ELECTRON MOBILITY
NT HOLE MOBILITY
NT IONIC MOBILITY
Mobility of toluene in polystyrene-toluene solutions: A NMR study [AD-A253203] 01 p0031 N93-10794
Molecular mobility of the interface in a model composite: A NMR study [AD-A253311] 02 p0265 N93-11194
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development [AD-A259177] 07 p2079 N93-20561
A round-robin for particle electrophoresis standardization [DE93-003018] 08 p2217 N93-22400
NMR studies of ion mobility and association in polyether-based polymer electrolytes [AD-A260662] 09 p2655 N93-25642
Planetary rover developments at JPL 12 p3737 N93-32115

MOCVD (VAPOR DEPOSITION)
U METALORGANIC CHEMICAL VAPOR DEPOSITION

MODAL RESPONSE
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges
01 p0045 N93-10471
Dynamics of an orbiting flexible manipulator
01 p0054 N93-10519
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
Mode localization in a simple continuum model
01 p0056 N93-10529
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
Numerical considerations for structural system identification from modal information
01 p0063 N93-10564
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
The use of inverse frequency response functions for multi degree-of-freedom modal parameter identification with error bounds 05 p1077 N93-15720
Modal identification of mechanical structures by means of tuned base-motion excitation
05 p1077 N93-15721
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Acoustically induced vibration of platform mounted equipment containing printed circuit boards
05 p1082 N93-15762
Development of a laser-based measurement system for modal testing of large space structures
05 p1083 N93-15766
Development of a force measurement device
05 p1083 N93-15767
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
A non-linear phenomenon in the dynamic response of metallic and composite structures
07 p1926 N93-20620
Analysis of structurally-varying systems using component-mode synthesis technique
07 p1932 N93-20658
Forced vibration of non-selfadjoint elastic systems
07 p1934 N93-20668
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
Modal identification experiment
08 p2188 N93-22635
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
Trapped energy quartz crystal resonator on wedge-shaped plate 09 p2837 N93-25022
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Modal measurements and propeller field excitation on acoustic full scale mockup of SAAB 340 aircraft
[FFA-TN-1992-08] 12 p3815 N93-31051

MODE
Mirror mode and other compressive ULF modes
12 p3719 N93-31711

MODE COUPLING
U COUPLED MODES

MODE OF VIBRATION
U VIBRATION MODE

MODE SHAPES
U MODAL RESPONSE

MODEL REFERENCE ADAPTIVE CONTROL
Model reference adaptive control in large space structures 01 p0013 N93-10365
Model reduction of flexible manipulators
[AD-A255251] 04 p0889 N93-14528
Model reference adaptive control of robots
[NASA-CR-191871] 06 p1632 N93-18377
A contribution to the adaptive control of servo-drives with direct current motor
[ETN-93-92562] 07 p2047 N93-20876
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
A new approach for designing self-organizing systems and application to adaptive control
08 p2451 N93-22215
Analytical and experimental study of control effort associated with model reference adaptive control
09 p2820 N93-25468
New adaptive controllers for aircraft
10 p2921 N93-27180
Controls for space structures
11 p3275 N93-29112
Adaptive motion control of mobile robots
11 p3545 N93-30903
On neural networks in identification and control of dynamic systems
[NASA-TM-107702] 11 p3455 N93-31038
Estimation and control in discrete-time nonlinear systems 12 p3797 N93-31071

MODELS
NT AIRCRAFT MODELS
NT ANALOG SIMULATION
NT ASTRONOMICAL MODELS
NT ATMOSPHERIC GENERAL CIRCULATION MODELS
NT ATMOSPHERIC MODELS
NT BIOLOGICAL MODELS (MATHEMATICS)
NT BREADBOARD MODELS
NT DENSITY WAVE MODEL
NT DIGITAL SIMULATION
NT DYNAMIC MODELS
NT ENVIRONMENT MODELS
NT HYDROLOGY MODELS
NT K-EPSILON TURBULENCE MODEL
NT MATHEMATICAL MODELS
NT NUCLEAR MODELS
NT OCEAN MODELS
NT PETRI NETS
NT POWERED MODELS
NT QUARK MODELS
NT QUARK PARTON MODEL
NT REFERENCE ATMOSPHERES
NT SCALE MODELS
NT SPACECRAFT MODELS
NT STATIC MODELS
NT STELLAR MODELS
NT THREE DIMENSIONAL MODELS
NT TURBULENCE MODELS
NT TWO DIMENSIONAL MODELS
NT VECTOR DOMINANCE MODEL
NT WIND TUNNEL MODELS
The use of statistical measures to validate system dynamics models
[AD-A248569] 02 p0428 N93-11417
Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices
04 p1000 N93-14205
Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696
Development and enhancement of a model of performance and decision making under stress in a real life setting
[AD-A255699] 05 p1226 N93-16111
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
Tools of modeling, identification, and signal processing for fault diagnosis in continuous-time systems
[LAAS-92153] 06 p1649 N93-18625
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
Geographic data model: A survey
07 p1968 N93-20540
SSG 1.73: Integrated geodesy
07 p1969 N93-20963
AEROBA: A control blackboard approach for model formulation 08 p2524 N93-23183
A version and configuration model for software evolution
[AD-A260557] 08 p2441 N93-24283
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
ASRM design philosophy and modelling challenges
09 p2627 N93-26022
Model reduction for Space Station Freedom
09 p2620 N93-26081
EMDABS: Design and formal specification of a datamodel for a clinical research database system
[EUT-91-E-250] 10 p3165 N93-27242
The meta model hierarchy: A framework for information systems concepts and techniques
[TR-92-17] 11 p3611 N93-28481
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Introduction to cadet center for advanced data evaluation technology 11 p3614 N93-29240
Mass storage system reference model, Version 4
11 p3617 N93-30450
Current state of the mass storage system reference model 12 p3840 N93-31965

MODEMS
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
Fast training of a high-speed voice and data modem receiver
[ACTA-POLYTEC-SCAND-EL-67]
05 p1140 N93-17632
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
Computer simulation of a general purpose satellite modem
[AD-A259083] 07 p1882 N93-20392
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014
Signal processor based MSAT trellis coded M-DPSK with adaptive Doppler phasor correction
11 p3373 N93-30332

MODERATORS
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463

MODES
NT BALLOONING MODES
NT COUPLED MODES
NT FAILURE MODES
NT LASER MODES
NT MODES (STANDING WAVES)
NT PROPAGATION MODES
NT PUSHBROOM SENSOR MODES
NT VIBRATION MODE
NT WHISPERING GALLERY MODES

MODES (STANDING WAVES)
Mechanism of the mode selection in bifurcations
05 p1162 N93-16825

MODFETS
Programme and abstracts. Workshop on Expert Evaluation and Control of Compound Semiconductor Materials and Technologies No. 1: (EXAMTEC 199)
[AD-A254023] 02 p0292 N93-12071

MODIFICATION
U REVISIONS

MODULARITY
Mechanical and thermal design of the SUN instrument
01 p0014 N93-10956
Research on a reconfigurable modular manipulator system
[DE92-018943] 02 p0327 N93-11865
System concept for an advanced stand-off weapon
08 p2256 N93-22029

Space biology initiative program definition review. Trade study 4: Design modularity and commonality
08 p2418 N93-23071
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
Periodic application of concurrent error detection in processor array architectures
[NASA-CR-193217] 10 p3106 N93-27238
Advanced modular power supplies for Space Station Freedom 10 p2969 N93-27811

MODULATION
NT AMPLITUDE MODULATION
NT BINARY PHASE SHIFT KEYING
NT DELTA MODULATION
NT DIFFERENTIAL PULSE CODE MODULATION
NT FREQUENCY MODULATION
NT FREQUENCY SHIFT KEYING
NT INTERMODULATION
NT LIGHT MODULATION
NT PHASE MODULATION
NT PHASE SHIFT KEYING
NT PULSE CODE MODULATION
NT PULSE DURATION MODULATION
NT PULSE MODULATION
NT PULSE POSITION MODULATION
NT QUADRATURE PHASE SHIFT KEYING
NT TRAVELING WAVE MODULATION

Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
A frequency generating source: Frequency synthesizers 09 p2693 N93-25041
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014
Modelling of channel thickness modulation effect in SI GaAs MESFET's 11 p3356 N93-30229
An error control protocol based on trellis coded modulations 11 p3358 N93-30237
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060

MODULATION DOPED FETS
U MODFETS

MODULATION TRANSFER FUNCTION
Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems
[AD-A252116] 01 p0158 N93-10708
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035

MODULATORS
NT BRAGG CELLS
NT MODEMS

Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014
Full complex modulation using two one-parameter spatial light modulators
[NASA-CASE-MSC-22255-1] 10 p3148 N93-28135
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
Constant Average Power Single Sideband (CAPSSB) modulation 11 p3373 N93-30331
Complex apparatus and results of active experiment Electron-1 with injection of electronic beam in the ionosphere
[DE93-605452] 11 p3480 N93-30991
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799
Quantum well optical waveguide modulators
[AD-A265421] 12 p3824 N93-32050
Development of a large field-of-view KD potassium di-deuterium phosphate modulator: Center Director's Discretionary Fund
[NASA-TM-108410] 12 p3824 N93-32378

MODULATORS-DEMODULATORS
U MODEMS

MODULES
NT CHEMICAL RELEASE MODULES
NT ELECTRONIC MODULES
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT MARS EXCURSION MODULE
NT SPACECRAFT MODULES

Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
An improved classification tree analysis of high cost modules based upon an axiomatic definition of complexity 05 p1244 N93-17167
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
System for simultaneously loading program to master computer memory devices and corresponding slave computer memory devices
[NASA-CASE-MSC-21387-1] 06 p1623 N93-18855
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports
[NASA-CR-192477] 08 p2302 N93-22349
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136

Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
Experiment/facility requirements document for the Space Station Furnace Facility. Section 1: Integrated configuration
[NASA-CR-192533] 10 p2958 N93-27147
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915
Advanced Transport Operating System (ATOPS) utility library software description
[NASA-CR-191469] 12 p3680 N93-32218

MODULUS OF ELASTICITY
Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model 04 p0896 N93-14187
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Dynamic hardness tester and cure meter
09 p2711 N93-25608
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
Aligned, short-fiber composites by novel flow processing methods
[DE93-008701] 11 p3296 N93-28904
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344
Computer simulation of 3D material microstructure and its application in the determination of mechanical behavior of polycrystalline materials and engineering structures
12 p3708 N93-31134

MOHR CIRCLES
U FRACTURE MECHANICS

MOIRE EFFECTS
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065

MOIRE FRINGES
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
Automated fringe analysis for moire interferometry
[PNR-90918] 02 p0334 N93-11021
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768
MOIRE INTERFEROMETRY
Automated fringe analysis for moire interferometry
[PNR-90918] 02 p0334 N93-11021
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Moire interferometry at high temperatures
08 p2328 N93-23380
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
MOISTURE
NT ATMOSPHERIC MOISTURE
NT SOIL MOISTURE
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns
07 p2007 N93-20092
Tropical Pacific moisture variability
07 p2007 N93-20093
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
MOISTURE CONTENT
NT ATMOSPHERIC MOISTURE
Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10085
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Global survey of effective particle size in liquid water clouds by satellite observations
04 p0921 N93-14862
Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Aerosol phase transformation in the atmosphere
[DE93-001903] 08 p2384 N93-22936
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
Airmass modification by vertical motion: Discussion and case study
[PB93-160596] 10 p3079 N93-28134
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite
[AD-A262980] 11 p3298 N93-29425
Aqueous geochemistry on Mars: Possible clues from salts and clays in SNC meteorites
12 p3863 N93-31944
MOISTURE METERS
NT HYGROMETERS
MOISTURE RESISTANCE
A comparison of moisture resistance with different types of end-terminations in ceramic capacitors
[DE93-007600] 09 p2689 N93-25416
MOJAVE DESERT (CA)
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites
06 p1507 N93-18921
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
MOL (ORBITAL LABORATORIES)
U MANNED ORBITAL LABORATORIES
MOLDING MATERIALS
Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221
A new class of high strength molding resins, phase 1
[AD-A262691] 10 p3005 N93-28117
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
MOLDS
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852
Development of resins for composites by resin transfer molding 11 p3305 N93-30853
MOLECULAR ABSORPTION
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
High temperature superconductivity
[AD-A259692] 08 p2283 N93-24023
MOLECULAR BEAM EPITAXY
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU]
02 p0458 N93-11056
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Selected area epitaxial growth for complementary HBT applications
[AD-A257047] 04 p0995 N93-15365
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A257419] 05 p1171 N93-15864
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
Growth of epitaxial thin films by pulsed laser ablation
[DE92-040515] 05 p1319 N93-16296
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
High temperature superconductivity
[AD-A257789] 05 p1151 N93-17696
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
Acousto-optic frequency excision
06 p1523 N93-18460
Device applications of layered structures
06 p1523 N93-18461
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Excitation and de-excitation mechanisms of Er-doped GaAs and AlGaAs
[AD-A258814] 06 p1675 N93-18991
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Growth and doping of Al(x)Ga(1-x) films by electron cyclotron resonance assisted molecular beam epitaxy
[AD-A258722] 07 p2079 N93-20367
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Development of a Knudsen cell for molecular beam epitaxial growth of GaAs films in the microgravity environment 07 p1804 N93-21082
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
Process toward a comprehensive control system for molecular beam epitaxy
[AD-A259724] 08 p2507 N93-23468
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
High temperature superconductivity
[AD-A259692] 08 p2283 N93-24023
Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
Influence of defects in HgCdTe grown by Molecular Beam Epitaxy (MBE) on electrical devices
[AD-A260457] 08 p2511 N93-24194
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Heteroepitaxial growth of gallium nitride and native defect formation in III-V nitrides
08 p2512 N93-24216
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193

Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Investigation of misfit dislocation configurations in MBE-grown InGaAs layers on misaligned GaAs (001) substrates
[DE93-007578] 10 p3151 N93-27522
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052

MOLECULAR BEAMS
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Gas-surface interactions
[AD-A255390] 04 p0841 N93-14652
The evolution of electronic structure in Al(n)Co(m)
[DE92-040737] 05 p1314 N93-15833
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
Theoretical studies of a molecular beam generator
[NASA-CR-191716] 05 p1288 N93-16945
Infrared sensor technology and applications
06 p1664 N93-18474
Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry
09 p2627 N93-26025
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228

MOLECULAR BIOLOGY
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Molecular biology of anaerobic aromatic biodegradation
[AD-A255213] 03 p0673 N93-13863
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Defining protein electrostatic recognition processes
[AD-A264838] 11 p3571 N93-30901
The Gordon Research Conference on Pineal Cell Biology
[AD-A264840] 11 p3497 N93-30904

MOLECULAR BONDS
U CHEMICAL BONDS

MOLECULAR CHAINS
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
The role of entanglements in the swelling of poly(dimethylsiloxane) networks
[AD-A255359] 04 p0849 N93-14561
Molecular control of liquid crystalline orientation of Poly (p-phenylene -2,6-benzobisoxazole) and Poly (p-phenylene -2,6-benzobisthiazole)
[AD-A259729] 08 p2508 N93-23471
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114

MOLECULAR CLOUDS
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
United Kingdom Infrared Telescope
03 p0743 N93-13273
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars
03 p0755 N93-13828
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
Molecular clouds in the distant outer galaxy
03 p0758 N93-14095
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
The formation of giant molecular clouds
04 p1021 N93-15086
Manifestations of electric currents in interstellar molecular clouds
[TRITA-EPP-91-05] 05 p1376 N93-17638
The origin and evolution of the zodiacal dust cloud
06 p1704 N93-19148
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
The kinematics of stars and gas in the galactic disk
08 p2550 N93-23991
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
Shells, outflows and star formation in the giant molecular cloud Monoceros R2 09 p2893 N93-25555
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
Molecular clouds in the centers of galaxies: Constraints from HCN and CO-13 line emission
10 p3188 N93-26806
Infrared fine-structure line diagnostics of shrouded active galactic nuclei 10 p3199 N93-26870
Cosmic evolution of extragalactic C 1, C 2, and CO luminosity 10 p3200 N93-26876
Evolution of molecular clouds
10 p3203 N93-26892
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563
CO lines toward NGC 2024 and other star forming regions: A closer look at the warm gas component
[MPE-PREPRINT-223] 11 p3637 N93-30639
Submillimetre line observations of molecular clouds
12 p3848 N93-31772

MOLECULAR COLLISIONS
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
Atomic probes of surface structure and dynamics
[DE92-040066] 05 p1283 N93-15885
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Reaction and reorientation of electronically excited H2(B)
[DE93-010435] 11 p3569 N93-29860

MOLECULAR DIFFUSION
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Deuteron and oxygen-17 NMR studies of molecular motion in methanol-saturated Nafion membranes
[AD-A261579] 09 p2851 N93-26514
The role of grain boundaries in hydrogen diffusion in metals at 25 C
[NASA-TM-108407] 11 p3322 N93-29043

MOLECULAR DISSOCIATION
U DISSOCIATION

MOLECULAR ELECTRONICS
The Fourth Conference on Organized Thin Films
[AD-A258315] 06 p1672 N93-18310

MOLECULAR ENERGY LEVELS
NT INTERMOLECULAR FORCES
Vibrational relaxation of H2O by H2, HCl, and H2O at 295 K
[AD-A252800] 01 p0029 N93-10263
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Spectroscopic investigation of the vibrational quasi-continuum arising from internal rotation of a methyl group
[DE92-040509] 05 p1104 N93-16586
Energy and chemical change
[AD-A262359] 10 p3133 N93-27648

MOLECULAR EXCITATION
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
State-resolved dynamics of ion-molecule collisions in a flowing afterglow
[AD-A247288] 02 p0436 N93-11467
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875

Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications
03 p0656 N93-13784
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
The structure and energetics of Cr(CO)6 and Cr(CO)5
[NASA-CR-192889] 09 p2848 N93-25450
Theoretical and experimental research in infrared technology
[AD-A260926] 09 p2853 N93-25646
State-selected studies of atoms and molecules ejected from ion bombarded surfaces
[AD-A261275] 09 p2850 N93-26267
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966
Magnetic resonance studies of photo-induced electron transfer reactions
[DE93-012239] 11 p3311 N93-29182
Reaction and reorientation of electronically excited H2(B)
[DE93-010435] 11 p3569 N93-29860
Triplet states and optical absorptions in finite polyenes and conjugated polymers
[AD-A264552] 11 p3337 N93-30381
Exciton solitary waves in molecular crystals
[DE93-608693] 12 p3827 N93-31100
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289

MOLECULAR FLOW
NT SLIP FLOW
NT TRANSITION FLOW
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface
10 p2928 N93-27222

MOLECULAR GASES
NT DIATOMIC GASES
NT POLYATOMIC GASES
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
Molecular clouds in the distant outer galaxy
03 p0758 N93-14095
The structure and dynamics of an environment forming high-mass stars 04 p1014 N93-14113
Theory of field adsorption of hydrogen
[AD-A257139] 05 p1102 N93-15996
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Radio spectroscopy of comets: Recent results and future prospects 06 p1697 N93-19144
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation
06 p1709 N93-19183
Perturbative nearly-degenerate four-wave mixing lineshapes in gases
[DE93-002673] 07 p1850 N93-21490
Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
Molecular gas temperature and density in spiral galaxies 10 p3185 N93-26792
The fate of captured gas: NGC 3077 and star formation in the M81 system 10 p3186 N93-26798
Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802
Molecular gas content of galaxies in the Hydra-Centaurus supercluster 10 p3188 N93-26807
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811
Evolution of molecular clouds
10 p3203 N93-26892
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane
10 p3204 N93-26894
Environmental Verification Experiment for the Explorer Platform (EVEEP) 11 p3266 N93-28726
Return flux experiment 11 p3266 N93-28727
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168
Vibrational spectroscopy of shock-compressed fluids
11 p3318 N93-30072
Detonation mass spectrometry
11 p3319 N93-30076
Quantum spectra and dynamics
12 p3831 N93-31129
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798

MOLECULAR INTERACTIONS
NT MOLECULAR COLLISIONS
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Cellular and molecular pathways of extremely-low-frequency electromagnetic field interactions with living systems
[DE92-019084] 02 p0282 N93-11515
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Application of molecular dynamics to computations of spatial distributions of gas streams from a solid surface
10 p2928 N93-27222
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448

MOLECULAR IONS
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Strong-field dissociation dynamics
[DE93-006671] 10 p3136 N93-28310
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

MOLECULAR ORBITALS
Ab initio molecular orbital calculations for magnesium-containing systems
[AD-A255811] 05 p1287 N93-16397
Molecular orbital studies of the bonding in heavy element organometallics
[DE93-005291] 06 p1658 N93-19756
Many-body effects in Cu(2+)(H2O)(sub m) clusters
[DE93-002988] 07 p2082 N93-21752
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798

MOLECULAR OSCILLATIONS
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189

MOLECULAR PHYSICS
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
Research programs at the Research Laboratory of Electronics 06 p1522 N93-19482
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359

MOLECULAR RELAXATION
Vibrational relaxation of H2O by H2, HCl, and H2O at 295 K
[AD-A252800] 01 p0029 N93-10263
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283
Vibration dissociation coupling in nonequilibrium flows
[NASA-CR-191775] 05 p1157 N93-16439
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192

Relaxation of radiation damages in a-Si:H layers
[MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489
Quantum dynamics of X2BC van der Waals clusters
[DE93-006416] 11 p3565 N93-28892
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves
[AD-A263653] 11 p3312 N93-29389
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Reaction and reorientation of electronically excited H2(B)
[DE93-010435] 11 p3569 N93-29860

MOLECULAR ROTATION
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196

MOLECULAR SIEVES
U ABSORBENTS

MOLECULAR SPECTRA
NT ELECTRONIC SPECTRA
NT RAMAN SPECTRA
NT ROTATIONAL SPECTRA
NT VIBRATIONAL SPECTRA
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
Applications of molecular modeling to transition state energies and conformations
[AD-A257130] 05 p1284 N93-16074
The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
NMR study of triazone compound formation
07 p1839 N93-21165
Plasma edge diagnostics 08 p2495 N93-23261
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991]
08 p2558 N93-24637
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Vibrational spectroscopy of shock-compressed fluids
11 p3318 N93-30072
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy
11 p3318 N93-30073
Quantum spectra and dynamics
12 p3831 N93-31129
Atomic and molecular line observations of galaxies
12 p3847 N93-31771
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009

MOLECULAR SPECTROSCOPY
NT RAMAN SPECTROSCOPY
Photoionization dynamics and cation spectroscopy with coherent VUV radiation
[DE92-015841] 01 p0154 N93-10730
Intermolecular potential functions from spectroscopic properties of weakly bound complexes
[DE92-018643] 03 p0701 N93-12745
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
High-resolution resonant degenerate 4-wave mixing spectroscopy
[DE92-012146] 03 p0538 N93-13234
Spectroscopy for remote sounding of the atmosphere
03 p0659 N93-14054
Final Report, 1 November 1988 - 31 October 1991 --- spectroscopy of adsorbed and photodissociated molecules
[AD-A255979] 04 p0976 N93-14424
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
NMR study of triazone compound formation
07 p1839 N93-21165
The use of 2D NMR spectroscopy in the analysis of isomeric polyamides 07 p1839 N93-21166
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions
11 p3319 N93-30075
Detonation mass spectrometry
11 p3319 N93-30076

MOLECULAR STRUCTURE
Detonation reactions frozen by free expansion and analyzed by mass spectrometry
[DE92-018605] 02 p0274 N93-11566
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
The effects of molecular structure on the electrical conductivity of polymers
[NASA-CR-191265] 03 p0552 N93-13459
Final Report, 1 November 1988 - 31 October 1991 --- spectroscopy of adsorbed and photodissociated molecules
[AD-A255979] 04 p0976 N93-14424
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
The role of entanglements in the swelling of poly(dimethylsiloxane) networks
[AD-A255359] 04 p0849 N93-14561
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Mechanical properties of structural polymers. Computer simulations and key experiments
[AD-A257439] 05 p1119 N93-15866
Ab initio molecular orbital calculations for magnesium-containing systems
[AD-A255811] 05 p1287 N93-16397
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
The crystal and molecular structure of triethanol-ammonium nitrate
[AD-A258428] 06 p1670 N93-17864
The Fourth Conference on Organized Thin Films
[AD-A258315] 06 p1672 N93-18310
Teaching polymers to fold
[DE93-002670] 06 p1494 N93-18437
Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483
Molecular-scale hybrid polymer ceramics
06 p1496 N93-18487
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404
NMR study of triazone compound formation
07 p1839 N93-21165
The use of 2D NMR spectroscopy in the analysis of isomeric polyamides 07 p1839 N93-21166
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
Commercial researcher perspective
08 p2184 N93-22615
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Ionization probes of molecular structure and chemistry
[DE93-008211] 09 p2847 N93-25310
The structure and energetics of Cr(CO)6 and Cr(CO)5
[NASA-CR-192889] 09 p2848 N93-25450
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
Molecular composition, structure, and sensitivity of explosives
[DE93-003850] 09 p2662 N93-26493
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
Studies on zeolites: Molecular mechanics, framework stability, and crystal growth
[ETN-93-93613] 10 p3152 N93-27935
Zeolite crystal growth and the structure on an atomic scale
[ETN-93-93615] 10 p3153 N93-27936
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Electron transfer, proton transfer and photoaddition reactions in isolated clusters
[AD-A262719] 10 p3137 N93-28398
Quantum dynamics of X2BC van der Waals clusters
[DE93-006416] 11 p3565 N93-28892
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
Mass spectrometric investigation of 2-methoxyethanol and 2-ethoxyethanol clusters: Magic numbers and structural implications
[AD-A262822] 11 p3312 N93-29429
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers
[AD-A263470] 11 p3569 N93-29839
Atomic force microscopy of ammmonium perchlorate
11 p3349 N93-30091
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610

The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918
Cyclocarbon coalescence: Mechanisms for tailormade fullerene formation
[AD-A265489] 12 p3821 N93-31995
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312

MOLECULAR THEORY
Scattering and order in thermotropic liquid crystals
03 p0723 N93-13332
Molecular theories and computer simulations of liquid crystals 03 p0725 N93-13843
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
The role of entanglements in the swelling of poly(dimethylsiloxane) networks
[AD-A255359] 04 p0849 N93-14561
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534

MOLECULAR WEIGHT
NT LOW MOLECULAR WEIGHTS
Synthesis of side chain liquid crystal polymerization by living ring opening metathesis polymerization. Report 1: Influence of molecular weight, polydispersity, and flexible spacer length (n=2-8) on the thermotropic behavior of the resulting polymers
[AD-A248699] 01 p0040 N93-10727
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
Determination of the weight average molecular weight of SRM 1480
[PB92-222934] 03 p0553 N93-13785
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
[AD-A257049] 04 p0996 N93-15443
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
Polybenzoxazoles via aromatic nucleophilic displacement
[NASA-CASE-LAR-14606-1-CU] 08 p2207 N93-23077
A gel-permeation chromatography study of electrochemically synthesized Poly(3-alkylthiophenes)
[AD-A259864] 08 p2239 N93-23957
Polyimides containing the cyclobutene-3,4-dione moiety
[NASA-CASE-LAR-14753-1] 09 p2656 N93-25999

MOLECULES
NT DIATOMIC MOLECULES
NT MACROMOLECULES
NT MONATOMIC MOLECULES
NT POLYATOMIC MOLECULES
NT TRIATOMIC MOLECULES
The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Photochemical dynamics of surface oriented molecules
[DE92-019813] 03 p0703 N93-13106
Tagging insulin in microgravity
03 p0510 N93-13172
Predicting polymer properties by computational methods 2: A comparison of semi-empirical methods
[AD-A256856] 04 p0854 N93-15640
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
The Moon: Biogenic elements
06 p1591 N93-18548
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Experimental and theoretical studies of dense fluid mixtures
[DE93-006070] 09 p2695 N93-24976
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Return flux experiment 11 p3266 N93-28727
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers
[AD-A263470] 11 p3569 N93-29839
Use of statistics in computational chemistry
[AD-A264307] 11 p3315 N93-30365
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063

MOLIERE FORMULA
U COSMIC RAY SHOWERS
U SECONDARY COSMIC RAYS
U SPATIAL DISTRIBUTION

MOLNIYA SATELLITES
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications
11 p3389 N93-29902

MOLTEN SALT ELECTROLYTES
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
Predicting viscosities of aqueous salt mixtures
[DE93-002421] 06 p1483 N93-18523
Cathodes for molten-salt batteries
07 p1987 N93-20525
Strategic planning for molten carbonate fuel cell development and commercialization
[DE93-009156] 10 p3064 N93-27107

MOLTEN SALTS
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Electrodeposition of high temperature superconductors
[AD-A255095] 03 p0720 N93-12758
Molten salt reactor for potentiostatic electroplating
[AD-D015358] 03 p0551 N93-13101
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437
Continuous production of granular or powder Ti, Zr, and Hf or their alloy products
[PB93-135051] 08 p2227 N93-22592
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742
Organic electrolytes for sodium batteries
[AD-A260242] 08 p2284 N93-24164
Rheology of YBa2Cu3O(7-x) precursors
[DE93-007285] 09 p2863 N93-25362
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816

MOLYBDENUM
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Small-scale x ray laser systems
[DE92-018442] 03 p0604 N93-12744
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Method of bonding molybdenum to steel
[AD-D015410] 04 p0845 N93-14888
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization
[ETN-93-92992] 07 p1859 N93-20909
Magnetic coupling of Fe/Mo/Fe and Co/Cu/Co sandwiches across wedged spacer layers
[DE93-004203] 08 p2502 N93-22523
Fundamental aspects of metal joining: The study of strong interfaces
[AD-A261293] 09 p2653 N93-26304
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618

MOLYBDENUM ALLOYS
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys
[DE92-040978] 04 p0847 N93-15382
New developments in the 'ab initio' determination of transition metal alloy phase diagrams
[DE93-002540] 07 p1856 N93-21488
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172

MOLYBDENUM COMPOUNDS
NT MOLYBDENUM DISULFIDES
NT MOLYBDENUM OXIDES

Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169

MOLYBDENUM DISULFIDES
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488

MOLYBDENUM OXIDES
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941

MOLYBDENUM SULFIDES
NT MOLYBDENUM DISULFIDES

MOMENT DISTRIBUTION
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845

MOMENTS
NT BENDING MOMENTS
NT DIPOLE MOMENTS
NT DISTRIBUTION MOMENTS
NT ELECTRIC MOMENTS
NT MAGNETIC MOMENTS
NT MEAN
NT MOMENTS OF INERTIA
NT ORTHOGONALITY
NT PITCHING MOMENTS
NT ROLLING MOMENTS
NT STABILITY DERIVATIVES
NT STANDARD DEVIATION
NT TORQUE
NT YAWING MOMENTS
A reappraisal of compound equilibrium finite elements
01 p0063 N93-10561

MOMENTS OF INERTIA
Dynamics of systems with time-varying inertial properties 01 p0054 N93-10517
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Low-spin identical bands in odd-A nuclei
[DE92-041016] 05 p1287 N93-16600
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
An automated method for determining mass properties
[AD-A259924] 08 p2428 N93-24441
Low-spin identical bands in neighboring odd-A and even-even nuclei
[DE93-008569] 10 p3132 N93-27486
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers
11 p3642 N93-28777
Vibration localization in rotating shafts
11 p3454 N93-30626

MOMENTUM
NT ANGULAR MOMENTUM
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
The effect of different collision operators on the standard data analysis model 06 p1670 N93-19584
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization
09 p2600 N93-24695
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330

MOMENTUM ENERGY
U KINETIC ENERGY

MOMENTUM THEORY
Transverse wave motion in constrained mechanical systems 03 p0628 N93-13634
Transformation of energy and momentum due to Landau damping in time
[IPPCZ-316] 04 p0988 N93-14813
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927

MOMENTUM TRANSFER
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere
04 p1033 N93-14338
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353
Time stability of Monte Carlo device simulation
[DE92-019375] 05 p1275 N93-15884
Development of an electrical impedance computed tomographic two-phase flows analyzer
[DE92-040527] 05 p1155 N93-15923
Tokamak turbulence in self-regulated differentially rotating flow and L-H transition dynamics
[DE93-000443] 05 p1310 N93-16451
Tethers 05 p1089 N93-16915
Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477
An experimental test of the LPM effect: Bremsstrahlung suppression at high energies
[DE93-004019] 06 p1660 N93-19495
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization
09 p2600 N93-24695
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Momentum transport through the chromosphere
12 p3852 N93-31677
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

MONATOMIC GASES
Computer program for calculating and fitting thermodynamic functions
[NASA-RP-1271] 03 p0728 N93-12967
Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614
Perturbative nearly-degenerate four-wave mixing lineshapes in gases
[DE93-002673] 07 p1850 N93-21490
The Interstellar Gas Experiment: Analysis in progress
11 p3639 N93-29380
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403

MONATOMIC MOLECULES
A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143

MONEL (TRADEMARK)
Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567

MONGOLIA
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574

MONITORS
Authentication algorithm for the universal Authenticated Item Monitoring Systems (AIMS)
[DE92-018826] 02 p0408 N93-11378
Rotorcraft health and usage monitoring systems: A literature survey
[DOT/FAA/RD-91/6] 02 p0206 N93-11461
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
A model-based reasoning approach to sensor placement for monitorability 02 p0391 N93-11923
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Test and evaluation report of the Physio Control Defibrillator/Monitor, Model LifePak(tm) 6s
[AD-A255691] 04 p0933 N93-14103
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3
[AD-A255849] 04 p0881 N93-14105
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715
Discussion for the ideal AIMS
04 p0793 N93-15153
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU]
05 p1304 N93-17273
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
An artificial intelligence-based structural health monitoring system for aging aircraft
08 p2465 N93-22185
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787

Contamination measurements on experiment M0003
10 p2998 N93-28273
Environmental Verification Experiment for the Explorer Platform (EVEEP)
11 p3266 N93-28726
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402
Computer-controlled alignment for a 2000-line color monitor
11 p3247 N93-30324
Daily exercise routines
12 p3689 N93-31455
Intelligent security assessment for a mobile robot
[AD-A265003] 12 p3799 N93-32078

MONKEYS
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259

MONOCHROMATORS
Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
The solar ultraviolet network subtractive double monochromator
01 p0183 N93-10931
Emittance, brilliance, and bandpass issues related to an inclined crystal monochromator
[DE92-019671] 03 p0721 N93-12881
X-ray monochromator
[NASA-CASE-MFS-28492-1] 04 p0982 N93-14711
Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument
[AD-A256830] 05 p1166 N93-15688
Simulated high heat load performance of an inclined crystal monochromator
[DE93-000506] 05 p1326 N93-17378
Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Measurement of the rotation Raman spectra of nitrogen, oxygen, and water vapor under conditions of a temperature humidity lidar
[GKSS-92/E/32] 11 p3485 N93-31018
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

MONOCRYSTALS
U SINGLE CRYSTALS

MONOCULAR VISION
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3288] 06 p1439 N93-18333
Automatic modeling of nonpolyhedral objects by monocular observation
[ETN-93-92678] 07 p2068 N93-20898

MONOIDS
The many disguises of accumulation
[TR-91-26] 05 p1237 N93-16369
Antirational transductions and their language families
[ETN-93-93794] 11 p3611 N93-28525

MONOLITHIC CIRCUITS
U INTEGRATED CIRCUITS

MONOMERS
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
Computer simulations of epoxy adhesive monomer interactions with alumina surfaces
[AD-A257119] 05 p1121 N93-16073
Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon
[DE93-002550] 06 p1482 N93-18411
Molecular-scale hybrid polymer ceramics
06 p1496 N93-18487
High temperature polymer from maleimide-acetylene terminated monomers
[NASA-CASE-LAR-14475-1] 06 p1495 N93-19327
Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398
Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407
Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900

MONOMOLECULAR FILMS
NT LANGMUIR-BLODGETT FILMS
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803

MONOPLANES
NT A-6 AIRCRAFT
NT A-7 AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT C-130 AIRCRAFT
NT C-135 AIRCRAFT
NT C-160 AIRCRAFT
NT F-4 AIRCRAFT
NT F-104 AIRCRAFT
NT MIRAGE AIRCRAFT
NT P-3 AIRCRAFT
NT T-38 AIRCRAFT
NT U-2 AIRCRAFT

MONOPOLE ANTENNAS
Widebanding techniques for VHF antennas, 1
[AD-A259301] 08 p2260 N93-22399
A computer analysis of a conical monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 2
[AD-A262098] 10 p3027 N93-27670
A computer analysis of a conicai monopole for use at Naval High Frequency Direction Finding Receiving Sites, part 1
[AD-A262099] 10 p3027 N93-27671
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882

MONOPOLES
NT MAGNETIC MONOPOLES
Far-zone field of a monopole element on a disk ground plane above flat earth
[AD-A253580] 01 p0070 N93-10091
Monopole elements with disk ground planes on flat earth: Atlas of directivity, radiation efficiency, radiation resistance, and input impedance
[AD-A257911] 06 p1503 N93-18366
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
Computation of far-field helicopter rotor tone noise
[ONERA-P-1990-5] 11 p3562 N93-30110
Gravitation of global topological defects
12 p3757 N93-31130

MONOPROPELLANTS
Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application
01 p0023 N93-10042
DSP propulsion system launch configuration and related testing
01 p0024 N93-10048
Reusable Reentry Satellite (RRS): Propulsion system trade study
[NASA-CR-186527] 05 p1087 N93-16720
Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Cargo transfer vehicle RCS propellant contamination issues
08 p2136 N93-22228
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Evaluation of low power augmented hydrazine thrusters
10 p2927 N93-27216
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063

MONOPULSE RADAR
Method and apparatus for determining target elevation angle, altitude and range, and the like in a monopulse radar system with reduced multipath errors
[AD-D015622] 08 p2272 N93-24232
Evolution of radar data processing in the French air traffic control system
11 p3247 N93-30325

MONOSACCHARIDES
NT GLUCOSE
NT XYLOSE
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351

MONOTECTIC ALLOYS
FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311

MONOTONE FUNCTIONS
De Finetti representations of survival functions level to a product measure
[AD-A253623] 01 p0146 N93-10107
Construction of monotone extensions to boundary functions
[MEMO-1045] 05 p1268 N93-16845
Finite type structures within combinatory algebras
[ML-91-06] 05 p1273 N93-17781
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Comparison properties of stochastic decision free Petri nets
[INRIA-RR-1433] 06 p1649 N93-18646
Positivity-preserving numerical schemes for multidimensional advection
[NASA-TM-106055] 10 p3038 N93-27091

MONSOONS
Interannual variabilities of the East Asian summer monsoon and tropical sea surface temperatures
02 p0372 N93-12534
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves
03 p0665 N93-13760
Late quaternary time series of Arabian Sea productivity: Global and regional signals
06 p1580 N93-18969
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period
08 p2405 N93-23219
A functional implementation of the Jacobi eigen-solver
[DE93-007349] 11 p3549 N93-29769
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

MONTANA
Search for a meteoritic component at the Beaverhead impact structure, Montana
01 p0116 N93-10158
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557

MONTE CARLO METHOD
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Imaging of BL Lac objects
01 p0177 N93-10884
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars
[DE92-018367] 02 p0485 N93-11695
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Curve fitting and error modeling for the digitization process near the Nyquist rate
[DE92-018189] 02 p0286 N93-12417
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500

Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
A neural network approach for the investigation of chemical phenomena
[DE92-019205] 03 p0691 N93-13079
A fresh look at (e,e(prime)) scattering from light nuclei: A GFMC approach
[DE92-016377] 03 p0703 N93-13246
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Monte Carlo calculation of ionization and excitation rates in electron aurora
[ISAS-RN-645] 03 p0652 N93-13405
The use of degradation measures in assessing reliability 03 p0573 N93-13607
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176
Monte Carlo modeling of the resurfacing of Venus 04 p1025 N93-14299
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Monte Carlo analysis of energy deposition in solid state materials by 400 and 200 MeV electrons
[AD-A255335] 04 p0991 N93-14537
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814
An iterative Monte Carlo method for nonconjugate bayesian analysis
[AD-A255991] 04 p0971 N93-15110
A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191
Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges
[DE92-040226] 04 p0989 N93-15422
A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Time stability of Monte Carlo device simulation
[DE92-019375] 05 p1275 N93-15884
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Simulation of vortex-line pinning by defects in the Y-Ba-Cu-O system
[DE92-041185] 05 p1318 N93-16205
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Four-fermion operators with improved nearest-neighbour action
[PREPRINT-805] 05 p1287 N93-16443
B(sub c) production --- pseudoscalar meson
[PREPRINT-806] 05 p1287 N93-16444
The direct Monte Carlo method for calculating alloy phases
[DE93-000436] 05 p1113 N93-16450
Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839
Monte Carlo shower counter studies
[NASA-CR-191364] 05 p1243 N93-16933
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
Phase diagram by frustrated vortices in Potts models
[ROM1F-92-860] 05 p1281 N93-17217
Electromagnetic scattering in clouds 05 p1142 N93-17327
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
Modeling the uncertain impacts of climate change
[DE92-041339] 05 p1204 N93-17370
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Monte Carlo simulation of minimum bias events at the LHC energy
[NOTA-INTERNA-969] 05 p1294 N93-17544
Muon rates at the LHC
[NOTA-INTERNA-971] 05 p1300 N93-17645
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics
[NOTA-INTERNA-991] 06 p1653 N93-17942
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
Optimization techniques applied to passive measures for in-orbit spacecraft survivability
[NASA-CR-184486] 06 p1466 N93-18859
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054
A simulation of corrosion fatigue life distribution in low alloy steel 07 p1922 N93-20340
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
Evaluation and comparative study of combinatorial optimization algorithms: Application to the problem of process placement
[RR-886-I] 07 p2043 N93-20798
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
Numerical finite element analysis of damage using Monte Carlo techniques 07 p1842 N93-21522
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
Many-body effects in Cu(2+)(H2O)(sub m) clusters
[DE93-002988] 07 p2082 N93-21752
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
Improving the chi-squared approximation for bivariate normal tolerance regions
[NASA-TP-3304] 08 p2472 N93-22670
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
Monte Carlo variance reduction approaches for non-Boltzmann tallies
[DE93-005665] 08 p2467 N93-22910
A local exponential transform method for global variance reduction in Monte Carlo transport problems
[DE92-018992] 08 p2468 N93-22926
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Quantum Monte Carlo simulation on Hubbard model for high temperature superconductivity 08 p2507 N93-23395
The meaning and utility of confidence
[AD-A259646] 08 p2472 N93-23655
The kinematics of stars and gas in the galactic disk 08 p2550 N93-23991
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
The theory behind the SOCRATES code
[AD-A259987] 08 p2196 N93-24298
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Monte-Carlo methods make Dempster-Shafer formalism feasible
[NASA-CR-192945] 09 p2828 N93-25140
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors 09 p2772 N93-25535
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
A numerical simulation of adsorption onto a crystalline surface
[AD-A261079] 09 p2866 N93-25781
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-26314
Monte Carlo approach to the approximation of invariant measures
[PB93-159069] 09 p2830 N93-26317
Extraction of volatiles and metals from extraterrestrial materials 10 p2997 N93-26682
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
Reliability analysis of complex models using sure bounds
[NASA-CR-191445] 10 p3091 N93-26897
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
A study of electron transfer using a three-level system coupled to an ohmic bath 10 p3145 N93-27346
Results on Monte-Carlo simulations of a microstrip gas counter
[NIKHEF-H/92-10] 10 p3040 N93-27541
Convergence of compact lattice scalar field theory to its continuum limit
[SSCL-PREPRINT-771] 10 p3156 N93-27584
Simulations of solvent effects on confined electrolytes
[AD-A262294] 10 p3133 N93-27677
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
Structure and thermodynamics of the soft ion model electrolyte solutions
[AD-A262293] 10 p3136 N93-28246
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF 10 p3008 N93-28282
The Monte Carlo/S(sub N) hybrid method with orthogonal interface basis vectors
[DE93-005462] 10 p3104 N93-28299
Modified goodness-of-fit tests for the Weibull distribution
[AD-A262552] 11 p3553 N93-28574
A modified Anderson Darling goodness-of-fit test for the gamma distribution with unknown scale and location parameters
[AD-A262486] 11 p3553 N93-28760
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763

Meson-meson interactions and phi-enhancement in nucleus collisions
[DE93-010725] 11 p3565 N93-28831
Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
On the value of function evaluation location information in Monte Carlo simulation
[AD-A263662] 11 p3554 N93-29292
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857
Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems
[DE93-007610] 11 p3281 N93-30509
Multidimensional intermittency in hadronic collisions
[DE93-010562] 11 p3577 N93-30532
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Monte-Carlo simulations of secondary electron emission from CsI, induced by 1-10 keV x rays and electrons
[DE93-604906] 12 p3818 N93-31239
Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233

MONTMORILLONITE
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars 12 p3865 N93-31954

MOODS
Effects of caffeine on mental performance and mood: Implications for aircrew members 12 p3783 N93-32269

MOON
The possibility of concrete production on the Moon 03 p0554 N93-13988
Space resources. Volume 4: Social concerns
[NASA-SP-509-VOL-4] 05 p1377 N93-16857
Utilization of space resources in the space transportation system 05 p1384 N93-16912
The Moon: Biogenic elements 06 p1591 N93-18548
Mission to the Moon: Europe's priorities for the scientific exploration and utilisation of the Moon
[ESA-SP-1150] 07 p2099 N93-21013
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Science missions for lunar resources exploration 10 p2953 N93-28044
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
Lunar science: Using the Moon as a testbed 11 p3650 N93-28821

MOONQUAKES
A seismic risk for the lunar base
[CONTRIB-769] 05 p1396 N93-17439
Lunar regolith densification 11 p3276 N93-29115

MOONS
U NATURAL SATELLITES

MOORING
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Development of moored oceanographic spectroradiometer
[NASA-CR-190883] 03 p0670 N93-13708
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
Improved fatigue life for moorings
[PB93-161198] 09 p2730 N93-26320
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943

MOORINGS
U MOORING

MORAINES
U GLACIAL DRIFT

MORALE
Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660

MORL
U MANNED ORBITAL LABORATORIES

MORNING
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732

MORPHOLOGY
NT GEOMORPHOLOGY
NT ISOMORPHISM
NT POLYMORPHISM
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
X ray morphology of clusters of galaxies 02 p0482 N93-11475
Morphology and physics of supernova remnants 02 p0482 N93-11476
Dynamics and pattern selection at the crystal-melt interface
[DE92-040210] 03 p0724 N93-13577
Galaxies with spectral energy distributions peaking at 60 micrometers: Morphology and activity explained by interactions 03 p0756 N93-13959
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae 03 p0768 N93-14092
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163
Large-volume lava flow fields on Venus: Dimensions and morphology 04 p1033 N93-14339
Morphological analysis of ionomers
[DE92-040162] 04 p0852 N93-15415
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
Morphology, properties, and stability of thermoplastic polymer blends
[ETN-92-92791] 05 p1124 N93-16491
Ground testing of bioconvective variables such as morphological characterizations and mechanisms which regulate macroscopic patterns 05 p1224 N93-17303
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
A comparison study of the ionospheric convection with magnetospheric particle morphology and field aligned currents 06 p1723 N93-19524
Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Examination of laser conditioning using atomic force microscopy
[DE93-001328] 07 p1909 N93-20020
Fuzzy connectivity and mathematical morphology
[TELECOM-PARIS-92-D-001] 07 p2053 N93-20940
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites
[DE93-004063] 07 p1844 N93-21842
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Feature-oriented signal processing under nonlinear partial differential equations
[AD-A259951] 08 p2470 N93-24245
First European tri-service advanced materials workshop: Compressive strength in rigid-rod polymers
[AD-A259997] 08 p2242 N93-24300
Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing 09 p2747 N93-24834
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Flow and morphological conditions associated with the directional solidification of aqueous ammonium chloride
[DE93-008886] 09 p2644 N93-25495
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Luminescence probe studies of ionomers. 3: Distribution of decay rate constants for tris bipyridyl ruthenium(2) in Nafion membranes
[AD-A260764] 09 p2645 N93-25916
Evolution of luminous IRAS galaxies: Radio imaging 10 p3184 N93-26786
CO deficiency in galaxies of the Fornax cluster? 10 p3185 N93-26791
The dependence on morphology of the gas content in galactic disks 10 p3185 N93-26793
The multicomponent structure of bulges 10 p3187 N93-26800
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2 10 p3188 N93-26811
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Mathematical morphology as a tool for shape description
[CWI-BS-R9216] 10 p3119 N93-27991
Gray-scale granulometries compatible with spatial scalings
[CWI-BS-R9212] 10 p3121 N93-28088
Multiscale morphological filtering for analysis of noisy and complex images 11 p3582 N93-28789
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
Manifold shape: From differential geometry to mathematical morphology
[CS-9204] 11 p3552 N93-31012

MORPHOTROPISM
U ISOMORPHISM

MORSE POTENTIAL
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404

MORTALITY
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
The cumulative formulation of (physiologically) structured population models
[CWI-AM-R9205] 10 p3124 N93-27298
Radiation exposure in aircraft 12 p3753 N93-31928

MOS (JAPANESE SPACECRAFT)
U JAPANESE SPACECRAFT

MOS (SEMICONDUCTORS)
U METAL OXIDE SEMICONDUCTORS

MOSAICS
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563

MOSFET
U FIELD EFFECT TRANSISTORS

MOSS (SPACE STATIONS)
U SPACE STATIONS
MOSSBAUER EFFECT
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
Moessbauer spectroscopy for lunar resource assessment: Measurement of mineralogy and soil maturity 05 p1389 N93-17258
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-28360
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
MOTHS
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
MOTILITY
U LOCOMOTION
MOTION
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
MOTION EQUATIONS
U EQUATIONS OF MOTION
MOTION PERCEPTION
Visual psychophysics of egomotion
[AD-A248349] 02 p0386 N93-11488
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Retinal modeling: Segmenting motion from spatio-temporal inputs using neural networks
[AD-A258854] 06 p1599 N93-19369
Robot motion vision by fixation
[AD-A259456] 07 p2046 N93-20241
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
Neural basis of motion perception
[AD-A261452] 09 p2798 N93-26349
Effect of image update rate on moving-target identification range
[AD-A261562] 09 p2591 N93-26462
A motion detector based on a neural network 11 p3356 N93-30224
A design for a visual motion transducer
[OUEL-1960/92] 12 p3785 N93-31054
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability 12 p3776 N93-31237
MOTION PICTURES
The acquisition of velocity fields via the automatic analysis of motion, exemplarily demonstrated in a rotating fluid
[MPIS-102/1991] 07 p1902 N93-21023
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
MOTION SICKNESS
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
Adaptation to transient postural perturbations
[NASA-CR-190959] 05 p1227 N93-16699
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
A toposcopic investigation of brain electrical activity induced by motion sickness
[AD-A259024] 06 p1599 N93-18952
A demonstration of motion base design alternatives for the National Advanced Driving Simulator
[NASA-TM-103881] 08 p2428 N93-24490
Autonomic physiological data associated with simulator discomfort
[NASA-CR-177609] 09 p2794 N93-24738
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility
[NASA-CR-193304] 12 p3774 N93-32364
MOTION SIMULATION
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
Beyond keyframing: An algorithmic approach to animation 04 p0957 N93-15565
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Motion simulation of underwater vehicles
[VTT-PUBS-97] 06 p1623 N93-18698
Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
Three-dimensional graphical representation of objects according to movement data in realtime
[ESA-TT-1258] 11 p3521 N93-30104
Visualization techniques for analyzing control of human movement: Affine mappings between multi-dimensional spaces 11 p3508 N93-30204
MOTION SIMULATORS
Generating natural-looking motion for computer animation 04 p0956 N93-15564
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
MOTION STABILITY
NT AERODYNAMIC STABILITY
NT AIRCRAFT STABILITY
NT ATTITUDE STABILITY
NT BOUNDARY LAYER STABILITY
NT DIRECTIONAL STABILITY
NT FLAME STABILITY
NT FLOW STABILITY
NT GYROSCOPIC STABILITY
NT HOVERING STABILITY
NT LATERAL STABILITY
NT LONGITUDINAL STABILITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT ROTARY STABILITY
NT SPACECRAFT STABILITY
NT WEIBEL INSTABILITY
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
On the dynamical structure of the Trojan group of asteroids 06 p1721 N93-19269
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
MOTIVATION
Assessment of morale in Turkish Air Force pilots with two clinical psychological tests 06 p1423 N93-19660
Exploring the link between intrinsic motivation and quality
[AD-A261722] 09 p2722 N93-26246
MOTOR SYSTEMS (BIOLOGY)
U EFFERENT NERVOUS SYSTEMS
MOTOR VEHICLES
NT AUTOMOBILES
NT ELECTRIC AUTOMOBILES
NT ELECTRIC MOTOR VEHICLES
NT TRACKED VEHICLES
NT TRACTORS
NT TRUCKS
Steering system of a vehicle, such as a snow removing machine for airfields
[CA-PATENT-APPL-SN-1293201] 01 p0091 N93-10367
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Visual system performance for driving simulators
[MBB-FE-521-S-PUB-0497] 08 p2132 N93-22393
Emergency vehicle alert system, phase 2
[NASA-CR-192464] 08 p2260 N93-22455
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
MOTORS
NT ELECTRIC MOTORS
NT INDUCTION MOTORS
NT MICROMOTORS
NT SERVOMOTORS
NT TORQUE MOTORS
Redundant drive current imbalance problem of the Automatic Radiator Inspection Device (ARID) 06 p1552 N93-19398
MOUNTAINS
NT ALPS MOUNTAINS (EUROPE)
NT ROCKY MOUNTAINS (NORTH AMERICA)
NT SIERRA NEVADA MOUNTAINS (CA)
The Panther Mountain circular structure, a possible buried meteorite crater 01 p0113 N93-10150
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Atmospheric dispersion in mountain valleys and basins 02 p0355 N93-11920
Aircraft accident/incident summary report: Controlled flight into terrain, Bruno's Inc., Beechjet, N25BR, Rome, Georgia, December 11, 1991
[PB92-910404] 03 p0498 N93-13470
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Viscoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism 04 p1027 N93-14313
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
Mountain top measurements of beta(9.2 microns) 07 p2009 N93-20099
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications 09 p2752 N93-24862
A three-dimensional study of the influence of mountains on a front
[AD-A261927] 09 p2787 N93-26545
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
MOUNTING
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
High performance sapphire windows 08 p2310 N93-22198
MOUNTS
U SUPPORTS
MOVEMENT
U MOTION
MOVING TARGET INDICATORS
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
Effect of image update rate on moving-target identification range
[AD-A261562] 09 p2591 N93-26462
MPP (COMPUTERS)
U MASSIVELY PARALLEL PROCESSORS
MRAC (SYSTEMS)
U MODEL REFERENCE ADAPTIVE CONTROL
MRCA AIRCRAFT
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight 01 p0151 N93-10686
MSAT
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960
L-band antenna design for MSAT mission 04 p0812 N93-14961
Ku-band antenna design for MSAT mission 04 p0813 N93-14963
The Canadian mobile satellite system 08 p2275 N93-23515
MSM (SEMICONDUCTORS)
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
MTBF
Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
MTF
U MODULATION TRANSFER FUNCTION

MTFF (SPACE STATION)
U MAN TENDED FREE FLYERS
MTI RADAR
U MOVING TARGET INDICATORS
MUD
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217
MUFFLERS
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-28392
MULLITES
Dislocation and pores in mullite from diphasic gels
[DE92-040384] 03 p0550 N93-12999
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Mullite whiskers and mullite-whisker felt 09 p2642 N93-25586
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
MULTI-ROLE COMBAT AIRCRAFT
U MRCA AIRCRAFT
MULTIBEAM ANTENNAS
Beam forming antenna system
[PATENT-1-265-236] 01 p0067 N93-10111
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Project and test of a reconfigurable multiple feed system in C-band
[MBB-UK-0162-92-PUB] 02 p0278 N93-11009
A multiple-aperture multiple-beam EHF antenna for satellite communications
[AD-A256020] 04 p0858 N93-14426
L-band antenna design for MSAT mission 04 p0812 N93-14961
Coupling losses in multiple beam antennas
[AD-A257494] 06 p1500 N93-17903
Status of the Canadian military Multibeam Antenna (MBA) development for EHF SATCOM 11 p3374 N93-30334
Comparison and design of multiple beam antenna feed networks 11 p3374 N93-30335
MULTICHANNEL COMMUNICATION
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
MULTICHANNEL PLATES
U MICROCHANNEL PLATES
MULTIENGINE VEHICLES
Mandatory multi-engined training syllabus
[CAP-601] 12 p3776 N93-31729
MULTIGRID METHODS
An adaptive differencing scheme for elliptic flows 02 p0297 N93-11197
Uniform convergence estimates for multigrid V-cycle algorithms with less than full elliptic regularity
[DE92-041275] 05 p1238 N93-16532
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Improved shock-capturing of Jameson's scheme for the Navier-Stokes equations
[MEMO-1041] 05 p1163 N93-16842
Multigrid for semiconductor device simulation: Cell-centered or vertex-centered multigrid?
[CWI-NM-R9118] 05 p1271 N93-17553
Adaptive multigrid for the steady Euler equations
[CWI-NM-R9122] 05 p1164 N93-17557
Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-35] 06 p1524 N93-17847
An efficient algorithm for the computation of Galerkin coarse grid approximation for the incompressible Navier-Stokes equations
[REPT-92-40] 06 p1616 N93-17872
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
Copper Mountain conference on interative methods, volume 1
[DE93-004993] 07 p2056 N93-21706
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
Parallel computing strategies for block multigrid implicit solution of the Euler equation 10 p2922 N93-27190
On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
A multigrid extension of the FFT for the numerical inversion of Fourier and LaPlace transforms
[TRITA-NA-9204] 11 p3548 N93-29024
The three-dimensional Multi-Block Advanced Grid Generation System (3DMAGGS)
[NASA-TM-108985] 11 p3420 N93-29155
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
A multilevel approach to minimum cost network flows
[AD-A264008] 11 p3550 N93-29978
WBNFLOW: Multi-grid/multi-block potential solver for compressible flow. User's guide
[FFA-TN-1992-43] 12 p3723 N93-31146
Fast computation of magnetohydrostatic equilibria using Euler potentials and multigrid methods 12 p3877 N93-31401
Benchmark solutions for the incompressible Navier-Stokes equations in general coordinates on staggered grids
[REPT-92-67] 12 p3724 N93-31496
Roe's scheme and the MUSCL technique for the Navier-Stokes equations
[MEMO-1090] 12 p3725 N93-31527
Numerical study of a multigrid method with four smoothing methods for the incompressible Navier-Stokes equations in general coordinates
[REPT-93-04] 12 p3725 N93-31547
An ILU smoother for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-91] 12 p3725 N93-31634
Multigrid schemes for time-dependent incompressible Navier-Stokes equations
[REPT-92-102] 12 p3725 N93-31657
Galerkin coarse grid approximation in multigrid for the incompressible Navier-Stokes equations
[REPT-92-103] 12 p3726 N93-31658
On waveform multigrid method
[NASA-CR-191455] 12 p3808 N93-31843
Mapping robust parallel multigrid algorithms to scalable memory architectures
[NASA-CR-191470] 12 p3793 N93-32359
MULTILAYER INSULATION
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
MULTILAYER STRUCTURES
U LAMINATES
MULTIMEDIA
Exploiting captions in retrieval of multimedia data
[AD-A255184] 02 p0479 N93-12381
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
Design and implementation of a graphical user interface for a multimedia database management system
[AD-A257577] 06 p1686 N93-18179
NASA scientific and technical information program multimedia initiative
[NASA-TM-106982] 06 p1693 N93-19900
Intelligent information retrieval for a multimedia database using captions
[AD-A260438] 08 p2528 N93-24113
US Army evaluation of the Electronic Map Data (EMD) prototype
[AD-A261693] 09 p2757 N93-26369
Natural language generation
[AD-A262578] 11 p3524 N93-28579
A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362
A prototype of a faculty and staff executive information system
[AD-A264852] 11 p3623 N93-30907
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
End users: New products and services 12 p3837 N93-31220
The computer integrated documentation project: A merge of hypermedia and AI techniques 12 p3801 N93-32148
Automation and hypermedia technology applications 12 p3843 N93-32155
MULTIPATH TRANSMISSION
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Multipath effects in a Global Positioning Satellite system receiver 05 p1059 N93-17311
GPS Interferometry
[NASA-CR-192301] 06 p1432 N93-18873
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
GPS multipath errors in the precision landing environment 08 p2106 N93-22569
Multipath runway exits and taxiways
[DOT/FAA/CT-92/19] 08 p2134 N93-23217
Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders 08 p2265 N93-23601
A new passive SSL technique for HF radiolocation 08 p2267 N93-23609
Radio location through high resolution eigenstructure processing techniques that yield accurate multipath AOA and differential time delay estimates 08 p2270 N93-23626
Method and apparatus for determining target elevation angle, altitude and range, and the like in a monopulse radar system with reduced multipath errors
[AD-D015622] 08 p2272 N93-24232
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
A new analysis of the multipath radar data measured by standard telecommunication laboratories
[AD-A261981] 10 p3026 N93-27643
Multipath noise reduction spread spectrum signals
[NASA-CASE-NPO-18970-1-CU] 10 p3028 N93-28126
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
MULTIPHASE FLOW
NT TWO PHASE FLOW
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Mathematical analysis of reactive multiphase flows
[AD-A253854] 01 p0083 N93-10810
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670

Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Optimization of circular orifice jets mixing into a heated cross flow in a cylindrical duct
[NASA-TM-105984] 04 p0800 N93-15359
Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407] 05 p1306 N93-15670
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713] 05 p1163 N93-16939
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Fluids in Space
[ESA-SP-353] 08 p2246 N93-22830
Heat and mass transfer in polyphase flows
08 p2248 N93-22844
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems
09 p2700 N93-25472
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326

MULTIPHOTON ABSORPTION
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics
[AD-A250930] 01 p0088 N93-10247
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
Quasiclassical approach to ionization of atoms by strong laser pulses: The comparison with the simpleman's models and Newtonian dynamics
[DE93-008738] 10 p3137 N93-28463
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665

MULTIPLE ACCESS
NT ALOHA SYSTEM
NT CODE DIVISION MULTIPLE ACCESS
NT FREQUENCY DIVISION MULTIPLE ACCESS
NT TIME DIVISION MULTIPLE ACCESS
A simple, effective media access protocol system for integrated, high data rate networks
02 p0279 N93-11119
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
Computation and communication constraints for distributed estimation systems
[AD-A256287] 04 p0970 N93-14456
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Communications and tracking technology discipline
10 p2972 N93-27856
Blocking probabilities in a loss system with arrivals in geometrically distributed batches and heterogeneous service requirements
[MEMO-1074] 12 p3812 N93-32392

MULTIPLE FREQUENCY RADAR
U MULTISPECTRAL RADAR

MULTIPLE INPUT MULTIPLE OUTPUT
U MIMO (CONTROL SYSTEMS)

MULTIPLE INSTRUCTION MULTIPLE DATA STREAM
U MIMD (COMPUTERS)

MULTIPLE TARGET TRACKING
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Using an assumption-based truth maintenance system to switch contexts during data fusion processing
[AD-A256123] 05 p1258 N93-15933
Enhancement of multiple target track simulation
[AD-A257224] 05 p1278 N93-16236
Minimum effort interception of multiple targets
10 p2925 N93-27205

MULTIPLETS
U FINE STRUCTURE

MULTIPLEX TRANSMISSION
U MULTIPLEXING

MULTIPLEXERS
U MULTIPLEXING

MULTIPLEXING
NT TIME DIVISION MULTIPLEXING
NT WAVELENGTH DIVISION MULTIPLEXING
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735
Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116
Logarithmic-periodic microwave multiplexer
[AD-D015475] 05 p1147 N93-16482
The unofficial AMPLEX owner's manual
[DE93-001437] 05 p1148 N93-16651
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239
Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852
Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Cross-switched MICRAD seeker
[AD-D015676] 09 p2691 N93-26142
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
A dual polarized broadband multifrequency Earth station feed 11 p3371 N93-30319

MULTIPLICATION
Fast multiresolution algorithms for matrix-vector multiplication
[NASA-CR-189721] 03 p0696 N93-12942
Purposive discovery of operations
[NASA-TM-108116] 04 p0963 N93-14765
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623

MULTIPLIER PHOTOTUBES
U PHOTOMULTIPLIER TUBES

MULTIPLIERS
A fast pipelined inner product unit
[REPT-92-025] 02 p0411 N93-11594
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications
10 p3012 N93-27734
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves
10 p3012 N93-27737
Superlattice barrier varactors
10 p3012 N93-27738
A 200 GHz tripler using single barrier varactor
10 p3013 N93-27740
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535

MULTIPOLAR FIELDS
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032
Polarization effects and multipolarization SAR
03 p0564 N93-13054
Radiometric calibration of SAR systems
03 p0564 N93-13055

MULTIPOLES
Molecular dynamics modeling of electric double layer
[AD-A263068] 10 p3134 N93-27954
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336

MULTIPROCESSING (COMPUTERS)
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Parallel sparse Cholesky factorization algorithms for shared-memory multiprocessor systems
[DE92-016829] 01 p0141 N93-10334
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Scalable parallel communications
02 p0279 N93-11117
Scattering on a ring of processors
02 p0410 N93-11482
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
Model-based vision for space applications
02 p0398 N93-11955
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
An implementation of a parallel MOL solver on the Intel Gamma parallel computer
[DE92-018947] 02 p0419 N93-12233
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
Testing and fault-tolerant design techniques for advanced digital architectures
[AD-A255013] 03 p0681 N93-12707
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
A portable multiprocessor interface for standard ML of New Jersey
[AD-A255639] 04 p0958 N93-14151
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
The Sandia Airborne Computer (SANDAC)
[DE92-014046] 05 p1231 N93-15878
High speed networks, visualization, and massive parallelism in the Advanced Computing Laboratory
[DE92-017412] 05 p1254 N93-15880
Proceedings of the Eleventh Annual ACM Symposium on Principles of Distributed Computing
[AD-A257294] 05 p1233 N93-15893
An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364
Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
Parallel algorithms for simulating continuous time Markov chains
[NASA-CR-189729] 05 p1238 N93-16550

Scalable problems and memory bounded speedup
[NASA-CR-189726] 05 p1230 N93-16554
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Parallel processing for scientific computations
[NASA-CR-191910] 05 p1256 N93-17028
PDDP: A Parallel Data Distribution Preprocessor
[DE92-040400] 05 p1256 N93-17207
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Static scheduler for hard real-time tasks on multiprocessor systems
[AD-A257663] 05 p1257 N93-17724
Development of a protocol usage guideline for conservative parallel simulations
[AD-A258851] 06 p1630 N93-19070
A comparison of multiprocessor scheduling methods for iterative data flow architectures
[NASA-CR-189730] 06 p1521 N93-19107
The performance of cache-based error recovery in multiprocessors
[NASA-CR-192142] 07 p2029 N93-20006
Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232
Coincident pulse techniques for hybrid electronic optical computer systems
[AD-A258692] 07 p2028 N93-20375
Study and development of a multiprocessor interface circuit, volume 1
[ECL-91-11-VOL-1] 07 p2044 N93-21000
A macro-micro robot for precise force applications 08 p2465 N93-22158
Investigation of the possibility of success of the Futurebus+ as a military and commercial standard in the current context, revision A
[CTN-93-60712] 08 p2445 N93-22474
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Shiva Mark 2 hardware architecture, version 1
[AD-A259534] 08 p2449 N93-24039
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
Hyperstructures as computer architectures for high performance multiprocessor systems
[ISBN-0-315-58975-2] 08 p2433 N93-24613
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
Toward a parallel recursive spectral bisection mapping tool
[DE93-006632] 09 p2816 N93-25414
Gigabit network communications research
[AD-A260644] 09 p2675 N93-25640
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
Embedded multiprocessor technology for VHSIC insertion 10 p2964 N93-27713
Automatic management of parallel and distributed system resources 10 p2965 N93-27715
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[CWI-BS-R9211] 10 p3108 N93-27990
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
A modular head/eye platform for real-time reactive vision
[OUEL-1941/92] 11 p3505 N93-28897
Preemptive scheduling with variable profile, precedence constraints and due dates
[INRIA-RR-1622] 11 p3538 N93-28937
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
Use of a genetic algorithm to solve two-fluid flow problems on an NCUBE multiprocessor computer
[DE93-009630] 11 p3425 N93-30184
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS) 11 p3364 N93-30278
A multiprocessor architecture for realtime robot control 11 p3372 N93-30327
Multiprocessing systems: Reliability modelling and analysis using multimode components and dependent failures
[AD-A264230] 11 p3540 N93-30364
The midway distributed shared memory system
[AD-A264645] 11 p3534 N93-30523
Promoting high-performance computing and communications
[ISBN-0-16-041828-3] 11 p3522 N93-30570
Multiprocessing MCNP on an IBM RS/6000 cluster
[DE93-008712] 11 p3540 N93-30633
Gigabit network communications research
[AD-A264895] 11 p3536 N93-31026
Symposium on Applied Mathematical Programming and Modeling (APMOD93): Volume of extended abstracts
[AD-A264091] 12 p3784 N93-31087
Periodic multiprocessor scheduling
[ETN-93-94043] 12 p3795 N93-31522
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
Decay-usage scheduling in multiprocessor and distributed systems. 1: Theory
[REPT-92-105] 12 p3795 N93-31864
Performance analysis of a large-grain dataflow scheduling paradigm
[NASA-TP-3323] 12 p3796 N93-32213
High performance FORTRAN without templates: An alternative model for distribution and alignment
[NASA-CR-191451] 12 p3792 N93-32323
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361

MULTIPROGRAMMING
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
Multiprocessing MCNP on an IBM RS/6000 cluster
[DE93-008712] 11 p3540 N93-30633
Performance analysis of a large-grain dataflow scheduling paradigm
[NASA-TP-3323] 12 p3796 N93-32213

MULTIPROPELLANTS
U ROCKET PROPELLANTS

MULTIRADAR TRACKING
U RADAR NETWORKS

MULTISENSOR APPLICATIONS
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Multispectral intelligent fusion techniques 08 p2352 N93-23564
German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis 08 p2158 N93-24361
Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792
Operational use of MOMS-02 (P2) data 09 p2752 N93-24866
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB] 09 p2706 N93-26000
Phase discriminating capacitive array sensor system
[NASA-CASE-GSC-13460-1] 09 p2691 N93-26104
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
The fusion of information via fuzzy integration 11 p3517 N93-29568
Sensor fusion for assured vision in space applications 12 p3824 N93-32105

MULTISPECTRAL BAND CAMERAS
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR 08 p2365 N93-23797

MULTISPECTRAL BAND SCANNERS
NT THEMATIC MAPPERS (LANDSAT)
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646
Detection of polar stratospheric clouds from satellite 07 p1957 N93-21591
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding 08 p2445 N93-22157
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2 08 p2365 N93-23801
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data 08 p2365 N93-23802
SEOMAR: An Italian approach to the observation of the Mediterranean area 09 p2746 N93-24825
Operational use of MOMS-02 (P2) data 09 p2752 N93-24866
Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agricultural fields and forests
[BCRS-92-06] 11 p3460 N93-29320

MULTISPECTRAL LINEAR ARRAYS
Determination of lunar ilmenite abundance from remotely sensed data 10 p3208 N93-26689
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009

MULTISPECTRAL PHOTOGRAPHY
NT COLOR INFRARED PHOTOGRAPHY
NT INFRARED PHOTOGRAPHY
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
Remote sensing of water vapor features 07 p2010 N93-20107
Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
Cloud properties as inferred from HIRS/2 multi-spectral data 09 p2782 N93-25293
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803

Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637

MULTISPECTRAL RADAR
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878
RAMSES: Multi-spectral experimental radar station installed on board the Transall 06 p1446 N93-19925

MULTISTAGE COMPRESSORS
U TURBOCOMPRESSORS

MULTISTAGE ROCKET VEHICLES
NT ARIANE LAUNCH VEHICLE
NT ATLAS LAUNCH VEHICLES
NT PEGASUS AIR-LAUNCHED BOOSTER
NT SATURN 5 LAUNCH VEHICLES
NT TITAN LAUNCH VEHICLES
NT TITAN 4 LAUNCH VEHICLE
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle
[NASA-TP-3335] 10 p2955 N93-27016
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106116] 10 p2955 N93-27018

MULTISTATIC RADAR
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597

MULTITASKING (COMPUTERS)
U MULTIPROGRAMMING

MULTITEMPORAL ANALYSIS
U TEMPORAL RESOLUTION

MULTIVARIABLE CONTROL
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191943] 05 p1237 N93-16383
Theoretical constraints in the design of multivariable control systems
[NASA-CR-191900] 06 p1632 N93-18372
Multidisciplinary optimization of a controlled space structure using 150 design variables
[NASA-CR-4502] 08 p2125 N93-22799
An introduction to multivariable flight control system design
[AD-A260408] 08 p2131 N93-24087
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080

MULTIVARIATE STATISTICAL ANALYSIS
NT BIVARIATE ANALYSIS
NT COVARIANCE
NT ORTHOGONALITY
NT REGRESSION ANALYSIS
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Four-dimensional data assimilation of GALE data using a multivariate analysis scheme and a mesoscale model with diabatic initialization 04 p0919 N93-14198
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
The development of the Navy's multivariate optimum interpolation analysis system
[AD-A258569] 07 p2058 N93-20358
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
The joint normal modes of the coupled atmosphere-ocean system observed from 1967 to 1986
[MPIM-78] 08 p2396 N93-23637
Normal modes of the atmosphere as estimated by principal oscillation patterns and derived from quasi-geostrophic theory
[MPIM-81] 08 p2397 N93-23857
Time stability: An improvement of the multi-variance method for the oscillator noise analysis 09 p2839 N93-25036
Multivariate statistical analysis software technologies for astrophysical research involving large data bases 09 p2878 N93-25796
Time series analysis and multivariate analysis
[AD-A261014] 09 p2830 N93-25860
Bootstrapping multivariable U-quantiles and related statistics
[CWI-BS-R9215] 10 p3126 N93-28091
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Some statistical inference problems in linear models and variance components models and their applications
[AD-A264062] 11 p3555 N93-29923
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
Multivariate problems of statistics, combinatorics, reliability, and signal processing
[AD-A265213] 12 p3811 N93-32003
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233

MULTIVIBRATORS
NT FLIP-FLOPS

MUON SPIN ROTATION
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849

MUONS
Nucleon structure functions from deep inelastic muon scattering
[NIKHEF-H+K/92-01] 02 p0442 N93-11130
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
A search for point sources of cosmic ray muons using the MACRO detector 03 p0773 N93-13738
Experimental investigations in particle physics at intermediate energies
[DE93-000406] 05 p1284 N93-16160
Cosmic ray test of SDC prototype muon drift tubes
[DE93-001680] 05 p1400 N93-17182
Measurement of the branching ratio for D(+) yields (bar-K)*(892)(sup 0)mu(+)nu
[DE93-002414] 05 p1295 N93-17624
Search for pp decay to neutral H decay to (neutral Z)(neutral Z) decay to (mu +)(mu -)(mu +)(mu -) at the LHC
[NOTA-INTERNA-970] 05 p1300 N93-17644
Muon rates at the LHC
[NOTA-INTERNA-971] 05 p1300 N93-17645
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment
[NOTA-INTERNA-994] 06 p1536 N93-17810
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
Measurement of the cross-section ratio sigma(sub n)/sigma(sub p) in inelastic muon-nucleon scattering at very low x and Q(sup 2)
[DE93-002916] 06 p1658 N93-19749
An experimental study of the possible association of deep underground muons with astronomical point sources 08 p2549 N93-23596
High sensitivity tests of the standard model for electroweak interactions
[DE93-006186] 08 p2483 N93-23684
Quons, an interpolation between Bose and Fermi oscillators 10 p3141 N93-27312
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Studies of high energy phenomena using muons
[DE93-009373] 10 p3140 N93-28367
Exotic atoms
[DE93-010242] 11 p3564 N93-28611
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849

MURCHISON METEORITE
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684

MUSCLES
NT CONSTRICTORS
NT MYOCARDIUM
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Establishing laboratory standards for biological flight experiments
[NASA-CR-184402] 03 p0671 N93-12901
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531
Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989

MUSCULAR FATIGUE
Development and implementation of the MotoMir experiment on the Mir Space Station 08 p2159 N93-24363
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199

MUSCULAR FUNCTION
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Growth factor involvement in tension-induced skeletal muscle growth
[NASA-CR-193023] 10 p3083 N93-27113
Visualization techniques for analyzing control of human movement: Affine mappings between multi-dimensional spaces 11 p3508 N93-30204
Protein requirements in hypoxia or hypokinesia 12 p3778 N93-32244

MUSCULOSKELETAL SYSTEM
NT BONE MARROW
NT BONES
NT CARTILAGE
NT COLLAGENS
NT CONNECTIVE TISSUE
NT CONSTRICTORS
NT ELBOW (ANATOMY)
NT FEMUR
NT KNEE (ANATOMY)
NT MUSCLES
NT SPINE
NT TIBIA
NT WRIST
Publications of the space physiology and countermeasures program, Musculoskeletal Discipline: 1980-1990
[NASA-CR-4468] 03 p0743 N93-12898
Bone loss and human adaptation to lunar gravity 03 p0676 N93-14002
Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Musculoskeletal discipline science plan
[NASA-TM-108039] 06 p1600 N93-19892
The effect of microgravity on tremor (microvibration) 08 p2160 N93-24368
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102
Growth factor involvement in tension-induced skeletal muscle growth
[NASA-CR-193023] 10 p3083 N93-27113
The physiological limitations of man in the high G environment 11 p3503 N93-28861

MUSEUMS
Greenhouse Earth: A Traveling Exhibition
[DE93-002419] 06 p1572 N93-17912
Burst of energy
[DE93-005058] 07 p1988 N93-21833
MUSIC
Demodulation processes in auditory perception
[AD-A255748] 04 p0935 N93-15053
MUTAGENS
Limited toxicity and mutagenicity testing of five unicharge propellant compounds
[AD-A252339] 01 p0043 N93-10636
MUTATIONS
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023
A randomised schema mutator for evolutionary database optimisation
[TR-91-24] 05 p1356 N93-17595
Comparative mutagenesis of human cells in vivo and in vitro
[DE93-012269] 11 p3490 N93-28651
Control and circadian behavior by transplanted suprachiasmatic nuclei
[AD-A264553] 11 p3496 N93-30382
MYLAR (TRADEMARK)
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
MYOCARDIUM
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796
MYOELECTRICITY
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
MYOGLOBIN
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711

N

N-BODY PROBLEM
U MANY BODY PROBLEM
N-P JUNCTIONS
U P-N JUNCTIONS
N-TYPE SEMICONDUCTORS
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Ohmic contacts to compound semiconductors 01 p0076 N93-10830
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000072] 09 p2862 N93-25163
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
NACELLES
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
A European collaborative NLF nacelle flight demonstrator
[PNR-90992] 02 p0196 N93-11113
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
Numeric simulation of the aerodynamic flows around nacelles 03 p0577 N93-13202
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
NAKHLITES
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961
NAMING
NT NORMS
The great asteroid nomenclature controversy of 1801 06 p1704 N93-19145
From asteroid clusters to families: A proposal for a new nomenclature 06 p1705 N93-19151
From Ship to Shuttle: NASA Orbiter Naming Program, September 1988 - May 1989
[NASA-EP-276] 08 p2179 N93-23732
Agreement in naming objects and concepts for information retrieval 09 p2881 N93-25826
NAP-OF-THE-EARTH NAVIGATION
Flight test and analysis procedures for new handling criteria
[RAE-TM-FM-26] 01 p0008 N93-10803
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
Methodology investigation: Global Positioning System integration (GPS)
[AD-A261054] 09 p2586 N93-26237
Image-based ranging and guidance for rotorcraft
[NASA-CR-177608] 09 p2586 N93-26549
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays 10 p2920 N93-27177
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Flight evaluation of a computer aided low-altitude helicopter flight guidance system 11 p3260 N93-28869
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225
NAPHTHALENE
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
NARCOTICS
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
NARROWBAND
Integrated filter and detector array for spectral imaging
[NASA-CASE-NPO-18317-1-CU] 03 p0709 N93-13419
A statistical study of narrow bandwidth, high-latitude geomagnetic pulsations 03 p0660 N93-14068
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures 06 p1504 N93-18901
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Widebanding techniques for VHF antennas, 1
[AD-A259301] 08 p2260 N93-22399
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911
NASA PROGRAMS
NT APOLLO PROJECT
NT EARTH RESOURCES PROGRAM
NT GALILEO PROJECT
NT MAGELLAN PROJECT (NASA)
NT NASA SPACE PROGRAMS
NT NATIONAL AEROSPACE PLANE PROGRAM
NT NATIONAL LAUNCH VEHICLE PROGRAM
NT PROJECT SETI
NT ROVER PROJECT
NT SKYLAB PROGRAM
NT SUPERSONIC CRUISE AIRCRAFT RESEARCH
NT VIKING MARS PROGRAM
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 41)
[NASA-SP-7039(41)-SECT-1] 01 p0171 N93-10078
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
NASA Electronic Library System (NELS) database schema, version 1.2
[NASA-CR-190643] 01 p0172 N93-10451
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
The NASA CSTI high capacity power project
[NASA-TM-105813] 02 p0221 N93-11398
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
ISDN at NASA Lewis Research Center
[NASA-TM-105911] 02 p0419 N93-12410
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Coordinating Council. Seventh Meeting: Acquisitions
[NASA-TM-108020] 03 p0733 N93-12636
Coordinating Council. Third Meeting: STI Strategic Plans
[NASA-TM-108016] 03 p0733 N93-12670
Coordinating Council. Fourth Meeting: NACA Documents Database Project
[NASA-TM-108017] 03 p0734 N93-12671
Coordinating Council. Sixth Meeting: Who Are Our Key Users?
[NASA-TM-108021] 03 p0734 N93-12672
Coordinating Council. Eighth Meeting: Using the Internet
[NASA-TM-108019] 03 p0734 N93-12673
NASA Mission: The Universe
[NASA-NP-141] 03 p0508 N93-12891
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
NASA budget: Potential shortfalls in funding NASA's 5-year plan. Testimony before the Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, United States Senate
[GAO/T-NSIAD-92-18] 03 p0740 N93-13280
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Commercial non-aerospace technology transfer program for the 2000s: Strategic analysis and implementation
[NASA-TM-4424] 03 p0742 N93-13433
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
Streamlined acquisition handbook
[NASA-TM-108133] 04 p1002 N93-14719

Bibliography of Lewis Research Center Technical Publications announced in 1991
[NASA-TM-105595] 04 p1004 N93-14796
Fingerprinting of Materials
[NASA-CR-184482] 05 p1199 N93-15916
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757
NASA/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program 1992
[NASA-CR-189691] 05 p1332 N93-16760
NASA in the 21st century: A vision of greatness 05 p1073 N93-16858
Summer study postscript: A 1986 perspective 05 p1350 N93-16868
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
National Aeronautics and Space Administration 05 p1358 N93-17090
1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-184505] 05 p1339 N93-17279
Updating and expanding the library of materials on NASA Spacelink electronic information system 05 p1340 N93-17282
Developing satellite ground control software through graphical models 05 p1246 N93-17500
Preliminary design of a radiator shading device for a lunar outpost
[NASA-CR-192016] 06 p1605 N93-18019
The 1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191266] 06 p1679 N93-18033
Public space launch acquisition: A comparative case study
[AD-A258141] 06 p1455 N93-18083
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 42)
[NASA-SP-7039(42)-SECT-1] 06 p1685 N93-18110
Metrication report to the Congress
[NASA-TM-108602] 06 p1499 N93-18356
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 42)
[NASA-SP-7039(42)-SECT-2] 06 p1686 N93-18410
NASA scientific and technical information program multimedia initiative
[NASA-TM-108982] 06 p1693 N93-19900
Modernization of the NASA scientific and technical information program
[NASA-TM-108984] 06 p1693 N93-19936
NASA scientific and technical program: User survey
[NASA-TM-108979] 06 p1693 N93-19937
Total quality management: It works for aerospace information services
[NASA-TM-108980] 06 p1684 N93-19938
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939
Implementation of the recommendations of the Presidential Commission on the Space Shuttle Challenger Accident
[NASA-TM-108646] 07 p1820 N93-19990
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Development of a NASA standard gas generator 07 p1863 N93-20135
Space Shuttle: Status of advanced solid rocket motor program. Report to the Chair, Subcommittee on Government Activities and Transportation, Committee on Government Operations, House of Representatives
[GAO/NSIAD-93-26] 07 p1829 N93-20293
Structural dynamics branch research and accomplishments to FY 1992
[NASA-TM-105824] 07 p1925 N93-20368
The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
NASA Center update: Jet Propulsion Laboratory 07 p1983 N93-20492
Battery Review Board 07 p1986 N93-20519
NASA issues
[GAO/OCG-93-27TR] 07 p2085 N93-20904
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
NASA systems engineering handbook. Draft
[NASA-TM-108702] 07 p2086 N93-21188
NASA program costs: Space missions require substantially more funding than initially estimated. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-97] 07 p2093 N93-21358
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191992] 07 p2103 N93-21554
Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc. 07 p2093 N93-21677
National Aeronautics and Space Administration: Statement of Joanne Padron, American Institute of Aeronautics and Astronautics 07 p2093 N93-21678
National Aeronautics and Space Administration: Statement of Ralph J. Strnad, Sr., Secretary, Washington Area Metal Trades Council/Chief Steward, Goddard Space Flight Center 07 p2093 N93-21679
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
National Aeronautics and Space Administration: Statement of Len Ricks, Council of Engineers and Scientists Organizations 07 p2094 N93-21681
National Aeronautics and Space Administration: Statement of the Space Science Working Group 07 p2094 N93-21682
NASA SBIR abstracts of 1990 phase 1 projects
[NASA-TM-108145] 07 p2087 N93-21794
NASA PPO microgravity projects support
[NASA-CR-192460] 08 p2246 N93-22038
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
University guide to NASA, 1993
[NASA-EP-287] 08 p2152 N93-22383
NASA's commercial research plans and opportunities 08 p2183 N93-22612
Remarks by NASA administrator Daniel S. Goldin 08 p2167 N93-22621
Life sciences recruitment objectives 08 p2186 N93-22623
Technical report writing
[NASA-TM-105419] 08 p2523 N93-23002
National security and national competitiveness: Open source solutions; NASA requirements and capabilities
[NASA-TM-4458] 08 p2523 N93-23030
FY 1991 safety program status report
[NASA-TM-108707] 08 p2257 N93-23136
Index to NASA news releases and speeches, 1992
[NASA-TM-109187] 08 p2524 N93-23172
NASA's strategic plan for education. A strategy for change, 1993-1998
[NASA-EP-289] 08 p2517 N93-23174
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST
[NASA-CR-192354] 08 p2230 N93-23193
NASA's Education Program Inventory FY 91
[NASA-EP-284] 08 p2518 N93-23250
NASA contract management
[GAO/HR-93-11] 08 p2519 N93-23376
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 1
[NASA-CR-188242-VOL-1] 09 p2911 N93-26058
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 2
[NASA-CR-188242-VOL-2] 09 p2914 N93-26070
High performance computing and communications panel report 09 p2807 N93-26131
Design and implementation of a pilot orientation program for new NASA engineering employees
[NASA-TM-105907] 09 p2872 N93-26205
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658
Systems overview 10 p2977 N93-26915
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
NASA'S information technology activities for the 90's 10 p3165 N93-27046
USRA/RIACS
[NASA-CR-193216] 10 p3092 N93-27224
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285
The NASA Scientific and Technical Information Program: Exploring challenges, creating opportunities
[NASA-SP-7103] 10 p3166 N93-27426
NASA Small Business Innovation Research Program. Composite List of Projects, 1983 to 1989
[NASA-TM-104991] 10 p3164 N93-27639
Repository-Based Software Engineering Program: Working Program Management Plan
[NASA-CR-193113] 10 p3104 N93-28319
The repository-based software engineering program: Redefining AdaNET as a mainstream NASA source
[NASA-CR-193114] 10 p3104 N93-28328
Proceedings of the Near-Earth-Object Interception Workshop
[NASA-TM-108236] 11 p3556 N93-28572
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
NASA SBIR abstracts of 1991 phase 1 projects
[NASA-TM-108240] 11 p3609 N93-29323
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
The 1992 town meetings: Toward a shared vision
[NASA-NP-205] 11 p3608 N93-30134
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
Technology transfer 11 p3626 N93-30699
Technology transfer needs and experiences: The NASA Research Center perspective 11 p3626 N93-30703
Technology transfer within the NASA Goddard Space Flight Center 11 p3626 N93-30704
Technology transfer and space science missions 11 p3626 N93-30705
Technology transfer 11 p3627 N93-30707
Technology transfer within NASA 11 p3627 N93-30708
Technology transfer within the government 11 p3627 N93-30709
Technology transfer within the government 11 p3627 N93-30711
NASP technology transfer 11 p3627 N93-30713
NASA space research and technology overview (ITP) 11 p3628 N93-30722
Space research and technology overview 11 p3628 N93-30723
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
NASA aerospace pyrotechnically actuated systems: Program plan
[NASA-TM-109226] 12 p3712 N93-31308
NASA Engineering and Technology Advancement Office: A proposal to the administrator
[NASA-TM-109229] 12 p3685 N93-31312
Science Information Systems Newsletter, issue 28
[NASA-TM-108266] 12 p3834 N93-31589
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 43)
[NASA-SP-7039(43)-SECT-1] 12 p3839 N93-31923
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178
The 1992 Langley Aerospace Research Summer Scholars (LARSS) program
[NASA-CR-193371] 12 p3833 N93-32229
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 43)
[NASA-SP-7039(43)-SECT-2] 12 p3842 N93-32376

NASA SPACE PROGRAMS

NT APOLLO PROJECT
NT EARTH RESOURCES PROGRAM
NT GALILEO PROJECT
NT MAGELLAN PROJECT (NASA)
NT NATIONAL LAUNCH VEHICLE PROGRAM
NT PROJECT SETI
NT ROVER PROJECT
NT SKYLAB PROGRAM
NT VIKING MARS PROGRAM
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890

The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP)
[NASA-CR-190995] 02 p0219 N93-11754
Solar System Exploration Division Strategic Plan, volume 1. Executive summary and overview
[NASA-TM-107843] 03 p0513 N93-13265
Small planetary mission plan: Report to Congress
[NASA-TM-107809] 03 p0513 N93-13266
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Creating a foundation for a synergistic approach to program management 03 p0732 N93-14017
Human exploration: Moon/Mars mission 04 p0805 N93-14922
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Baseline program 05 p1379 N93-16871
Alternative scenarios utilizing nonterrestrial resources 05 p1379 N93-16872
Impacts of sociopolitical conditions 05 p1379 N93-16873
Report to the President on the US space program
[ISBN-0-16-041608-6] 05 p1073 N93-16950
National Aeronautics and Space Administration 05 p1358 N93-17090
National Aeronautics and Space Administration 05 p1358 N93-17091
MRSR: Rationale for a Mars Rover/Sample Return mission 06 p1593 N93-18560
Exobiology: The NASA program 06 p1593 N93-18561
Future NASA solar system exploration activities: A framework for international cooperation 06 p1453 N93-18562
Transportation and platforms perspective 06 p1453 N93-18636
Near term NEP missions and systems 06 p1661 N93-18637
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Improving NASA's technology for space science
[NASA-CR-192331] 06 p1695 N93-19389
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 1: Plenary Session
[NASA-TM-108651] 07 p2085 N93-20329
Long duration human exposure to microgravity 07 p1802 N93-21073
NASA program costs: Space missions require substantially more funding than initially estimated. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-97] 07 p2093 N93-21358
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
Space programs: NASA's independent cost estimating capability needs improvement
[AD-A259263] 08 p2531 N93-22404
Precursor Space Station Freedom experiments 08 p2188 N93-22632
Flight project data book
[NASA-TM-108657] 08 p2152 N93-22870
Future of the US Space Launch capability: A task group report
[PB93-139947] 08 p2171 N93-22899
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Group Task Force on Satellite Rescue and Repair
[NASA-TM-108713] 08 p2193 N93-23040
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Evaluation of NASA space grant consortia programs 08 p2516 N93-23141
Pre-college education 08 p2516 N93-23142
College education 08 p2516 N93-23143
The use of continuing adult education 08 p2516 N93-23144
Underrepresented groups 08 p2517 N93-23146
Outreach and public service 08 p2517 N93-23147
State and local governments 08 p2517 N93-23149
Focusing educational initiatives 08 p2517 N93-23150
University-industry interaction 08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
NASA reports 08 p2154 N93-23163
Flight project data book, 1991
[NASA-TM-108656] 08 p2154 N93-23385
Earth's mysterious atmosphere. ATLAS 1: Teachers guide with activities
[NASA-EP-282] 08 p2396 N93-23733
The Earth Observing System 08 p2356 N93-23749
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
Mission to Planet Earth 08 p2372 N93-23845
Former Soviet Republic capabilities in space and science
[DE93-007613] 09 p2598 N93-25322
Aeronautics in NACA and NASA
[NASA-NP-156] 09 p2574 N93-26422
Mars exploration program 10 p2976 N93-26909
Solar System Exploration Division: Requirements for space nuclear propulsion 10 p2976 N93-26910
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290
The MESUR mission 11 p3649 N93-28816
Pluto fast flyby mission and science overview 11 p3649 N93-28818
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Exploration technology prioritization 11 p3629 N93-30726

NASA STRUCTURAL ANALYSIS PROGRAM
U NASTRAN

NASTRAN
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling 07 p1782 N93-21313
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind
[DE93-004480] 08 p2375 N93-22045
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
Automatization of structural analysis calculation procedure: NASTRAN pre and post processors
[ETN-93-93706] 10 p3100 N93-27947
NASTRAN analysis for the Airmass Sunburst model 'C' Ultralight Aircraft 11 p3249 N93-29777

NATIONAL AEROSPACE PLANE PROGRAM
A configuration development strategy for the NASP 01 p0009 N93-10011
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
High-temperature strain measurement techniques: Current developments and challenges 03 p0599 N93-13669
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
National Aeronautics and Space Administration 05 p1358 N93-17091
Exploration of the utility of military man in space in the year 2025
[AD-A258378] 06 p1453 N93-18267
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
National Aero-Space Plane: Restructuring future research and development efforts. Report to Congressional requesters
[GAO-NSIAD-93-71] 06 p1442 N93-19845
The National Aero-Space Plane program: A revolutionary concept 06 p1443 N93-19908
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235
New launch technologies and American competitiveness 08 p2153 N93-23157
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Trajectory optimization for the National aerospace plane
[NASA-CR-192954] 09 p2589 N93-25670
Numerical simulation of hypersonic aerodynamics and the computational needs for the design of an aerospace plane
[AD-A260681] 09 p2580 N93-25894
Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations
[RAND/N-3464-AF] 09 p2767 N93-26327
NASP technology transfer 11 p3627 N93-30713

NATIONAL AIRSPACE SYSTEM
A description of the Mode Select beacon system (Mode S) and its associated benefits to the National Airspace System (NAS)
[DOT/FAA/SE-92/6] 01 p0007 N93-10738
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
Methods and principles for determining task dependent interface content
[NASA-CR-190837] 02 p0204 N93-10961
Low Density Radio Communications Link (LDRCL) Operational Test and Evaluation (OT/E) integration and operation test plan
[AD-A258216] 02 p0285 N93-12331
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
National Airspace System flight planning operational concept NAS-SR-131
[PB93-124659] 06 p1418 N93-18031
National Airspace System: Air traffic control and airspace management operational concept NAS-SR-132
[DOT/FAA/SE-92/5] 07 p1779 N93-20164
Definitional mission for civil aviation master plan for Poland
[PB92-213974] 07 p1760 N93-21713
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
Runway Visual Range (RVR) Operational Test and Evaluation (OT&E) integration and OT&E operational test report
[DOT/FAA/CT-TN92/37] 09 p2584 N93-25243
National Airspace System Performance Analysis Capability (NASPAC) simulation model 11 p3247 N93-30351

NATIONAL LAUNCH VEHICLE PROGRAM
NLS cargo transfer vehicle propulsion system 01 p0023 N93-10041
Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
Passive recirculation in the National Launch System's fuel feedlines
[NASA-TM-108391] 06 p1471 N93-17941
The future of the US space launch capability 06 p1456 N93-18865
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
National Launch System. Task 4: System architecture options analysis
[MCR-92-5011] 09 p2609 N93-26098

NATIONAL PARKS
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Aircraft overflight study: Effect of aircraft altitude upon sound levels at the ground
[PB93-144194] 08 p2477 N93-24572

Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649

NATIONS
NT ALABAMA
NT ALASKA
NT ARGENTINA
NT ARIZONA
NT ARKANSAS
NT AUSTRALIA
NT AUSTRIA
NT AZORES
NT BELGIUM
NT BOLIVIA
NT BOTSWANA
NT BRAZIL
NT BRITISH COLUMBIA
NT BRUNEI
NT CALIFORNIA
NT CAMBODIA
NT CANADA
NT CHINA
NT COLORADO
NT COSTA RICA
NT CZECHOSLOVAKIA
NT DENMARK
NT FINLAND
NT FLORIDA
NT FRANCE
NT GEORGIA
NT GREECE
NT HAWAII
NT HUNGARY
NT ICELAND
NT IDAHO
NT ILLINOIS
NT INDIA
NT INDIANA
NT INDONESIA
NT IOWA
NT IRAN
NT IRAQ
NT ISRAEL
NT ITALY
NT JAPAN
NT KANSAS
NT KENTUCKY
NT KENYA
NT KUWAIT
NT LAOS
NT LIBYA
NT LOUISIANA
NT MALAYSIA
NT MANITOBA
NT MARYLAND
NT MEXICO
NT MICHIGAN
NT MINNESOTA
NT MISSISSIPPI
NT MISSOURI
NT MONGOLIA
NT MONTANA
NT NEBRASKA
NT NETHERLANDS
NT NEVADA
NT NEW JERSEY
NT NEW MEXICO
NT NEW YORK
NT NEW ZEALAND
NT NIGER
NT NIGERIA
NT NORTH CAROLINA
NT NORTH DAKOTA
NT NORWAY
NT OHIO
NT OKLAHOMA
NT ONTARIO
NT OREGON
NT PENNSYLVANIA
NT PHILIPPINES
NT POLAND
NT PORTUGAL
NT REPUBLIC OF SOUTH AFRICA
NT RHODE ISLAND
NT SAUDI ARABIA
NT SOUTH CAROLINA
NT SOUTH DAKOTA
NT SOUTH KOREA
NT SUDAN
NT SWAZILAND
NT SWEDEN
NT TAIWAN
NT TENNESSEE
NT TEXAS
NT THAILAND
NT TIBET
NT TURKEY
NT U.S.S.R.
NT UNITED KINGDOM
NT UNITED STATES
NT UTAH
NT VIETNAM
NT VIRGINIA
NT WASHINGTON
NT WEST GERMANY
NT WISCONSIN
NT WYOMING
NT ZAMBIA

NATURAL FREQUENCIES
U RESONANT FREQUENCIES

NATURAL GAS
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Utilization of compressed natural gas in medium- and heavy-duty engine route vehicles
[PB92-217546] 03 p0611 N93-12908
Effects of gas composition on engine performance and emissions
[PB92-217561] 03 p0611 N93-12936
Development of advanced turbine systems: Meeting tomorrow's needs
[DE92-017339] 03 p0612 N93-13103
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991] 04 p0911 N93-15460
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Technical comparison between Hythane, GNG and gasoline fueled vehicles
[DE93-005608] 07 p1994 N93-21834
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Assessment of costs and benefits of flexible and alternative fuel use in the US transportation sector
[DE93-004659] 08 p2244 N93-22325
Overview of Advanced Turbine Systems Program
[DE93-003193] 08 p2311 N93-22413
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Advanced Turbine Design Program
[DE93-005077] 08 p2317 N93-24007
Assessment of future natural gas vehicle concepts
[PB93-138923] 08 p2317 N93-24145
A comparative analysis of alternative fuels for the INEL vehicle fleet
[DE93-007224] 08 p2319 N93-24256
Catalytic conversion of light alkanes
[DE93-009646] 09 p2644 N93-25499
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
Thermodynamic properties of natural gas mixtures
[PB93-167112] 09 p2872 N93-26509
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Thermodynamic properties of natural gas mixtures
[PB93-156818] 09 p2872 N93-26558
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
Strategic planning for molten carbonate fuel cell development and commercialization
[DE93-009156] 10 p3064 N93-27107
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Thermodynamic properties of natural gas mixtures
[PB93-162816] 11 p3604 N93-29428
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665
Thermodynamic properties of natural gas mixtures
[PB93-176162] 11 p3604 N93-29794
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Diffusion coefficients and heats of mixing in aqueous alkanolamines
[PB93-176212] 11 p3316 N93-30661
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Environment and safety research
[PB93-188860] 12 p3751 N93-31142
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209
GRI proceedings on the Workshop on Plastic Pipe Research Results
[PB93-190460] 12 p3708 N93-31211
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992
[PB93-188647] 12 p3700 N93-31334
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870
Feasibility study on introduction of petroleum substituting energy for transportation
[DE93-768472] 12 p3750 N93-32058

NATURAL GAS EXPLORATION
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067

Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873
Shaly sand formation evaluation in tight gas sands using electrochemical potential measurements
[PB93-163186] 12 p3764 N93-32087

NATURAL LANGUAGE (COMPUTERS)
Artificial intelligence technical paper abstracts, 1991
[AD-A253340] 01 p0141 N93-10269
Exploiting captions in retrieval of multimedia data
[AD-A255184] 02 p0479 N93-12381
Selecting reusable components using algebraic specifications 02 p0415 N93-12387
Action composition for the animation of natural language instructions
[AD-A254963] 03 p0682 N93-12554
Expert-system development in Soar: A tutorial
[AD-A254571] 03 p0682 N93-12645
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Information system constraint language (ISyCL)
[AD-A256268] 04 p0976 N93-14438
Grammatical trigrams: A probabilistic model of link grammar
[AD-A256365] 04 p0947 N93-15206
The dynamics of description
[CWI-CS-R9143] 05 p1240 N93-16671
Quantification and partiality
[CWI-CS-R9152] 05 p1242 N93-16732
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Automating software design system DESTA
05 p1250 N93-17519
Program 6 technical interchange meeting proceedings
[AD-A257736] 05 p1356 N93-17665
Improving the quality of machine translations by providing stylistic guidelines to authors and editors
[AD-A258786] 06 p1687 N93-18977
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011
A parsing algorithm for non-deterministic context-sensitive languages 07 p2031 N93-20223
Unrestricted on-line parsing and transduction with graph structured stacks 07 p2031 N93-20224
Tomita's algorithm in practical applications
07 p2031 N93-20227
Bottom-up parallelization of Tomita's algorithm
07 p2031 N93-20229
The development of a natural language interface to a geographical information system
08 p2530 N93-22153
Investigation of cognition acquisition using natural language conversational process
[MBB-FE-315-S-PUB-0498] 08 p2435 N93-22391
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
An ontology of knowledge graphs
[MEMO-1049] 08 p2441 N93-24063
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
Dynamic modal predicate logic
[CWI-CS-R9237] 10 p3101 N93-28001
Natural language generation
[AD-A262578] 11 p3524 N93-28579
Automating multilingual communication
12 p3837 N93-31219
Neural nets and their relevance for information retrieval
[CL-91-02] 12 p3798 N93-31469
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472
Implementations of the double dot parsing algorithm
[REPT-92-73] 12 p3788 N93-31506
Kohonen feature maps in natural language processing
[CL-91-01] 12 p3788 N93-31517
VDM specification of the Secure Hash algorithm
[NPL-DITC-212/92] 12 p3790 N93-31735
Creating a structured knowledge base by parsing natural language text 12 p3839 N93-31854
Cooperative answers in database systems
12 p3843 N93-32153
ARIES: Acquisition of Requirements and Incremental Evolution of Specifications 12 p3794 N93-32157

NATURAL LASERS
U LASERS

NATURAL SATELLITES
NT CHARON
NT DEIMOS
NT EUROPA
NT GALILEAN SATELLITES
NT ICY SATELLITES
NT IO
NT MARS SATELLITES
NT MOON
NT NEREID
NT PHOBOS
NT TITAN
NT TRITON
Indexes of maps of the planets and satellites, 1992
[NASA-TM-4395] 01 p0189 N93-10832
Organic material: Asteroids, meteorites, and planetary satellites 06 p1592 N93-18555
A CCD search for distant satellites of asteroids 3 Juno and 146 Lucina 06 p1699 N93-19248
Minor satellites and the Gaspra encounter
06 p1719 N93-19255
Reports of planetary astronomy - 1991
[NASA-TM-4459] 08 p2542 N93-23055
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Approaches to dealing with meteoroid and orbital debris protection on the Space Station
10 p2971 N93-27838
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing
11 p3641 N93-28773

NAUTICAL CHARTS
Digital Nautical Chart
[AD-A260810] 09 p2756 N93-25694
An electronic sea map 12 p3745 N93-31262

NAVIER-STOKES EQUATION
Navier-Stokes dynamics and aeroelastic computations for vortical flows, buffet and aeroelastic applications
[NASA-CR-190692] 01 p0002 N93-10098
Finite difference methods for incompressible viscous flow in scientific computing
[AD-A253512] 01 p0079 N93-10220
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Stream function-vorticity finite element formulations of unsteady incompressible Navier-Stokes equations
01 p0060 N93-10545
A least-squares finite element method for incompressible Navier-Stokes problem
01 p0060 N93-10548
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
On the instability of hypersonic flow past a pointed cone: Comparison of theoretical and experimental results of Mach 18
[DLR-FB-92-02] 02 p0196 N93-11141
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3]
02 p0213 N93-11339
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
A three dimensional high resolution upwind finite volume Euler solver
[VKI-TN-180] 02 p0198 N93-11686
Numerical study of advanced rotor blades
02 p0199 N93-11899
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
Spurious modes in spectral collocation methods with two non-periodic directions
[NASA-CR-189713] 02 p0427 N93-12298
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
The Proteus Navier-Stokes code
03 p0585 N93-13396
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover
03 p0497 N93-14035
Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains
03 p0593 N93-14041
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer
03 p0593 N93-14057
A numerical study of hypersonic flows using the full Navier-Stokes equations with different air models
03 p0594 N93-14061
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects
03 p0594 N93-14077
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102
Recent advances in numerical simulation and control of asymmetric flows around slender bodies
[PAPER-W.1.2] 04 p0875 N93-14688
Three-dimensional computational study of asymmetric flows using Navier-Stokes equations
[ISBN-90-5410-029-X] 04 p0875 N93-14690
Numerical simulation of steady and unsteady asymmetric vortical flow 04 p0876 N93-14691
Passive control of supersonic asymmetric vortical flows around cones 04 p0876 N93-14692
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14756
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038] 04 p0878 N93-15187
Ice accretion and performance degradation calculations with LEWICE/NS
[NASA-TM-105972] 04 p0787 N93-15354
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
Two equation modelling and the pseudo compressibility technique 05 p1153 N93-15799
Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations
05 p1154 N93-15802
Comparison of solution of various Euler solvers and one Navier-Stokes solver for the flow about a sharp-edged cropped delta wing
[NLR-TP-90340-U] 05 p1157 N93-16411
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467
Direct numerical simulation of turbulent flow in a square duct 05 p1158 N93-16513

Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Proceedings of the 7th and 8th NAL Workshops on Investigation and Control of Boundary-Layer Transition
[NAL-SP-15] 05 p1160 N93-16809
Improved shock-capturing of Jameson's scheme for the Navier-Stokes equations
[MEMO-1041] 05 p1163 N93-16842
Acceleration of FDNS flow simulations using initial flowfields generated with a parabolized Navier-Stokes method 05 p1165 N93-17329
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids including chemical equilibrium, volume 2
[AD-A257702] 05 p1164 N93-17683
Numerical solution and algorithm analysis for the unsteady Navier-Stokes equations on dynamic multiblock grids, volume 1
[AD-A257522] 05 p1165 N93-17789
Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-35] 06 p1524 N93-17847
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
An efficient algorithm for the computation of Galerkin coarse grid approximation for the incompressible Navier-Stokes equations
[REPT-92-40] 06 p1616 N93-17872
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows
[NASA-CR-189739] 06 p1525 N93-18093
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6] 06 p1527 N93-18326
Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
Solution of the time-dependent incompressible Navier-Stokes equations by finite elements 06 p1528 N93-18542
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563
Parabolized Navier-Stokes methods for hypersonic flows 06 p1529 N93-18565
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
On the numerical approximation of the k-epsilon turbulence model for two dimensional compressible flows
[INRIA-RR-1526] 06 p1530 N93-18622
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648
Endwall flows and blading design for axial flow compressors 06 p1531 N93-18730
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Similarity in laminar pipe flows with secondary flows 06 p1413 N93-19302
Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324
Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325
Three-dimensional Navier-Stokes heat transfer predictions for turbine blade rows
[NASA-TM-105800] 07 p1897 N93-19969
A gridless Euler/Navier-Stokes solution algorithm for complex-aircraft applications
[NASA-TM-107727] 07 p1760 N93-19973
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
Numerical simulation of a high Mach number jet flow
[NASA-TM-105985] 07 p1898 N93-20057
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748
Some 2D test examples for the ISNaS incompressible code
[REPT-91-44] 07 p1901 N93-20752
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893
Numerical simulation of the internal aerodynamic in the combustion chamber of the reciprocating engines using a finite element method
[ECL-90-014] 07 p1915 N93-21005
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Aerothermodynamic properties of hypersonic flows over radiation-adiabatic surfaces
[DLR-FB-91-42] 07 p1763 N93-21761
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Navier-Stokes computation of compressible turbulent flows with a second order closure, part 1
[NASA-CR-192287] 08 p2288 N93-22604
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation 08 p2251 N93-22857
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces 08 p2290 N93-23110
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
Operator splitting methods for the Navier-Stokes equations 08 p2292 N93-23226
Algorithm and code development for unsteady three-dimensional Navier-Stokes equations
[NASA-CR-192760] 08 p2292 N93-23234
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method
[DE93-005246] 08 p2293 N93-23299
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
Determining nodes and long-time approximations to the Navier-Stokes equations 08 p2296 N93-23593
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865
Three-dimensional isothermal flow simulations of an MHD secondary combustor
[DE93-006631] 08 p2497 N93-24035
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver
[NASA-CR-4490] 08 p2127 N93-24108
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings 09 p2574 N93-24772
A convergent finite difference scheme for the Navier-Stokes equations of nonisentropic compressible fluid flow 09 p2695 N93-24906
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity 09 p2697 N93-25259
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Data parallel finite element techniques for large-scale computational fluid dynamics 09 p2699 N93-25334
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems 09 p2700 N93-25472
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness 09 p2701 N93-25483
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Tangential fuselage blowing on an ogive cylinder 09 p2578 N93-25545
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Numerical modelling of viscous turbomachinery flows with a pressure correction method 09 p2594 N93-25702
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
Simulation of vortex bursting 09 p2580 N93-25881
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow 09 p2624 N93-26008
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Incompressible spectral-element method: Derivation of equations
[NASA-TM-106109] 09 p2708 N93-26554
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Grid adaption using Chimera composite overlapping meshes
[NASA-TM-106163] 10 p3111 N93-27065
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator 10 p2985 N93-27138
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations 10 p2935 N93-27451
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates 10 p2936 N93-27456
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Towards industrial-strength Navier-Stokes codes 10 p2938 N93-27468
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586

Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Navier-Stokes analysis of radial turbine rotor performance
[NASA-CR-191153] 11 p3251 N93-28609
A new flux conserving Newton's method scheme for the two-dimensional, steady Navier-Stokes equations
[NASA-TM-106160] 11 p3416 N93-28626
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
The numerical solution of low Mach number flow in confined regions by Richardson extrapolation
[TRITA-NA-9207] 11 p3238 N93-29005
An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3418 N93-29009
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions
11 p3421 N93-29177
Accuracy of least-squares methods for the Navier-Stokes equations
[NASA-TM-106209] 11 p3421 N93-29208
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade
11 p3258 N93-29958
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows
11 p3259 N93-29963
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
The ViB-code to simulate 3-D stator/rotor flow in axial turbines
[DLR-FB-92-19] 12 p3681 N93-31170
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477
Termination criteria for GMRES-like methods to solve the discretized incompressible Navier-Stokes equations
[REPT-92-50] 12 p3724 N93-31484
Benchmark solutions for the incompressible Navier-Stokes equations in general coordinates on staggered grids
[REPT-92-67] 12 p3724 N93-31496
Roe's scheme and the MUSCL technique for the Navier-Stokes equations
[MEMO-1090] 12 p3725 N93-31527
Numerical study of a multigrid method with four smoothing methods for the incompressible Navier-Stokes equations in general coordinates
[REPT-93-04] 12 p3725 N93-31547
An ILU smoother for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-91] 12 p3725 N93-31634
Multigrid schemes for time-dependent incompressible Navier-Stokes equations
[REPT-92-102] 12 p3725 N93-31657
Galerkin coarse grid approximation in multigrid for the incompressible Navier-Stokes equations
[REPT-92-103] 12 p3726 N93-31658
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028
An incompressible axisymmetric through-flow calculation procedure for design and off-design analysis of turbomachinery
[AD-A264933] 12 p3726 N93-32071

NAVIGATION
NT AIR NAVIGATION
NT AREA NAVIGATION
NT DEAD RECKONING
NT DIGITAL NAVIGATION
NT DOPPLER NAVIGATION
NT HYBRID NAVIGATION SYSTEMS
NT INERTIAL NAVIGATION
NT INTERPLANETARY NAVIGATION
NT LORAN
NT LORAN C
NT NAP-OF-THE-EARTH NAVIGATION
NT OMEGA NAVIGATION SYSTEM
NT POLAR NAVIGATION
NT RADAR NAVIGATION
NT RADIO NAVIGATION
NT SHORAN
NT SPACE NAVIGATION
NT SURFACE NAVIGATION
NT VHF OMNIRANGE NAVIGATION
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Aids to Navigation Service Force Mix 2000 Project. Volume 1: Development and application of an Aids to Navigation Service Force Mix decision support system
[AD-A259065] 06 p1433 N93-19344
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
High precision navigation for flight testing (AERONAV)
06 p1434 N93-19920
Fault detection and isolation 08 p2106 N93-22568
Intelligent flight control systems
08 p2107 N93-22576
Integrated and Multi-Function Navigation
[AGARD-CP-525] 08 p2119 N93-22780
Mission requirements and applications of integrated and multi-function navigation systems
08 p2119 N93-22781
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Fiber optic gyros and systems
08 p2120 N93-22785
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786
Retrofitting of GPS into existing navigation suites
08 p2120 N93-22788
NAVSAT: An application of GPS and GLONASS for the civil user community 08 p2124 N93-23534
The role of ocean climate data in operational Naval oceanography 09 p2732 N93-24916
Mixed constellation synchronization of GPS time
09 p2836 N93-25015
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990
Automated satellite image navigation
[AD-A262868] 11 p3269 N93-29475
A preliminary empirical evaluation of virtual reality as an instructional medium for visual-spatial tasks
12 p3784 N93-32151

NAVIGATION AIDS
NT ATTITUDE INDICATORS
NT BEACONS
NT DISCRETE ADDRESS BEACON SYSTEM
NT NAVIGATION INSTRUMENTS
NT RADAR BEACONS
NT RADIO BEACONS
NT RADIO DIRECTION FINDERS
NT TERCOM
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
LORAN and the effects of terrestrial propagation
[PB92-197219] 02 p0205 N93-11472
Flight simulator evaluation of D-size liquid crystal flat panel displays
[NAL-TR-1136] 02 p0209 N93-12367
Liquid crystal flat panel display evaluation tests using a flight simulator
[NAL-TR-1122] 02 p0209 N93-12383
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
Aids to Navigation Service Force Mix 2000 Project. Volume 1: Development and application of an Aids to Navigation Service Force Mix decision support system
[AD-A259065] 06 p1433 N93-19344
Aids to Navigation Service Force Mix 2000 Project: Overview
[AD-A259064] 06 p1433 N93-19386
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics
08 p2147 N93-22293
Piloting decision aid for spacecraft proximity operations 08 p2147 N93-22295
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Fiber optic gyros and systems
08 p2120 N93-22785
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786
Retrofitting of GPS into existing navigation suites
08 p2120 N93-22788
Integrated precision navigation system
08 p2120 N93-22789
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
Toward achieving global sole means radionavigation systems 08 p2121 N93-22794
Operational evaluation of the converging runway display aid at Saint Louis
[MTR-92W00217] 08 p2133 N93-22874
Maritime satellite communication and navigation
08 p2275 N93-23508
The role of GPS in a future radionavigation mix: Trends in the 1992 US Federal Radionavigation Plan
08 p2124 N93-23509
A European radionavigation plan?
08 p2124 N93-23513
Financial alternatives for global satellite navigation
08 p2124 N93-23519
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
Relative motion pinwheel
[AD-D015629] 08 p2123 N93-24222
Aids to Navigation Service Force Mix 2000 Project. Volume 3: Analysis of multi-mission requirements and development of planning factors for the Replacement Buoy Tender Fleet
[PB93-142370] 08 p2123 N93-24489
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Digital Nautical Chart
[AD-A260810] 09 p2756 N93-25694

A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818
Tactical satellites 11 p3284 N93-29893
High reliability, maintenance-free INS battery development
[AD-A264521] 11 p3412 N93-30406
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671
Reports on Cartography and Topography, series 1, report no. 103
[ETN-90-97325] 12 p3744 N93-31256
Aerial cartography using SICAD NAV-AIR
12 p3744 N93-31258
An electronic sea map 12 p3745 N93-31262
A searching method in a declarative city map
12 p3746 N93-31270

NAVIGATION INSTRUMENTS
NT ATTITUDE INDICATORS
NT RADIO DIRECTION FINDERS
Flight testing of GPS and GPS-aided systems
06 p1445 N93-19919
Research on highly functional guidance and control technology 07 p1795 N93-20445
Autonomous rendezvous and capture system design
07 p1815 N93-21427
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation
07 p1817 N93-21440
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
An hierarchic alliance of filters for fault tolerant navigation using two inertial systems with aiding sensors
08 p2121 N93-22793
System for calibrating a gyro navigator
[AD-D015668] 09 p2586 N93-26093
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671
Aerial cartography using SICAD NAV-AIR
12 p3744 N93-31258
Pallet for helicopter test instrumentation
12 p3676 N93-31279

NAVIGATION SATELLITES
NT NAVIGATION TECHNOLOGY SATELLITES
NT NAVSTAR SATELLITES
GPS azimuth determination using short baseline carrier wave interferometry
[AD-A254257] 01 p0006 N93-10265
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Chaotic dynamics of atoms 06 p1659 N93-18491
High precision navigation for flight testing (AERONAV)
06 p1434 N93-19920
Office of Space Flight standard spaceborne Global Positioning System user equipment project
08 p2148 N93-22301
Maritime satellite communication and navigation
08 p2275 N93-23508
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
GPS L1-L2 bias determination
[AD-A262141] 10 p2941 N93-27544
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
System of navigation by satellites with European coverage 11 p3284 N93-29897
Tactical satellites for air command and control
11 p3284 N93-29898

NAVIGATION TECHNOLOGY SATELLITES
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714

NAVIGATORS
An hierarchic alliance of filters for fault tolerant navigation using two inertial systems with aiding sensors
08 p2121 N93-22793
Automatic analysis and synthesis of controllers for dynamical systems based on phase-space knowledge
[AD-A259491] 08 p2459 N93-23448

NAVSTAR SATELLITES
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
Proposed revisions to RTCM SC-104 recommended standards for differential NAVSTAR/GPS service for carrier phase applications
[AD-A255276] 04 p0789 N93-15005
Navstar global positioning system: Introduction and status
[NLR-TP-91008-U] 05 p1059 N93-17559
A model of Global Positioning System (GPS) Master Control Station (MCS) operations
[AD-A258846] 06 p1433 N93-19067
Current and planned use of the Navstar Global Positioning System by NASA
[NASA-TM-108190] 07 p1779 N93-21190
NAVSAT: An application of GPS and GLONASS for the civil user community 08 p2124 N93-23534
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
Follow-on operational test and evaluation of the NAVSTAR global positioning system air integration/installation program
[AD-A263067] 10 p2941 N93-27925

NAVY
The future of carrier aviation
[AD-A254043] 02 p0430 N93-12260
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
Standardization of precipitation static test methods and equipment for the Navy
[AD-A257025] 04 p0792 N93-15361
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
Information technology: Comments on Navy facility consolidation plan
[AD-A258964] 06 p1687 N93-19084
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
Pattern measurements of US Navy ELF antennas
11 p3399 N93-30752
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922

NC-130 AIRCRAFT
U C-130 AIRCRAFT

NEAR FIELDS
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
Extension of fresnel near-field region by single-cycle sinusoidal pulses
[AD-A254736] 02 p0265 N93-12356
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object
04 p0857 N93-14189
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

NEAR INFRARED RADIATION
First results of an imaging FTS with a NICMOS camera 01 p0086 N93-10936
Near-infrared imaging polarimetry of bipolar nebulae
02 p0481 N93-11248
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
HARDI: A high angular resolution deployable interferometer for space 03 p0745 N93-13588
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations
04 p1022 N93-14146
Near-infrared oxygen airglow from the Venus nightside
04 p1026 N93-14308
Characterization of semi-insulating gallium arsenide
[AD-A257295] 05 p1316 N93-16081
Tunable infrared and visible solid-state laser
06 p1543 N93-18473
Model calculations of dust radiation from galactic and extragalactic sources by considering polycyclic aromatic hydrocarbons
[ETN-93-92729] 06 p1699 N93-18626
Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships
06 p1698 N93-19210
A cryogenic shutter for the VLT NIR camera
[MPE-237] 07 p1906 N93-20855
Configuration and construction of a free electron laser in near infrared at the superconducting electron accelerator in Darmstadt (Germany)
[ETN-93-93412] 07 p1911 N93-21175
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Near-IR imaging of moderate redshift galaxy clusters
10 p3177 N93-26741
Distant radio galaxies in the near IR
10 p3177 N93-26742
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Powering the superwind in NGC 253
10 p3203 N93-26893
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
The galactic center stellar population in the near infrared 10 p3204 N93-28080
Near-infrared line imaging of NGC 6240: Global shock and nuclear starburst
[MPE-PREPRINT-226] 11 p3631 N93-30641
SISTERS: A space interferometer for the search for terrestrial exo-planets by rotation shearing
12 p3846 N93-31764
Summary of the splinter session on optical and UV science 12 p3848 N93-31773
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009

NEAR WAKES
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
The effects of three-dimensional imposed disturbances on bluff body near wake flows
[AD-A259501] 08 p2298 N93-24311

NEARSHORE WATER
NT COASTAL WATER
NEBRASKA
Small business profiles, 1992: Region 7: Iowa, Kansas, Missouri, and Nebraska
[PB93-110989] 08 p2521 N93-24285
NEBULAE
NT CRAB NEBULA
NT H I REGIONS
NT H II REGIONS
NT HERBIG-HARO OBJECTS
NT ORION NEBULA
NT PLANETARY NEBULAE
NT REFLECTION NEBULAE
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
The cold ionized shell around the old nova DQ Herculis 08 p2543 N93-23964
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
NECK (ANATOMY)
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
A new instrumentation system for measuring the dynamic response of the human head/neck during impact acceleration 06 p1424 N93-19672
NEEDLES
Radiative transfer theory for polarimetric remote sensing of pine forest 03 p0633 N93-13085
NEEL TEMPERATURE
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517
NEGATIVE CONDUCTANCE
Negative Differential Resistance (NDR) frequency conversion with gain 10 p3017 N93-27766
NEGATIVE ELECTRON AFFINITY
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
NEGATIVE IONS
NT ANIONS
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875
Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
Suppression of the e(-) coextracted from a Penning surface-plasma H(-) source
[DE92-040350] 03 p0714 N93-12997
The ORNL radioactive ion beam project with the ORIC accelerator
[DE92-040027] 03 p0708 N93-13574
Correlation in photodetachment
[DE93-001843] 05 p1291 N93-17078
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
Collisional detachment of anions using Fourier transform mass spectrometry
[AD-A258972] 06 p1656 N93-19092
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Negative ion detachment cross sections
[DE93-005679] 08 p2483 N93-23328
Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618
The production and destruction of negative ions
[DE93-010527] 11 p3564 N93-28665
Measurement of work function of a plasma grid in a cesium seeded negative ion source
[DE93-764153] 11 p3589 N93-30190
NEGATIVE RESISTANCE CIRCUITS
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
NEGATIVE RESISTANCE DEVICES
Negative Differential Resistance (NDR) frequency conversion with gain 10 p3017 N93-27766
NEODYMIUM
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
NEODYMIUM COMPOUNDS
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052
NEODYMIUM ISOTOPES
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131
NEODYMIUM LASERS
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Laser Journal
[AD-A254106] 01 p0090 N93-10855
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887
Post flight operation of a high peak power neodymium YAG laser aboard the G-449 payload flown on Space Shuttle Columbia mission 61-C
03 p0508 N93-13161
A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers
03 p0606 N93-13629
Ultrashort-pulse laser system: Theory of operation and operating procedures
[AD-A257023] 04 p0887 N93-15472
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging
09 p2713 N93-25389
Summary of progress in laser fusion; advanced technology developments: National Laser Users Facility news; and a laser system report --- laser fusion and laser energetics
[DE93-009054] 10 p3047 N93-27120
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
ND laser with co-doped ion(s) pumped by visible laser diodes
[AD-D015711] 11 p3437 N93-29277
Simulation of transient radiation effects on semiconductor devices using a pulsed Q-switched Nd:YAG laser 11 p3357 N93-30230
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Cutting parameters with Lasag lasers
[DE93-010403] 12 p3732 N93-32288
NEON
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Connected triple excitations in coupled-cluster calculations of hyperpolarizabilities: Neon
02 p0439 N93-11854
Study of heliumlike neon using an electron beam ion trap
[DE92-019544] 03 p0753 N93-13536
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164
Measurement of 1s2s(sup 3)S(sub 1)-1s2p(sup 3)P(sub 2,0) intervals in helium-like neon
[DE93-009243] 11 p3563 N93-28521
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762
NEOPLASMS
NT CANCER
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
NEPHANALYSIS
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Cloudiest year study: An analysis of the 3DNEPH and RTNEPH databases
[AD-A263409] 11 p3483 N93-29967
NEPHELOMETERS
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates
08 p2395 N93-23493
NEPTUNE (PLANET)
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
Analysis of Uranian radio emissions, Uranus Data Analysis Program (UDAP)
[NASA-CR-193524] 12 p3882 N93-32222
User friendly database for Neptune planetary radio astronomy observations
[NASA-CR-193261] 12 p3851 N93-32324
NEPTUNE ATMOSPHERE
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune
[NASA-CR-192131] 07 p2099 N93-20732
NEPTUNE SATELLITES
NT NEREID
NT TRITON
NEPTUNIUM
NT NEPTUNIUM ISOTOPES
NEPTUNIUM ISOTOPES
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
NEREID
Complete analytical theory for the satellites of Neptune 04 p1046 N93-14833
NERVA (ENGINE)
U NUCLEAR ENGINE FOR ROCKET VEHICLES
NERVES
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882
NERVOUS SYSTEM
NT AUTONOMIC NERVOUS SYSTEM
NT BRAIN
NT BRAIN STEM
NT CENTRAL NERVOUS SYSTEM
NT CEREBRAL CORTEX
NT CEREBRUM
NT EFFERENT NERVOUS SYSTEMS
NT HIPPOCAMPUS
NT HYPOTHALAMUS
NT NERVES
NT PERIPHERAL NERVOUS SYSTEM

NT PINEAL GLAND
NT SPINAL CORD
NT SYMPATHETIC NERVOUS SYSTEM
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Neuroscience discipline science plan
[NASA-TM-108041] 06 p1600 N93-19882
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613

NETHERLANDS
Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397
Activities of the PTT --- the Netherlands Post, Telephone, and Telegraph (PTT)
[ISBN-90-72125-27-4] 05 p1140 N93-17398
Industrial aerospace activities
06 p1404 N93-19007
Flight testing of GPS and GPS-aided systems
06 p1445 N93-19919
Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038
Some aspects of a 3-dimensional reference system for surveying in the Netherlands: Quality analysis of GPS phase observations
[REPT-92-1] 10 p3063 N93-27368
Remote sensing in Czechoslovakia and Hungary: An analysis of the possible co-operation of The Netherlands with Czechoslovakia and Hungary in the field of remote sensing
[BCRS-92-12] 11 p3461 N93-29466
Land use database for the Netherlands using LANDSAT Thematic Mapper pictures
[BCRS-91-32] 11 p3463 N93-30839
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344

NETHERLANDS SPACE PROGRAM
The 1991-2000 National Remote Sensing Program
[BCRS-91-35] 07 p1975 N93-21205

NETS
NT NEURAL NETS
NT PETRI NETS
Surface/surface intersection on a processor mesh
[RR-864-M] 07 p2038 N93-20943
Near net shape knitting of fiber glass and carbon for composites 07 p1836 N93-21145

NETWORK ANALYSIS
NT CRITICAL PATH METHOD
NT SNEAK CIRCUIT ANALYSIS
Analysis of reservation-based dual-link networks for real-time applications
[AD-A254176] 01 p0067 N93-10253
The network destruction problem (extended abstract)
[DE92-016171] 02 p0419 N93-11860
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
Multidimensional signals, data and processes
[AD-A254797] 03 p0562 N93-12747
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
Determination of the dissipative loss of a two-port network from noise temperature measurements
06 p1505 N93-18904
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Efficiently modeling neural networks on massively parallel computers
[DE93-003787] 08 p2447 N93-22937
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Current trends in the semantics of dataflow
[RUU-CS-92-22] 10 p3167 N93-28063
Performance measurement systems: A best practices study
[AD-A262180] 11 p3506 N93-29444
FDDI installation and performance analysis
[AD-A263263] 11 p3529 N93-29497
Maximum and minimum return losses from a passive two-port network terminated with a mismatched load
11 p3385 N93-29594
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Efficient algorithms for the evaluation of planar network reliability
[AD-A263602] 11 p3531 N93-29916
A multilevel approach to minimum cost network flows
[AD-A264008] 11 p3550 N93-29978
Analysis of visual loss from retinal lesions
[AD-A264692] 11 p3496 N93-30494
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495
Transient analysis for ground fault distance estimation in electrical distribution networks
[VTT-PUBS-115] 12 p3720 N93-31536
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

NETWORK CONTROL
High performance interconnection between high data rate networks 02 p0279 N93-11118
A simple, effective media access protocol system for integrated, high data rate networks
02 p0279 N93-11119
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Military space operations: Satellite control system improved, but serious problems remain
[AD-A256809] 04 p0971 N93-15626
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
NCC Simulation Model: Simulating the operations of the network control center, phase 2
[NASA-CR-191616] 05 p1140 N93-16716
Knowledge-based consulting system for dynamic network security control
[ETN-93-93420] 07 p2028 N93-21069
NetView technical research
[NASA-CR-192822] 08 p2434 N93-22043
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space
08 p2136 N93-22229
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
An OSI architecture for the Deep Space Network
09 p2679 N93-26121
Admission control in integrated voice/data multihop radio networks
[AD-A261055] 09 p2680 N93-26227
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Electronic neural networks 10 p2964 N93-27711
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557

NETWORK SYNTHESIS
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495

NETWORKS
Methods for analysis of networks within a geographical information system
[INPE-5299-PRE/1704] 06 p1693 N93-19835
Commission 10: Continental networks. Subcommission United European Levelling Network (UELN)
07 p1969 N93-20962
Lightning characteristics in the north-east part of Japan observed by a magnetic direction-finder network
09 p2779 N93-24892

NEUMANN PROBLEM
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
On an origin of numerical diffusion: Violation of invariance under space-time inversion
[NASA-TM-105776] 02 p0425 N93-11254
A structural approach to the photonic processor
[AD-A260688] 04 p0986 N93-15648
A discrete Neumann system
[PREPRINT-870] 05 p1279 N93-16968

NEURAL NETS
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
Joint Services Electronics Program
[AD-A253842] 01 p0076 N93-10829
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU]
02 p0420 N93-11174
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Geometrical concepts about learning rules in networks with binary and ternary output functions
[REPT-92-020] 02 p0411 N93-11592
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
Self mobile space manipulator project
02 p0331 N93-11973
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Neural network models of air combat maneuvering
[AD-A254653] 02 p0421 N93-12096
Transient Reduction Analysis using Neural Networks (TRANN)
[DE92-012150] 02 p0421 N93-12153
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
Adaptive neural network models for intelligent computations
[AD-A254689] 02 p0421 N93-12226
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Neural network-based retrieval from software reuse repositories 02 p0415 N93-12388

A neural net-based approach to software metrics
02 p0415 N93-12392
Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439
Ultrasonic flaw classification and sizing
02 p0333 N93-12533
An application of exponential neural networks to event-train recognition
[AD-A254948] 03 p0690 N93-12548
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Multidimensional signals, data and processes
[AD-A254797] 03 p0562 N93-12747
Silicon neuron
[AD-A255091] 03 p0674 N93-12756
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
Transputer implementation of the TRACE model of speech recognition
[AD-A254747] 03 p0689 N93-12846
A neural network approach for the investigation of chemical phenomena
[DE92-019205] 03 p0691 N93-13079
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Resource constrained design of artificial neural networks using comparator neural network
[NASA-CR-191280] 03 p0694 N93-13376
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Neural nets for scene analysis
[AD-A255976] 04 p0961 N93-14409
Machine intelligence, a foreword: The brain as electronic circuitry; electronic circuitry as a brain
[AD-A255283] 04 p0962 N93-14533
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A255433] 04 p0962 N93-14551
SETA support for the DARPA microelectronics technology insertion program of the Microelectronics Technology Office
[AD-A255551] 04 p0866 N93-14555
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
Recursively generated networks and dynamical learning
[AD-A255441] 04 p0963 N93-14783
MOVE: A neutral network paradigm for robotic control
04 p0805 N93-14925
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
Architecture of low cost, large scale neural networks
[MEMO-INF-92-16] 04 p0941 N93-15089
Neural network based condition monitoring
04 p0797 N93-15183
Neural network architectures for general image recognition
[AD-A256017] 04 p0964 N93-15258
Dynamics of analog electronic neural networks
[AD-A257019] 04 p0966 N93-15352
Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
Analog Very Large Scale Integration (VLSI) implementations of artificial neural networks
[AD-A256621] 04 p0966 N93-15408
Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687
Cloud data set for neural network classification studies
[AD-A256666] 05 p1211 N93-15701
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
Low sensitivity interpolation using feed-forward neural networks with one hidden layer
[AD-A257306] 05 p1258 N93-16006
Adaptive machine vision
[AD-A257363] 05 p1301 N93-16007
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Studies in beamforming tracking neural networks mathematics
[AD-A255574] 05 p1258 N93-16039
TOPGENE: An artificial intelligence approach to a design process
[ISBN-90-9004900-2] 05 p1259 N93-16490
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Architectures for intelligent machines
[NASA-CR-191875] 05 p1231 N93-16621
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Functional expansion representations of artificial neural networks 05 p1262 N93-16772
Antenna analysis using neural networks
05 p1142 N93-16790
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Effective neurons and attractor neural networks in cortical environment
[PREPRINT-829] 05 p1223 N93-17214
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU]
05 p1261 N93-17276
Neural network architectures to analyze OPAD data
05 p1262 N93-17336
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
Program 6 technical interchange meeting proceedings
[AD-A257736] 05 p1356 N93-17665
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
The cognitive, perceptual, and neural bases of skilled performance
[AD-A258236] 06 p1601 N93-17820
Proceedings of the 2nd International Workshop on Cellular Neural Networks and their Applications
[AD-A258245] 06 p1631 N93-17821
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
Development of neural modules based on Si/PLZT technology for opto-electronic implementations of neural networks
[AD-A257937] 06 p1518 N93-18120
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
Membership generation using multilayer neural network 06 p1618 N93-18227
Electrically modifiable nonvolatile SONOS synapses for electronic neural networks
[AD-A258318] 06 p1596 N93-18252
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Fuzzy logic: Artificial neural networks integration for transient identification
[DE93-002232] 06 p1632 N93-18389
Identification and interpretation of patterns in rocket engine data
[NASA-CR-192100] 06 p1473 N93-18401
New techniques in optical communications and signal processing
[AD-A257894] 06 p1503 N93-18419
Self-growing neural network architecture using crisp and fuzzy entropy
[NASA-TM-105677] 06 p1553 N93-18422
Artificial neural networks application simulator
06 p1642 N93-18502
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems
06 p1638 N93-18687
A hybrid job-shop scheduling system
06 p1639 N93-18690
Model reduction for the dynamics and control of large structural systems via neutral network processing direct numerical optimization 06 p1461 N93-18820
Inverse kinematics problem in robotics using neural networks
[NASA-TM-105869] 06 p1558 N93-18876
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
Recognition of partially occluded threat objects using the annealed Hopefield network
06 p1612 N93-19466
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Charged particle track reconstruction using artificial neural networks
[DE93-003014] 06 p1658 N93-19630
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Wavelet features for failure detection and identification in vibration systems
[AD-A259427] 07 p1914 N93-20007
Neural-network dedicated processor for solving competitive assignment problems
[NASA-CASE-NPO-17781-1-CU]
07 p2028 N93-20116
Signal phase pattern sensitive neural network system and method
[AD-D015571] 07 p2046 N93-20308
Comparison of artificial neural networks with a conventional heuristic technique for optimization problems
[AD-A259207] 07 p2046 N93-20552
Signal approximation with a wavelet neural network
[AD-A259081] 07 p1890 N93-20556
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
The structure of circumstellar shells
[NASA-CR-192337] 07 p2096 N93-20757
Effect of design selection on response surface performance
[NASA-CR-192275] 07 p2038 N93-20895
Modeling and simulation of a formal neural network: Implementation on a 'Hypercube FPS T-40' parallel machine
[ETN-93-92688] 07 p2045 N93-21065
Multi-aperture vision system coupled to neural network processors
[AD-A259353] 07 p2047 N93-21243
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Applications of neural networks in polymer simulations
[DE93-004110] 07 p1862 N93-21843
Use of neural networks in the analysis of complex systems
[DE93-003554] 07 p2049 N93-21847

Monitoring of vibrating machinery using artificial neural networks
[DE93-003566] 07 p2050 N93-21848
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Recognition of partially occluded threat objects based on hybrid Hopfield neural network 07 p1777 N93-21939
Vibration monitoring with artificial neural networks
[DE93-003543] 07 p1952 N93-21992
Vibration monitoring of EDF rotating machinery using artificial neural networks
[DE93-003557] 07 p1952 N93-21993
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
Learning characteristics of a space-time neural network as a tether skiprope observer 08 p2197 N93-22176
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 2
[NASA-CP-10111-VOL-2] 08 p2449 N93-22206
Two generalizations of Kohonen clustering 08 p2449 N93-22207
The 3-D image recognition based on fuzzy neural network technology 08 p2450 N93-22210
Determining the number of hidden units in multi-layer perceptrons using F-ratios 08 p2451 N93-22214
A new approach for designing self-organizing systems and application to adaptive control 08 p2451 N93-22215
Adaptive fuzzy system for 3-D vision 08 p2451 N93-22216
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management 08 p2452 N93-22221
Truth-Valued-Flow Inference (TVFI) and its applications in approximate reasoning 08 p2452 N93-22223
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Autonomous rendezvous and capture system design 08 p2138 N93-22244
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 1
[NASA-CP-10111-VOL-1] 08 p2452 N93-22351
Efficiently modeling neural networks on massively parallel computers 08 p2453 N93-22353
Learning fuzzy information in a hybrid connectionist, symbolic model 08 p2453 N93-22354
On the neural substrates leading to the emergence of mental operational structures 08 p2453 N93-22355
Advanced telerobotic control using neural networks 08 p2455 N93-22364
A neural based intelligent flight control system for the NASA F-15 flight research aircraft 08 p2132 N93-22368
Space time neural networks for tether operations in space 08 p2456 N93-22370
Approximation paper, part 1 --- neural networks, fuzzy systems 08 p2456 N93-22372
Nonlinear rescaling of control values simplifies fuzzy control 08 p2456 N93-22373
Genetic learning in rule-based and neural systems 08 p2456 N93-22374
Design of fuzzy system by NNs and realization of adaptability 08 p2457 N93-22377
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Translational controller results
[NASA-CR-192320] 08 p2457 N93-22396
Investigation of air transportation technology at Princeton University, 1991-1992 08 p2106 N93-22570
Smart electromagnetic structures: The neural antenna
[AD-A260469] 08 p2262 N93-22931
Efficiently modeling neural networks on massively parallel computers
[DE93-003787] 08 p2447 N93-22937
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Attitude control results
[NASA-CR-192291] 08 p2458 N93-23084
A stochastic learning algorithm for layered neural networks
[DE93-003555] 08 p2458 N93-23288
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
The use of multiple linked self-organised artificial neural networks for classification of remotely sensed images 08 p2353 N93-23565
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm 08 p2354 N93-23576
The analysis of remotely sensed data with neural networks 08 p2355 N93-23579
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
Developing a neural network to act as a noise filter
[AD-A259515] 08 p2460 N93-23699
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Three dimensional object recognition using an unsupervised neural network: Understanding the distinguishing features
[AD-A260048] 08 p2461 N93-23712
The robustness of feed-forward neural networks: A preliminary investigation 08 p2461 N93-23717
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
One-class classifier networks for target recognition applications
[DE93-006288] 08 p2271 N93-24043
Face recognition with neural networks
[AD-A259587] 08 p2462 N93-24066
Knowledge-based systems for computational control
[AD-A260409] 08 p2527 N93-24110
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247
Neural net architecture for computing structure from motion
[AD-A260526] 08 p2463 N93-24421
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
Analysis of complex systems using neural networks
[DE93-003541] 08 p2464 N93-24514
A novel recursive partitioning criterion
[AD-A259921] 08 p2464 N93-24564
Summary from a study group on neural networks at NDRE
[FFI-92/7015] 08 p2465 N93-24640
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779
EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Neural networks: What non-linearity to choose
[NASA-CR-192948] 09 p2819 N93-25197
Scene segmentation of natural images using texture measures and back-propagation
[NASA-TM-104003] 09 p2803 N93-25235
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
A software package for neural network applications development 09 p2827 N93-25610
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis 09 p2880 N93-25807
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
Parametric motion control of robotic arms: A biologically based approach using neural networks 09 p2822 N93-25964
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
The probabilistic neural network architecture for high speed classification of remotely sensed imagery 09 p2824 N93-25972
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements 09 p2824 N93-25974
Neural networks for atmospheric retrievals 09 p2824 N93-25975
Classifying multispectral data by neural networks 09 p2825 N93-25976
Using modular neural networks with local representations to control dynamic systems
[AD-A261597] 09 p2826 N93-26162
Complexity of connectionist and constraint-satisfaction networks
[AD-A261617] 09 p2817 N93-26169
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
Reinforcement learning for robots using neural networks
[AD-A261434] 09 p2827 N93-26487
Joint services electronics program
[AD-A261801] 09 p2692 N93-26539
Automata network models of galaxy evolution 10 p3201 N93-26879
Neural networks for calibration tomography
[NASA-TM-106352] 10 p3045 N93-26906
Robustness enhancement of neurocontroller and state estimator
[NASA-TM-106028] 10 p2946 N93-26907
Calibration of a shock wave position sensor using artificial neural networks
[NASA-TM-106138] 10 p3045 N93-27001
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Radial basis function network learns ceramic processing and predicts related strength and density
[NASA-TM-106048] 10 p2990 N93-27129
Adaptive control strategies for flexible robotic arm
[NASA-CR-193111] 10 p3050 N93-27159
Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
Center for Aeronautics and Space Information Sciences
[NASA-CR-193140] 10 p3106 N93-27289
Neural networks: Reliability and data analysis
[AD-A262354] 10 p3109 N93-27646
Electronic neural networks 10 p2964 N93-27711
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498
Soft computing in design and manufacturing of advanced materials
[NASA-TM-106032] 11 p3295 N93-28624
Digital image compression using artificial neural networks 11 p3624 N93-28811
Using a neural network to estimate solvent consumption
[PB93-173110] 11 p3467 N93-28873
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
Neural network technologies
[AD-A262576] 11 p3541 N93-28987
Spurious symptom reduction in fault monitoring
[NASA-CR-191453] 11 p3542 N93-29192
Multi-channel holographic birfurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
A neuro-fuzzy architecture for real-time applications 11 p3511 N93-29529
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534

Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm
11 p3512 N93-29535
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Comparison of crisp and fuzzy character networks in handwritten word recognition 11 p3514 N93-29545
Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2
[NASA-CP-10112-VOL-2] 11 p3515 N93-29556
Adding dynamic rules to self-organizing fuzzy systems
11 p3515 N93-29557
A neural fuzzy controller learning by fuzzy error propagation 11 p3516 N93-29560
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576
Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577
Incomplete fuzzy data processing systems using artificial neural network 11 p3519 N93-29578
Stochastic architecture for Hopfield neural nets
11 p3519 N93-29579
Hierarchical model of matching
11 p3519 N93-29580
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping
11 p3519 N93-29581
An accelerated training method for back propagation networks
[NASA-CASE-MSC-21625-1] 11 p3498 N93-29610
Neural networks application to divergence-based passive ranging
[NASA-TM-103981] 11 p3245 N93-29653
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A264831] 11 p3543 N93-29791
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
Computation and generalization in neural networks
[AD-A263752] 11 p3549 N93-29871
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
A neural network based approach for machine fault diagnosis
[VTT-TIED-1274] 11 p3543 N93-29998
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
Neural mechanisms of attention
[AD-A264345] 11 p3544 N93-30165
Neural network cloud classification research
[AD-A264628] 11 p3484 N93-30176
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Improvement of the NRC automatic speech recognition system 11 p3355 N93-30221
Analog CMOS circuits for neural networks
11 p3355 N93-30223
A motion detector based on a neural network
11 p3356 N93-30224
An artificial neural network model for periodic trajectory generation 11 p3356 N93-30225
Parameter identification of time-varying systems using neural networks 11 p3356 N93-30226
An architecture for an analog VLSI neural network for early computer vision processing
11 p3359 N93-30244
An adaptive algorithm for linear associative memory problem 11 p3360 N93-30255
Cloud classification from satellite imagery using neural computing 11 p3367 N93-30297
Image enhancement using an analog device neural network 11 p3376 N93-30346
A testbed for autonomous reflexive grasping
[AD-A264557] 11 p3446 N93-30384
Drive-reinforcement learning system applications
[AD-A264514] 11 p3446 N93-30404
Analysis of visual loss from retinal lesions
[AD-A264692] 11 p3496 N93-30494
Memory driven feature-based design
[AD-A264697] 11 p3534 N93-30495
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
Structural design using neural networks
11 p3545 N93-31029
On neural networks in identification and control of dynamic systems
[NASA-TM-107702] 11 p3455 N93-31038
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks 12 p3687 N93-31069
Optimization of adaptive resonance theory network with boltzmann machine
[PB93-188134] 12 p3797 N93-31332
NASA/ARC proposed training in intelligent control
12 p3688 N93-31444
Introduction to Fuzzy Set Theory
12 p3689 N93-31446
Neural nets and their relevance for information retrieval
[CL-91-02] 12 p3798 N93-31469
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557
Neural attentional sensory processing
[AD-A265163] 12 p3799 N93-31992
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036
A soft-competitive splitting rule for adaptive tree-structured neural networks
[AD-A264936] 12 p3799 N93-32073
Piecewise linear neural networks
[AD-A265031] 12 p3799 N93-32082
Man-machine cooperation in advanced teleoperation
12 p3784 N93-32106
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305
Neural network identification of keystream generators
[AD-A265778] 12 p3800 N93-32334
High level cognitive information processing in neural networks
[NASA-CR-193296] 12 p3800 N93-32341
Introduction to natural algorithms
[REPT-92-058] 12 p3793 N93-32391

NEUROLOGY
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
SLS-1 flight experiments preliminary significant results
[NASA-TM-108033] 03 p0520 N93-13613
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Measurement of behavioral thermoregulation
[PB92-217033] 07 p2024 N93-21046
Effects of 60-Hz electric and magnetic fields on operant and social behavior and on neuroendoctrine system of nonhuman primates
[DE93-007677] 08 p2417 N93-22913
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Theory of synaptic plasticity in visual cortex
[AD-A260052] 08 p2424 N93-23960
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060

NEURON TRANSMISSION
U BIOELECTRICITY

NEURONS
NT AXONS
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU]
02 p0420 N93-11174
Silicon neuron
[AD-A255091] 03 p0674 N93-12756
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Architecture of low cost, large scale neural networks
[MEMO-INF-92-16] 04 p0941 N93-15089
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Effective neurons and attractor neural networks in cortical environment
[PREPRINT-829] 05 p1223 N93-17214
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
Automated system for analyzing the activity of individual neurons 08 p2423 N93-22163
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247
Adding dynamic rules to self-organizing fuzzy systems
11 p3515 N93-29557
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A264224] 11 p3539 N93-30361
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015

NEUROPHYSIOLOGY
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A250290] 01 p0140 N93-10242
Computer simulations of object discrimination by visual cortex
[AD-A253345] 01 p0131 N93-10271
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
Auditory processing of complex sounds across frequency channels
[AD-A253612] 01 p0131 N93-10650
An introduction to the information processing components of the brain
[RSRE-MEMO-4350] 02 p0385 N93-10979
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function
02 p0379 N93-11299
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432

Functional MRI studies of human vision on a clinical imager
[DE92-017448] 03 p0674 N93-12566
A core facility for the study of neurotoxins of biological origin
[AD-A254359] 03 p0674 N93-12945
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 1
[DE92-040152] 03 p0673 N93-13520
Neuromagnetic investigations of cortical regions underlying short-term memory
[AD-A255788] 04 p0937 N93-14646
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness
[AD-A255485] 04 p0935 N93-14789
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
Conversion of temporal correlations between stimuli to spatial correlations between attractors
[PREPRINT-856] 05 p1225 N93-16962
Mathematics and biology: The interface, challenges and opportunities
[DE92-041207] 05 p1223 N93-17359
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
Automated data analysis and discovery in neurophysiological simulation experiments using a combination of numerical and symbolic methods
06 p1691 N93-19730
Neuroscience discipline science plan
[NASA-TM-108041] 06 p1600 N93-19882
Automated system for analyzing the activity of individual neurons 08 p2423 N93-22163
On the neural substrates leading to the emergence of mental operational structures 08 p2453 N93-22355
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800
Analysis and synthesis of adaptive neural elements and assemblies
[AD-A259954] 08 p2422 N93-24247
Research in stochastic processes and their applications
[AD-A260174] 08 p2473 N93-24317
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Neural basis of motion perception
[AD-A261452] 09 p2798 N93-26349
Imaging regional changes in the spontaneous activity of the brain: An extension of the minimum-norm least-squares estimate
[AD-A261593] 09 p2798 N93-26436
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Analysis of neural systems involved in modulation of memory storage
[AD-A262418] 10 p3084 N93-27654
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160
Control and circadian behavior by transplanted suprachiasmatic nuclei
[AD-A264553] 11 p3496 N93-30382
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018

NEUROSCIENCE
U NEUROLOGY

NEUROTRANSMITTERS
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Study of SCN neurochemistry using in vivo microdialysis in the conscious brain: Correlation with circadian activity rhythms
[AD-A259803] 08 p2421 N93-23459
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421

NEUTRAL ATMOSPHERES
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
H I shells and supershells: Observations and theory
03 p0751 N93-13360
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483

NEUTRAL ATOMS
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897

NEUTRAL BEAMS
NT MOLECULAR BEAMS
NT NEUTRON BEAMS
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source)
01 p0160 N93-10353
Fast magnetic field penetration into an intense neutralized ion beam
[DE92-016861] 01 p0156 N93-10633
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Enhancement of D3-D neutral beam system for higher performance
[DE93-000878] 05 p1309 N93-16307
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
NPB cesium space experiment
11 p3267 N93-28733
Use of particle beams for lunar prospecting
11 p3650 N93-28822

NEUTRAL BUOYANCY SIMULATION
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Agglomeration of fractals in simulated reduced gravity
07 p1806 N93-21093
The study of surface tension tanks from the neutral buoyancy to the space flight 08 p2248 N93-22842
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118

NEUTRAL CURRENTS
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA
[NIKHEF-H/92-02] 05 p1297 N93-16340
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758

NEUTRAL GASES
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions
03 p0756 N93-13853
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
A role of neutral hydrogen in CHS plasmas with reheat and collapse and comparison with JIPP T-IIU tokamak plasmas
[NIFS-186] 07 p2073 N93-20763
Neutral gas in the central 2 parsecs of the galaxy
[NASA-CR-192801] 08 p2546 N93-23095
The Boston University-Arecibo galactic HI survey: The galaxy at 4 arcminute resolution
08 p2543 N93-23720
High velocity clouds in nearby disk galaxies
10 p3187 N93-26804
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334

NEUTRAL PARTICLES
NT COLD NEUTRONS
NT FAST NEUTRONS
NT NEUTRONS
NT SOLAR NEUTRONS
NT THERMAL NEUTRONS
Instabilities in the rundown phase of the plasma focus
[IPF-90-3] 02 p0449 N93-11030
Research and development of superconducting linear accelerators for neutral particle beam applications
[DE92-019043] 02 p0444 N93-11652
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186
Fast algorithms for transport models
[DE93-003881] 06 p1657 N93-19508
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 1: The lower part of the F region
06 p1727 N93-19552
Summary of the 1992 ACP Winter Conference on Future Trends in Low Temperature Physics
[AD-A259809] 08 p2508 N93-23643
A transmission/escape probabilities model for neutral particle transport in the outer regions of a diverted tokamak
[DE93-006550] 08 p2497 N93-24045
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
The Interstellar Gas Experiment: Analysis in progress
11 p3639 N93-29380
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787

NEUTRAL SHEETS
Dynamics of the auroral ionosphere deduced from EISCAT CP1 observations 06 p1729 N93-19564

NEUTRINO BEAMS
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986

NEUTRINOS
NT SOLAR NEUTRINOS
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606
The neutrino process and neutrino r-process
[DE92-014304] 02 p0485 N93-12120
Neutrino mass
[DE92-017411] 03 p0701 N93-12588
Cosmological constraints on early-decaying particles
03 p0750 N93-13123
Neutrino(e) appearance for neutrino(mu)-neutrino(tau) oscillations in matter
[DE92-040303] 03 p0772 N93-13533
Hydrodynamics of supernova 1987 A
04 p1019 N93-14633
Research in elementary particle physics
[DE93-001858] 05 p1284 N93-16146

The experimental status of neutrino masses and mixings
[DE93-000862] 05 p1285 N93-16303
On the 17-keV conundrum
[DE93-000866] 05 p1286 N93-16305
Neutrino mass and mixing, and non-accelerator experiments
[DE93-000867] 05 p1286 N93-16306
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
Global continuous symmetry and the 17keV neutrino
[PREPRINT-868] 05 p1288 N93-16966
Investigation of neutrino properties in the process e(+)e(-) decay to nu-nu(bar)-gamma
[PREPRINT-887] 05 p1290 N93-17023
Measurement of the branching ratio for D(+) yields (bar-K)*(892)(sup 0)mu(+)nu
[DE93-002414] 05 p1295 N93-17624
High energy physics
[DE93-002411] 06 p1659 N93-17911
Experimental particle physics
[DE93-003884] 06 p1655 N93-18538
Gravitational metric deviation by supernova neutrino bursts
[PREPRINT-789] 07 p2096 N93-20849
Direct searches for neutrino mass
[DE93-003867] 08 p2479 N93-22068
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
GALLEX: First results and implications for neutrino physics
[DE93-004908] 08 p2483 N93-23977
An investigation of neutrino properties through study of the sun, supernovae, the early universe and lab data
09 p2898 N93-25180
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
Research in elementary particle physics
[DE93-009764] 10 p3136 N93-28235
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961
Limits on neutrino radiative decay from SN1987A
[NASA-CR-193262] 11 p3653 N93-29164
Measurement of W-Z interference from neutrino-electron scattering
[DE93-010724] 11 p3566 N93-29313
Neutrino mass
[DE93-010735] 11 p3566 N93-29315
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
Three-neutrino oscillations in matter and topological phases
[DE93-608386] 12 p3813 N93-31290
Massive neutrinos
[DE93-609989] 12 p3821 N93-32026
Sterile neutrinos as dark matter
[DE93-012533] 12 p3822 N93-32294

NEUTRON ABSORBERS
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985

NEUTRON ACTIVATION ANALYSIS
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
A review of the development of a luggage explosive detection system 07 p1765 N93-21862
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
An approach to improving TNA EDS
07 p1765 N93-21864
PFNA technique for the detection of explosives
07 p1765 N93-21865
A pulsed fast-thermal neutron interrogation system
07 p1765 N93-21866
Radiological safety aspects of TNA deployment
07 p1770 N93-21893
Experience with explosive detection systems in airports 07 p1770 N93-21895
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
Instrumental neutron activation analysis developed for silicon integrated circuit technology
[ETN-93-93581] 11 p3408 N93-29271

NEUTRON BEAMS
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322

NEUTRON COUNTERS
NT NEUTRON SPECTROMETERS
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
The use of ring ratios to detect sample differences in passive neutron counting
[DE92-018920] 03 p0702 N93-13076
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234
A lunar penetrator to determine solar-wind-implanted resources at depth in the lunar regolith
05 p1386 N93-17239
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
A novel approach to design optimization of nuclear-based explosive detection systems
07 p1777 N93-21935
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
Feasibility study of a long duration balloon flight with NASA/GSFC and Soviet Space Agency Gamma Ray Spectrometers
[NASA-CR-192934] 09 p2573 N93-25077
A compact neutron counter telescope with thick radiator (Cotetra) for fusion experiment
[NIFS-205] 09 p2860 N93-25347
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Electronics for a neutron detector and a Geiger-Mueller detector for the radiation protection around MEA and AmPS
[DIGEL-1992-6] 11 p3413 N93-30838

NEUTRON CROSS SECTIONS
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
Neutron cross section standards and instrumentation
[DE93-007675] 08 p2484 N93-24454
Fast neutron cross section measurements
[DE93-009053] 11 p3563 N93-28546
ENDF/B-6 neutron cross section measurement standards
[PB93-189868] 12 p3818 N93-31201
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244

NEUTRON DECAY
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400

NEUTRON DETECTORS
U NEUTRON COUNTERS

NEUTRON DIFFRACTION
Neutron diffraction residual stress studies for aero-engine component applications
[PNR-90908] 02 p0334 N93-11014
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
Study of short-range motion of atomic hydrogen in amorphous silicon by neutron reflectometry
[DE92-016392] 03 p0703 N93-13194
Scattering and order in thermotropic liquid crystals
03 p0723 N93-13332
Morphological analysis of ionomers
[DE92-040162] 04 p0852 N93-15415
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
High-energy spin-density-wave correlated fluctuations in paramagnetic Cr + 5 at. percent V
[DE93-003165] 07 p1857 N93-21958
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Solutions for implementing time-of-flight techniques in low-angle neutron scattering, as realized on the Low-Q Diffractometer at Los Alamos
[DE93-003702] 07 p2065 N93-21998
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742
Neutron measurements of the vortex lattice in YBa2Cu3O7
[DE93-005417] 08 p2509 N93-24008
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

NEUTRON DISTRIBUTION
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061

NEUTRON EMISSION
Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464
TFTR experimental data analysis collaboration
[DE93-002365] 07 p2075 N93-21483
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Investigation of cold nuclear fusion in condensed matter
[DE93-006083] 08 p2515 N93-23683

NEUTRON FLUX
U FLUX (RATE)

NEUTRON FLUX DENSITY
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

NEUTRON IRRADIATION
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634

Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661
Irradiation assisted stress corrosion cracking of stainless steel irradiated in FBR
[DE93-764495] 11 p3326 N93-30191
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

NEUTRON PHYSICS
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413

NEUTRON RADIOGRAPHY
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322

NEUTRON SCATTERING
Atomic short range order and spin density wave propagation in CuMn
[DE92-016903] 01 p0034 N93-10789
Atomic structure of mixed ferroelectrics
[AD-A254369] 03 p0702 N93-12947
Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037
Ordering energies and mechanisms in beta-phase NiAl
[DE92-040031] 03 p0542 N93-13043
Scattering and order in thermotropic liquid crystals
03 p0723 N93-13332
Combined small-angle neutron and x ray scattering studies of polymers
[DE93-000440] 05 p1118 N93-15671
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Solutions for implementing time-of-flight techniques in low-angle neutron scattering, as realized on the Low-Q Diffractometer at Los Alamos
[DE93-003702] 07 p2065 N93-21998
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Neutron measurements of the vortex lattice in YBa2Cu3O7
[DE93-005417] 08 p2509 N93-24008
Neutron cross section standards and instrumentation
[DE93-007675] 08 p2484 N93-24454
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244

NEUTRON SOURCES
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Miniature neutron sources: Thermal neutron sources and their users in the academic field
[DE92-018793] 03 p0702 N93-13070
Directional fast-neutron detectors
[DE93-000355] 05 p1292 N93-17371
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
A novel approach to design optimization of nuclear-based explosive detection systems
07 p1777 N93-21935
Solutions for implementing time-of-flight techniques in low-angle neutron scattering, as realized on the Low-Q Diffractometer at Los Alamos
[DE93-003702] 07 p2065 N93-21998

NEUTRON SPECTRA
The use of ring ratios to detect sample differences in passive neutron counting
[DE92-018920] 03 p0702 N93-13076
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400
Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464
Neutrons scattering studies in the actinide region
[DE93-003655] 06 p1654 N93-18413
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
ENDF/B-6 neutron cross section measurement standards
[PB93-189868] 12 p3818 N93-31201

NEUTRON SPECTROMETERS
Use of the program ANISN to calculate response functions for a Bonner sphere set with a He-3 detector
[NPL-RSA(EXT)-31] 02 p0316 N93-11411
Gamma ray and neutron spectrometer for the lunar resource mapper 05 p1389 N93-17259
Combined gamma ray/neutron spectroscopy for mapping lunar resources 05 p1390 N93-17263
A compact neutron counter telescope with thick radiator (Cotetra) for fusion experiment
[NIFS-205] 09 p2860 N93-25347
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415

NEUTRON STARS
NT PULSARS
Are some of the luminous high-latitude stars accretion-powered runaways?
[DE92-018853] 02 p0484 N93-11379
The neutrino process and neutrino r-process
[DE92-014304] 02 p0485 N93-12120
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
The black hole candidate binary A0620-00
04 p1015 N93-14148
Hydrodynamics of supernova 1987 A
04 p1019 N93-14633
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
A Theoretical Analysis of Thermal Radiation from Neutron Stars
[NASA-CR-191906] 05 p1376 N93-17410
The Geminga neutron star: Evidence for nucleon superfluidity at very high density
05 p1376 N93-17411
Neutron stars, strange stars, and the nuclear equation of state
[DE93-004704] 08 p2550 N93-23952
Diskoseismology: Probing relativistic accretion disks
09 p2894 N93-25622
Steady-state numerical models of accreting neutron stars: The effect of atmospheric CNO depletion and diffusion 09 p2889 N93-25624
Gravitational radiation from coalescing binary star systems 09 p2900 N93-25625
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073

NEUTRON TRANSMUTATION
U NUCLEAR REACTIONS

NEUTRONS
NT COLD NEUTRONS
NT FAST NEUTRONS
NT SOLAR NEUTRONS
NT THERMAL NEUTRONS
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
Contributions to plasma focus physics since 1970 from the Institute of Plasma Research, Stuttgart (Fed. Republic of Germany)
[IPF-91-4] 02 p0450 N93-11201
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
Application of multistep compound and multistep direct models for data evaluation
[DE93-000865] 05 p1285 N93-16304
Evidence for the dominance of an I(sup G)J(sup PC) = 0(+)0(++) resonance in p(bar)n decay to 2 pi(+)
[PREPRINT-885] 05 p1290 N93-17021
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
Evidence of an I(sup G)J(sup PC) = O(+)O(++) resonance at 1.39 GeV/sq c and confutation of the zeta(1480) in a reanalysis of the p(bar)n decay to 2 pi(+)-3 pi(-) annihilation at rest
[PREPRINT-826] 05 p1291 N93-17222
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Cosmic-ray NM-64 neutron monitor data-19 from Rome, Italy
[NOTA-INTERNA-989] 06 p1745 N93-17878
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809

Dense plasma focus powered by flux compression generators
[DE93-003781] 07 p2076 N93-21837
Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868
Neutron-proton bremsstrahlung experiments
[DE93-003737] 07 p2065 N93-21968
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
A method for transient, three-dimensional neutron transport calculations
[DE93-007243] 09 p2847 N93-25256
Neutron energy determination with a high-purity germanium detector
[NASA-CR-192773] 09 p2900 N93-25890
Theoretical studies in nuclear physics
[DE93-010142] 10 p3139 N93-28215
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

NEVADA
Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927
Small business profiles, 1992. Region 9: Arizona, California, Hawaii, and Nevada
[PB93-111003] 08 p2521 N93-24160
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets
10 p2954 N93-26966

NEW ENGLAND (US)
Rhode Island hurricanes and tropical storms: A fifty-six year summary, 1936-1991
[PB93-162006] 11 p3481 N93-29198

NEW JERSEY
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177

NEW MEXICO
Prospects for the commercial development of hot dry rock geothermal energy in New Mexico
[DE92-018999] 02 p0346 N93-11825
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212

NEW YORK
Small business profiles, 1992. Region 2: New Jersey and New York
[PB93-110930] 08 p2521 N93-24177

NEW ZEALAND
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938

NEWS
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Index to NASA news releases and speeches, 1992
[NASA-TM-109187] 08 p2524 N93-23172

NEWS MEDIA
Antarctic news clips - 1992
[NSF-92-83] 04 p0916 N93-15080

NEWTON METHODS
NT NEWTON-RAPHSON METHOD
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Efficient and accurate on-line computation of motor torques for robotic manipulators
07 p1918 N93-20710
A truncated SQP algorithm for large scale nonlinear programming problems
[PB92-226299] 07 p2039 N93-21045
Fully implicit solutions of the benchmark backward facing step problem using finite element discretization and inexact Newton's method
[DE93-005246] 08 p2293 N93-23299
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity
09 p2697 N93-25259
Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2728 N93-25842
Computing modified Newton directions using a partial Cholesky factorization
[DE93-009584] 10 p3128 N93-28454
On the real symmetric inverse eigenvalue problem
[DE93-619667] 12 p3809 N93-32284

NEWTON THEORY
Analysis of lunar laser ranging in the framework of a post-Newtonian theory
[SER-C-383] 02 p0315 N93-11332

NEWTON-RAPHSON METHOD
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Spatial formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20690
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656

NEWTONIAN FLUIDS
Effects of gravity in folding --- of geological layers
01 p0124 N93-10324
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Fundamental solutions and boundary element formulations for convective fluid flow
02 p0298 N93-11217
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers
02 p0304 N93-12003
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
Numerical and experimental study of bubble growth in highly viscous fluids 04 p0874 N93-14465
Classical fluids of negative heat capacity
[DE92-040507] 05 p1329 N93-15943
Fundamental studies of fluid mechanics and stability in porous media
[DE93-002519] 05 p1163 N93-17046
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Experimental investigation of developing and fully developed flow in a curved duct of square cross section
[ISBN-0-315-70029-7] 08 p2291 N93-23177
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779

NICKEL
NT NICKEL ISOTOPES
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600
Atomic structure of Ni-like soft x ray lasing ions
[DE92-019273] 02 p0438 N93-11778
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
On grain boundary transport of hydrogen and mechanism of hydrogen-induced intergranular fracture
03 p0544 N93-14047
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Magnetic structures of nanometer scale Dy, Cr, and Ni
[DE93-002984] 06 p1677 N93-19755
OPAL opacities
[DE93-002891] 06 p1733 N93-19828
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497

NICKEL ALLOYS
NT HASTELLOY (TRADEMARK)
NT INCONEL (TRADEMARK)
NT MONEL (TRADEMARK)
NT NITINOL ALLOYS
NT WASPALOY
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031
Modelling short crack growth behaviour in nickel-base superalloys
[PNR-90912] 02 p0255 N93-11033
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
[DE92-014782] 02 p0256 N93-11519
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557

Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0256 N93-11621
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269
Design and development of Ni-base superalloy and Ti alloys
[NRIM-SR-92-01] 02 p0261 N93-12322
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Ordering energies and mechanisms in beta-phase NiAl
[DE92-040031] 03 p0542 N93-13043
The implications of the magnetism of ordinary chondrites 03 p0755 N93-13795
Fatigue in single crystal nickel superalloys
[AD-A256095] 04 p0844 N93-14264
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681
High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys
[DE92-040978] 04 p0847 N93-15382
Fatigue characterization of Ni-base alloys 05 p1081 N93-15756
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
Deformation twinning in ordered alloys transformation induced ductility in intermetallics
[DE93-002879] 05 p1111 N93-16148
Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
Atomistic studies of grain boundaries in alloys and compounds
[DE93-002769] 05 p1115 N93-17083
Fatigue in single crystal nickel superalloys
[AD-A258038] 05 p1117 N93-17704
The electrochemical machining of nickel based alloys
[DS-1933] 05 p1135 N93-17741
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Fatigue in single crystal nickel superalloys
[AD-A259191] 07 p1856 N93-20275
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H
[DE93-004064] 07 p1876 N93-21999
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977
Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014
Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
Fatigue in single crystal nickel superalloys
[AD-A260709] 09 p2651 N93-25843
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy
[NASA-TM-106125] 09 p2731 N93-26550
Fatigue in single crystal nickel superalloys
[AD-A262126] 10 p2999 N93-27674
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Ordering and displacive transformations in Ni-Al alloys
[DE93-009553] 10 p3001 N93-28371
International Conference on Martensitic Transformations (ICOMAT 92)
[AD-A262739] 11 p3321 N93-28591
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396
Development of Ni-Cr-W superalloys for high temperature components in high temperature gas-cooled reactors, part 2
[DE93-764469] 11 p3326 N93-30399
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads 12 p3696 N93-31578
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795

NICKEL CADMIUM BATTERIES

Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
Battery selection for space experiments 03 p0512 N93-13184
NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835
Research on large capacity Ni-Cd batteries 07 p1799 N93-20476
The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
Marshall Space Flight Center battery activity 07 p1983 N93-20494
COMSAT's destructive physical analysis of aerospace nickel-cadmium cells for NASA/Goddard Space Flight Center 07 p1983 N93-20495
Capacity fade in nickel cadmium and nickel hydrogen cells 07 p1984 N93-20499
Air Force Ni-Cd cell qualification program update 07 p1984 N93-20505
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
The JPL/NASA/TAMU nickel-cadmium battery model development status 07 p1985 N93-20509
NiCd cell reliability in the mission environment 07 p1985 N93-20510
Cycle life status of SAFT VOS nickel-cadmium cells 07 p1985 N93-20511
Battery Review Board 07 p1986 N93-20519
Development of nickel-metal hydride cell 07 p1986 N93-20521
Changes in impedance of Ni/Cd cells with voltage and cycle life
[NASA-TM-106105] 08 p2379 N93-23018
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036
High reliability, maintenance-free INS battery development
[AD-A264521] 11 p3412 N93-30406

NICKEL COATINGS

Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299

NICKEL COMPOUNDS

NT NICKEL OXIDES
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535

NICKEL HYDROGEN BATTERIES

Validation test of 125 Ah advanced design IPV nickel-hydrogen flight cells
[NASA-TM-105912] 03 p0527 N93-14079
Damage tolerance checking on Ni/H2 battery cells 05 p1081 N93-15754
Development of satellite borne nickel hydrogen battery experiment equipment for ETS-6 07 p1793 N93-20435
Research on Ni-H2 batteries 07 p1800 N93-20477
The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490
Lewis Research Center battery overview 07 p1983 N93-20493
Marshall Space Flight Center battery activity 07 p1983 N93-20494
Mechanisms for capacity fading in the NiH2 cell and its effects on cycle life 07 p1983 N93-20496
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
Nickel hydrogen capacity loss 07 p1983 N93-20498
Capacity fade in nickel cadmium and nickel hydrogen cells 07 p1984 N93-20499
NiH2 capacity fade during early cycling 07 p1984 N93-20500
Characteristics of storage related capacity loss in Ni/H2 cells
[STD/92-118] 07 p1984 N93-20501
Nickel hydrogen battery cell storage matrix test 07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503
Charge retention test experiences on Hubble Space Telescope nickel-hydrogen battery cells 07 p1984 N93-20504
The 2.5 inch nickel-hydrogen development 07 p1985 N93-20512
Hubble Space Telescope nickel hydrogen battery system briefing 07 p1985 N93-20513

An overview of eight years of activity developing French nickel-hydrogen technology 07 p1985 N93-20514
Reliability study of the NiH2 strain gage 07 p1908 N93-20515
High specific energy, high capacity nickel-hydrogen cell design 07 p1986 N93-20516
Nickel-hydrogen CPV battery update 07 p1986 N93-20518
Development of nickel-metal hydride cell 07 p1986 N93-20521
Nickel metal hydride, a flight experiment 07 p1986 N93-20522
Phase-change composites TES for nickel-hydrogen batteries 07 p1987 N93-20524
Evaluation of a nickel/metal hydride battery for a load conditioner [DE93-761824] 08 p2283 N93-24010
Basic statistical analyses of candidate nickel-hydrogen cells for the Space Station Freedom [NASA-TM-106111] 10 p3123 N93-27124
Development of nickel/metal hydride secondary battery [DE93-781330] 11 p3406 N93-28669

NICKEL IRON BATTERIES
Results of advanced battery technology evaluations for electric vehicle applications [DE92-018766] 02 p0289 N93-11432
Battery testing at Argonne National Laboratory [DE93-009204] 11 p3407 N93-29036

NICKEL ISOTOPES
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys [DE92-019372] 02 p0257 N93-11557
Nuclear structure studies at intermediate energy [DE93-003661] 05 p1295 N93-17605
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect [DE93-008971] 10 p3137 N93-28331
Research programs from the University of South Carolina on high energy physics [DE93-007829] 11 p3574 N93-28969

NICKEL OXIDES
Fundamental studies of passivity and passivity breakdown [DE93-002747] 05 p1108 N93-17762
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O [DE93-000509] 06 p1487 N93-18528
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
The JPL/NASA/TAMU nickel-cadmium battery model development status 07 p1985 N93-20509
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry [AD-A263098] 11 p3311 N93-29133

NICKEL PLATE
Development of nickel/metal hydride secondary battery [DE93-781330] 11 p3406 N93-28669

NICKEL STEELS
Irradiation-assisted stress corrosion cracking of austenitic alloys [DE92-040988] 05 p1116 N93-17341
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry [DE93-007971] 08 p2234 N93-24566
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds [NASA-TP-3376] 10 p3001 N93-28253

NICKEL ZINC BATTERIES
Results of advanced battery technology evaluations for electric vehicle applications [DE92-018766] 02 p0289 N93-11432
Battery testing at Argonne National Laboratory [DE93-009204] 11 p3407 N93-29036

NIGER
End-to-end tests of satellite data 07 p1953 N93-21571
Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803

NIGERIA
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823

NIGHT
Structure of the nocturnal boundary layer over a complex terrain [DE92-018141] 02 p0362 N93-11669
Tributary and gap nighttime air flow comparisons [DE92-018875] 03 p0662 N93-13075
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor [AD-A256699] 05 p1212 N93-16153
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A [AD-A258873] 06 p1433 N93-19078
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687
Nocturnal temperature forecasting [MISC-SER-A-126] 07 p2012 N93-20888
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility [DE93-004778] 08 p2404 N93-22964

NIGHT AIRGLOW
U NIGHTGLOW

NIGHT E LAYER
U E REGION
U NIGHT SKY

NIGHT F LAYER
U F REGION
U NIGHT SKY

NIGHT FLIGHTS (AIRCRAFT)
Integrated helmet system testing for a nightflying helicopter [MBB-UD-0604-91-PUB] 05 p1065 N93-17570

NIGHT SKY
Report on the 7th Finnish EISCAT Workshop [REPT-121(1992)] 06 p1577 N93-18736
Campaigns to study the aurora borealis focused on myriametric waves in 1991 06 p1578 N93-18740

NIGHT VISION
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles [AD-A254983] 02 p0390 N93-12508
Integration of exterior lighting systems and night vision imaging systems [AD-A254826] 03 p0677 N93-12732
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue (joint Canadian/US Coast Guard experiment) [AD-A255525] 04 p0939 N93-14554
Night vision manual for the flight surgeon [AD-A257059] 05 p1227 N93-15710
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue [AD-A257704] 05 p1228 N93-17697
A new concept for helmet mounted vision 06 p1609 N93-19767
Helicopter night vision goggle testing in the United Kingdom 06 p1444 N93-19917
Night vision goggle training: Development and production of six video programs [AD-A258529] 07 p2025 N93-20050
In-flight field-of-view with ANVIS [AD-A259905] 08 p2427 N93-23992
Human visual limitations on suprathreshold contrast perception through ANVIS [AD-A259970] 08 p2425 N93-24431
The detection and amplification processes in low light level cameras with CCD and image intensifier [FFI-92/7017] 08 p2490 N93-24646
Interpupillary and vertex distance effects on field-of-view and acuity with ANVIS [AD-A261259] 09 p2802 N93-26265
Evaluation of test methods and requirements for respiratory protection systems 21 [AD-A262466] 11 p3501 N93-28757
Head-steered sensor flight test results and implications 11 p3502 N93-28859
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack 11 p3503 N93-28867
Design considerations for a night, air-to-surface attack capability on a dual role fighter 11 p3251 N93-28871
CATS EYES adjustment procedures [AD-A264069] 11 p3508 N93-29924
Studies of the effect of image degradation and recombination on visual perception [AD-A264332] 11 p3580 N93-30368
The effects of superimposing symbology on a simulated night vision goggle display [AD-A263458] 11 p3508 N93-30590

NIGHTGLOW
A new instrument for the study of mesospheric gravity waves through nightglow observations 03 p0656 N93-13789
Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891
LISA: A limb imaging spectrograph for airglow 04 p0811 N93-14952
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes [AD-A264908] 12 p3764 N93-32094

NIMBUS SATELLITES
NT NIMBUS 7 SATELLITE

NIMBUS 7 SATELLITE
Microwave radiometer studies of atmospheric water over the oceans, volume 2 [NASA-CR-190343] 01 p0127 N93-10848
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987 [NASA-RP-1281] 02 p0367 N93-11168
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide [NASA-RP-1284] 02 p0373 N93-11718
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991 [NASA-RP-1283] 03 p0661 N93-12700
On the variation of the Nimbus 7 total solar irradiance [NASA-TP-3316] 04 p1049 N93-15532
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants [PB93-136604] 08 p2343 N93-23278

NIMPHE (ENGINE)
U HYDRAZINE ENGINES

NIOBATES
NT LITHIUM NIOBATES
Nanostructure, defect chemistry and properties of relaxor ferroelectrics [AD-A247294] 02 p0431 N93-11468
Research in photorefractive crystals [AD-A260391] 08 p2513 N93-24425

NIOBIUM
Design and test of a superconducting structure for high-velocity ions [DE93-000513] 05 p1326 N93-17377
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps [DE93-002885] 06 p1677 N93-19826
Electrical and infrared properties of thin niobium microbolometers near T(sub c) 10 p3020 N93-27779
Measurement of magnetic field penetration depth in niobium polycrystalline films by polarized neutron reflection method [DE93-606390] 11 p3600 N93-30771

NIOBIUM ALLOYS
Protective coatings for niobium alloys and their properties [AD-A254252] 01 p0033 N93-10706
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys [DE92-012155] 02 p0254 N93-10995
Processing and properties of NbTi based alloys [DE92-016692] 02 p0261 N93-12445
Heat resistant diffusion coating for niobium alloy [AD-A255542] 03 p0554 N93-13873
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet [NASA-TM-105921] 04 p0847 N93-15524
Oxidation and volatilization of a niobium alloy [DE93-001927] 05 p1116 N93-17392
Niobium silicides for high temperature applications [AD-A262334] 10 p2991 N93-28113

NIOBIUM CARBIDES
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet [NASA-TM-105921] 04 p0847 N93-15524
Material science experience gained from the space nuclear rocket program: Insulators [DE93-006301] 10 p2992 N93-28303

NIOBIUM COMPOUNDS
NT LITHIUM NIOBATES
NT NIOBATES
NT NIOBIUM CARBIDES
The nature of scales grown on binary Cr-Nb alloys [DE92-019283] 03 p0542 N93-13080
Scaling laws for the critical current density of NbN films in high magnetic fields [DE93-000604] 05 p1318 N93-16277
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors [DE92-538568] 05 p1149 N93-17007

NITINOL ALLOYS
Robust control of smart structures 06 p1550 N93-19057
Active control of NITINOL-reinforced structural composites [AD-A261062] 09 p2638 N93-25780

NITRAMINE PROPELLANTS
The 28th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-573-VOL-1] 02 p0244 N93-11132
Modeling of H2/N2O flames 09 p2627 N93-26026
Dark zone modeling of solid propellant flames 09 p2628 N93-26028
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
Thermal oxidation of HCN by NO2 in shock waves 11 p3318 N93-30064
Thermal decomposition of nitramines 11 p3318 N93-30065
Homogeneous gas phase kinetic model with gradient sensitivity analysis for high temperature particulate boron combustion in fluorine enriched environments 11 p3319 N93-30090
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102

NITRATE ESTERS
A preliminary investigation of the degradation and stabilisation of the energetic oxetane binder polyNIMMO
[RARDE-7/91] 02 p0273 N93-11376
Energetic composites of cyclodextrin nitrate esters and nitrate ester plasticizers
[AD-D015364] 02 p0274 N93-11665
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842

NITRATES
NT AMMONIUM NITRATES
NT CELLULOSE NITRATE
NT INORGANIC NITRATES
NT NITROGLYCERIN
NT ORGANIC NITRATES
NT PETN
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Radical reactions of atmospheric importance 03 p0659 N93-14053
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
Rheology of YBa2Cu3O(7-x) precursors
[DE93-007285] 09 p2863 N93-25362
Total CO2 and nitrate measurements in the southwest pacific during austral autumn, 1990
[PB93-188415] 12 p3769 N93-31333
Mars brine formation experiment 12 p3864 N93-31949

NITRATION
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800

NITRIC ACID
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire
[DE92-017233] 02 p0262 N93-12487
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements 03 p0647 N93-13723
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19887
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839

NITRIC OXIDE
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233
High-resolution resonant degenerate 4-wave mixing spectroscopy
[DE92-012146] 03 p0538 N93-13234
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide 03 p0595 N93-13685
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Direct catalytic decomposition of nitric oxide
[DE93-008107] 08 p2389 N93-24515
Nitric oxide formation in a lean, premixed-prevaporized jet A/air flame tube: An experimental and analytical study
[NASA-TM-105722] 10 p3068 N93-27012
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves
[AD-A263653] 11 p3312 N93-29389
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations 11 p3319 N93-30099

NITRIDES
NT ALUMINUM NITRIDES
NT BORON NITRIDES
NT GALLIUM NITRIDES
NT METAL NITRIDES
NT SILICON NITRIDES
NT TANTALUM NITRIDES
NT TITANIUM NITRIDES
NT ZIRCONIUM NITRIDES
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986
Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650

NITRIDING
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986
Design of interfaces in metal matrix composites
[AD-A262052] 11 p3296 N93-29001
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

NITRILES
NT ACETONITRILE
NT ACRYLONITRILES
NT POLYACRYLONITRILE

NITRITES
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Technical bases for precipitate hydrolysis process operating parameters, revision 1
[DE93-009894] 11 p3309 N93-28553

NITRO COMPOUNDS
NT NITROBENZENES
NT NITROGLYCERIN
NT NITROMETHANE
NT TRINITRO COMPOUNDS
NT TRINITROTOLUENE
Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875

NITROBENZENES
NT TRINITROTOLUENE
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531

NITROCELLULOSE
U CELLULOSE NITRATE

NITROGEN
NT LIQUID NITROGEN
NT NITROGEN ISOTOPES
A study of the effect of nitrogen and molybdenum in the corrosion inhibition of austenitic stainless steel
[AD-A253354] 01 p0033 N93-10100
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768
Video profile monitor diagnostic system for GTA
[DE92-040231] 03 p0710 N93-13509
Compatibility of refrigerants and lubricants with motor materials
[DE93-000540] 05 p1122 N93-16246
Vibration dissociation coupling in nonequilibrium flows
[NASA-CR-191775] 05 p1157 N93-16439
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868
Design of a high current proton accelerator 07 p1766 N93-21873
An H(-) ion source for resonant gamma production 07 p1766 N93-21874
Selective gamma ray resonant absorption for explosives detection 07 p1769 N93-21887
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae 08 p2547 N93-23208
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing 09 p2751 N93-24859
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Vibrational spectroscopy of shock-compressed fluids 11 p3318 N93-30072

NITROGEN ATOMS
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
NITROGEN COMPOUNDS
NT ALUMINUM NITRIDES
NT AMIDES
NT AMINO RADICAL
NT AMMONIA
NT AMMONIUM NITRATES
NT AZIDES (INORGANIC)
NT AZIDES (ORGANIC)
NT BISMALEIMIDE
NT BORON NITRIDES
NT CAFFEINE
NT CELLULOSE NITRATE
NT CYANO COMPOUNDS
NT GALLIUM NITRIDES
NT HMX
NT HYDRAZINIUM COMPOUNDS
NT HYDRAZOIC ACID
NT HYDROCYANIC ACID
NT IMIDES
NT IMINES
NT INORGANIC NITRATES
NT ISOCYANATES
NT KAPTON (TRADEMARK)
NT METAL NITRIDES
NT NITRATE ESTERS
NT NITRATES
NT NITRIC ACID
NT NITRIC OXIDE
NT NITRIDES
NT NITRITES
NT NITRO COMPOUNDS
NT NITROBENZENES
NT NITROGEN DIOXIDE
NT NITROGEN HYDRIDES
NT NITROGEN OXIDES
NT NITROGEN POLYMERS
NT NITROGLYCERIN
NT NITROMETHANE
NT NITROSAMINE
NT NITROUS OXIDES
NT ORGANIC NITRATES
NT PETN
NT POLYIMIDES
NT RDX
NT SILICON NITRIDES
NT TANTALUM NITRIDES
NT THIOUREAS
NT TITANIUM NITRIDES
NT TRINITRO COMPOUNDS
NT TRINITROTOLUENE
NT UREAS
NT ZIRCONIUM NITRIDES
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933
Synthesis of cubane based energetic molecules
[AD-A263271] 11 p3564 N93-28562
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627
NITROGEN DIOXIDE
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
High resolution absolute absorption cross sections of NO2 at 295, 573, and 673 K at visible wavelengths: Comprehensive data tables
[AD-A255261] 04 p0839 N93-14530
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068
NITROGEN HYDRIDES
NT AMINO RADICAL
The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233
NITROGEN IONS
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
NITROGEN ISOTOPES
Isotopic composition of galactic cosmic ray boron, carbon, nitrogen, and oxygen 04 p1020 N93-14866
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
NITROGEN OXIDES
NT NITRIC OXIDE
NT NITROGEN DIOXIDE
NT NITROUS OXIDES
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
Evaluation of NO(x)-induced toxicity
[AD-A261034] 10 p3084 N93-28122
Vibrational spectroscopy of shock-compressed fluids 11 p3318 N93-30072
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Climatic effects of turbofan emissions in the stratosphere and the higher troposphere 12 p3753 N93-31927
Effects of commercial flight pollution on human health 12 p3753 N93-31931
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189
NITROGEN PLASMA
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
NITROGEN POLYMERS
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
Surface epoxidation of elastomers
[AD-D015457] 05 p1123 N93-16436
NITROGLYCERIN
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
NITROMETHANE
The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296
NITROSAMINE
Thermal decomposition of nitramines 11 p3318 N93-30065
NITROUS OXIDES
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
NMR
U NUCLEAR MAGNETIC RESONANCE
NOAA G SATELLITE
U NOAA 10 SATELLITE
NOAA SATELLITES
NT NOAA 10 SATELLITE
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Automatic pattern recognition techniques for geometrical correction on satellite data 03 p0687 N93-13913
Observation of the Earth-atmosphere system by NOAA satellite (acquisition, production, application, and use of NOAA data)
[BCRS-92-02] 05 p1207 N93-16221
Identification of icing water clouds by NOAA AVHRR satellite data
[DLR-FB-92-11] 05 p1213 N93-16477
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Detection of polar stratospheric clouds from satellite 07 p1957 N93-21591
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data 08 p2340 N93-22445
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain) 09 p2738 N93-24780
Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data 09 p2742 N93-24801
Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries 09 p2743 N93-24808
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852
Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring 09 p2750 N93-24853
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland) 11 p3458 N93-28926
Derivation of conductive heat transfer in mountains from AVHRR data 11 p3458 N93-28927
NOAA satellite programs and technology requirements 11 p3627 N93-30710
NOAA 10 SATELLITE
Derivation of total ozone amount from NOAA/TOVS data 10 p3071 N93-26997
NOBLE GASES
U RARE GASES
NOBLE METALS
NT GOLD
NT GOLD ISOTOPES
NT RUTHENIUM
NT SILVER
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
Recovery and separation of precious metals from space 10 p3001 N93-26686

Characterization of small noble metal electrodes by voltammetry and energy dispersive x ray analysis
[AD-A265208] 12 p3721 N93-32001

NOCTILUCENCE
U LUMINESCENCE

NODES (STANDING WAVES)
Mode localization in a simple continuum model
01 p0056 N93-10529

NODULES
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384

NOE NAVIGATION
U NAP-OF-THE-EARTH NAVIGATION

NOISE
Noise measurements of YBa2Cu3O7 thin film high-temperature superconductors
03 p0726 N93-13933
Analysis and correction of noise on electronic circuits in an accelerator environment
[DE93-004816] 08 p2280 N93-23319
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010
Characteristics of high-frequency signals, noise, availability, and duration of bandwidths based on ROTHR Amchitka spectrum measurements
[AD-A264480] 11 p3393 N93-30423

NOISE (SOUND)
NT AERODYNAMIC NOISE
NT AIRCRAFT NOISE
NT BLADE SLAP NOISE
NT ENGINE NOISE
NT JET AIRCRAFT NOISE
NT PROPELLER NOISE
NT SONIC BOOMS
NT THERMAL NOISE
Broadband vibroacoustic frequency control via piezoelectric films
[ONERA-RT-8/3654-RY-010-R]
04 p0974 N93-15129
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Classification of complex sounds
[AD-A258405] 06 p1596 N93-18223
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787
Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406

NOISE ATTENUATION
U NOISE REDUCTION

NOISE ELIMINATION
U NOISE REDUCTION

NOISE GENERATORS
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975

NOISE HAZARDS
U HAZARDS
U NOISE (SOUND)

NOISE INTENSITY
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source
01 p0148 N93-10671
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Noise emission of low flying military airplanes
01 p0149 N93-10675
Combat aircraft noise 01 p0149 N93-10676
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
A brief review of the source noise technology applicable to fixed-wing military aircraft 01 p0150 N93-10678
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Audibility-based annoyance prediction modeling
01 p0151 N93-10683
Identifying the principal noise sources of fixed-wing combat aircraft in high-speed flight
01 p0151 N93-10686
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Laboratory study of effects of scnic boom shaping on subjective loudness and acceptability
[NASA-TP-3269] 02 p0434 N93-11620
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Optimal linear array heading in a directional noise field
[AD-A257336] 05 p1137 N93-15991
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
Effect of personal and situational variables on noise annoyance: With special reference to implications for en route noise
[NASA-CR-189676] 07 p2060 N93-21317
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport
[PB92-221605] 07 p1991 N93-21501
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649
Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations
[RAND/N-3464-AF] 09 p2767 N93-26327
A noise level analysis of special multiple-spin VAS data during storm-fest
[NOAA-TR-NESDIS-65] 10 p3071 N93-27079
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193

NOISE MEASUREMENT
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction
01 p0149 N93-10674
Noise emission of low flying military airplanes
01 p0149 N93-10675
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
The design and commissioning of an acoustic liner for propeller noise testing in the ARA transonic wind tunnel
[PNR-90880] 02 p0433 N93-11204
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Calculation of noise emission caused by jet aircraft during takeoff, approach and horizontal flyover
[DLR-MITT-91-15] 07 p2061 N93-21368
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
External acoustical noise measurements for aviation systems
[AD-A263138] 11 p3562 N93-29480
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme
11 p3397 N93-30743
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744

NOISE POLLUTION
Audibility-based annoyance prediction modeling
01 p0151 N93-10683
Laboratory study of effects of sonic boom shaping on subjective loudness and acceptability
[NASA-TP-3269] 02 p0434 N93-11620
Air Force procedure for predicting noise around airbases: Noise exposure model (Noisemap)
[AD-A255769] 04 p0910 N93-14655
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929
Reaction to aircraft noise near general aviation airfields
[DORA-8203] 12 p3817 N93-32377

NOISE PREDICTION
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
A long wave TE/TM noise prediction model
11 p3397 N93-30742
The prediction of noise from co-axial jets
[ISVR-TR-215] 12 p3817 N93-32339

NOISE PREDICTION (AIRCRAFT)
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Non-propulsive aerodynamic noise
01 p0149 N93-10673
Comparison of flyover noise data from aircraft at high subsonic speeds with prediction
01 p0149 N93-10674
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Combat aircraft jet engine noise studies
01 p0150 N93-10679
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Audibility-based annoyance prediction modeling
01 p0151 N93-10683
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Measurement and prediction of noise from low-altitude military aircraft operations 01 p0151 N93-10687
Air Force procedure for predicting noise around airbases: Noise exposure model (Noisemap)
[AD-A255769] 04 p0910 N93-14655
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Theory for noise of propellers in angular inflow with parametric studies and experimental verification
[NASA-CR-4499] 09 p2844 N93-25094
A prediction model for noise from low-altitude military aircraft
[AD-A262494] 10 p3130 N93-27662
Computation of far-field helicopter rotor tone noise
[ONERA-P-1990-5] 11 p3562 N93-30110

NOISE PROPAGATION
Laboratory study of effects of sonic boom shaping on subjective loudness and acceptability
[NASA-TP-3269] 02 p0434 N93-11620
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Propagation of high frequency jet noise using geometric acoustics
[NASA-TM-106013] 04 p0975 N93-15575
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888

Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172

NOISE REDUCTION
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Combat Aircraft Noise
[AGARD-CP-512] 01 p0148 N93-10666
Combat aircraft noise: The operator's perspective 01 p0148 N93-10669
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
Non-propulsive aerodynamic noise 01 p0149 N93-10673
Combat aircraft noise 01 p0149 N93-10676
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Combat aircraft jet engine noise studies 01 p0150 N93-10679
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Combat aircraft noise reduction by technical measures 01 p0152 N93-10689
Technical measures for the attenuation of aircraft noise and their applicability to GAF combat aircraft 01 p0152 N93-10690
Study results on combat aircraft source noise reduction 01 p0152 N93-10691
Reduction of propeller noise by active noise control 01 p0152 N93-10692
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Publications on acoustics research at the Langley Research Center, January 1987 - September 1992
[NASA-TM-107674] 02 p0435 N93-12080
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
Report on the final panel discussion on computational aeroacoustics
[NASA-CR-189718] 03 p0699 N93-12986
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Adaptive active noise control using multiple-model approaches
[ISVR-TR-210] 04 p0974 N93-14734
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material 05 p1084 N93-15779
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
Aircraft trajectory tracking and prediction
[AD-A259039] 06 p1441 N93-18999
Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Calculation of noise emission caused by jet aircraft during takeoff, approach and horizontal flyover
[DLR-MITT-91-15] 07 p2061 N93-21368
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Developing a neural network to act as a noise filter
[AD-A259515] 08 p2460 N93-23699
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
A numerical and experimental studies of flow characteristics in centrifugal fans 09 p2577 N93-25339
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
In-flight evaluation of noise levels and assessment of active noise reduction systems in the Seahawk S-70B-2 helicopter
[AD-A260689] 09 p2845 N93-25649
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
Which Q-analogue of the squeezed oscillator? 10 p3142 N93-27320
Multipath noise reduction spread spectrum signals
[NASA-CASE-NPO-18970-1-CU] 10 p3028 N93-28126
Activities report of the Technische Dienst TNO-TU, Delft (Netherlands)
[ETN-93-93343] 10 p3219 N93-28201
Jet mixer noise suppressor using acoustic feedback
[NASA-CASE-LEW-15170-1] 11 p3561 N93-28953
Gyroscope with excess noise subtraction
[AD-D015698] 11 p3431 N93-29046
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
Noise transmission properties and control strategies for composite structures 11 p3301 N93-30436
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221

NOISE SPECTRA
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Auditory perception
[AD-A255061] 02 p0385 N93-12469
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
Classification of complex sounds
[AD-A258405] 06 p1596 N93-18223
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
Time stability: An improvement of the multi-variance method for the oscillator noise analysis 09 p2839 N93-25036
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980

NOISE SUPPRESSORS
U NOISE REDUCTION

NOISE TEMPERATURE
Appendix: Limits on the use of heterodyning and amplification in optical interferometry 03 p0747 N93-13597
WR-10 band noise measurement
[AD-A255526] 03 p0566 N93-13871
Determination of the dissipative loss of a two-port network from noise temperature measurements 06 p1505 N93-18904
Minimizing noise-temperature measurement errors 06 p1507 N93-18919
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Study of the gain factor (G/T) of an active antenna
[CNES-NT-130] 07 p1884 N93-21036
A technique for computation of noise temperature due to a beam waveguide shroud 09 p2671 N93-24661
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
Noise in Josepson effect mixers and the RSJ model 10 p3016 N93-27762
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
All-solid-state radiometers for environmental studies to 700 GHz 10 p3020 N93-27784

NOISE TOLERANCE
Human noise exposure criteria for combat aircraft training areas 01 p0148 N93-10670
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
Audibility-based annoyance prediction modeling 01 p0151 N93-10683
Fuzzy logic: Artificial neural networks integration for transient identification
[DE93-002232] 06 p1632 N93-18389
Machine learning techniques for fault isolation and sensor placement 09 p2823 N93-25966

NOMENCLATURES
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
The great asteroid nomenclature controversy of 1801 06 p1704 N93-19145
From asteroid clusters to families: A proposal for a new nomenclature 06 p1705 N93-19151
Acronym dictionary
[NASA-CR-193218] 10 p3164 N93-26900

NOMINAL VALUES
U APPROXIMATION

NOMOGRAMS
U NOMOGRAPHS

NOMOGRAPHS
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46
[NASA-TM-107552] 02 p0223 N93-12151
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
Analysis of LDEF micrometeoroid/debris data and damage to composite materials 11 p3309 N93-29366

NON-INTRUSIVE MEASUREMENT
U NONINTRUSIVE MEASUREMENT

NONADIABATIC CONDITIONS
Hypersonic inlet efficiency revisited 01 p0005 N93-10012
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Numerical analysis of the thermoelastic effects in laminated structures and its use in the identification of defects 07 p1841 N93-21511
Chemical dynamics studies of high energy species
[AD-A260743] 09 p2852 N93-25676
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083

NONADIABATIC PROCESSES
U HEAT TRANSFER

NONAQUEOUS ELECTROLYTES
Lithium rechargeable cell with a poly 3-methylthiophene cathode
[AD-A255436] 04 p0866 N93-14552

NONCONDENSABLE GASES
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
[NASA-CR-192356] 08 p2287 N93-22401
NONCONDUCTORS
U ELECTRICAL INSULATION
NONCONSERVATIVE FORCES
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
NONDESTRUCTIVE TESTS
NT NEUTRON RADIOGRAPHY
Ultrasonic characterization of highly attenuative thick composites
[AD-A253347] 01 p0027 N93-10272
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Nondestructive inspection and life determination of disc material
[PNR-90911] 02 p0331 N93-11016
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Using NDT techniques in the maintenance of aeronautical products
[REPT-921-430-102] 02 p0332 N93-11587
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
Magneto-optic imaging inspection of selected corrosion specimens
[DOT/FAA/CT-TN92/20] 02 p0332 N93-11617
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Development of nondestructive evaluation methods and prediction of effects of flaws on the fracture behavior of structural ceramics
[DE92-016395] 02 p0271 N93-12123
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB]
02 p0333 N93-12204
Ultrasonic flaw classification and sizing
02 p0333 N93-12533
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation
[AD-A254941] 03 p0727 N93-12546
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
Nondestructive evaluation of the in-place compressive strength of concrete based upon limited destructive testing
[PB92-222751] 03 p0623 N93-12981
Review of progress in quantitative NDE
[DE92-018814] 03 p0620 N93-13071
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
Finite element study of ultrasonic imaging
03 p0700 N93-13774
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy
04 p0829 N93-14192
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Testing and analysis of modified HMMWV front lift provisions
[MTL-TR-92-31] 04 p0891 N93-14735
Three-dimensional nuclear magnetic resonance imaging of green-state ceramics
[DE93-000930] 04 p0851 N93-15282
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
Development and applications of a new computer-controlled magnetic inspection system
[DE92-040579] 05 p1181 N93-15664
NDE for thick section composites
[AD-A257292] 05 p1181 N93-15837
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Advanced NDE research in electromagnetic, thermal, and coherent optics 05 p1182 N93-16789
Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU]
05 p1182 N93-17048
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Review of aeronautical fatigue investigations in the Netherlands during the period March 1989 - March 1991
[NLR-TP-91092-U] 05 p1062 N93-17535
Manufacturing and inspection of artificial delaminations in composite materials
[NLR-TP-91085-U] 05 p1099 N93-17582
Control of in-service damage: Application to aircraft engines
[DS-2027] 06 p1448 N93-18151
Method for non-destructive estimation of waveguide directional coupler dimensions
[NASA-CASE-NPO-18454-1-CU]
06 p1519 N93-18285
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Picosecond studies of space optical materials
06 p1664 N93-18475
High temperature component analysis with expert systems 06 p1557 N93-18751
Spectroscopic wear detector
[NASA-CASE-LEW-15200-1] 06 p1474 N93-18856
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB]
06 p1559 N93-19329
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
Method and apparatus for determination of material residual stress
[NASA-CASE-GSC-13451-1] 07 p1921 N93-20118
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
Noncontact nondestructive tests
[ETN-93-93060] 07 p1919 N93-20929
The holographic interferometry: An industrial tool
[REPT-921-430-110] 07 p1906 N93-20932
Infrared imaging of fibre reinforced plastic composites
07 p1838 N93-21162
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Testing and characterization of composite materials by Compton tomodensitometry
[REPT-921-430-107] 07 p1840 N93-21458
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques
07 p1767 N93-21875
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements
08 p2485 N93-22184
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Propagation of elastic waves through inhomogeneous, anisotropic materials
[DE93-006247] 08 p2288 N93-22509
Micromagnetic surface studies of materials for nondestructive evaluation
[DE93-006303] 08 p2321 N93-22695
Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry
[DE93-003741] 08 p2220 N93-23051
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
High resolution computed tomography
[AD-A259728] 08 p2321 N93-23470
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072
Reliability assessment at airline inspection facilities. Volume 1: A generic protocol for inspection reliability experiments
[DOT/FAA/CT-92/12-VOL-1] 09 p2582 N93-25110
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements
09 p2635 N93-25544
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
NIST reactor: Summary of activities, July 1991 through September 1992
[PB93-162873] 09 p2852 N93-26322
Inverse problems in nondestructive evaluations
[AD-A261370] 09 p2722 N93-26337
NDT standards from the perspective of the Department of Defense
[MTL-TR-92-68] 09 p2722 N93-26434
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685

Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Advanced Construction Technology Center research
[AD-A263654] 11 p3432 N93-29390
Advanced NDE technology program
[AD-A262008] 11 p3449 N93-29443
Characterization of ceramic composite materials for gas turbine applications
[DE93-009719] 11 p3259 N93-30168
Logarithmic time scale in thermographic Non Destructive Evaluation (NDE) of materials 11 p3359 N93-30246
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835
Internal structural characterization
[AD-A264762] 12 p3738 N93-31982

NONEQUILIBRIUM CONDITIONS
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284

NONEQUILIBRIUM DRAG
U FRICTION DRAG

NONEQUILIBRIUM FLOW
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Vibration dissociation coupling in nonequilibrium flows
[NASA-CR-191775] 05 p1157 N93-16439
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2] 05 p1054 N93-16470
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems 05 p1165 N93-16786
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements
[INRIA-RR-1476] 06 p1407 N93-18648
Influence of the physical modelling of viscous terms on hypersonic flow computations
[INRIA-RR-1493] 06 p1408 N93-18652
Stability of nonequilibrium shear flows 06 p1534 N93-19056
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
Inviscid quasi one-dimensional nonequilibrium flow
[FFA-TN-1992-35] 11 p3418 N93-28993
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284

NONEQUILIBRIUM IONIZATION
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
A quasi-equilibrium kinetic model of HF air breakdown
[AD-A256240] 04 p0859 N93-14453
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871

NONEQUILIBRIUM PLASMAS
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307

NONEQUILIBRIUM RADIATION
Assessment of nonequilibrium radiation computation methods for hypersonic flows
[NASA-TM-103994] 06 p1534 N93-19348

NONEQUILIBRIUM THERMODYNAMICS
The nonequilibrium statistical mechanics of chaotic maps 03 p0729 N93-13832
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005

NONEUCLIDIAN GEOMETRY
U DIFFERENTIAL GEOMETRY

NONFERROUS METALS
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021

NONGRAY GAS
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168

NONHOLONOMIC EQUATIONS
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
A surface integral approach to the motion planning of nonholonomic systems
[AD-A254844] 02 p0329 N93-12434

NONHOMOGENEITY
U INHOMOGENEITY

NONINTRUSIVE MEASUREMENT
Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Elastic and plastic strain measurement in high temperature environment using laser speckle 03 p0600 N93-13673
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
High performance sapphire windows 08 p2310 N93-22198

NONISENTROPICITY
A convergent finite difference scheme for the Navier-Stokes equations of nonisentropic compressible fluid flow 09 p2695 N93-24906

NONISOTROPIC PLATES
U ANISOTROPIC PLATES

NONISOTROPY
U ANISOTROPY

NONLINEAR EQUATIONS
NT CUBIC EQUATIONS
NT DUFFING DIFFERENTIAL EQUATION
NT NONLINEAR EVOLUTION EQUATIONS
NT QUADRATIC EQUATIONS
Improved numerical simulation of Euler equations 01 p0080 N93-10309
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Discontinuous initial value problem of nonlinear elasticity by similarity approach 01 p0064 N93-10569
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
Singular perturbation methods for nonlinear dynamical systems and waves
[AD-A254116] 01 p0144 N93-10660
Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811
Development of nonlinear aerodynamic models for unsteady responses 01 p0004 N93-10845
A primer on polynomial resultants
[AD-A246883] 02 p0426 N93-11463
Solution of nonlinear flow equations for complex aerodynamic shapes
[NASA-CR-190979] 02 p0307 N93-12329
Numerical optimization
[AD-A254575] 03 p0682 N93-12647
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Efficient solution of parabolic equations by Krylov approximation methods
[NASA-CR-191235] 03 p0697 N93-13409
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Iterative algorithms for integral equations of the first kind with applications to statistics
[AD-A256529] 04 p0942 N93-14285
The center for nonlinear phenomena and magnetic materials
[AD-A255983] 04 p0967 N93-14412
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035
Vortex breakdown incipience: Theoretical considerations
[NASA-CR-189734] 05 p1055 N93-16627
C-integrable nonlinear partial differential equations in N + 1 dimensions
[PREPRINT-833] 05 p1269 N93-16955
Non-linear WKB analysis of the string equation
[PREPRINT-862] 05 p1330 N93-16963
A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions
[PREPRINT-851] 05 p1270 N93-17071
Integrable nonlinear evolution equations with constraints: 1
[PREPRINT-824] 05 p1270 N93-17220
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1665 N93-18100
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Approximation of attractors and applications
[DE93-002420] 06 p1535 N93-19475
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Feature-oriented signal processing under nonlinear partial differential equations
[AD-A259951] 08 p2470 N93-24245
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437
A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Dynamics of deformable multibody systems using recursive projection methods
[AD-A260698] 09 p2726 N93-25842
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
The method of minimal normal forms — for solving nonlinear differential equations
[DE93-008060] 10 p3118 N93-27627
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883

On Radon-Nikodym derivatives of finitely additive measures induced by nonlinear transformations on Hilbert space
[MEMO-1063] 10 p3129 N93-28147
Localized solutions of N + 1 dimensional evolution equations
[SSCL-PREPRINT-753] 10 p3157 N93-28210
Using pseudo Kalman-filters in the presence of constraints application to sensing behaviors
[INRIA-RR-1669] 10 p3122 N93-28442
Index mappings for interactive editing of symbolic matrices
[DE93-009316] 11 p3549 N93-29060
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525
On the method of determining relations
[DE93-606041] 11 p3551 N93-30765
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913
A remark on the invariant measure for the nonlinear Schroedinger equation
[DE93-609840] 11 p3552 N93-30946
The contact mechanical nonlinearities of a mathematical model of a railway wheel rolling over corrugated rail
[ILR-MITT-266(1991)] 11 p3454 N93-31015
Resonance and near-resonance for a nonlinear wave equation
[REPT-92-92] 12 p3814 N93-31633
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067

NONLINEAR EVOLUTION EQUATIONS
Systems of evolution equations in thermochemical equations
[AD-A254891] 02 p0253 N93-12282
Inhomogeneous Toda lattice: Its hierarchy and Darhoux-Backlund transformations
[SSCL-PREPRINT-762] 10 p3121 N93-28146
Integrable symplectic maps
[SSCL-PREPRINT-744] 10 p3122 N93-28387
Computer algebra tools for higher symmetry analysis of nonlinear evolution equations
[DE93-606089] 11 p3535 N93-30787
Model of a rotating magnetic cloud
12 p3857 N93-31707

NONLINEAR FEEDBACK
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU]
02 p0324 N93-11177
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
Computer aided analysis of nonlinear systems
[RR-446] 05 p1239 N93-16576
Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333

NONLINEAR FILTERS
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
Developing a neural network to act as a noise filter
[AD-A259515] 08 p2460 N93-23699
PDE: Differential, geometric and algebraic methods in nonlinear filtering
[AD-A260967] 09 p2829 N93-26222
Realtime control of multiple sensor systems
[AD-A261037] 09 p2680 N93-26226
A representation result for nonlinear filter maps on a white noise framework
[MEMO-1062] 10 p3129 N93-28013
A boson field stochastic calculus and quantum filtering in Fock space
[SSCL-PREPRINT-723] 10 p3156 N93-28096
Morphological and order statistic filters: A comparative study 11 p3375 N93-30345

NONLINEAR OPTICS
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
The Third Potsdam-5 Kiev International Workshop on Nonlinear Processes in Physics
[AD-A249140] 02 p0430 N93-11420
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446
Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447
Synthesis and characterization of dipolar organic molecules for nonlinear optical materials
[AD-A257111] 05 p1302 N93-16118
Nonlinear optical studies of resonant systems
[AD-A257001] 05 p1302 N93-16235
ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398
Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
Photorefractive properties of doped BaTiO 3 and SBN
[AD-A257989] 05 p1305 N93-17748
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
The Fourth Conference on Organized Thin Films
[AD-A258315] 06 p1672 N93-18310
Tunable infrared and visible solid-state laser
06 p1543 N93-18473
Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal
[AD-A258824] 06 p1675 N93-19088
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
Nonlinear fiber optics
[AD-A259363] 07 p2068 N93-21245
Quantum theory of multiwave mixing with applications to squeezing in both atomic and semiconductor media
[AD-A259875] 08 p2514 N93-22732
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Computation of nonlinear optical scattering by droplets
[AD-A260333] 08 p2490 N93-24267
Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Second-harmonic generation in optical fibers and glass
[AD-A260592] 09 p2853 N93-25839
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Development of organic nonlinear optical materials
[AD-A261332] 09 p2856 N93-26309
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Interferometric measurement with squeezed light
[AD-A260910] 09 p2856 N93-26457
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers
[AD-A262013] 10 p3004 N93-27669
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912
Enhanced chromophore polymeric NLO materials
[AD-A262258] 10 p3147 N93-28111
Nonlinear Optics: Materials, Fundamentals, and Applications. Postdeadline papers
[AD-A261807] 10 p3147 N93-28123
Nonlinear optics in three level atomic systems
[AD-A262793] 10 p3148 N93-28376
Extremely high rate deposition of polymer multilayer optical thin film materials
[DE93-009127] 10 p3053 N93-28433
Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772
Dipolar orientational relaxation in guest/host amorphous polymer probed by second harmonic generation
[AD-A262006] 11 p3333 N93-29441
Isothermal annealing and relaxation of the second harmonic generation signal from a nonlinear optical polymer
[AD-A262007] 11 p3333 N93-29442
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Nonlinear mode coupling in free electron lasers
[AD-A263999] 11 p3439 N93-29883
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

NONLINEAR PROGRAMMING
Structural design using equilibrium programming
[NASA-TM-107593] 02 p0339 N93-12005
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791

Methods and convergence analysis in large scale nonlinear optimization
[AD-A258182] 06 p1616 N93-17898
An algorithm for the solution of a traveling salesman problem to minimize the average time to demand satisfaction
[AD-A258301] 06 p1645 N93-18302
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
O-Plan2: The open planning architecture
06 p1637 N93-18678
Model reduction in integrated controls-structures design 06 p1468 N93-18935
Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
A truncated SQP algorithm for large scale nonlinear programming problems
[PB92-226299] 07 p2039 N93-21045
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Robust Neighboring Optimal Guidance for the Advanced Launch System --- Author
[NASA-CR-192087] 08 p2171 N93-22009
Advanced launch system trajectory optimization using suboptimal control 08 p2171 N93-22010
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
Multidisciplinary optimization of a controlled space structure using 150 design variables
[NASA-CR-4502] 08 p2125 N93-22799
Transformational planning of reactive behavior
[AD-A260350] 08 p2463 N93-24270
Optimal cooperative power-limited rendezvous
09 p2607 N93-24904
New approaches to linear and nonlinear programming
[DE93-010134] 10 p3103 N93-28214
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640

NONLINEAR SYSTEMS

A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing
01 p0124 N93-10318
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
New directions in computational mechanics
01 p0044 N93-10467
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Chaotic oscillation of a high speed flexible arm robot
01 p0065 N93-10574
DYNA2D: A nonlinear, explicit, two-dimensional finite element code for solid mechanics: User manual
[DE92-017310] 01 p0095 N93-10646
Singular perturbation methods for nonlinear dynamical systems and waves
[AD-A254116] 01 p0144 N93-10660
Combustion noise and combustion instabilities in propulsion systems 01 p0150 N93-10682
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU]
02 p0324 N93-11177
Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
The Third Potsdam-5 Kiev International Workshop on Nonlinear Processes in Physics
[AD-A249140] 02 p0430 N93-11420
A primer on polynomial resultants
[AD-A246883] 02 p0426 N93-11463
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
Laminar boundary-layer breakdown
[AD-A254489] 02 p0306 N93-12162
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Hyperbolic conservation laws with umbilic points, 1
[AD-A254431] 03 p0696 N93-12594
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Scientific study of data analysis
[NASA-CR-184435] 03 p0769 N93-12658
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. lifornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Proceedings of the Tenth Symposium on Energy Engineering Sciences: Synergism of Analysis, Modeling, and Experiment
[DE92-018777] 03 p0638 N93-13069
Nonlinear stability of combustion-driven acoustic oscillations in resonance tubes
[DE92-012153] 03 p0699 N93-13262
Nonlinear mechanics of composite materials with periodic microstructure
[NASA-CR-190750] 03 p0531 N93-13309
Baroclinic wave packets in models and observations
03 p0663 N93-13361
Applications of CFD and visualization techniques
03 p0584 N93-13386
Chaotic vortical motion in the near region of a plane jet 03 p0493 N93-13493
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations
03 p0655 N93-13757
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111
Nonlinear dynamics of optical systems
04 p0979 N93-14124
Non-linear analysis of wave propagation using transform methods and plates and shells using integral equations
04 p0896 N93-14186
Nonlinear modeling of gated range tracker dynamics with application to radar range resolution, phase 1
[AD-A256074] 04 p0858 N93-14259
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggies, acoustic streaming effects in standing waves, and spark-source lithotripter pulses
[AD-A256289] 04 p0974 N93-14458
Adaptive control of nonlinear nonminimum phase systems 04 p0961 N93-14470
A new device to aid in the conception and optimization of monolithic millimeter circuits: A distributed and nonliner model of a field effect transistor
04 p0807 N93-14932
Simulation and nonlinear modelling of microwave transistors 04 p0807 N93-14936
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
Dynamic feedback in nonlinear synthesis problems
[ISBN-90-9004142-7] 05 p1259 N93-16474
On the sum of accretive operators
[ETN-92-92794] 05 p1265 N93-16566
Computer aided analysis of nonlinear systems
[RR-446] 05 p1239 N93-16576
Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
Functional expansion representations of artificial neural networks 05 p1262 N93-16772
Nonlinear H(infinity) control and Hamilton-Jacobi inequalities
[MEMO-1042] 05 p1268 N93-16843
Dynamic path controllability in economic models: From linearity to nonlinearity
[MEMO-1047] 05 p1357 N93-16847
Nonlinear control problems and systems approximations: A geometric approach
[MEMO-1039] 05 p1261 N93-16951
Controllability distributions and systems approximations: A geometric approach
[MEMO-1040] 05 p1269 N93-16952
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
Prediction of nonlinear optical properties of large organic molecules 05 p1128 N93-17288
Mathematical models of hysteresis
[DE93-001836] 05 p1281 N93-17530
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258028] 05 p1277 N93-17674
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2] 06 p1528 N93-18440
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
A structure detection algorithm for nonlinear dynamic rational models
[RR-439] 06 p1649 N93-18508
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1] 06 p1528 N93-18510
Discrete time system piecewise linear filtering with small observation noise
[INRIA-RR-1451] 06 p1633 N93-18611
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Nonlinear robust controller design for multi-robot systems with unknown payloads
06 p1552 N93-19462

New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation
[AD-A259372] 06 p1522 N93-19853
The 1991 lectures in complex systems
[AD-A259428] 07 p2050 N93-20008
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
A non-linear phenomenon in the dynamic response of metallic and composite structures
07 p1926 N93-20620
Numerical stabilities aspects of cable dynamics simulation 07 p1931 N93-20650
An efficient method for the reliability analysis of geometric nonlinear frame structures
07 p1931 N93-20651
Nonlinear analysis of plates by the finite element method 07 p1939 N93-20698
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
Nonlinearization of nonlinear systems under external and parametric random excitations 07 p1945 N93-20730
Explicit representations of Lyapunov functions for stable analytic systems
[RR-402] 07 p2051 N93-20737
C-integrable nonlinear PDE's. 1
[PREPRINT-787] 07 p2051 N93-20805
C-integrable nonlinear PDE's. 2
[PREPRINT-788] 07 p2053 N93-20874
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112028] 07 p1947 N93-21236
Robust controller design: A bounded-input-bounded-output worst-case approach
[AD-A259367] 07 p2047 N93-21246
Nonlinear ocean waves
[AD-A259335] 07 p2019 N93-21260
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
A fuzzy controller with nonlinear control rules is the sum of a global nonlinear controller and a local nonlinear PI-like controller 08 p2453 N93-22356
Nonlinear rescaling of control values simplifies fuzzy control 08 p2456 N93-22373
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Temporal identification of linear and nonlinear structures
[ECL-90-33] 08 p2324 N93-22696
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity
08 p2392 N93-23135
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Nonlinear attitude control of spacecraft and momentum management of control moment gyros
08 p2195 N93-23506
Asymptotic analysis of: 1: Wave propagation in dispersive optical media with quadratic nonlinearity. 2: A hypersonic wing with three-dimensional self-similarity
08 p2112 N93-23594
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Large-amplitude forced response of dynamic systems
[AD-A260394] 08 p2332 N93-24426
Stochastic inflation and inflationary density fluctuations
08 p2473 N93-24457
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Control of nonlinear systems under input constraints with applications to flight control 09 p2596 N93-25353
On existence of solutions and duality for a model of non-linear elastic plates with transverse shear deformations 09 p2726 N93-25437
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft
09 p2617 N93-25527
Biped control via nonlinear dynamics
09 p2718 N93-25697
Nonlinear dynamics and attitude control of articulated flexible space structures 09 p2617 N93-25726
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE)
09 p2599 N93-25835
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
Nonlinear system design: Adaptive feedback linearization with unmodeled dynamics
[AD-A261360] 09 p2826 N93-26333
Adaptive control of nonlinear flexible systems
[AD-A261676] 09 p2826 N93-26365
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
Hypersonic panel flutter in a rarefied atmosphere
[NASA-CR-4514] 10 p2929 N93-27084
Parameter identification for nonlinear aerodynamic systems
[NASA-CR-193072] 10 p2930 N93-27282
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Balancing for nonlinear systems
[MEMO-1071] 10 p3121 N93-28156
Middeck 0-gravity Dynamics Experiment (MODE)
10 p3010 N93-28171
The investigation of nonlinear effects on quasiparticle transport in condensed matter systems
[DE93-009582] 11 p3565 N93-28914
Uncertainty reasoning in expert systems
[NASA-CR-193120] 11 p3548 N93-28973
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm
11 p3512 N93-29535
Fuzzy coordinator in control problems
11 p3515 N93-29552
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565
Comparison between the performance of two classes of fuzzy controllers 11 p3517 N93-29566
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3279 N93-29989
Static and dynamic large deflection flexural response of graphite-epoxy beams
[NASA-CR-4118] 11 p3454 N93-30374
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3544 N93-30893
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
On neural networks in identification and control of dynamic systems
[NASA-TM-107702] 11 p3455 N93-31038
Estimation and control in discrete-time nonlinear systems 12 p3797 N93-31071
Global stability of systems of two differential equations with unstationary nonlinearities, 2
[DE92-642558] 12 p3802 N93-31072
Dissipation and convergence in the systems of differential equations with unstationary nonlinearities
[DE92-642559] 12 p3802 N93-31079
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155
An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Desktop chaotic systems: Intuition and visualization
[NASA-TM-106258] 12 p3808 N93-31847
An analysis of the composition of auroral emissions in the near infrared
[AD-A265493] 12 p3764 N93-32009
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036
Finite-dimensional approximation for operator equations of Hammerstein type
[DE93-619669] 12 p3809 N93-32286
Convergence rates and finite-dimensional approximations for nonlinear ill-posed problems involving monotone operators in Banach spaces
[DE93-619670] 12 p3809 N93-32287
Nonlinear disturbance decoupling and linearization: A partial interpretation of integral feedback
[MEMO-1093] 12 p3801 N93-32400

NONLINEARITY

Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
Turbulence modeling of the flow field in combustors using the non-linear k-epsilon model
[DE92-014745] 01 p0080 N93-10330
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
A new energy transfer model for turbulent free shear flow
[NASA-TM-105854] 01 p0081 N93-10454
A finite element method for nonlinear panel flutter
01 p0045 N93-10472
Non-linear thermoelasticity of rubberlike solids
01 p0045 N93-10474
Chronorheological characterization of elastomers
01 p0046 N93-10476
Fractals and multifractals in fracture
01 p0050 N93-10497
Failure analysis of laminated composites by using iterative three-dimensional finite element method
01 p0051 N93-10505
A field panel method for transonic flows
01 p0006 N93-10547
Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148

The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations
[NASA-CASE-NPO-18579-1-CU] 02 p0420 N93-11174

Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200

Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210

Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351

Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633

Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871

Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874

New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A254320] 02 p0284 N93-12095

Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097

Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253

Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258

Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422

Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439

The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485

Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579

Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. Ilfornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666

Bayesian analysis of linear and nonlinear population models using the Gibbs sampler
[AD-A254769] 03 p0697 N93-12702

Nonlinear studies of m = 1 modes in high-temperature plasmas
[DE92-019395] 03 p0714 N93-12913

Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914

Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916

Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473

Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769

A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770

Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786

An analysis of the effect of acoustic non-linearities in wide bandwidth acousto-optic bragg cells
[AD-A256579] 04 p0973 N93-14269

Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395

The covariance matrix of derived quantities and their combination
[DE92-019066] 04 p0969 N93-15212

Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375

Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625

Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873

Nonlinear characteristics of superconducting transmission lines
[AD-A256388] 05 p1143 N93-15901

Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938

Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193

Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221

Nonlinear magnetohydrodynamics
[DE93-003241] 06 p1665 N93-18407

Nonlinear circuits and components 06 p1523 N93-18463

High-energy laser-particle interaction 06 p1543 N93-18469

Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486

Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609

Diabatic dynamic initialization 06 p1563 N93-18719

Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774

Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853

A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886

Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988

Asteroid proper elements and secular resonances 06 p1710 N93-19186

Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353

Suppression of mode-beating in a saturated hole-coupled FEL oscillator
[DE93-002554] 06 p1542 N93-19745

New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850

Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034

Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076

On the stability of nonlinear viscous vortices in three-dimensional boundary layers
[NASA-CR-189637] 07 p1899 N93-20254

Material nonlinear analysis of composites 07 p1929 N93-20641

Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713

Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879

SSG 4.120: Non-linear adjustment 07 p1973 N93-20986

Nonlinear ocean waves
[AD-A259335] 07 p2019 N93-21260

Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261

Operator-assisted planning and execution of proximity operations subject to operational constraints 07 p1817 N93-21436

Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003

A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425

Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428

Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727

On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811

A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984

Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052

Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496

A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656

Nonlinear techniques for forecasting solar activity directly from its time series 09 p2603 N93-24716

The third-order permittivity of quartz obtained by different methods 09 p2840 N93-25046

Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175

On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189

Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520

Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631

Far field rotor noise
[AD-A260703] 09 p2845 N93-25651

Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954

Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348

Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141

Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641

Collective dynamics in dense fluid mixtures 10 p3041 N93-28069

Information extraction and integration in mineral exploration 10 p3167 N93-28072

Nonlinear Optics: Materials, Fundamentals, and Applications. Postdeadline papers
[AD-A261807] 10 p3147 N93-28123

Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207

Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602

Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604

Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749

Bifurcations phenomena in a nonlinear oscillator: Approximate analytical studies versus computer simulation results 11 p3407 N93-29037

Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154

Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions 11 p3421 N93-29177

An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414

Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3588 N93-29446

A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525

Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565

A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping 11 p3519 N93-29581

Measurements of light scattering by small particles at an angle of zero degrees
[AD-A263856] 11 p3580 N93-29887

Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917

The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003

Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065

Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099

Exciton solitary waves in molecular crystals
[DE93-608693] 12 p3827 N93-31100

An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490

Nonlinear interaction of Alfven waves in solar atmosphere 12 p3860 N93-31724

A continuation method for computing non-linear 3-D free surface flows
[DE93-008704] 12 p3727 N93-32175

Investigation of transitions from order to chaos in dynamical systems
[DE93-014437] 12 p3833 N93-32290

NONNEWTONIAN FLOW
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
NONNEWTONIAN FLUIDS
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
NONPARAMETRIC STATISTICS
Order statistics and nonparametric statistics
[AD-A253574] 01 p0146 N93-10699
Change analysis
[AD-A253567] 01 p0146 N93-10795
Empirical quantile function nonparametric integrated analyses
[AD-A263704] 11 p3554 N93-29385
NONPOINT SOURCES
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual
[PB93-161628] 10 p3068 N93-27055
NONREFLECTION
U ENERGY ABSORPTION
NONRELATIVISTIC ELECTRONS
U ELECTRONS
NONRIGIDITY
U FLEXIBILITY
NONSTABILIZED OSCILLATION
On the instability of the flow in an oscillating tank of fluid
[NASA-CR-191424] 10 p3037 N93-26896
NONTHERMAL EMISSION
U NONTHERMAL RADIATION
NONTHERMAL RADIATION
NT CYCLOTRON RADIATION
NT ION CYCLOTRON RADIATION
NT SYNCHROTRON RADIATION
Diagnostics of electron-heated solar flares 02 p0488 N93-11877
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars 04 p1050 N93-14242
The nonthermal model of disc accretion onto a magnetosphere 05 p1368 N93-17115
NONUNIFORM FLOW
Hypersonic inlet efficiency revisited 01 p0005 N93-10012
NONUNIFORM MAGNETIC FIELDS
Electrostatic potential in a collisionless plasma flow along open magnetic field lines
[NIFS-155] 06 p1666 N93-18421
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
Maneuvering a reentry body via magneto-gasdynamic forces 09 p2615 N93-25207
NONUNIFORMITY
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
NONVISCOUS FLOW
U INVISCID FLOW
NOON
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
NORD AIRCRAFT
NT C-160 AIRCRAFT
NOREPINEPHRINE
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Extrathalmic modulation of cortical function
[AD-A255440] 04 p0935 N93-14782
NORMAL DENSITY FUNCTIONS
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
Computational aspects of Gaussian beam migration
[DE92-018641] 02 p0431 N93-11567
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
PDF turbulence modeling and DNS 05 p1153 N93-15794
A normal distribution or a Weibull distribution for fatigue lives
[LR-689] 05 p1275 N93-16216
Accurate test limits with estimated parameters
[MEMO-1024] 07 p1877 N93-21397
Modified Anderson-Darling and Cramer-Von Mises goodness-of-fit tests for the normal distribution
[AD-A262554] 11 p3553 N93-28575
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857
NORMAL DISTRIBUTIONS
U NORMAL DENSITY FUNCTIONS
NORMAL FORCE DISTRIBUTION
U FORCE DISTRIBUTION
NORMAL SHOCK WAVES
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
An investigation of photothermal velocimetry for application to transient, high-speed gas flows 09 p2579 N93-25720
NORMALIZING
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
NORMALIZING (STATISTICS)
TRASYS form factor matrix normalization 03 p0585 N93-13391
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
NORMS
Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Balanced approximation can be optimal
[OUEL-1950/92] 11 p3548 N93-28754
NORTH AMERICA
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
Statistical relationships between tree growth and climate in western North America 03 p0648 N93-14096
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289
NORTH AMERICAN AIRCRAFT
NT B-1 AIRCRAFT
NT X-15 AIRCRAFT
NORTH ATLANTIC TREATY ORGANIZATION (NATO)
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Highlights 92/2 03 p0775 N93-13474
NATO Advanced Research Workshop on Non-Thermal Plasma Techniques for Pollution Control
[AD-A258477] 06 p1665 N93-18323
AGARD membership, 1993
[AGARD-MEMB-93] 09 p2873 N93-26428
T(Ic2)acS(Ic3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
Considerations for NATO satellite communications in the post-2000 era 11 p3388 N93-29899
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
NORTH CAROLINA
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
NORTH DAKOTA
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557
The North Dakota thunderstorm project
[PB93-153039] 09 p2785 N93-25776
NORTH SEA
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630
The environmental biogeochemistry of open ocean and partially enclosed marine systems 08 p2413 N93-23130
An electronic sea map 12 p3745 N93-31262
NORTH VIETNAM
U VIETNAM
NORTHERN HEMISPHERE
NT ARCTIC REGIONS
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I 01 p0127 N93-10851
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb
[PB92-222694] 03 p0661 N93-12817
The North Atlantic circulation: Combining simplified dynamics with hydrographic data 03 p0670 N93-13483
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres 04 p0926 N93-14966
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
NORTHERN SKY
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
Campaigns to study the aurora borealis focused on myriametric waves in 1991 06 p1578 N93-18740
Ground station operation in the EISCAT campaign focused on the aurora borealis in November 1991 06 p1578 N93-18741
Tully-Fisher distances and motions in the northern sky 09 p2889 N93-25621
NORTHROP AIRCRAFT
NT F-18 AIRCRAFT
NT T-38 AIRCRAFT
NORWAY
Impact cratering record of Fennoscandia 01 p0119 N93-10171
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
NORWEGIAN SPACE PROGRAM
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
NOSE (ANATOMY)
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317
NOSE CAPS
U NOSE CONES
NOSE CONES
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles
[DE93-008363] 10 p3025 N93-26670

NOSE TIPS
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
Shape-stable reentry body nose tip
[AD-D015437] 04 p0817 N93-14725
Ablation problems using a finite control volume technique
[DE93-009861] 11 p3549 N93-29187
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494

NOSE WHEELS
Testing a wheeled landing gear system for the TH-57 helicopter
[AD-A262152] 10 p2942 N93-27547

NOSES (FOREBODIES)
NT NOSE CONES
Shape-stable reentry body nose tip
[AD-D015437] 04 p0817 N93-14725
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046

NOTATION
U CODING

NOTCH SENSITIVITY
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065

NOTCH STRENGTH
Analysis of a buffer strip laminate with a cutout
01 p0052 N93-10506
The use of finite element codes for cyclic stress-strain analysis 07 p1950 N93-21340
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390

NOTCH TESTS
NT CHARPY IMPACT TEST
Stress patterns in the dynamic tear test
01 p0049 N93-10491
On the development of a new fracture toughness procedure 01 p0059 N93-10541
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
Fatigue crack growth and coalescense in a notch region
[ISBN-0-315-68910-2] 06 p1559 N93-19042
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Probabilistic assessment of machine parts from Kymenite, austempered ductile iron
07 p1923 N93-20341
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338
The use of finite element codes for cyclic stress-strain analysis 07 p1950 N93-21340
Edge delamination of composite laminates
07 p1842 N93-21519
Interlaminar mode-2 fracture toughness of a glass-fiber epoxy laminate
[VTT-PUBS-105] 08 p2208 N93-22815
Evaluation of the chevron notch fracture toughness test for brittle materials
[NPL-DMM(A)-72] 12 p3742 N93-32384

NOTCHED METALS
U NOTCH TESTS

NOTCHES
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures
03 p0631 N93-13947
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens
[AD-A261679] 09 p2731 N93-26390

NOVA LASER SYSTEM
Measurements and modeling of laser irradiance in the high-power third-harmonic Nova focus. Volume A: Report
[DE92-016746] 01 p0090 N93-10739
Recent Nova experimental results
[DE92-019783] 03 p0715 N93-13105
Characteristics of the Nova laser disk edge cladding epoxy
[DE92-041046] 04 p0853 N93-15462
Laser driven hydrodynamic instability experiments
[DE93-005822] 08 p2308 N93-23330
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097

NOVAE
NT DWARF NOVAE
NT HERCULES NOVA
Ultraviolet studies of novae in the large Magellanic cloud
[DE92-040348] 05 p1359 N93-16181
The cold ionized shell around the old nova DQ Herculis 08 p2543 N93-23964

NOWCASTING
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
The assimilation of marine surface data into the Navy operational global atmospheric prediction system
[AD-A255559] 03 p0667 N93-13877
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586

NOXIOUS MATERIALS
U CONTAMINANTS

NOZZLE COEFFICIENT
U NOZZLE FLOW

NOZZLE DESIGN
Altitude compensating nozzle evaluation
01 p0022 N93-10037
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Study results on combat aircraft source noise reduction 01 p0152 N93-10691
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
Design of a nozzle for a hypersonic wind tunnel
[AERO-REPT-9113] 05 p1072 N93-16468
STME nozzle thermal analysis
05 p1095 N93-17291
Ejectors and jet pumps: Computer program for design and performance for compressible gas flow
[ESDU-92042] 06 p1544 N93-17956
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
Reliability of solid rocket motor cases and nozzles
08 p2176 N93-22103
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
Analytical and experimental investigation of annular propulsive nozzles
[AD-A262685] 10 p2945 N93-28391
Altitude compensating ablative stiffening band for rocket motor nozzles
[NASA-CASE-MFS-28728-1] 11 p3288 N93-28950
Heat transfer and aerodynamics of a 3D design nozzle guide vane tested in the Pyestock Isentropic Light Piston Facility 11 p3252 N93-29928

NOZZLE EFFICIENCY
Altitude compensating nozzle evaluation
01 p0022 N93-10037
Developments in icing test techniques for aerospace applications in the RAE Pyestock (England) altitude test facility
[RAE-TM-P-1214] 02 p0207 N93-11485
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Analytical and experimental investigation of annular propulsive nozzles
[AD-A262685] 10 p2945 N93-28391

NOZZLE FLOW
Numerical simulation of unsteady flow in a nozzle
01 p0016 N93-10008
Supersonic confined jet nozzles
01 p0016 N93-10009
Altitude compensating nozzle evaluation
01 p0022 N93-10037
Introduction to radial turbine technology
01 p0077 N93-10051
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Novel short-wavelength lasers
06 p1543 N93-18472
Exact-gradient shape optimization of a 2D Euler flow
[INRIA-RR-1540] 06 p1530 N93-18623
Numerical simulation of flow for a scramjet nozzle
06 p1412 N93-19299
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
[NASA-CR-192356] 08 p2287 N93-22401
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
Solid fuel supersonic combustion
09 p2625 N93-26010
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187
Analytical and experimental investigation of annular propulsive nozzles
[AD-A262685] 10 p2945 N93-28391
Inviscid quasi one-dimensional nonequilibrium flow
[FFA-TN-1992-35] 11 p3418 N93-28993
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588

NOZZLE GEOMETRY
Altitude compensating nozzle evaluation
01 p0022 N93-10037
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Combat aircraft noise reduction by technical measures
01 p0152 N93-10689
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004

Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Altitude compensating ablative stiffening band for rocket motor nozzles
[NASA-CASE-MFS-28726-1] 11 p3288 N93-28950
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672

NOZZLE INSERTS
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix A: Insulation PFORs
[NASA-CR-192563] 11 p3272 N93-30618
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648

NOZZLE WALLS
Numerical modeling of a vortex stabilized arcjet 02 p0232 N93-11889
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
Analysis of film cooling in rocket nozzles
[NASA-CR-192003] 06 p1473 N93-18518
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913

NOZZLES
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Failure environment analysis tool applications 08 p2322 N93-22170
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane 11 p3253 N93-29930

NRX REACTORS
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106

NTS
U NAVIGATION TECHNOLOGY SATELLITES

NUCLEAR ASTROPHYSICS
Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587
Cosmological constraints on early-decaying particles 03 p0750 N93-13123
Establishment of an Institute for Fusion Studies
[DE92-040014] 03 p0717 N93-13502
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
Experimental nuclear physics
[DE93-004950] 07 p2063 N93-21705
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
[DE93-003470] 07 p2098 N93-21775
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357

NUCLEAR AUXILIARY POWER UNITS
NT SPACE POWER REACTORS

NUCLEAR BINDING ENERGY
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H68
[AD-A258764] 06 p1658 N93-19868
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
The structure and energetics of Cr(CO)6 and Cr(CO)5
[NASA-CR-192889] 09 p2848 N93-25450
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
KDP 903
[DE93-715539] 12 p3818 N93-31167

NUCLEAR BULGE (GALAXIES)
U GALACTIC BULGE

NUCLEAR CAPTURE
NT ELECTRON CAPTURE
Particle physics experiments, 1991
[RAL-92-001] 02 p0444 N93-11687
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387

NUCLEAR CHEMISTRY
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158

NUCLEAR DEFORMATION
Transition probabilities up to I = 36(+)in Yb-160
[DE92-017191] 03 p0703 N93-13114
Tilted cranking classification of multiband spectra
[DE92-041187] 05 p1283 N93-15959
Low-spin identical bands in odd-A nuclei
[DE92-041016] 05 p1287 N93-16600
Rotational band structure of intruder configurations: Success and limitations of the Cranked Shell Model
[DE93-001713] 05 p1288 N93-16972
Feeding and decay of superdeformed states
[DE93-007899] 09 p2848 N93-25371

NUCLEAR DEVICES
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
Radiological safety regulation and licensing of nuclear-based explosive detection systems 07 p1770 N93-21894
A novel approach to design optimization of nuclear-based explosive detection systems 07 p1777 N93-21935
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938

NUCLEAR ELECTRIC POWER GENERATION
NT NUCLEAR POWER PLANTS
NT NUCLEAR POWER REACTORS
NT SPACE POWER REACTORS
NT THERMONUCLEAR POWER GENERATION
Generation of covariance data among values from a single set of experiments
[DE93-004192] 08 p2522 N93-22435
Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097

NUCLEAR ELECTRIC PROPULSION
A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
Activities of the Boom and Chassis Group
[NASA-CR-192028] 06 p1544 N93-17975
Near term NEP missions and systems 06 p1661 N93-18637
Nuclear concepts/propulsion 08 p2174 N93-22093
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Summary and recommendations on nuclear electric propulsion technology for the space exploration initiative
[NASA-TM-105707] 09 p2622 N93-24744
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
Nuclear electric propulsion for planetary science missions: NASA technology program planning
[NASA-TM-106139] 09 p2632 N93-26210
Nuclear Propulsion Technical Interchange Meeting, volume 1
[NASA-CP-10116-VOL-1] 10 p2976 N93-26908
Solar System Exploration Division: Requirements for space nuclear propulsion 10 p2976 N93-26910
Focused technology: Nuclear propulsion 10 p2976 N93-26912
Overview of DOE space nuclear propulsion programs 10 p2977 N93-26913
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets 10 p2954 N93-26966
Nuclear electric propulsion systems overview 10 p2955 N93-26970
The 20 kWe NEP system studies 10 p2982 N93-26971
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Scoping calculations of power sources for NEP 10 p2982 N93-26973
NEP power subsystem modeling 10 p2982 N93-26974
NEP processing, operations, and disposal 10 p2982 N93-26975
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report 10 p2983 N93-26976
NEP technology: FY 1992 milestones (NASA LeRC) 10 p2983 N93-26977
Power management and distribution technology 10 p2983 N93-26978
Radiator technology 10 p2983 N93-26979
JPL nuclear electric propulsion task 10 p2983 N93-26980
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981
The 20 kWe NEP flight system 10 p2983 N93-26983
The 100-500 kWe NEP systems 10 p2983 N93-26984
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985
NEP systems model 10 p2984 N93-26986
NEP systems model 10 p2984 N93-26987
Thruster models for NEP system analysis 10 p2984 N93-26988
Innovative electric propulsion thruster modeling 10 p2984 N93-26989
GPS system simulation methodology 10 p2984 N93-26990
NEP space test program objective 11 p3265 N93-28724
NASA's progress in nuclear electric propulsion technology
[NASA-TM-106272] 12 p3698 N93-31858

NUCLEAR EMULSIONS
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40 03 p0509 N93-13163
Collaborations among nuclear emulsion groups in Europe during the 1950's
[NOTA-INTERNA-973] 10 p3133 N93-27701
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990

NUCLEAR ENERGY
Nuclear systems in space? Does/will the public accept them? 10 p2977 N93-26917
Nuclear isomers as ultra-high-energy-density materials
[DE93-009520] 11 p3568 N93-29784

NUCLEAR ENGINE FOR ROCKET VEHICLES
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
Nuclear Engine System Simulation (NESS). Version 2.0: Program user's guide
[NASA-CR-191081] 08 p2204 N93-23875
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
Engine management during NTRE start up 10 p2980 N93-26953
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Nuclear Engine System Simulation (NESS) version 2.0 10 p2981 N93-26958
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
NUCLEAR EXPLOSIONS
NT THERMONUCLEAR EXPLOSIONS
Propagation of regional phases: Observations and theory
[AD-A246891] 02 p0359 N93-11228
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
High speed imaging for flash radiography using PIN diodes
[DE92-040959] 04 p0882 N93-15381
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-18363
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Effects of UGTs on the ionosphere
[DE93-000793] 08 p2392 N93-22806
Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507
Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625
Analysis of seismograms from nuclear explosions of known yield at Degelen Mountain and Konystan in east Kazakhstan, USSR
[AWE-O-2/92] 10 p3073 N93-27703
Energetic material response to abnormal environments 11 p3350 N93-30095
Radiated fields from an electromagnetic pulse simulator 11 p3366 N93-30290
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
Modeling regional seismic waves
[AD-A264002] 11 p3479 N93-30756
The performance of PAGOSA on several MIMD parallel computers
[DE93-003243] 12 p3786 N93-31183
NUCLEAR FISSION
Research in heavy-ion nuclear physics
[DE92-015099] 02 p0443 N93-11521
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
NUCLEAR FUEL ELEMENTS
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Laser diagnostics for NTP fuel corrosion studies 10 p2979 N93-26936
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
NUCLEAR FUEL REPROCESSING
Design and implementation of a DC-based magnetic field controller with electronic temperature stabilized Hall generator
[DE92-019796] 04 p0870 N93-15276
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826
NUCLEAR FUELS
NT CERAMIC NUCLEAR FUELS
NT SPENT FUELS
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Nuclear gas core propulsion research program 10 p2979 N93-26933
Nuclear propulsion technology advanced fuels technology 10 p2979 N93-26935
Space Nuclear Thermal Propulsion (SNTP) tests 10 p2980 N93-26938
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
NUCLEAR FUSION
NT CONTROLLED FUSION
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Fusion programs in applied plasma physics
[DE92-019639] 02 p0452 N93-11660
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
The neutrino process and neutrino r-process
[DE92-014304] 02 p0485 N93-12120
Plasma properties
[DE92-018635] 02 p0455 N93-12188
Plasma properties
[DE92-019982] 03 p0713 N93-12811
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Fusion: Magnetic confinement
[DE92-019876] 03 p0716 N93-13107
Cosmological constraints on early-decaying particles 03 p0750 N93-13123
Establishment of an Institute for Fusion Studies
[DE92-040014] 03 p0717 N93-13502
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Hydrodynamics of supernova 1987 A 04 p1019 N93-14633
Theoretical and numerical studies in magnetic fusion
[DE92-040674] 04 p0988 N93-15349
Advanced materials: The key to attractive magnetic fusion power reactors
[DE92-040637] 05 p1307 N93-16103
Nuclear structure research
[DE93-000405] 05 p1285 N93-16239
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
Application of railgun principle to high-velocity hydrogen pellet injection for magnetic fusion reactor fueling
[DE93-004563] 06 p1456 N93-19496
Discriminant analysis of plasma fusion data
[NIFS-156] 07 p2073 N93-20761
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-006123] 08 p2491 N93-22052
Investigation of cold nuclear fusion in condensed matter
[DE93-006083] 08 p2515 N93-23683
Cosmic string cosmology 09 p2891 N93-24907
Plasma confinement theory and transport simulation
[DE93-009755] 10 p3149 N93-26617
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Tests of the particle physics-physical cosmology interface
[DE93-008483] 11 p3634 N93-28963
Computing for magnetic fusion energy research: An updated vision
[DE93-010394] 11 p3587 N93-29190
Tokamak plasma shape identification based on the boundary integral equations
[DE93-715383] 12 p3825 N93-31097
Fusion energy for space: Feasibility demonstration. A proposal to NASA
[NASA-TM-109227] 12 p3825 N93-31309
NUCLEAR INTERACTIONS
NT ELECTRON CAPTURE
NT NUCLEAR CAPTURE
NT SPIN-ORBIT INTERACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
Particle physics experiments, 1991
[RAL-92-001] 02 p0444 N93-11687
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-26314
Description of alpha-nucleus interaction cross sections for cosmic ray shielding studies
[NASA-TP-3285] 10 p3138 N93-26905
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357
The APX spectrometer for Martian missions 11 p3434 N93-28776
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
NUCLEAR MAGNETIC RESONANCE
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709

Nuclear magnetic resonance microscopy: New theoretical and technical developments
02 p0313 N93-11907
Molecular theories and computer simulations of liquid crystals 03 p0725 N93-13843
NMR imaging of elastomeric materials
[AD-A256034] 04 p0841 N93-14658
Three-dimensional nuclear magnetic resonance imaging of green-state ceramics
[DE93-000930] 04 p0851 N93-15282
C-13 solid-state NMR study of ethylene oxidation over supported silver catalysts
[DE92-040584] 05 p1102 N93-16016
Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments
[ITN-93-85183] 05 p1105 N93-16854
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
NMR study of triazone compound formation
07 p1839 N93-21165
The use of 2D NMR spectroscopy in the analysis of isomeric polyamides 07 p1839 N93-21166
Liquid explosives screening system
07 p1771 N93-21899
Improved NMR signatures of explosives
07 p1771 N93-21900
Application of magnetic resonance to explosives detection 07 p1771 N93-21901
Consideration of untried magnetic resonance techniques for possible baggage analysis 07 p1771 N93-21903
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Deuteron and oxygen-17 NMR studies of molecular motion in methanol-saturated Nafion membranes
[AD-A261579] 09 p2851 N93-26514
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
NMR studies of organic thin films
[AD-A264903] 12 p3707 N93-31066
Computerized tomography and its applications: A guided tour
[CS-9206] 12 p3789 N93-31629
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

NUCLEAR MEDICINE
NT RADIOBIOLOGY
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810

NUCLEAR MODELS
Nuclear structure models: Applications and development
[DE92-018758] 02 p0436 N93-11443
Survey of composite particle models of electroweak interaction
[DE92-017110] 02 p0441 N93-12111
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Application of multistep compound and multistep direct models for data evaluation
[DE93-000865] 05 p1285 N93-16304
Rotational band structure of intruder configurations: Success and limitations of the Cranked Shell Model
[DE93-001713] 05 p1288 N93-16972
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
HZEFRG1: An energy-dependent semiempirical nuclear fragmentation model
[NASA-TP-3310] 10 p3138 N93-27031
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110

NUCLEAR PARTICLES
NT ALPHA PARTICLES
NT ANTINEUTRINOS
NT ANTINUCLEONS
NT ANTIPARTICLES
NT ANTIPROTONS
NT BETA PARTICLES
NT BOSONS
NT ETA-MESONS
NT HYPERONS
NT KAONS
NT MESONS
NT MUONS
NT NUCLEONS
NT PHOTOELECTRONS
NT PHOTONS
NT PIONS
NT POSITRONS
NT RHO-MESONS
NT VECTOR MESONS
Large area nuclear particle detectors using ET materials, phase 2
[NASA-CR-190866] 03 p0705 N93-13606
Fluctuations in quantum transport theories of nuclear matter
[KVI-930] 10 p3155 N93-27395

NUCLEAR PHYSICS
NT NUCLEAR ASTROPHYSICS
NT REACTOR PHYSICS
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Research in heavy-ion nuclear physics
[DE92-015099] 02 p0443 N93-11521
Medium energy nuclear physics research
[DE92-016972] 02 p0442 N93-12444
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Heavy-ion collisions and the nuclear equation of state
[DE92-019364] 03 p0706 N93-12924
Investigations of the structure and electromagnetic interactions of few-body systems
[DE92-040011] 03 p0563 N93-13042
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
Proceedings of the fifth workshop on elementary-particle picture of the universe
[DE92-538746] 05 p1375 N93-17190
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas
[DE93-715528] 05 p1270 N93-17473
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
The study of multi-institutional collaborations in high-energy physics
[DE93-002337] 05 p1300 N93-17580
Activities report of the Kernfysisch Versneller Institute
[ETN-93-93340] 06 p1653 N93-17931
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
Nuclear studies with intermediate energy probes
[DE93-002785] 07 p2062 N93-21481
Experimental nuclear physics
[DE93-004950] 07 p2063 N93-21705
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
[DE93-003470] 07 p2098 N93-21775
Particle physics
[DE93-006894] 08 p2482 N93-22992
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
The harmonic oscillator and nuclear physics
10 p3146 N93-27354
Theoretical studies in nuclear physics
[DE93-010142] 10 p3139 N93-28215
The Monte Carlo/S(sub N) hybrid method with orthogonal interface basis vectors
[DE93-005462] 10 p3104 N93-28299
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
Proceedings of the Workshop on Spin-Charge Transfer Reaction in Atomic Collision Process for planning of next period of cascade project
[DE93-704290] 12 p3821 N93-31834

NUCLEAR POTENTIAL
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668

NUCLEAR POWER GENERATION
U NUCLEAR ELECTRIC POWER GENERATION

NUCLEAR POWER PLANTS
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
Reviews of computing technology: Fiber distributed data interface
[DE92-019927] 03 p0681 N93-12886
Independent verification of tank volume measurements by pressure-volume authentication
[DE92-040680] 05 p1166 N93-15665
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
Probabilistic methods in nuclear power plant component ageing analysis
[VTT-PUBS-94] 06 p1660 N93-18696
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
Use of neural networks in the analysis of complex systems
[DE93-003554] 07 p2049 N93-21847
Vibration monitoring with artificial neural networks
[DE93-003543] 07 p1952 N93-21992
Vibration monitoring of EDF rotating machinery using artificial neural networks
[DE93-003557] 07 p1952 N93-21993

Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Analysis of complex systems using neural networks
[DE93-003541] 08 p2464 N93-24514
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
Bibliography of the Maryland Power Plant Research Program, fourteenth edition
[PB93-174241] 10 p3068 N93-27404
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Analysis of TOPAZ 2 and SPACE-R space nuclear power plants using a modified thermionic model
[AD-A262612] 11 p3286 N93-28474
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996

NUCLEAR POWER REACTORS
NT SPACE POWER REACTORS
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237
SIRIUS-P: An inertially confined direct drive laser fusion power reactor
[DE93-012433] 11 p3439 N93-30186

NUCLEAR PROPULSION
NT NUCLEAR ELECTRIC PROPULSION
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
Critical technology demonstration of plasma focus type MPD thrusters
[AD-A252428] 01 p0026 N93-10638
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Evaluation of transportation systems for advanced space flight missions
[ESA-TT-1256] 02 p0223 N93-11685
Structural integrity of a confinement vessel for testing nuclear fuels for space propulsion
[DE92-016796] 02 p0232 N93-11824
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
A computer program for engineering simulations of space reactor system performance
[DE92-016400] 03 p0526 N93-13299
SAFSIM: A computer program for engineering simulations of space reactor system performance
[DE92-016328] 04 p0826 N93-14815
Development of NASA/DOE NTP system performance models
[NASA-TM-105982] 04 p0827 N93-15428
Nuclear thermal rocket nozzle testing and evaluation program
[NASA-TM-105962] 04 p0827 N93-15571
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
Advanced hybrid nuclear propulsion Mars mission performance enhancement
[DE93-001309] 05 p1090 N93-16177
System model development for nuclear thermal propulsion
[NASA-TM-108157] 05 p1298 N93-16531
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Nuclear Engine System Simulation (NESS). Version 2.0: Program user's guide
[NASA-CR-191081] 08 p2204 N93-23875
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Space exploration initiative candidate nuclear propulsion test facilities
[NASA-TM-105710] 09 p2622 N93-24753
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
Nuclear Propulsion Technical Interchange Meeting, volume 1
[NASA-CP-10116-VOL-1] 10 p2976 N93-26908
Solar System Exploration Division: Requirements for space nuclear propulsion 10 p2976 N93-26910
DOD requirements for space nuclear thermal propulsion 10 p2976 N93-26911
Focused technology: Nuclear propulsion 10 p2976 N93-26912
Overview of DOE space nuclear propulsion programs 10 p2977 N93-26913
Space Nuclear Thermal Propulsion (SNTP) program 10 p2977 N93-26914
Systems overview 10 p2977 N93-26915
Requirements management and control 10 p2977 N93-26916
Nuclear systems in space? Does/will the public accept them? 10 p2977 N93-26917
Rover/NERVA-derived near-term nuclear propulsion 10 p2977 N93-26918
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
NTRE extended life feasibility assessment 10 p2977 N93-26921
Lunar NTR vehicle design and operations study 10 p2978 N93-26922
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
Enabler 1 and 2 engine system design modeling and comparisons 10 p2978 N93-26924
Clustered engine study 10 p2978 N93-26925
NTP comparison process 10 p2978 N93-26926
Nuclear thermal propulsion technology overview 10 p2978 N93-26927
NTR plume modeling 10 p2978 N93-26929
Computational fluid dynamics for nuclear thermal propulsion 10 p2979 N93-26930
Probabilistic structural analysis for nuclear thermal propulsion 10 p2979 N93-26931
MSFC nuclear thermal propulsion technology program 10 p2979 N93-26932
Nuclear gas core propulsion research program 10 p2979 N93-26933
Nuclear propulsion technology advanced fuels technology 10 p2979 N93-26935
Laser diagnostics for NTP fuel corrosion studies 10 p2979 N93-26936
SNTP propellant management system 10 p2979 N93-26937
Space Nuclear Thermal Propulsion (SNTP) tests 10 p2980 N93-26938
SNTP environmental, safety, and health 10 p2980 N93-26939
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Particle bed reactor modeling 10 p2980 N93-26954
Computational modeling of nuclear thermal rockets 10 p2980 N93-26956
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Nuclear Engine System Simulation (NESS) version 2.0 10 p2981 N93-26958
SAFSIM overview 10 p2981 N93-26959
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients 10 p2981 N93-26960
Next generation system modeling of NTR systems 10 p2981 N93-26961
Rocket engine numerical simulator 10 p2981 N93-26962
Facilities 10 p2954 N93-26963
Space nuclear thermal propulsion: Evaluation of PIPET at the INEL's CTF 10 p2955 N93-26967
Space Nuclear Thermal Propulsion (SNTP) Air Force facility 10 p2955 N93-26968
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Nuclear electric propulsion systems overview 10 p2955 N93-26970
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Fusion energy for space: Feasibility demonstration. A proposal to NASA
[NASA-TM-109227] 12 p3825 N93-31309
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

NUCLEAR QUADRUPOLE RESONANCE
NQR-NMR studies of higher alcohol synthesis Cu-Co catalysts
[DE92-015783] 01 p0031 N93-10460
Laser spectroscopy of rare earth ions 03 p0608 N93-13846
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Explosives detection by pure N-14 NQR 07 p1770 N93-21897

NUCLEAR RADIATION
NT BETA PARTICLES
NT FAST NEUTRONS
NT GAMMA RAY BURSTS
NT GAMMA RAYS
NT NEUTRON BEAMS
NT SPALLATION
NT THERMAL NEUTRONS
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus 09 p2741 N93-24793
AFRRI research, fiscal year 1991
[AD-A260933] 09 p2911 N93-25710
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563

NUCLEAR REACTIONS
NT ALPHA DECAY
NT CONTROLLED FUSION
NT ELECTRON CAPTURE
NT NEUTRON EMISSION
NT NEUTRON SCATTERING
NT NUCLEAR CAPTURE
NT NUCLEAR FISSION
NT NUCLEAR FUSION
NT NUCLEAR INTERACTIONS
NT PHOTONUCLEAR REACTIONS
NT PROTON SCATTERING
NT PROTON-PROTON REACTIONS
NT RADIOACTIVE DECAY
NT RESONANCE SCATTERING
NT SPALLATION
NT SPIN-ORBIT INTERACTIONS
NT THERMONUCLEAR REACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Research in heavy-ion nuclear physics
[DE92-015099] 02 p0443 N93-11521
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914

System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
A fresh look at (e,e(prime)) scattering from light nuclei: A GFMC approach
[DE92-016377] 03 p0703 N93-13246
Evidence for alpha-particle chain configurations in Mg-24
[DE92-018790] 03 p0705 N93-13546
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Application of multistep compound and multistep direct models for data evaluation
[DE93-000865] 05 p1285 N93-16304
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485
Target fragmentation in radiobiology
[NASA-TM-4406] 06 p1598 N93-18381
Nuclear structure studies
[DE93-002791] 06 p1654 N93-18402
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
A suggestion for specification of the neutron energy scale in measurements, analyses and, evaluations of differential reaction cross-section data
[DE93-002931] 06 p1658 N93-19750
The N* program at CEBAF
[DE93-000829] 07 p1880 N93-20019
A review of the associated particle imaging technique
[DE93-002238] 07 p2061 N93-20023
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
From simple to complex reactions: Nuclear collisions near the Coulomb barrier
[DE93-004197] 08 p2478 N93-22063
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
HZEFRG1: An energy-dependent semiempirical nuclear fragmentation model
[NASA-TP-3310] 10 p3138 N93-27031
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
Theoretical studies in nuclear physics
[DE93-010142] 10 p3139 N93-28215
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Nuclear interactions in high energy heavy ions and applications in astrophysics
[DE93-007302] 10 p3140 N93-28357
Fast neutron cross section measurements
[DE93-009053] 11 p3563 N93-28546
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849
Coherent and semi-coherent neutron transfer reactions
[DE93-008336] 11 p3565 N93-28959
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Nuclear structure research at the Triangle Universities Nuclear Laboratory
[DE93-009756] 11 p3566 N93-29184
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242

NUCLEAR REACTORS

NT ADVANCED TEST REACTORS
NT BOILING WATER REACTORS
NT BREEDER REACTORS
NT ENGINEERING TEST REACTORS
NT FAST NUCLEAR REACTORS
NT FUSION REACTORS
NT GAS COOLED REACTORS
NT HELIOTRONS
NT HIGH FLUX ISOTOPE REACTORS
NT HIGH TEMPERATURE GAS COOLED REACTORS
NT HIGH TEMPERATURE NUCLEAR REACTORS
NT LIQUID METAL FAST BREEDER REACTORS
NT LITHIUM COOLED REACTOR EXPERIMENT
NT NRX REACTORS
NT NUCLEAR POWER REACTORS
NT NUCLEAR RESEARCH AND TEST REACTORS
NT PEBBLE BED REACTORS
NT PLASMA CORE REACTORS
NT PRESSURIZED WATER REACTORS
NT SPACE POWER REACTORS
NT SPHEROMAKS
NT STELLARATORS
NT THERMAL REACTORS
NT TOKAMAK DEVICES
NT WATER COOLED REACTORS
A model for analytical performance prediction of hypervapotron
[DE92-018885] 02 p0305 N93-12010
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
DIII-D edge physics database
[DE92-019577] 03 p0714 N93-12971
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
New D3-D tokamak plasma control system
[DE93-000877] 05 p1312 N93-17388
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Activities of the Boom and Chassis Group
[NASA-CR-192028] 06 p1544 N93-17975
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
NTRE extended life feasibility assessment 10 p2977 N93-26921
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Particle bed reactor modeling 10 p2980 N93-26954
Computational modeling of nuclear thermal rockets 10 p2980 N93-26956
SAFSIM overview 10 p2981 N93-26959
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients 10 p2981 N93-26960
Space nuclear thermal propulsion: Evaluation of PIPET at the INEL's CTF 10 p2955 N93-26967
Nuclear electric propulsion systems overview 10 p2955 N93-26970
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004

NUCLEAR RESEARCH

Geographic Information System (GIS) development assistance for Nuclear Regulatory Commission (NRC) incident response capability
[DE92-017595] 01 p0176 N93-10867
Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
The prehistory of ESRO, 1959 - 1960
[ESA-HSR-1] 11 p3660 N93-29500
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

NUCLEAR RESEARCH AND TEST REACTORS

NT ADVANCED TEST REACTORS
NT HIGH TEMPERATURE NUCLEAR REACTORS
NT NRX REACTORS
Space Nuclear Thermal Propulsion (SNTP) tests 10 p2980 N93-26938
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187

NUCLEAR ROCKET ENGINES

Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
System model development for nuclear thermal propulsion
[NASA-TM-108157] 05 p1298 N93-16531
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Nuclear Propulsion Technical Interchange Meeting, volume 1
[NASA-CP-10116-VOL-1] 10 p2976 N93-26908
Space Nuclear Thermal Propulsion (SNTP) program 10 p2977 N93-26914
Systems overview 10 p2977 N93-26915
Rover/NERVA-derived near-term nuclear propulsion 10 p2977 N93-26918
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
NTRE extended life feasibility assessment 10 p2977 N93-26921
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
Enabler 1 and 2 engine system design modeling and comparisons 10 p2978 N93-26924
Clustered engine study 10 p2978 N93-26925
MSFC nuclear thermal propulsion technology program 10 p2979 N93-26932
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Engine management during NTRE start up 10 p2980 N93-26953
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling 10 p2980 N93-26955
Computational modeling of nuclear thermal rockets 10 p2980 N93-26956
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Nuclear Engine System Simulation (NESS) version 2.0 10 p2981 N93-26958

Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients
10 p2981 N93-26960
Next generation system modeling of NTR systems
10 p2981 N93-26961
Rocket engine numerical simulator
10 p2981 N93-26962
Facilities 10 p2954 N93-26963
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets
10 p2954 N93-26966
Material science experience gained from the space nuclear rocket program: Insulators
| DE93-006301 | 10 p2992 N93-28303
The Thermionic Fuel Element Verification Program: Technical progress and future plans
| DE93-003797 | 12 p3691 N93-31185
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
| DE92-017845 | 12 p3698 N93-32184

NUCLEAR SCATTERING
NT NEUTRON SCATTERING
NT RESONANCE SCATTERING

NUCLEAR SHIELDING
U RADIATION SHIELDING

NUCLEAR SPIN
Nuclear structure models: Applications and development
| DE92-018758 | 02 p0436 N93-11443
The physics of spin polarized gases
| AD-A261396 | 09 p2850 N93-26288
Number of saddle points of the energy surface in SK spin-glass
| SSCL-PREPRINT-726 | 10 p3134 N93-28099

NUCLEAR STRUCTURE
Pion- and proton-nucleus interactions at intermediate energy
| DE92-017980 | 01 p0157 N93-10838
Nuclear structure models: Applications and development
| DE92-018758 | 02 p0436 N93-11443
Investigations of the structure and electromagnetic interactions of few-body systems
| DE92-040011 | 03 p0563 N93-13042
Tilted cranking classification of multiband spectra
| DE92-041187 | 05 p1283 N93-15959
Nuclear structure research
| DE93-000405 | 05 p1285 N93-16239
Rotational band structure of intruder configurations: Success and limitations of the Cranked Shell Model
| DE93-001713 | 05 p1288 N93-16972
Nuclear structure studies at intermediate energy
| DE93-003661 | 05 p1295 N93-17605
Nuclear structure from radioactive decay
| DE93-002795 | 06 p1654 N93-18392
Nuclear structure studies
| DE93-002791 | 06 p1654 N93-18402
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions
| AD-A259476 | 07 p1909 N93-20246
Nuclear studies with intermediate energy probes
| DE93-002785 | 07 p2062 N93-21481
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
| DE93-003470 | 07 p2098 N93-21775
Physics opportunities with higher energy pion beams
| DE93-006678 | 08 p2480 N93-22585
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
| DE93-007725 | 09 p2848 N93-25366
Nuclear isomers as ultra-high-energy-density materials
| DE93-009076 | 10 p3135 N93-28158
Theoretical nuclear reaction and structure studies using hyperons and photons
| DE93-009765 | 10 p3136 N93-28213
Theoretical studies in nuclear physics
| DE93-010142 | 10 p3139 N93-28215
Nuclear structure research at the Triangle Universities Nuclear Laboratory
| DE93-009756 | 11 p3566 N93-29184
Theoretical studies in nuclear structure
| DE93-012290 | 11 p3570 N93-30505
Novel spin effects in quantum chromodynamics
| DE93-010955 | 12 p3833 N93-32181
Nuclear structure effects in elastic and inelastic scattering of light ions
| DE93-616909 | 12 p3822 N93-32407

NUCLEAR TEST REACTORS
U NUCLEAR RESEARCH AND TEST REACTORS

NUCLEAR VULNERABILITY
The meaning and utility of confidence
| AD-A259646 | 08 p2472 N93-23655

NUCLEAR WARFARE
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753

NUCLEAR WASTES
U RADIOACTIVE WASTES

NUCLEAR WEAPONS
Monitoring limits on sea-launched cruise missiles
| OTA-ISC-513 | 05 p1061 N93-16632
Precision linear shaped charge severance of graphite-epoxy materials
| SAND-92-0610C | 07 p1865 N93-20151
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
| DE93-011481 | 11 p3412 N93-30127
Effects of device scaling and geometry on MOS radiation hardness assurance
| DE93-009832 | 11 p3413 N93-30516

NUCLEATE BOILING
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
Nucleate pool boiling in the long duration low gravity environment of the Space Shuttle
| NASA-TM-105973 | 04 p0855 N93-15420
Environmental qualification testing of the prototype pool boiling experiment
| NASA-CR-190774 | 04 p0895 N93-15582
A study of forced convection boiling under reduced gravity
| NASA-CR-190771 | 05 p1132 N93-16694
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
| DE93-002351 | 05 p1163 N93-17038
Forced convection boiling and condensation on microgravity: A critical appraisal of the literature
| ETN-93-93362 | 06 p1498 N93-17811
Boiling under microgravity conditions
08 p2249 N93-22847
Forced convection boiling and condensation in microgravity: A critical appraisal of the literature
08 p2249 N93-22849
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
| PB93-178598 | 11 p3475 N93-30887

NUCLEATION
NT CLOUD SEEDING
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
| AD-A253330 | 01 p0166 N93-10355
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
| DE92-014947 | 01 p0103 N93-10383
Growth mechanisms of layered superconductors
| DE92-018492 | 02 p0458 N93-10987
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
| DE92-014782 | 02 p0256 N93-11519
Growth, characterization, and device development in monocrystalline diamond films
| AD-A252648 | 02 p0271 N93-12184
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
| AD-A258212 | 03 p0497 N93-12816
The mechanics of dislocation nucleation at a crack tip
04 p0896 N93-14214
Crystal growth in a microgravity environment
| NASA-CASE-MFS-28473-1 | 04 p0992 N93-14707
Growth, characterization and device development in monocrystalline diamond films
| AD-A256283 | 04 p0994 N93-15244
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
| DE92-041216 | 05 p1111 N93-15967
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
| AD-A257315 | 05 p1111 N93-15982
The pyro-metallurgical, physical, and mechanical behavior of weldments
| AD-A256998 | 05 p1112 N93-16234
ICCG-10: The 10th International Conference on Crystal Growth
| AD-A256986 | 05 p1318 N93-16257
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia
| DE92-040720 | 05 p1319 N93-16391
Nucleation, crystal growth, and liquid/liquid phase separation in materials in microgravity, phase 3
| CTN-93-60612 | 05 p1131 N93-16493
The 10th International Conference on Crystal Growth (ICCG-10)
| AD-A256938 | 05 p1321 N93-16505
Unsolved problems of crystallization and melting of flexible macromolecules
| DE92-040876 | 05 p1125 N93-16597
A study of forced convection boiling under reduced gravity
| NASA-CR-190771 | 05 p1132 N93-16694
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
| DOC-3296-ER-01 | 05 p1132 N93-16730
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
| CTN-93-60630 | 05 p1133 N93-16918
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
| CTN-93-60631 | 05 p1133 N93-16937
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
| AD-A257738 | 05 p1117 N93-17667
Protein crystal growth in low gravity
| NASA-CR-191770 | 06 p1498 N93-17886
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
| AD-A257859 | 06 p1487 N93-18308
Theory of artifact diamond
| AD-A258474 | 06 p1672 N93-18311
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
| AD-A259244 | 06 p1677 N93-19848
Controlled nucleation and growth of semiconducting diamond
| AD-A258541 | 07 p2078 N93-20056
Cluster formation and evolution on semiconductor surface
| AD-A259190 | 07 p2078 N93-20274
Growth, characterization and device development in monocrystalline diamond films
| AD-A259099 | 07 p2079 N93-20407
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
| AD-A259177 | 07 p2079 N93-20561
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
| AD-A259247 | 07 p2080 N93-20581
NMR study of triazone compound formation
07 p1839 N93-21165
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
| NASA-CR-192356 | 08 p2287 N93-22401
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
| DE93-006279 | 08 p2501 N93-22510
Using nonlinear acoustics for nondestructive materials characterization and evaluation
| DE93-004447 | 08 p2321 N93-22727
In-situ characterization of growth and interfaces in a-Si:H devices
| DE93-000051 | 08 p2504 N93-22928
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
| AD-A259616 | 08 p2510 N93-24126
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue
08 p2164 N93-24394
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
| AD-A260886 | 09 p2651 N93-25632
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
| DE93-006737 | 09 p2653 N93-26500
Martensitic phase transitions with surface effects
| AD-A262886 | 10 p3000 N93-28228
The onset of vortex turbulence
10 p2938 N93-28251
A one-dimensional continuum model for shape-memory alloys
| AD-A262505 | 11 p3321 N93-28656
Pulse mitigation and heat transfer enhancement techniques. Volume I: Spray cooling
| AD-A263495 | 11 p3423 N93-29352
Diamond nucleation of surfaces using carbon clusters
| AD-A264634 | 11 p3599 N93-30548

NUCLEI (NUCLEAR PHYSICS)
NT ALPHA PARTICLES
NT DEUTERONS
NT EVEN-EVEN NUCLEI
NT HEAVY NUCLEI
NT HYPERNUCLEI
NT ODD-EVEN NUCLEI
Heavy-ion collisions and the nuclear equation of state
[DE92-019364] 03 p0706 N93-12924
A fresh look at (e,e(prime)) scattering from light nuclei: A GFMC approach
[DE92-016377] 03 p0703 N93-13246
Nuclear structure research
[DE93-000405] 05 p1285 N93-16239
Improved NMR signatures of explosives 07 p1771 N93-21900
Feeding and decay of superdeformed states
[DE93-007899] 09 p2848 N93-25371
Meson-meson interactions and phi-enhancement in nucleus collisions
[DE93-010725] 11 p3565 N93-28831
Nuclear structure research at the Triangle Universities Nuclear Laboratory
[DE93-009756] 11 p3566 N93-29184
NUCLEIC ACID DENATURATION
U BIOPOLYMER DENATURATION
NUCLEIC ACIDS
NT DEOXYRIBONUCLEIC ACID
NT RIBONUCLEIC ACIDS
NUCLEON POTENTIAL
Nuclear structure research
[DE93-000405] 05 p1285 N93-16239
NUCLEON-NUCLEON INTERACTIONS
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
Evidence for the dominance of an I(sup G)J(sup PC) = 0(+)0(++) resonance in p(bar)n decay to 2 pi(+)
[PREPRINT-885] 05 p1290 N93-17021
Evidence of an I(sup G)J(sup PC) = O(+)O(++) resonance at 1.39 GeV/sq c and confutation of the zeta(1480) in a reanalysis of the p(bar)n decay to 2 pi(+)-3 pi(-) annihilation at rest
[PREPRINT-826] 05 p1291 N93-17222
Monte Carlo simulation of minimum bias events at the LHC energy
[NOTA-INTERNA-969] 05 p1294 N93-17544
A two body relativistic equation for interacting nucleons
[NOTA-INTERNA-976] 05 p1295 N93-17630
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Nuclear structure research at the Triangle Universities Nuclear Laboratory
[DE93-009756] 11 p3566 N93-29184
Relativistic transport theory
[KVI-952] 12 p3830 N93-31121
Nuclear structure effects in elastic and inelastic scattering of light ions
[DE93-616909] 12 p3822 N93-32407
NUCLEON-NUCLEON SCATTERING
Covariant description of the delta in nuclear matter
[KVI-951] 12 p3817 N93-31149
Complex Kohn variational principle for the solution of Lippmann-Schwinger equations
[DE93-609885] 12 p3814 N93-31910
NUCLEONS
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
The neutrino process and neutrino r-process
[DE92-014304] 02 p0485 N93-12120
Theoretical nuclear physics
[DE92-019266] 03 p0706 N93-12822
The spin of the nucleon in deep inelastic lepton scattering experiments
[DE92-018854] 03 p0702 N93-13073
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
The Geminga neutron star: Evidence for nucleon superfluidity at very high density 05 p1376 N93-17411
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Measurement of the cross-section ratio sigma(sub n)/sigma(sub p) in inelastic muon-nucleon scattering at very low x and Q(sup 2)
[DE93-002916] 06 p1658 N93-19749
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
[DE93-007725] 09 p2848 N93-25366
Calculation of the nucleon structure function from the nucleon wave function 10 p3147 N93-27359
Low-spin identical bands in neighboring odd-A and even-even nuclei
[DE93-008569] 10 p3132 N93-27486
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
NUCLEOPHILES
Phenylethynyl endcapping reagents and reactive diluents
[NASA-CASE-LAR-14796-1] 12 p3702 N93-31459
NUCLEOSIDES
NT ADENINES
NUCLEOSYNTHESIS
U NUCLEAR FUSION
NUCLEOTIDES
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768
NUCLIDES
NT ALUMINUM ISOTOPES
NT AMERICIUM 241
NT ARGON ISOTOPES
NT BERYLLIUM 10
NT BORON ISOTOPES
NT BORON 10
NT CALCIUM ISOTOPES
NT CALIFORNIUM ISOTOPES
NT CARBON ISOTOPES
NT CARBON 12
NT CARBON 13
NT CARBON 14
NT CESIUM 137
NT CHROMIUM ISOTOPES
NT COBALT 60
NT DEUTERIUM
NT ERBIUM ISOTOPES
NT FERMIUM
NT FLUORINE ISOTOPES
NT GALLIUM ISOTOPES
NT GERMANIUM ISOTOPES
NT GOLD ISOTOPES
NT HAFNIUM ISOTOPES
NT HELIUM ISOTOPES
NT HOLMIUM ISOTOPES
NT HYDROGEN ISOTOPES
NT IODINE ISOTOPES
NT IRON ISOTOPES
NT ISOTOPES
NT KRYPTON ISOTOPES
NT KRYPTON 85
NT LANTHANUM ISOTOPES
NT LEAD ISOTOPES
NT LITHIUM ISOTOPES
NT MERCURY ISOTOPES
NT NEODYMIUM ISOTOPES
NT NEPTUNIUM ISOTOPES
NT NICKEL ISOTOPES
NT NITROGEN ISOTOPES
NT OXYGEN ISOTOPES
NT OXYGEN 18
NT PLUTONIUM
NT PLUTONIUM 239
NT POLONIUM 210
NT RADIOACTIVE ISOTOPES
NT RADON ISOTOPES
NT RUBIDIUM ISOTOPES
NT SCANDIUM ISOTOPES
NT STRONTIUM ISOTOPES
NT TELLURIUM ISOTOPES
NT THULIUM ISOTOPES
NT TIN ISOTOPES
NT TRANSURANIUM ELEMENTS
NT TRITIUM
NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135
Nuclear structure studies
[DE93-002791] 06 p1654 N93-18402
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
NULL HYPOTHESIS
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
Transformations of gaussian random fields and a test for independence of a survival time from a covariate
[AD-A260442] 08 p2472 N93-24114
NULL ZONES
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
NUMBER THEORY
NT ADDITION THEOREM
NT ARITHMETIC
NT CONGRUENCES
NT DIOPHANTINE EQUATION
NT DIVIDING (MATHEMATICS)
NT EXPONENTS
NT FLOATING POINT ARITHMETIC
NT INDUCTION (MATHEMATICS)
NT INTEGERS
NT MULTIPLICATION
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
On the history of the function M(x)/(square root of x) since Stieltjes
[CWI-NM-R9120] 05 p1271 N93-17555
Factorizations of a(sub n) +/- 1, 13 less than or equal to a less than 100
[CWI-NM-R9212] 10 p3114 N93-27366
On partitions into unequal squares and related problems
[MEMO-1055] 10 p3120 N93-28003
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k)
[CWI-NM-R9215] 10 p3120 N93-28083
NUMERICAL ANALYSIS
NT APPROXIMATION
NT BORN APPROXIMATION
NT BORN-OPPENHEIMER APPROXIMATION
NT BOUNDARY INTEGRAL METHOD
NT CHEBYSHEV APPROXIMATION
NT COMPUTATIONAL CHEMISTRY
NT COMPUTATIONAL FLUID DYNAMICS
NT CONJUGATE GRADIENT METHOD
NT DIFFERENCE EQUATIONS
NT ERROR ANALYSIS
NT ESSENTIALLY NON-OSCILLATORY SCHEMES
NT FINITE DIFFERENCE THEORY
NT FINITE ELEMENT METHOD
NT FINITE VOLUME METHOD
NT FLUX VECTOR SPLITTING
NT HARTREE APPROXIMATION
NT INTERPOLATION
NT ITERATION
NT ITERATIVE SOLUTION
NT LEAST SQUARES METHOD
NT MEAN SQUARE VALUES
NT MONTE CARLO METHOD
NT MULTIGRID METHODS
NT NEWTON METHODS
NT NEWTON-RAPHSON METHOD
NT NOMOGRAPHS
NT NUMERICAL DIFFERENTIATION
NT NUMERICAL INTEGRATION
NT OSEEN APPROXIMATION
NT PARTICLE IN CELL TECHNIQUE
NT PREDICTOR-CORRECTOR METHODS
NT RAYLEIGH-RITZ METHOD
NT RELAXATION METHOD (MATHEMATICS)
NT RUNGE-KUTTA METHOD
NT SOMMERFELD APPROXIMATION
NT TRUNCATION ERRORS
NT TVD SCHEMES
NT UPWIND SCHEMES (MATHEMATICS)
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147

Sound propagation over rigid porous layers
02 p0432 N93-11179
Some exact solutions of the equations of finite elasticity
02 p0337 N93-11713
Numerical analysis of the flow fields in a RQL gas turbine combustor
[DE92-017509] 02 p0302 N93-11767
A consistent cracked bar vibration theory
02 p0339 N93-12000
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Scientific study of data analysis
[NASA-CR-184435] 03 p0769 N93-12658
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Numerical analysis of nonminimum phase zero for nonuniform link design
03 p0611 N93-12953
A time domain numerical theory for studying steady-state acoustic disturbance in flow
03 p0700 N93-13770
Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13940
Deterministic and stochastic responses of nonlinear systems
03 p0631 N93-13966
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection
04 p0987 N93-14122
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Multi-ion ambipolar diffusion
[AD-A256568] 05 p1283 N93-15659
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
A study of improvement in lattice QCD
[SSCL-PREPRINT-766] 05 p1286 N93-16348
Aeroelastic stability and response of rotating structures
[NASA-CR-191803] 05 p1068 N93-16560
Non-linear WKB analysis of the string equation
[PREPRINT-862] 05 p1330 N93-16963
Numerical methods for the analysis of sampled-data systems and for the computation of system zeros
05 p1274 N93-17300
Stress analysis and damage evaluation of flawed composite laminates by hybrid-numerical methods
05 p1100 N93-17340
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
Understanding curved detonation waves
[DE93-000799] 06 p1528 N93-18529
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field
06 p1531 N93-18732
A numerical approach to controller design for the ACES facility
06 p1462 N93-18823
Coherent structures in a simulated turbulent mixing layer
[NASA-TM-103980] 06 p1532 N93-18885
Numerical analysis of flow in a heated horizontal square duct
06 p1413 N93-19305
On the roles of wind tunnel testing and computational fluid dynamics in the aircraft development
06 p1416 N93-19322
Perturbation problems in fluid dynamics
[AD-A258934] 06 p1535 N93-19450
Wind shear hazard determination
06 p1419 N93-19597
Interactive access and management for four-dimensional environmental data sets using McIDAS
07 p1965 N93-20070
Basic studies of baroclinic flows
07 p2003 N93-20073
Climatic variation of storms
07 p2006 N93-20084
The structure of particle cloud premixed flames
07 p1853 N93-20202
Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373
Numerical analysis of the thermoelastic effects in laminated structures and its use in the identification of defects
07 p1841 N93-21511
Numerical finite element analysis of damage using Monte Carlo techniques
07 p1842 N93-21522
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Multivariable frequency response methods for optimal Kalman-Bucy filters with applications to radar tracking systems
08 p2255 N93-22024
Use of non-spherical gravity harmonics for relative motion GN/C (category 2)
08 p2141 N93-22262
Regional-scale analysis and forecasting
[AD-A259894] 08 p2403 N93-22733
Extending compile-time reverse mode and exploiting partial separability in ADIFOR
[DE93-004668] 08 p2467 N93-22776
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
Theoretical study of reactions at the electrode-electrolyte interface
[DE93-006899] 08 p2221 N93-23341
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Problems on numerical analysis relating to gas turbines
[DE93-753796] 08 p2130 N93-24002
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966
Analytical techniques for improved time transfer using common view of direct broadcasting satellites
09 p2835 N93-25008
Current research activities: Applied and numerical mathematics, fluid mechanics, experiments in transition and turbulence and aerodynamics, and computer science
[NASA-CR-191408] 09 p2803 N93-25084
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Activity report
[AD-A261933] 09 p2829 N93-26199
A new method to simulate vertical and horizontal structure in galactic disks
10 p3188 N93-26809
Numerical simulations of bent, disrupted radio jets
10 p3188 N93-26813
Parallel solution of high-order numerical schemes for solving incompressible flows
[NASA-TM-4451] 10 p3106 N93-27040
Analysis of local uniform grid refinement
[CWI-NM-R9211] 10 p3114 N93-27364
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
Two counterexamples related to the Kreiss matrix theorem
[TW-92-08] 10 p3118 N93-27917
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084
Standard families of algorithms
[REPT-92-20] 10 p3104 N93-28389
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
Quiet by design: Numerical acousto-elastic analysis of aircraft structures
[ISBN-90-386-0042-9] 11 p3248 N93-29268
ICASE
[NASA-CR-193257] 11 p3520 N93-29864
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
Study of effects of small perturbations on chaotic systems
[DE93-009762] 11 p3557 N93-30048
Numerical modeling of multidimensional flames with application to energetic materials
11 p3319 N93-30079
Case studies in the numerical solution of oscillatory integrals
[DE92-642554] 12 p3801 N93-31067
Biharmonic pattern selection
[DE93-608186] 12 p3803 N93-31303
Numerical analysis of the spectral domain of transmission lines in dielectric layers
[REPT-92-068] 12 p3716 N93-31608
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
Conference: Three Decades of Numerical Linear Algebra at Berkeley
[AD-A264964] 12 p3809 N93-32076
Numerical studies of low temperature gallium arsenide buffer layers and their influence on device operation
[AD-A264296] 12 p3829 N93-32083
Transmission of sound through a rotor
[NLR-TP-92014-U] 12 p3683 N93-32386

NUMERICAL CONTROL

Optimal sample policies for multirate digital control
01 p0141 N93-10346
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184465] 02 p0328 N93-12196
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Real-time data archiving for GTA
[DE92-018613] 03 p0733 N93-12567
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
A brief overview of NASA Langley's research program in formal methods
03 p0684 N93-12958
Engineering data transfer test with EDMICS using MIL-R-28002 (Raster)
[DE92-019808] 03 p0738 N93-13619
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
SCRUNCHER phase and amplitude control
[DE92-040225] 04 p0870 N93-15421
Development and applications of a new computer-controlled magnetic inspection system
[DE92-040579] 05 p1181 N93-15664
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
New D3-D tokamak plasma control system
[DE93-000877] 05 p1312 N93-17388
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
Analogue to digital transformation
[ESDU-92044] 06 p1517 N93-17959
Design of a microprocessor-based control system
control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658

System for simultaneously loading program to master computer memory devices and corresponding slave computer memory devices
[NASA-CASE-MSC-21387-1] 06 p1623 N93-18855
Numerical control fabrication technique for dynamic composite models
[NASA-CASE-LAR-14004-1] 06 p1640 N93-19024
Guided Weapons Division Spin Table Facility: Spin table control system
[AD-A259214] 07 p1788 N93-20555
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Modelling robot trajectory errors using time series 07 p1942 N93-20716
Grasp admittance center. A concept 07 p1918 N93-20720
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
Micro-video display with ocular tracking and interactive voice control 08 p2433 N93-22172
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping 08 p2259 N93-22174
The MSFC space station/space operations mechanism test bed 08 p2149 N93-22309
Path planning for manipulators
[DE93-004050] 08 p2457 N93-22756
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100
Using fuzzy behaviors for the outdoor navigation of a car with low-resolution sensors
[DE93-002428] 09 p2584 N93-25120
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Development of a material processing plant for lunar soil 10 p3021 N93-26694
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977
Experimental study of location and identification of ferrous spheroids using a smart total field magnetometer
[AD-A263661] 11 p3324 N93-29391
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Modification of flux profiles using a faceted concentrator
[DE93-000087] 11 p3464 N93-29925
A parallel processing system for intensive I/O 11 p3362 N93-30262
A transputer based parallel processing architecture for robotics applications 11 p3362 N93-30263
Laser based 3D volumetric display system
[AD-A264825] 11 p3441 N93-30599
Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801

NUMERICAL DATA BASES

Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector
[AD-A247266] 02 p0475 N93-11465
Earth observing system: Information on NASA's incorporation of existing data into EOSDIS. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-79] 03 p0736 N93-13112

NUMERICAL DIFFERENTIATION

Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008

NUMERICAL FLOW VISUALIZATION

Flow field calculations around the Hermes spaceplane during reentry phase
[MBB-UK-0148-91-PUB] 02 p0195 N93-11008
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613
Vortex breakdown incipience: Theoretical considerations
[NASA-CR-189734] 05 p1055 N93-16627
A testbed for flow visualization research
[REPT-92-32] 06 p1616 N93-17846
Modelling of interfacial and thermocline waves
[AERO-REPT-9209] 06 p1525 N93-18103
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Modelling of interfacial and thermocline waves
[AERO-REPT-9211] 06 p1525 N93-18105
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6] 06 p1527 N93-18326
Multiple-body simulation with emphasis on integrated Space Shuttle vehicle
[NASA-CR-192289] 07 p1821 N93-20234
A system for the numerical simulation of complex configuration internal aerodynamic fields for the aerospace industry
[ETN-93-93698] 08 p2110 N93-23364
Combining particles and waves for fluid animation 09 p2699 N93-25348

NUMERICAL INTEGRATION

NT RUNGE-KUTTA METHOD
The dynamics of spatially extended lasers 04 p0883 N93-14123
Numerical solution of dynamical systems with state-space constraints
[NLR-TP-89419-U] 05 p1264 N93-16293
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Numerical investigation of the Earth's rotation during a complete precession cycle 06 p1580 N93-18965
Asteroid-type orbit evolution near the 5:2 resonance 06 p1708 N93-19171
CREEPSIM-2: A software package for numerical integration of 1st order differential equations
[NPL-DMM(A)-35] 08 p2435 N93-22452
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Chaotic evolution of the solar system
[AD-A260055] 08 p2550 N93-23961
Numerically dissipative time integration algorithms for structural dynamics 09 p2725 N93-25394
Kane's dynamics 10 p2926 N93-27211
Homenthalpic-flow approach for hypersonic inviscid non-equilibrium flows
[INRIA-RR-1652] 10 p2939 N93-28440
Sobolev-type orthogonal polynomials with a small number of real zeros
[REPT-92-64] 12 p3806 N93-31549

NUMERICAL STABILITY

Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Stabilization and projection methods for multibody dynamics
[PB92-133883] 03 p0698 N93-12890
Efficient solution of parabolic equations by Krylov approximation methods
[NASA-CR-191235] 03 p0697 N93-13409
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
Characterizations of linear independence and stability of the shifts of a univariate refinable function in terms of its refinement mask
[AD-A256527] 04 p0969 N93-15399
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Stability of parallel Volterra-Runge-Kutta methods
[CWI-NM-R9207] 10 p3106 N93-27304
A-stable diagonally implicit Runge-Kutta-Nystrom methods for parallel computers
[CWI-NM-R9208] 10 p3107 N93-27375
Two counterexamples related to the Kreiss matrix theorem
[TW-92-06] 10 p3118 N93-27917
Stable numerical integration of dynamical systems subject to equality state-space constraints
[NLR-TP-91363-U] 12 p3802 N93-31128
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180

NUMERICAL WEATHER FORECASTING

The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall 03 p0663 N93-13489
Super-micro computer weather prediction model
[AD-A255668] 04 p0918 N93-14153
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Computer models used by AFGWC and NMC for weather analysis and forecasting
[AD-A257985] 05 p1218 N93-17744
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067
Global rainfall monitoring by SSM/I 07 p2003 N93-20069
Cloud radiative forcing effects on observed and simulated global energetics 07 p2003 N93-20072
Research on diabatic initialization 07 p2004 N93-20075
Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076
Tropical Pacific moisture variability 07 p2007 N93-20093
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
An investigation of the role of current and future remote sensing data systems in numerical meteorology 07 p2010 N93-20108
A procedure to reduce northward drift of tropical storms in a numerical model
[PB92-226406] 07 p2013 N93-21290
Comparison of monthly precipitation analyses derived from conventional measurements, satellite estimates and model results 07 p1958 N93-21599
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data 07 p1960 N93-21610
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621
Regional-scale analysis and forecasting
[AD-A259894] 08 p2403 N93-22733
CHAMMP
[AD-A260190] 08 p2403 N93-22765
Prognostic cloud water in the Los Alamos GCM
[DE93-000679] 08 p2404 N93-22772
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
Data ingest and objective analysis for the PSU/NCAR modeling system. Programs DATAGRID and RAWINS
[PB93-138519] 08 p2393 N93-23252
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Advanced retrieval and analysis of satellite data for numerical weather prediction
[AD-A260036] 08 p2410 N93-24286
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
Prediction of global cloud cover with a very high resolution global spectral model
[AD-A261047] 09 p2785 N93-25777
The representativeness of various clouds as tracers of the flow 10 p3075 N93-26992
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059
Technical description LAM and OI: Limited area model and optimum interpolation analysis, second edition
[KNMI-TR-134A] 10 p3078 N93-27636

A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
The basics of weather models
[AD-A263386] 11 p3483 N93-29850
Preliminary evaluation of aviation-impact variables derived from numerical models
[PB93-190197] 12 p3767 N93-31202

NUSSELT NUMBER
Enhanced heat transfer in ribbed ducts using vortex generators
[PB93-114320] 07 p1902 N93-21219
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946
Terminal project heat convection in thin cylinders
[DE93-609489] 12 p3723 N93-31245

NUTATION
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
SCATHA mission termination report 09 p2605 N93-24725
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Ofeq-2 orbit, attitude, and flight evaluation 10 p2924 N93-27198
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777

NUTATIONAL OSCILLATION
U NUTATION

NUTRIENTS
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Characterization of the water soluble component of inedible residue from candidate CELSS crops
[NASA-TM-107557] 06 p1605 N93-18111
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438

NUTRITION
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Nutrition 05 p1222 N93-16805
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Nutrition, Metabolic Disorders and Lifestyle of Aircrew
[AGARD-CP-533] 12 p3777 N93-32240
An automated processing system for food frequency and nutrition knowledge questionnaire 12 p3778 N93-32241
Nutritional assessment of United States tactical air command pilots 12 p3778 N93-32242
Nutrition for a typical MAC crew during Desert Storm 12 p3778 N93-32245
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255
The influence of dietary counseling and cardiac catheterization on lipid profiles in American military aviators 12 p3781 N93-32259
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces 12 p3781 N93-32260

NUTRITIONAL REQUIREMENTS
NT CALORIC REQUIREMENTS
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
Nutrition 05 p1222 N93-16805
A proposal to demonstrate production of salad crops in the Space Station Mockup Facility with particular attention to space, energy, and labor constraints
[NASA-CR-192815] 08 p2419 N93-23169
Nutrition for a typical MAC crew during Desert Storm 12 p3778 N93-32245
Changes in food and energy intake in military aircrew 12 p3778 N93-32246
Trial of emergency ration of the Spanish Air Force 12 p3778 N93-32247
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255

NUTS (FASTENERS)
Slip joint connector
[NASA-CASE-MFS-28659-1] 05 p1178 N93-17080

NYLON (TRADEMARK)
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

NYLON RESINS
U POLYAMIDE RESINS

NYQUIST DIAGRAM
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522

NYQUIST FREQUENCIES
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202

NYSTAGMUS
Eye movements under altered gravitoinertial forces 07 p1809 N93-21111

O

O RING SEALS
Development of advanced seal verification
[NASA-CR-184502] 04 p0892 N93-15117
Design and analysis of seals for extended service life 05 p1181 N93-17283
Actively controlled shaft seals for aerospace applications
[NASA-CR-191901] 06 p1547 N93-18371
A summary of laboratory testing performed to characterize and select an elastomeric O-ring material to be used in the redesigned solid rocket motors of the space transportation system
[NASA-TM-108395] 08 p2236 N93-22557

O STARS
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
Fluctuations at the blue edge of saturated wind lines in IUE spectra of O-type stars
[NASA-CR-191887] 06 p1696 N93-18776
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787

OAO
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747

OATS
A proposal to determine properties of the gravitropic response of plants in the absence of a complicating g-force (GTHRES)
[NASA-CR-192219] 06 p1593 N93-19377

OBJECT PROGRAMS
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
Object-oriented programming with mixins in Ada 05 p1245 N93-17171
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
Object-oriented design. MECANO: A method and an environment for object-oriented applications construction
[ETN-93-92682] 07 p2038 N93-20921

OBJECT-ORIENTED PROGRAMMING
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
Object-oriented design unifies databases and applications
[AD-A253313] 01 p0175 N93-10723
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
An object-oriented approach to spatial databases
[REPT-92-034] 02 p0476 N93-11690
Higher-order generic functions for CLOS
[DE92-013447] 02 p0413 N93-12137
Inheritance for software reuse: The good, the bad, and the ugly 02 p0415 N93-12389
Application interface engine language and object reference manual
[DE92-017555] 03 p0683 N93-12686
Making object-oriented databases more knowledgeable (from ADAM to ABEL) 03 p0738 N93-13910
Applying an object-oriented database model to a scientific database problem: Managing experimental data at CEBAF 03 p0738 N93-13911
A theory of reference graphs in relational databases 03 p0739 N93-13912
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
An eclectic method for object oriented database design
[AD-A256439] 04 p1008 N93-15315
Predicting database requirements for geographic information systems in the year 2000: Long-term design issues for GRASS
[AD-A256862] 04 p1009 N93-15627
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
NPSGDL: An object oriented graphics description language for virtual world application support
[AD-A257337] 05 p1234 N93-15992
A Relational/Object-Oriented Database Management System: R/OODBMS
[AD-A257339] 05 p1351 N93-15993
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
Constitutive and equation of state models using object-oriented programming methods
[DE93-000740] 05 p1243 N93-17063
Object-oriented programming with mixins in Ada 05 p1245 N93-17171
Software Engineering Laboratory Ada performance study: Results and implications 05 p1245 N93-17172
Object-oriented simulation for the Superconducting Super Collider
[DE92-015962] 05 p1299 N93-17205
Guide to object-oriented analysis and design 05 p1254 N93-17296
Description of research interests and current work related to automating software design 05 p1249 N93-17515
Domain specific software design for decision aiding 05 p1249 N93-17517
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 1: The model
[OEFZS-4607-PT-1] 05 p1356 N93-17601
Direct access and external memory management of multimedia documents, an object-oriented approach. Part 2: The prototype
[OEFZS-4608-PT-2] 05 p1356 N93-17635
A framework for classifying and resolving semantic heterogeneity in object-oriented databases
[AD-A257597] 05 p1357 N93-17790
Using an object-oriented database management system to enhance the reusability of class definitions
[AD-A257559] 06 p1685 N93-17981
G-LOG: A graph based query language
[REPT-92-013] 06 p1618 N93-18198
Artificial neural networks application simulator 06 p1642 N93-18502
Implementation of inheritance by means of relations
[INRIA-RR-1417] 06 p1621 N93-18513
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations 06 p1634 N93-18660

An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
Ada implementation of an object data repository
[AD-A259144] 07 p2087 N93-20002
A framework for corporate implementation of object-oriented software development
[AD-A258717] 07 p2032 N93-20383
Geographic data model: A survey 07 p1968 N93-20540
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
ProperCAD: A portable object-oriented parallel environment for VLSI CAD
[NASA-CR-192308] 07 p2033 N93-20603
Object-oriented design. MECANO: A method and an environment for object-oriented applications construction
[ETN-93-92682] 07 p2038 N93-20921
Development of semantic metamodels for object orientation
[REPT-91-83] 07 p2038 N93-21037
Design and implementation of LOGRES
[REPT-92-040] 07 p2039 N93-21184
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041
Advanced software development workstation. Comparison of two object-oriented development methodologies
[NASA-CR-192819] 08 p2434 N93-22042
Investigation of cognition acquisition using natural language conversational process
[MBB-FE-315-S-PUB-0498] 08 p2435 N93-22391
Object technology: A white paper
[DE93-006037] 08 p2522 N93-22495
An object-oriented database approach to the storage and use of medical data 08 p2526 N93-23382
Prototype PC user interface
[DE93-008008] 09 p2809 N93-25303
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
A software development approach for parallel processing systems integrating object-oriented and functional paradigms 09 p2816 N93-25481
Object-oriented tools for distributed computing 09 p2817 N93-25576
Gas turbine system simulation: An object-oriented approach
[NASA-TM-106044] 09 p2593 N93-25673
High level design for distributed application instrumentation
[AD-A260812] 09 p2710 N93-25696
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
Virtual data structures
[RUU-CS-92-16] 10 p3097 N93-27506
XInPosse: Structural simulation for graphics hardware
[CWI-CS-R9208] 10 p3098 N93-27553
DOKMA: A document oriented communication model for medical applications as a basis of a role system in the medical field
[ETN-93-93799] 11 p3492 N93-28469
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
A distributed object-oriented database application design
[AD-A262591] 11 p3612 N93-28846
Transforming AdaPT to Ada9x
[NASA-CR-193117] 11 p3526 N93-29026
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
MLog: A language for prototyping concurrent systems 11 p3368 N93-30301
Assuring type safety of object-oriented languages
[REPT-92-061] 12 p3787 N93-31252
Object oriented application flow graphs and their semantics
[CT-92-01] 12 p3788 N93-31528
A new definition of the subtype relation
[AD-A265548] 12 p3791 N93-32066
Knowledge-based simulation using object-oriented programming 12 p3794 N93-32127
Agent oriented programming: An overview of the framework and summary of recent research 12 p3794 N93-32136

OBLATE SPHEROIDS
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335

OBLIQUE COORDINATES
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

OBLIQUE SHOCK WAVES
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer 04 p0876 N93-14695
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

OBLIQUE WINGS
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768

OBSCURATION
U OCCULTATION

OBSERVABILITY (SYSTEMS)
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability
[NASA-CR-191282] 03 p0572 N93-13569
A passivity approach to controller-observer design for robots
[MEMO-1050] 08 p2459 N93-23355

OBSERVATION
NT EARTH OBSERVATIONS (FROM SPACE)
NT SATELLITE OBSERVATION
NT SKY SURVEYS (ASTRONOMY)
NT SPACE OBSERVATIONS (FROM EARTH)
NT VISUAL OBSERVATION
High resolution observations: The state of the art and beyond 01 p0177 N93-10902
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
History of geodesy 07 p1975 N93-20997
Regional-scale analysis and forecasting
[AD-A259894] 08 p2403 N93-22733
The Global Ocean Observing System: One perspective 09 p2733 N93-24920
The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048
Development of a tool-set for simultaneous, multi-site observations of astronomical objects 09 p2878 N93-25795
Ultraviolet Imaging Telescope (UIT) observations of galaxies 10 p3184 N93-26785
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377
The prominence-corona interface: Models and observations 12 p3873 N93-31378
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601

OBSERVATION AIRCRAFT
NT CL-84 AIRCRAFT
NT E-2 AIRCRAFT
NT MIRAGE AIRCRAFT
NT U-2 AIRCRAFT

OBSERVATORIES
NT ASTRONOMICAL OBSERVATORIES
NT ASTRONOMICAL SATELLITES
NT GAMMA RAY OBSERVATORY
NT GEOPHYSICAL OBSERVATORIES
NT GINGA SATELLITE
NT HEAO 2
NT HUBBLE SPACE TELESCOPE
NT INFRARED ASTRONOMY SATELLITE
NT INFRARED SPACE OBSERVATORY (ISO)
NT IUE
NT KUIPER AIRBORNE OBSERVATORY
NT LARGE DEPLOYABLE REFLECTOR
NT LUNAR OBSERVATORIES
NT MAGELLAN ULTRAVIOLET ASTRONOMY SATELLITE
NT OAO
NT OSO
NT PINHOLE OCCULTER FACILITY
NT ROSAT MISSION
NT SOFIA (AIRBORNE OBSERVATORY)
NT SOLAR OBSERVATORIES
NT SPACE INFRARED TELESCOPE FACILITY
NT X RAY ASTROPHYSICS FACILITY
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
A report on geomagnetic observatory operations, 1990
[PB92-224781] 03 p0649 N93-12804
Magnetic results 1987-89: Lerwick, Eskadalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-19] 06 p1576 N93-18137
Magnetic results 1990: Lerwick, Eskdalemuir, and Hartland observatories (United Kingdom)
[GEOMAGNETIC-BULL-20] 06 p1576 N93-18138
Report of the Kakioka Magnetic Observatory. Geoelectricity: Kakioka, Memambetsu, Kanoya
[REPT-160] 07 p2001 N93-21947
The Sudbury Neutrino Observatory
[DE93-007697] 09 p2899 N93-25327

OBSTACLE AVOIDANCE
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
An investigation of a prototype OASYS effectiveness in maneuvering flight
[AD-A257901] 06 p1439 N93-18339
A parallel implementation of a multisensor feature-based range-estimation method
[NASA-TM-103999] 06 p1432 N93-18883
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology
[DE93-003602] 08 p2279 N93-22819
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330

OBSTACLES
U BARRIERS

OBSTRUCTING
U BLOCKING

OCCLUSION
The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Recognition of partially occluded threat objects using the annealed Hopefield network
06 p1612 N93-19466
Recognition of partially occluded threat objects based on hybrid Hopfield neural network
07 p1777 N93-21939
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects
[AD-A259711] 08 p2440 N93-23638
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067

OCCULTATION
NT RADIO OCCULTATION
NT SOLAR ECLIPSES
NT STELLAR OCCULTATION
EURECA
[ESA-F-26] 03 p0522 N93-12964
A CCD search for distant satellites of asteroids 3 Juno and 146 Lucina 06 p1699 N93-19248
Planetary astronomy research
[NASA-CR-192134] 07 p2099 N93-21643
Occultation of a compact radio source by Venus
09 p2676 N93-26107

OCCUPATION
NASA Mission: The Universe
[NASA-NP-141] 03 p0508 N93-12891
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Scientists, engineers, and technicians in manufacturing industries: 1989. Detailed statistical tables
[NSF-92-312] 03 p0730 N93-13437
Disorientation and flight safety: A survey of UK Army aircrew 06 p1426 N93-19680
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
Pipeline issues 08 p2517 N93-23148
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

OCCUPATIONAL DISEASES
The Proceedings of the Hypobaric Decompression Sickness Workshop
[AD-A257612] 06 p1597 N93-18362

OCEAN BOTTOM
The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California
[DE92-019172] 02 p0373 N93-11734
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
Chemical environments of submarine hydrothermal systems
[NASA-CR-191258] 03 p0669 N93-13458
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Applications of marine gravimetry to mid-oceanic spreading centers and volcanos
06 p1590 N93-19382
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
A direct mathematical approach to optimize the age-depth relation of deep-sea sediment cores
[MPIM-77] 08 p2414 N93-23636
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
Orbital tuning of marine sedimentary cores: An automatic procedure based on a general linear model
[MPIM-79] 08 p2415 N93-23856
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Isolation and analysis of key components of seafloor relief
[AD-A261635] 09 p2790 N93-26170
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885
Near real-time GIS in deep-ocean exploration
[AD-A262073] 11 p3487 N93-29003
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
ARI: Internal gravity waves at abrupt topography
[AD-A263795] 11 p3477 N93-29879
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

OCEAN COLOR SCANNER
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node
[NASA-TM-104566-VOL-2] 11 p3486 N93-28497
SeaWiFS technical report series. Volume 6: SeaWiFS technical report series cumulative index: Volumes 1-5
[NASA-TM-104566-VOL-6] 11 p3486 N93-28500

OCEAN CURRENTS
NT COASTAL CURRENTS
NT EL NINO
NT GULF STREAM
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837
The North Atlantic circulation: Combining simplified dynamics with hydrographic data
03 p0670 N93-13483
The Gulf Stream downstream of Cape Hatteras: Model/data comparisons 03 p0670 N93-13633
Modeling and observations of deep circulation in the eastern South Pacific Ocean 03 p0670 N93-13841
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Sensitivity of the Yoshida jet to the parameterization of vertical mixing: Do easterly winds imply equatorial upwelling? 04 p0922 N93-14864
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres
04 p0926 N93-14966
North-Australian tropical seas circulation study
04 p0926 N93-14968
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data
04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
Ocean circulation using altimetry
04 p0929 N93-14984
Ocean circulation modeling by use of radar altimeter data 04 p0929 N93-14986
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Global ocean circulation by altimetry
04 p0932 N93-15002
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Meridional circulation in the tropical North Atlantic
[AD-A256906] 05 p1219 N93-16024
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
Hydrographic data from Endeavor 214: A study of the Gulf Stream-Deep Western Boundary Current crossover
[AD-A257966] 05 p1221 N93-17737
Modelling studies in support of open-ocean convection field programs
[AD-A258324] 06 p1589 N93-18255
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast
[NASA-CR-192120] 06 p1586 N93-18360
SSG 5.99: Tidal friction and the Earth's rotation
07 p1974 N93-20992
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
Observations of turbulence, internal waves, and background flows: An inquiry into the relationships between scales of motion
[AD-A259361] 07 p2019 N93-21244
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Finding fish way by using remote sensing
07 p1979 N93-21546
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Monitoring of Kuroshio current using the data of VTIR obtained by MOS-1 and MOS-1b
08 p2334 N93-22124
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125

Observation in the East China Sea
08 p2335 N93-22126
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
The influence of wind-driven ocean circulation on Earth rotation 08 p2412 N93-22668
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions
08 p2393 N93-23207
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Iron fertilization of the austral ocean: A model assessment
[MPIM-84] 08 p2415 N93-23860
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
Numerical simulation and prediction of coastal ocean circulation 08 p2416 N93-24178
Observations of an intrathermocline vortex
09 p2788 N93-24769
World Ocean Circulation Experiment
09 p2733 N93-24922
The Global Ocean Observing System
09 p2733 N93-24923
Indian Ocean analyses 09 p2733 N93-24925
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
Mesoscale and large-scale variability in California current system and its interaction with both California current and California undercurrent flows
[AD-A262195] 10 p3080 N93-27867
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
Measurements of ocean currents across the continental margin off Point Sur, California, during March 1989
[AD-A264853] 11 p3489 N93-30178
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
The parameterization of vertical turbulent mixing processes in a general circulation model of the tropical Pacific
[KNMI-WR-92-03] 12 p3758 N93-31594
Hydrographic observations in the western tropical and subtropical North Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1991
[PB93-184778] 12 p3770 N93-31832
A numerical study of seasonal wind forcing effects on the California current system
[AD-A264951] 12 p3770 N93-32075

OCEAN DATA ACQUISITIONS SYSTEMS

Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Ice-ocean four dimensional structure and dynamics
[AD-A264850] 11 p3490 N93-30906
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010

OCEAN DATA PLATFORMS

U OCEAN DATA ACQUISITIONS SYSTEMS

OCEAN DATA STATIONS

U OCEAN DATA ACQUISITIONS SYSTEMS

OCEAN DYNAMICS

Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
The North Atlantic circulation: Combining simplified dynamics with hydrographic data
03 p0670 N93-13483
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051
Sensitivity of the Yoshida jet to the parameterization of vertical mixing: Do easterly winds imply equatorial upwelling? 04 p0922 N93-14864
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Ocean circulation using altimetry
04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream
04 p0929 N93-14985
Ocean circulation modeling by use of radar altimeter data 04 p0929 N93-14986
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior
04 p0918 N93-14999
Global ocean circulation by altimetry
04 p0932 N93-15002
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
Use of ERS-1 SAR data in numerical sea ice modeling
07 p1957 N93-21592
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
The Global Ocean Observing System
09 p2733 N93-24923
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
Analysis of a simulation of the seasonal cycle in the tropical Pacific Ocean in an eddy-resolving global ocean model
[AD-A264007] 11 p3488 N93-29977
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Ice-ocean four dimensional structure and dynamics
[AD-A264850] 11 p3490 N93-30906
The parameterization of vertical turbulent mixing processes in a general circulation model of the tropical Pacific
[KNMI-WR-92-03] 12 p3758 N93-31594

OCEAN FLOOR SPREADING

U SEA FLOOR SPREADING

OCEAN MODELS

LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
The Gulf Stream downstream of Cape Hatteras: Model/data comparisons 03 p0670 N93-13633
Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
Modeling and observations of deep circulation in the eastern South Pacific Ocean 03 p0670 N93-13841
Carbon dioxide induced ocean climatic change and tracer experiment with an atmosphere-ocean general circulation model 04 p0912 N93-14178
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Ocean circulation modeling by use of radar altimeter data 04 p0929 N93-14986

Precise orbit computation and sea surface modeling
04 p0813 N93-15000
Fitting microphysical observations to a numerical model through an optimal control theory technique
04 p0924 N93-15100
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Undersea data collection, analysis, and display system
[AD-D015476] 05 p1220 N93-16483
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Modelling studies in support of open-ocean convection field programs
[AD-A258324] 06 p1589 N93-18255
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Use of ERS-1 SAR data in numerical sea ice modeling
07 p1957 N93-21592
A 2 x CO2 experiment with prescribed changes in sea surface temperature 07 p1958 N93-21598
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
Satellite data assimilation in the wave model 3G-WAM
07 p1965 N93-21638
Global validation of the wave model WAM using Geosat wave height data 07 p1965 N93-21639
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
CHAMMP
[AD-A260190] 08 p2403 N93-22765
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
[MPIM-76] 08 p2396 N93-23635
The joint normal modes of the coupled atmosphere-ocean system observed from 1967 to 1986
[MPIM-78] 08 p2396 N93-23637
On the cold start problem in transient simulations with coupled atmosphere-ocean models
[MPIM-83] 08 p2397 N93-23859
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
Numerical simulation and prediction of coastal ocean circulation 08 p2416 N93-24178
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
World Ocean Circulation Experiment
09 p2733 N93-24922
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Simulation and prediction of tropical SST with a coupled ocean-atmosphere model 09 p2789 N93-25469
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
Analysis of a simulation of the seasonal cycle in the tropical Pacific Ocean in an eddy-resolving global ocean model
[AD-A264007] 11 p3488 N93-29977
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Modeling studies of ice-ocean dynamics and thermodynamics
[AD-A264084] 12 p3769 N93-31082
The parameterization of vertical turbulent mixing processes in a general circulation model of the tropical Pacific
[KNMI-WR-92-03] 12 p3758 N93-31594
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037
A numerical study of seasonal wind forcing effects on the California current system
[AD-A264951] 12 p3770 N93-32075
Coupled ocean-atmosphere GCM simulation of Southern Oscillation phenomena
[DE93-012583] 12 p3766 N93-32297

OCEAN SURFACE

Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry
02 p0373 N93-12002
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
Coherent frame analysis of Synthetic Aperture Radar (SAR) ocean imagery 03 p0568 N93-14050
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
Ocean wave detection using satellite altimetry
04 p0906 N93-14839
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data
04 p0931 N93-14997
Precise orbit computation and sea surface modeling
04 p0813 N93-15000
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Definition of the sea surface infrared sun glitter corridor
[AD-A257100] 05 p1220 N93-16125
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
Internal gravity waves in the equatorial Pacific
[DE93-001517] 05 p1211 N93-17653
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
Nonlinear ocean waves
[AD-A259335] 07 p2019 N93-21260
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Satellite data assimilation in the wave model 3G-WAM
07 p1965 N93-21638
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Remote sensing: Environmental effects of surface films
[AD-A258571] 07 p1980 N93-21754
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387
Third Stokes parameter emission from a periodic water surface
[NASA-CR-192334] 08 p2342 N93-22454
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580
SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting
[NASA-TM-104566-VOL-8] 08 p2413 N93-23010
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions
08 p2393 N93-23207
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704
Satellite monitoring of the global ocean surface during 1987-1989 09 p2734 N93-24926
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Model for transport of floating debris in the ocean
[PB93-172997] 09 p2768 N93-26559
A comparison of GMS low-level cloud motion winds with sea surface winds observed by ships over western part of the North Pacific Ocean 10 p3076 N93-26995
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
Chemical and biological variability in the upper water column
[AD-A262207] 10 p3080 N93-27684
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924

A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method
10 p3074 N93-28249
Wave information studies of US coastlines: Verification of Pacific Ocean deepwater hindcast wave information
[AD-A262714] 10 p3081 N93-28396
Observations of turbulence in the surf zone
[AD-A262718] 10 p3081 N93-28397
Processing of altimeter data by the German ERS-1 Processing and Archiving Facility (D-PAF)
11 p3457 N93-28917
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173

OCEAN TEMPERATURE
NT SEA SURFACE TEMPERATURE
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
Finding fish way by using remote sensing
07 p1979 N93-21546
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
Observations of an intrathermocline vortex
09 p2788 N93-24769
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827

OCEAN THERMAL ENERGY CONVERSION
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837
Japan's Sunshine Project
[DE93-768309] 12 p3748 N93-31811

OCEANOGRAPHIC PARAMETERS
NT OCEAN TEMPERATURE
NT SEA SURFACE TEMPERATURE
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data
02 p0365 N93-12182
Estimation of EOF expansion coefficients from incomplete data
[AD-A255252] 03 p0697 N93-13886
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Undersea data collection, analysis, and display system
[AD-D015476] 05 p1220 N93-16483
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Geophysical parameters from the analysis of laser ranging to Starlette
[NASA-CR-192406] 06 p1541 N93-18605
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Environmental data sets at the University of Alaska
08 p2338 N93-22146
SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting
[NASA-TM-104566-VOL-8] 08 p2413 N93-23010
An autonomous expendable conductivity, temperature, depth profiler for ocean data collection
[DE93-005038] 08 p2415 N93-23979
International organisation of ocean programs: Making a virtue of necessity 09 p2732 N93-24917
Measurements of ocean currents across the continental margin off Point Sur, California, during March 1989
[AD-A264853] 11 p3489 N93-30178
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
Hydrographic observations in the western tropical and subtropical North Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1991
[PB93-184778] 12 p3770 N93-31832
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
A new view of the sea
[ETN-93-93469] 12 p3747 N93-32345

OCEANOGRAPHY
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Bibliography of publications from the Texas A and M Sea Grant College Program, 1968-1992
[PB92-205517] 02 p0372 N93-11253
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Reports to the Nation on our changing planet. Winter 1991 No. 1: The climate system
[NASA-CR-190954] 02 p0370 N93-11880
Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
Development of moored oceanographic spectroradiometer
[NASA-CR-190883] 03 p0670 N93-13708
Adding explanation capability to a knowledge-based system for interpretation of oceanographic images
[AD-A255887] 03 p0671 N93-13943
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres
04 p0926 N93-14966
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data
04 p0931 N93-14997
Marine research using data from TOPEX/Poseidon
04 p0932 N93-15001
Global ocean circulation by altimetry
04 p0932 N93-15002
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
Modern methods in meteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
Bibliography of technical reports, 1991 from Woods Hole Institution
[AD-A257304] 05 p1220 N93-16083
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Hydrographic data from Endeavor 214: A study of the Gulf Stream-Deep Western Boundary Current crossover
[AD-A257966] 05 p1221 N93-17737
Multi-discipline Arctic oceanography and acoustics program: The Geodesic Underice Tramway System (GUTS)
[AD-A258323] 06 p1589 N93-18254
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
The orbital record in stratigraphy
06 p1582 N93-18974
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion
[AD-A258803] 06 p1590 N93-18982
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
SSG 1.102: Vertical reference systems
07 p1970 N93-20966
SSG 1.105: GPS kinematic positioning methods and applications 07 p1970 N93-20967
SSG 5.99: Tidal friction and the Earth's rotation
07 p1974 N93-20992
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
National Oceanographic Data Center inventory of physical oceanographic profiles: Global distributions by year for all countries
[PB93-116531] 07 p2019 N93-21476
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804

Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
ERS-1: The first European Earth observation system 08 p2358 N93-23757
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit 08 p2361 N93-23775
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779
Computer-based lessons in satellite oceanography: An academic network for teachers and students 08 p2369 N93-23825
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226
Research in stochastic processes and their applications
[AD-A260174] 08 p2473 N93-24317
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit 09 p2601 N93-24704
Supporting the Portuguese fisheries with satellites 09 p2745 N93-24821
Proceedings of the Ocean Climate Data Workshop
[NASA-TM-108711] 09 p2732 N93-24915
The role of ocean climate data in operational Naval oceanography 09 p2732 N93-24916
Role of the ocean in climate changes 09 p2732 N93-24918
The Global Ocean Observing System: One perspective 09 p2733 N93-24920
World Ocean Circulation Experiment 09 p2733 N93-24922
The Global Ocean Observing System 09 p2733 N93-24923
Global Temperature and Salinity Pilot Project 09 p2733 N93-24924
The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927
OCEAN-PC and a distributed network for ocean data 09 p2734 N93-24928
Satellite altimetry 09 p2734 N93-24930
Data archaeology at ICES 09 p2734 N93-24931
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932
Data management for community research projects: A JGOFS case study 09 p2736 N93-24936
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method 10 p3074 N93-28249
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Processing of altimeter data by the German ERS-1 Processing and Archiving Facility (D-PAF) 11 p3457 N93-28917
Near real-time GIS in deep-ocean exploration
[AD-A262073] 11 p3487 N93-29003
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
National collaboratories: Applying information technology for scientific research
[LC-93-83795] 11 p3612 N93-29129
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Analysis of a simulation of the seasonal cycle in the tropical Pacific Ocean in an eddy-resolving global ocean model
[AD-A264007] 11 p3488 N93-29977
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612
Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Research platforms FLIP and ORB support
[AD-A265910] 12 p3771 N93-32320
A new view of the sea
[ETN-93-93469] 12 p3747 N93-32345

OCEANS
NT ANTARCTIC OCEAN
NT ARCTIC OCEAN
NT ATLANTIC OCEAN
NT INDIAN OCEAN
NT PACIFIC OCEAN
Search for the 700,000-year-old source crater of the Australasian tektite strewn field 01 p0120 N93-10177
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
Europa: Prospects for an ocean and exobiological implications 06 p1591 N93-18552
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion
[AD-A258803] 06 p1590 N93-18982
Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses 07 p1956 N93-21586
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
Ocean colour programmes for the European marine environment 08 p2366 N93-23808
Ocean governance: A new vision
[PB93-136299] 08 p2416 N93-24144
International organisation of ocean programs: Making a virtue of necessity 09 p2732 N93-24917
The Global Ocean Observing System: One perspective 09 p2733 N93-24920
Operational seasonal and interannual predictions of ocean conditions 09 p2733 N93-24921
The Global Ocean Observing System 09 p2733 N93-24923
OCEAN-PC and a distributed network for ocean data 09 p2734 N93-24928
Data availability and data archeology from the former Soviet Union 09 p2735 N93-24932
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study 09 p2736 N93-24938
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies 09 p2736 N93-24939
Wrap-up session 09 p2737 N93-24940
International ocean services: Is it time - will it ever be time? 09 p2737 N93-24941
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
The Martian ocean: First acid, then alkaline 12 p3866 N93-31958

OCTANE NUMBER
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667

OCTETS
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242

OCULAR CIRCULATION
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708

OCULOMETERS
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459

ODAS
U OCEAN DATA ACQUISITIONS SYSTEMS

ODD-EVEN NUCLEI
Low-spin identical bands in odd-A nuclei
[DE92-041016] 05 p1287 N93-16600
Low-spin identical bands in neighboring odd-A and even-even nuclei
[DE93-008569] 10 p3132 N93-27486

ODORS
Review on safety validation test 07 p1802 N93-20488

OFF-ON CONTROL
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010

OFFGASSING
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Review on safety validation test 07 p1802 N93-20488
Explosive vapor emission 07 p1772 N93-21905

OFFICE AUTOMATION
High-performance mass storage system for workstations 11 p3618 N93-30457

OFFSHORE ENERGY SOURCES
Physical oceanography of the US Atlantic and Eastern Gulf of Mexico
[PB93-123909] 08 p2412 N93-22067
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

OFFSHORE PLATFORMS
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Aerodynamic aspects of offshore structures
[NLR-TP-91188-U] 06 p1405 N93-17928
Modelling of dynamic soil-structure-ice interaction 06 p1558 N93-18759
Helicopters in action 06 p1403 N93-19005
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623

Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899
Ice-ocean four dimensional structure and dynamics
[AD-A264850] 11 p3490 N93-30906
Research platforms FLIP and ORB support
[AD-A265910] 12 p3771 N93-32320

OFT
U SPACE TRANSPORTATION SYSTEM FLIGHTS

OGIVES
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Tangential fuselage blowing on an ogive cylinder
09 p2578 N93-25545

OH-58 HELICOPTER
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741

OHIO
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158

OHMIC DISSIPATION
Understanding of carbonate fuel cell resistance issues for performance improvement
[DE92-019976] 03 p0638 N93-13039
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990
06 p1733 N93-19589
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765

OIL ADDITIVES
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098

OIL EXPLORATION
Application of fuzzy set and Dempster-Shafer theory to organic geochemistry interpretation
08 p2450 N93-22212
GeoEnvironment Carpathes project
08 p2368 N93-23816
Radar sensing of petroleum seepage gases
[AD-A261431] 09 p2682 N93-26455
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861

OIL FIELDS
Helicopters in action 06 p1403 N93-19005
Radar sensing of petroleum seepage gases
[AD-A261431] 09 p2682 N93-26455

OIL POLLUTION
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques
09 p2746 N93-24823
Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 1: Executive summary
[PB93-186062] 12 p3770 N93-31873

OIL RECOVERY
The effect of lamination angle on polymer retention
[DE93-004304] 07 p1861 N93-21722
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Study on technology for effective utilization of carbon dioxide in view of global environment
[DE93-781440] 11 p3468 N93-28883
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899

OIL SLICKS
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967

OILS
NT CRUDE OIL
NT LUBRICATING OILS
NT MINERAL OILS
Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016

OKLAHOMA
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159

OLEFINS
U ALKENES

OLFACTORY PERCEPTION
Explosives search dogs 07 p1776 N93-21933
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944

OLIGOMERS
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
NMR study of triazone compound formation
07 p1839 N93-21165
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
Phenylethynyl endcapping reagents and reactive diluents
[NASA-CASE-LAR-14796-1] 12 p3702 N93-31459

OLIVINE
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
Refining the granulite suite 06 p1736 N93-18789
Frequency dependent electrical properties of minerals and partial-melts
[DE93-009254] 11 p3410 N93-29793

OMCVD (VAPOR DEPOSITION)
U METALORGANIC CHEMICAL VAPOR DEPOSITION

OME
U ORBIT MANEUVERING ENGINE (SPACE SHUTTLE)

OMEGA NAVIGATION SYSTEM
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735

OMNIDIRECTIONAL ANTENNAS
NT MONOPOLE ANTENNAS
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032

OMNIRANGE NAVIGATION
U VHF OMNIRANGE NAVIGATION

ON-LINE PROGRAMMING
Unrestricted on-line parsing and transduction with graph structured stacks 07 p2031 N93-20224

ON-LINE SYSTEMS
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey
01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Data archiving and analysis for CWDD
[DE92-017064] 02 p0473 N93-11104
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Directory of factual and numeric databases of relevance to aerospace and defence R and D
[AGARD-R-777] 02 p0476 N93-11710
Interactive collision detection
02 p0400 N93-11963
On-line analysis of chemical composition using an FT-Raman spectrometer in the near-IR
[DE92-016503] 02 p0253 N93-12311
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Engineering Design Information System (EDIS) Information Services Division (ISD) index function: User's manual
[DE92-041242] 03 p0736 N93-13048
Using DIALOG CIP at Winona State University to educate end-users 03 p0686 N93-13338
Multiple-function multi-input/multi-output digital control and on-line analysis
[NASA-TM-107697] 03 p0500 N93-13565
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Parallel on-line parsing in constant time
[MEMO-INF-91-64] 04 p0958 N93-15082
User's guide for SearchMAESTRO
[AD-A256422] 04 p1008 N93-15335
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing
04 p0954 N93-15549
The Aerospace Database data element dictionary with issues and recommendations from the meetings of July 24-25, August 13-14, and September 24-25, 1991
[NASA-TM-108156] 05 p1353 N93-16233
Data storage and retrieval system
05 p1354 N93-16324
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
Technical reference model for information management, version 1.2
[AD-A253476] 05 p1357 N93-17773
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results
06 p1469 N93-18940
DROLS workbook
[AD-A259033] 06 p1687 N93-19017
On-line aircraft state and parameter estimation
06 p1446 N93-19929
NASA access mechanism: Graphical user interface information retrieval system
[NASA-TM-108981] 06 p1693 N93-19939

Efficient and accurate on-line computation of motor torques for robotic manipulators
07 p1918 N93-20710
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
User's guide to the on-line bibliographic reference system for the NIST process planning testbed
[PB92-226307] 07 p2091 N93-21012
Computer Security Bulletin Board System: User's guide
[PB93-113553] 07 p2029 N93-21255
Databases available in the Research Information Center of the National Institute of Standards and Technology
[PB93-114478] 07 p2092 N93-21387
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU]
08 p2432 N93-22032
Data sets for weather information services
08 p2337 N93-22140
ROBOSIM: An intelligent simulator for robotic systems
08 p2465 N93-22161
Automated system for analyzing the activity of individual neurons 08 p2423 N93-22163
Operator Performance Support System (OPSS)
08 p2429 N93-22195
On-line process analysis innovation: DiComp (tm) shunting dielectric sensor technology
08 p2287 N93-22200
Towards autonomous fuzzy control
08 p2450 N93-22213
An electronic stroll through the global village
[DE93-005962] 08 p2446 N93-22763
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Coordinating Council. First Meeting: NASA/RECON database
[NASA-TM-108766] 08 p2526 N93-23412
On-line health monitoring: An integrity improvement for the civil use of GPS and GLONASS
08 p2125 N93-23535
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
A framework for the design of usable electronic text
09 p2877 N93-25754
A land-surface testbed for EOSDIS
09 p2878 N93-25797
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
EnviroNET 09 p2886 N93-26398
A prototype climate information system
[AD-A261799] 10 p3075 N93-26630
The performance of cited references as an approach to information retrieval 10 p3166 N93-27503
Handbook for users
[AD-A260738] 10 p3166 N93-27605
Basic OSF/Motif programming and applications
[DE93-010800] 11 p3524 N93-28834
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
Some problems with the design of self-learning management systems 11 p3516 N93-29559
EnviroNET: On-line information for LDEF
11 p3624 N93-29625
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
End users: New products and services
12 p3837 N93-31220
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640
Online guided tour of the Cleanup Information Bulletin Board System. (CLU-IN: Cleanup Information Bulletin Board)
[PB93-193704] 12 p3752 N93-31818
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142
The computer integrated documentation project: A merge of hypermedia and AI techniques
12 p3801 N93-32148

ONBOARD COMPUTERS
U AIRBORNE/SPACEBORNE COMPUTERS

ONBOARD DATA PROCESSING

Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Autonomous power system: Integrated scheduling
02 p0235 N93-11948
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207
Data distribution satellite
[NASA-TM-105778] 02 p0287 N93-12481
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154
Flight data and flight safety in SAS
04 p0793 N93-15156
The SIROM flight data recorder and evaluation system
04 p0795 N93-15165
DAR-2: On-board data acquisition system for aircraft engines 04 p0795 N93-15166
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system
04 p0796 N93-15172
RB199 engine oil system failure diagnostics by comparison of measured and calculated oil consumption using the OLMOS on-board monitoring system
04 p0796 N93-15173
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
NASA experimental airborne doppler radar and real time processor for wind shear detection
06 p1420 N93-19607
The implementation of a lossless data compression module in an advanced orbiting system: Analysis and development 09 p2804 N93-25928
Avionics systems architectures
10 p2919 N93-27169
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803
On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
SAW technology for on-board processing in military satellite communications 11 p3362 N93-30265
Airborne data acquisition using a front-end processor architecture 11 p3373 N93-30329
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy
12 p3868 N93-31350

ONBOARD EQUIPMENT

NT AIRBORNE EQUIPMENT
NT AIRBORNE LASERS
NT AIRBORNE/SPACEBORNE COMPUTERS
NT AIRCRAFT EQUIPMENT
NT EJECTION SEATS
NT SPACECRAFT ELECTRONIC EQUIPMENT
NT SPACECRAFT EQUIPMENT
NT TERCOM
Proceedings of the 62nd Shock and Vibration Symposium, Volume 2
[AD-A249267] 03 p0628 N93-13637
DAR-2: On-board data acquisition system for aircraft engines 04 p0795 N93-15166
Integrated engine control and monitoring with experiences derived from OLMOS
04 p0795 N93-15168
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
EJ 200 engine monitoring system: On- and off-board data capture, analysis, and management system
04 p0796 N93-15172
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422
Onboard navigation rendezvous expert system
08 p2144 N93-22280
Testing of the on-board attitude determination and control algorithms for SAMPEX
09 p2600 N93-24698
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Rate determination from vector observations
09 p2603 N93-24713
On-board derived flight-path measurement as demonstrated by an ILS measurement system
12 p3677 N93-31282

ONE DIMENSIONAL FLOW

Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428

ONE-PHASE FLOW
U SINGLE-PHASE FLOW

ONISOTROPY
U ANISOTROPY

ONTARIO

Sudbury Breccia and suevite as glacial indicators transported 800 km to Kentland Astrobleme, Indiana
01 p0117 N93-10165
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
A comparison of the chemistry of pseudotachylyte breccias in the Archean Levack Gneisses of the Sudbury structure, Ontario 01 p0122 N93-10187
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430

OORT CLOUD

Studies of extra-solar Oort Clouds and the Kuiper disk
[NASA-CR-190958] 03 p0769 N93-12669
Studies of extra-solar OORT clouds and the Kuiper disk
[NASA-CR-192759] 08 p2555 N93-22476

OPACITY

Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Recent progress on astrophysical opacity
[DE93-002892] 06 p1722 N93-19513
OPAL opacities
[DE93-002891] 06 p1733 N93-19828

OPALESCENCE

Diffusing wave spectroscopy
04 p0980 N93-14169

OPEN CIRCUIT VOLTAGE

NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835

OPEN CLUSTERS

B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
Young open clusters as probes of the star formation process 11 p3635 N93-30377

OPENINGS

NT APERTURES
NT IRISES (MECHANICAL APERTURES)
NT PORTS (OPENINGS)
NT SLITS
NT SYNTHETIC APERTURES
A Rayleigh-Ritz analysis methodology for cutouts in composite structures 11 p3307 N93-30869

OPERATING COSTS

Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025

Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Advanced rocket propulsion 08 p2174 N93-22091
Space transportation: The content and uses of Shuttle cost estimates. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-115] 08 p2531 N93-23097
The Eureca concept and missions 08 p2156 N93-24343
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 2
[PB93-159432] 09 p2720 N93-26534
Cost-effectiveness analysis of TxDOT CNG fleet conversion, volume 1
[PB93-165603] 09 p2720 N93-26585
STRV1-b flight experiment 11 p3265 N93-28723
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

OPERATING SYSTEMS (COMPUTERS)
NT DISK OPERATING SYSTEM (DOS)
NT UNIX (OPERATING SYSTEM)
Issues and techniques of CASE integration with configuration management
[AD-A253323] 01 p0136 N93-10298
Measurement and analysis of operating system fault tolerance
[NASA-CR-190973] 02 p0406 N93-12540
A portable multiprocessor interface for standard ML of New Jersey
[AD-A255639] 04 p0958 N93-14151
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
Transparently interposing user code at the system interface
[AD-A256636] 05 p1233 N93-15907
Fault tolerant real-time systems
[AD-A257352] 05 p1235 N93-16174
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
A computer architecture for intelligent machines
[NASA-CR-191861] 06 p1614 N93-19347
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Transportable Applications Environment (TAE) Plus: A NASA tool for building and managing graphical user interfaces 08 p2444 N93-22150
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Experimenter's laboratory for visualized interactive science 09 p2879 N93-25802
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Consistency management for virtually indexed caches
[AD-A261952] 10 p3100 N93-27920
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
A temporal proof methodology for reactive systems
[NASA-CR-193145] 11 p3528 N93-29469
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
A redesigned Isis and Meta system under Mach
[AD-A263576] 11 p3531 N93-29976
Using the Mach communication primitives in X11
[AD-A264049] 11 p3533 N93-30125
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793

OPERATING TEMPERATURE
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Modelling the engine temperature distribution between shut down and restart for life usage monitoring 04 p0796 N93-15177
Design aspects of mid-size SMES using high temperature superconductors
[DE92-040723] 05 p1142 N93-15828
NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Advanced industrial materials. An overview 07 p1845 N93-20623
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670

OPERATIONAL AMPLIFIERS
Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904
Development of radiation resistant linear IC (equivalent to mu PC 806) 07 p1798 N93-20488
Design of low-voltage bipolar operational amplifiers
[ISBN-90-9004571-6] 08 p2280 N93-23021
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit 09 p2794 N93-26073

OPERATIONAL HAZARDS
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Report of the SSME assessment team
[NASA-TM-108217] 07 p1830 N93-21645
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
Hazard alerting and situational awareness in advanced air transport cockpits 08 p2106 N93-22566

OPERATIONAL PROBLEMS
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
Environmental effects on lunar astronomical observatories 05 p1363 N93-17454
Galileo post-Gaspra cruise and Earth-2 encounter 11 p3385 N93-29597

OPERATIONS RESEARCH
Structural design using equilibrium programming
[NASA-TM-107593] 02 p0339 N93-12005
Mathematical methods in operations research and computer science
[AD-A254782] 02 p0428 N93-12465
Sensitivity analysis of the simultaneous proportionate change of inputs and outputs in data envelopment analysis
[AD-A254821] 03 p0683 N93-12730
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
Uncertainty management by relaxation of conflicting constraints in production process scheduling 06 p1636 N93-18673
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
TCAS 2: Report on UK operational trial
[CAA-PAPER-92011] 08 p2122 N93-24105
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
Preprocessing and probing techniques for mixed integer programming problems
[MEMO-COSOR-92-26] 10 p3093 N93-27253
Local search in physical distribution management
[MEMO-COSOR-92-30] 10 p3163 N93-27384
A general model for maintenance of complex systems
[CWI-BS-R9201] 10 p3124 N93-27393
Assessment of Columbus payload operations capabilities by scheduling with the MARS system
[ESA-STR-235] 11 p3281 N93-30106
Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616
Job shop scheduling by local search
[MEMO-COSOR-92-29] 12 p3834 N93-31510

OPERATOR PERFORMANCE
From pilot's associate to satellite controller's associate 02 p0390 N93-11922
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair 02 p0400 N93-11965
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Effects of spatial luminance nonuniformities on visual-task performance and subjective uniformity
[AD-A255989] 04 p0936 N93-14416
Gloved operator performance study
[AD-A256894] 05 p1227 N93-16048
An automated version of the dichotic listening test: Hardware, software, and procedural details
[AD-A258114] 06 p1594 N93-17895
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Operator Performance Support System (OPSS) 08 p2429 N93-22195
Engineman stress and fatigue: Pilot tests
[PB93-175008] 11 p3507 N93-29675
The air traffic controller's mental model and it's implications for equipment design and trainee selection 11 p3372 N93-30322

OPERATORS (MATHEMATICS)
NT LINEAR OPERATORS
On the measurement of time-dependent quantum phases
[DE92-630206] 01 p0170 N93-10387
An isomorphism for algebra of distributions with compact support on Lie groups
[DE92-603605] 02 p0427 N93-12176
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
Purposive discovery of operations
[NASA-TM-108116] 04 p0963 N93-14765
Quantum groups and Lie-admissable time evolution
[SSCL-PREPRINT-793] 05 p1264 N93-16349
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
Measurability of operator fields
[W-9204] 05 p1264 N93-16353
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
A simple method to generate integrable symplectic maps
[PREPRINT-795] 05 p1265 N93-16416
Four-fermion operators with improved nearest-neighbour action
[PREPRINT-805] 05 p1287 N93-16443
Symmetry of wavefunctions in quantum algebras and supersymmetry
[DE92-041129] 05 p1265 N93-16551
On the sum of accretive operators
[ETN-92-92794] 05 p1265 N93-16566
The state operator in real time process algebra
[CWI-CS-R9140] 05 p1269 N93-16852
Vertex operator representation of some quantum tori Lie algebras
[PREPRINT-834] 05 p1269 N93-16956
Bose realisation of a noncanonical Heisenberg algebra
[PREPRINT-844] 05 p1269 N93-16958
Weak matrix elements
[PREPRINT-854] 05 p1279 N93-16976
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
Two loop calculation of the anomalous dimension of four-fermion operators with static heavy quarks
[PREPRINT-873] 05 p1291 N93-17073
Sahlqvist's theorem for boolean algebras with operators
[ML-91-10] 05 p1274 N93-17794
Study of the generalized parametric oscillator
[PREPRINT-815] 07 p2059 N93-21178
Two-parameter quantum groups
[PREPRINT-820] 07 p2060 N93-21182
Fuzzy set methods for object recognition in space applications
[NASA-CR-191986] 07 p2041 N93-21563
Operator splitting methods for the Navier-Stokes equations 08 p2292 N93-23226
A priori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260013] 08 p2471 N93-24437

A posteriori error estimates of finite element solutions of parametrized nonlinear equations
[AD-A260014] 08 p2471 N93-24438
Introduction to a behavioral approach of continuous-time systems
[MEMO-COSOR-92-05] 10 p3112 N93-27244
Introduction to a behavioral approach of continuous-time systems, part 2
[MEMO-COSOR-92-17] 10 p3112 N93-27245
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Operator algebra from fusion rules 2: Implementing apparent singularities
[NIKHEF-H/92-06] 10 p3155 N93-27307
Verification of parallel systems via decomposition
[CWI-CS-R9203] 10 p3107 N93-27539
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Measurability of operators
[W-9203] 10 p3125 N93-27930
The reflection operator in discrete event systems
[CS-9201] 10 p3110 N93-28067
The commutant lifting theorem for contractions on Krein spaces
[W-9107] 10 p3128 N93-28119
The commutant lifting theorem in the Krein space setting: A proof based on the coupling method
[W-9208] 10 p3128 N93-28125
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Topology of hybrid objects
[ETN-93-93594] 11 p3546 N93-28466
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Nth roots of normal contractions
[DE92-644725] 11 p3557 N93-30985
Existence of viable solutions for nonconvex-valued differential inclusions in Banach spaces
[DE92-644669] 12 p3803 N93-31285
The nth roots with Hilbert-Schmidt defect operator of normal contractions
[DE93-608163] 12 p3803 N93-31288
A note on the Dirac canonical quantization of massive Yang-Mills theory
[DE93-608199] 12 p3813 N93-31460
An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490
A single recursion operator is sufficient
[REPT-92-59] 12 p3805 N93-31500
The shot continuation operator
[REPT-92-065] 12 p3758 N93-31606

OPERATORS (PERSONNEL)
NT AIRCRAFT PILOTS
NT PILOTS (PERSONNEL)
NT TEST PILOTS
The European astronauts training programme 08 p2156 N93-24346
Selection by simulation: A work sample approach to the selection of process algebras
[ISBN-9-09-005483-9] 12 p3811 N93-31618

OPHIUCHI CLOUDS
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289

OPHTHALMOLOGY
Operational use of contact lenses by military aircrew
[AGARD-AG-334] 05 p1224 N93-15824

OPTICAL ABSORPTION
U ELECTROMAGNETIC ABSORPTION
U LIGHT TRANSMISSION

OPTICAL ACTIVITY
ROSAT x ray survey observations of active chromospheric binary systems and other selected sources
[NASA-CR-192933] 09 p2891 N93-26426

OPTICAL AMPLIFIERS
U LIGHT AMPLIFIERS

OPTICAL BISTABILITY
Computation of nonlinear optical scattering by droplets
[AD-A260333] 08 p2490 N93-24267
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669

OPTICAL COMMUNICATION
Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Optical generation, control and sensing of millimeter waves
[AD-A254700] 02 p0285 N93-12230
Engineering planetary lasers for interstellar communication 03 p0608 N93-14010
Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Vibration characterisation for low level disturbances induced in telecommunications spacecraft 05 p1078 N93-15733
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
Communications: Fiber-coupled external-cavity semiconductor high-power laser
[AD-A257386] 05 p1171 N93-15860
New techniques in optical communications and signal processing
[AD-A257894] 06 p1503 N93-18419
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924
Microwave vs optical crosslink study
[NASA-CR-192207] 07 p1879 N93-19989
Reduced electrical bandwidth receivers for direct detection 4-ary PPM optical communication intersatellite links
[NASA-CR-192310] 07 p1880 N93-19993
Research on intersatellite laser communication 07 p1790 N93-20419
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
Interferometric optical fiber data link
[AD-D015581] 07 p2067 N93-20797
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177
Stimulated Brillouin scattering switching in mid fibers
[AD-A260456] 08 p2487 N93-22948
Intelligent, integrated fiber optic networks
[AD-A260282] 08 p2490 N93-24260
Progress towards laboratory frequency standards for the optical communication bands 09 p2687 N93-25069
Adaptive laser link reconfiguration using constraint propagation 09 p2823 N93-25967
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Fiber grating-based sensing system with interferometric wavelength-shift detection
[AD-D015697] 11 p3577 N93-29038
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270
Hybrid data link
[AD-D015714] 11 p3383 N93-29280
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
Combinatorial pulse position modulation for power-efficient free-space laser communications
[NASA-TM-106241] 12 p3717 N93-31856
Space qualification for an intersatellite laser communications system
[AD-A265145] 12 p3717 N93-31989

OPTICAL COMPUTERS
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
SETA support for the DARPA microelectronics technology insertion program of the Microelectronics Technology Office
[AD-A255551] 04 p0866 N93-14555
Computer-aided design package for designers of digital optical computers
[AD-A255381] 04 p0944 N93-14564
Parallel readout of optical disks
[AD-A256625] 04 p1008 N93-15409
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
Coincident pulse techniques for hybrid electronic optical computer systems
[AD-A258692] 07 p2028 N93-20375
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Computer-aided design package for designers of digital optical computers
[AD-A260757] 09 p2806 N93-25848
Optical computing. Volume 6: Organization of the Optical Society of America photonic science topical meeting series
[AD-A261267] 09 p2856 N93-26266
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Accuracy enhancement in optical computing
[AD-A264872] 11 p3522 N93-30179
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895

OPTICAL CORRECTION PROCEDURE
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Design of an imaging spectrometer processing chain for space application 08 p2364 N93-23792

OPTICAL CORRELATORS
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Real-time edge-enhanced optical correlator
[NASA-CASE-NPO-18521-1-CU] 04 p0981 N93-14404
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Optical correlators for automated rendezvous and capture 08 p2143 N93-22273
Photonic correlator pattern recognition: Application to autonomous docking 08 p2148 N93-22303

Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
Motion-sensitive optical correlator
[NASA-CASE-NPO-18769-1-CU] 10 p3148 N93-28133
Spatial Light Modulators (SLMs) surface quality
[AD-A263249] 11 p3579 N93-29656

OPTICAL COUPLING
Stability of coupled semiconductor diode lasers 01 p0088 N93-10379
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
Temperature tracking SPICE macro-model for laser and LED driven opto-coupler assemblies
[DE92-019296] 02 p0411 N93-11599
An optical fiber multi-terminal data bus system for aircraft
[NAL-TR-1125] 02 p0209 N93-12370
Digital fluoroscopy with an optically coupled charge-coupled device 03 p0712 N93-14101
Enhanced polarization-dependent coupling between an optical waveguide and laterally coupled photodetector
[MBB-Z-0338-90-PUB] 05 p1305 N93-17642
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741

OPTICAL DATA PROCESSING
NT SCENE ANALYSIS
Comparison of optically-addressed spatial light modulators
[AD-A254189] 01 p0157 N93-10259
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Optical disks become erasable 03 p0736 N93-13133
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Photonic materials and devices for optical information processing and computing applications
[AD-A256047] 04 p0982 N93-14578
Parallel readout of optical disks
[AD-A256625] 04 p1008 N93-15409
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
A new concept for helmet mounted vision 06 p1609 N93-19767
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
Coincident pulse techniques for hybrid electronic optical computer systems
[AD-A258692] 07 p2028 N93-20375
The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis 09 p2880 N93-25807
Optical computing. Volume 6: Organization of the Optical Society of America photonic science topical meeting series
[AD-A261267] 09 p2856 N93-26266
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925
Multi-channel holographic birfurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Spatial Light Modulators (SLMs) surface quality
[AD-A263249] 11 p3579 N93-29656
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Acousto-optic time-integrating correlators for processing wideband digital data 11 p3360 N93-30253
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Design of coupled mace filters for optical pattern recognition using practical spatial light modulators
[NASA-CR-193192] 12 p3823 N93-31841
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180

OPTICAL DATA STORAGE MATERIALS
Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Optical instrumentation and characterization for magneto-optical recording media 04 p0980 N93-14168
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
ICI optical data storage tape 04 p1005 N93-15037
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems 04 p0984 N93-15506
Improved astigmatic focus error detection method 04 p0984 N93-15507
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media 04 p0984 N93-15509
Proposal for massively parallel data storage system 04 p0960 N93-15510
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514
Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
ICI optical data storage tape 05 p1354 N93-16327
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16928
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
Holographic data storage crystals for the LDEF 11 p3435 N93-29697
ICI optical data storage tape: An archival mass storage media 11 p3621 N93-30472
Flexible storage medium for write-once optical tape 11 p3621 N93-30473
Electron trapping data storage system and applications 11 p3622 N93-30474
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
Kodak phase-change media for optical tape applications 12 p3730 N93-31974

OPTICAL DENSITY
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Dry immunochemical sensor for the detection of PETN vapor 07 p1776 N93-21930
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems 08 p2354 N93-23577
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436

OPTICAL DEPTH
U OPTICAL THICKNESS

OPTICAL DISKS
Analysis of the birefringence distributions in compact discs of polycarbonate 02 p0270 N93-11991
National Space Science Data Center data archive and distribution service (NDADS) automated retrieval mail system user's guide
[NASA-TM-107990] 02 p0479 N93-12150
Optical disks become erasable 03 p0736 N93-13133
Magnetic bearings for a high-performance optical disk buffer, volume 2
[NASA-CR-190874] 03 p0615 N93-13608
Magnetic bearings for a high-performance optical disk buffer, volume 1
[NASA-CR-190873] 03 p0616 N93-13706
Status of emerging standards for removable computer storage media and related contributions of NIST 04 p1003 N93-14778
ICI optical data storage tape 04 p1005 N93-15037
Rewritable optical disk: Application to flight recording 04 p0794 N93-15160
Parallel readout of optical disks
[AD-A256625] 04 p1008 N93-15409
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Spacecraft optical disk recorder memory buffer control 05 p1170 N93-16773
Research on satellite-borne high speed data recorder 07 p1795 N93-20449
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
Laser disc for Earth environment data set 08 p2338 N93-22142
Environmental data sets in Canada 08 p2338 N93-22143
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929
Optical disk technology Spaceflight Optical Disk Recorder (SODR) 10 p2964 N93-27710
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Goddard Conference on Mass Storage Systems and Technologies, Volume 1
[NASA-CP-3198-VOL-1] 11 p3616 N93-30449
Striped tertiary storage arrays 11 p3620 N93-30464
Kodak phase-change media for optical tape applications 12 p3730 N93-31974

OPTICAL EMISSION
U LIGHT EMISSION

OPTICAL EMISSION SPECTROSCOPY
NT LASER SPECTROSCOPY
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913

OPTICAL EQUIPMENT
NT CAMERAS
NT COLLIMATORS
NT DIFFRACTOMETERS
NT ELECTROPHOTOMETERS
NT ELLIPSOMETERS
NT ENDOSCOPES
NT ETALONS
NT FAINT OBJECT CAMERA
NT FRAMING CAMERAS
NT HIGH SPEED CAMERAS
NT IMAGE CONVERTERS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
NT LASER DOPPLER VELOCIMETERS
NT LASER RANGE FINDERS
NT MICROWAVE REFLECTOMETERS
NT MULTISPECTRAL BAND CAMERAS
NT MULTISPECTRAL BAND SCANNERS
NT NEPHELOMETERS
NT OCULOMETERS
NT OPTICAL GYROSCOPES
NT OPTICAL MEASURING INSTRUMENTS
NT OPTICAL MICROSCOPES
NT OPTICAL PYROMETERS
NT OPTICAL RANGE FINDERS
NT OPTICAL SCANNERS
NT PANORAMIC CAMERAS
NT PHOTOMETERS
NT PINHOLE CAMERAS
NT POLARIMETERS
NT PRISMS
NT PYROHELIOMETERS
NT REFLECTOMETERS
NT SCHMIDT CAMERAS
NT SEXTANTS
NT SPECTROHELIOGRAPHS
NT SPECTROPHOTOMETERS

NT STREAK CAMERAS
NT TELEVISION CAMERAS
NT THEMATIC MAPPERS (LANDSAT)
NT TOTAL OZONE MAPPING SPECTROMETER
NT TRANSMISSOMETERS
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
NT WIDE ANGLE LENSES

The development of optical techniques for component inspection in the aerospace industry
01 p0093 N93-10307

Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431

Long Duration Exposure Facility (LDEF) optical systems SIG summary and database 01 p0038 N93-10583

Design of laser optical systems
[AD-A254247] 01 p0089 N93-10703

Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837

SUN: The Solar Ultraviolet Network
01 p0183 N93-10930

Investigations of the effects of contamination on UV optics 01 p0159 N93-10949

The imaging Fourier transform spectrometer optical design 01 p0159 N93-10951

Mechanical and thermal design of the SUN instrument
01 p0014 N93-10956

Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121

The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141

Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591

Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894

OSA proceedings of the topical meeting on optical amplifiers and their applications, volume 13
[AD-A252974] 03 p0711 N93-13879

Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029

A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191

Ferroelectrics volume 122, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 2
[AD-A257053] 04 p0996 N93-15446

Ferroelectrics volume 121, numbers 1-4, 1991. Proceedings of the 3rd International Conference on Ferroelectric Liquid Crystals, part 1
[AD-A257054] 04 p0996 N93-15447

A new approach for performing contamination control bakeouts in JPL thermal vacuum test chambers
04 p0823 N93-15618

A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581

A high fidelity simulation of optical detection systems, volume 2
[AD-A258498] 06 p1661 N93-18089

Immersion objective lenses in electron optics
[ETN-92-92799] 06 p1662 N93-18442

Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459

High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022

Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316

The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504

Stimulated Brillouin scattering switching in mid fibers
[AD-A260456] 08 p2487 N93-22948

A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656

The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189

Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277

Actuator stroke requirements based on a Zernike decomposition of atmospheric turbulence
[DE93-007393] 08 p2516 N93-24449

Advances in nonlinear optical materials and devices
[NASA-CR-192681] 09 p2852 N93-25281

United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353

1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544

A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746

Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912

Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451

JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-001] 11 p3274 N93-29014

High-efficiency high-reliability optical components for a large, high-average-power visible laser system
[DE93-009225] 11 p3437 N93-29098

In orbit degradation of EUV optical components in the wavelength range 10-40 nm AO 138-3
11 p3582 N93-29691

Degradation of optical components in a space environment 11 p3582 N93-29692

Studies of effects on optical components and sensors: LDEF experiments AO-147 (ERB components) and S-0014 (APEX) 11 p3582 N93-29693

LDEF space optics handbook
11 p3582 N93-29695

OPAD 1991 12 p3693 N93-31559

Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637

Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

OPTICAL FIBERS
NT SCINTILLATING FIBERS

Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048

Fiber optic polishing system
[AD-D015353] 02 p0446 N93-11052

Laser glasses
[DE92-018061] 02 p0267 N93-11549

Parallel architecture for image processing with optic fiber guided missile
[REPT-921-320-101] 02 p0418 N93-11584

Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662

Repeatable sensitivity of optical-time-domain-reflectometry-based strain measurement
[DE92-016910] 02 p0338 N93-11792

Observation of pulses propagating at supraluminous speed in an optical fiber 02 p0320 N93-12040

Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227

An optical fiber multi-terminal data bus system for aircraft
[NAL-TR-1125] 02 p0209 N93-12370

Fibre-optic sensors using adiabatically tapered single-mode fibres
[AD-A254555] 03 p0708 N93-12642

Appendix: Limits on the use of heterodyning and amplification in optical interferometry
03 p0747 N93-13597

Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031

Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407

Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506

Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507

Variable path length spectrophotometric probe
[DE92-019834] 04 p0881 N93-14716

Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810

Electro-optic architecture (EOA) for sensors and actuators in aircraft propulsion systems
[NASA-CR-182270] 04 p0982 N93-15116

Development of advanced seal verification
[NASA-CR-184502] 04 p0892 N93-15117

Preliminary lightning tests: Optical fiber penetration of an exclusion region barrier
[DE92-019804] 04 p0983 N93-15230

Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458

Capillary liquid chromatography using laser-based and mass spectrometric detection
[DE92-040524] 05 p1102 N93-16144

Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182

Armored fiber optic cables statement of government interest
[AD-D015459] 05 p1302 N93-16437

High-strength in-line fiber optic connector
[AD-D015446] 05 p1303 N93-16456

Polarization independent narrow channel wavelength division multiplexing fiber coupler and method for producing same
[AD-D015473] 05 p1303 N93-16480

An interferometer having fused optical fibers, and apparatus and method using the interferometer
[NASA-CASE-LAR-14640-1-CU]
05 p1304 N93-17052

International Conference on Defects in Insulating Materials
[AD-A258004] 05 p1127 N93-17700

A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962

Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239

Development of simplified external control techniques for broad area semiconductor lasers
[NASA-CR-192223] 06 p1541 N93-18584

Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal
[AD-A258824] 06 p1675 N93-19088

Optical fiber strain sensor with improved linearity
[NASA-CASE-LAR-14857-1-SB]
06 p1663 N93-19374

Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources
06 p1664 N93-19409

Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB]
06 p1538 N93-19492

Advances in laser diodes for pyrotechnic applications
07 p1865 N93-20146

Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397

Interferometric optical fiber data link
[AD-D015581] 07 p2067 N93-20797

Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930

Effect of gravity on phase separation and crystallization in a heavy metal fluoride glass 07 p1810 N93-21118

Nonlinear fiber optics
[AD-A259363] 07 p2068 N93-21245

Optical waveguides by ion exchange
[AD-D015564] 07 p2068 N93-21248

Technical digest-symposium on optical fiber measurements, 1992
[PB93-102259] 07 p2068 N93-21505

Low loss glass and optical fibers therefrom
[AD-D015567] 07 p1862 N93-21829

Optical fiber fluorosensor
[NASA-CASE-LAR-14525-1-CU]
07 p2069 N93-22008

Transversely polarized source cladding for an optical fiber
[NASA-CASE-LAR-14652-1-SB]
08 p2486 N93-22039

Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762

Fiber optic interferometer configuration with pump-induced phase carrier
[AD-D015617] 08 p2489 N93-24156

Radio frequency cable to optical fiber cable
[AD-D015620] 08 p2284 N93-24230

Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182

Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345

Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444

A fiber optic probe for the detection of cataracts
09 p2796 N93-25593

Second-harmonic generation in optical fibers and glass
[AD-A260592] 09 p2853 N93-25839

Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256

Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343

Optical fiber for acoustic sensor applications
[AD-A261580] 09 p2857 N93-26515
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
Fiber-optic polarimetric strain gauge
11 p3375 N93-30341

OPTICAL FILTERS
NT BIREFRINGENT FILTERS
NT INFRARED FILTERS
Integrated filter and detector array for spectral imaging
[NASA-CASE-NPO-18317-1-CU]
03 p0709 N93-13419
Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
Conception and molecular beam epitaxial growth of (Ga,Al)As-(Ca,Sr)F2 multilayers for optical application
[LAAS-91306] 05 p1327 N93-17492
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
Extremely high rate deposition of polymer multilayer optical thin film materials
[DE93-009127] 10 p3053 N93-28433
X ray, far, and extreme ultraviolet coatings for space applications 11 p3340 N93-28829
Laser radiation detection system
[AD-D015724] 11 p3438 N93-29287
Studies of effects on optical components and sensors: LDEF experiments AO-147 (ERB components) and S-0014 (APEX) 11 p3582 N93-29693
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410
Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557
Design of coupled mace filters for optical pattern recognition using practical spatial light modulators
[NASA-CR-193192] 12 p3823 N93-31841

OPTICAL FLOW
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230

OPTICAL FLOW (IMAGE ANALYSIS)
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Neural networks application to divergence-based passive ranging
[NASA-TM-103981] 11 p3245 N93-29653
Binocular spherical disparity: A study in representation for a forward translating camera
[PB93-184422] 11 p3579 N93-29667
Expansion-based passive ranging
[NASA-TM-104025] 12 p3678 N93-32348

OPTICAL GENERATORS
U LASER CAVITIES

OPTICAL GYROSCOPES
Image stabilization performance optimization using an optical reference gyroscope
[AD-A258863] 06 p1538 N93-19371
An overview of optical gyroscopes for navigation
08 p2119 N93-22783
Fiber optic gyros and systems
08 p2120 N93-22785

OPTICAL HETERODYNING
Development of optical surface profiling instrumentation
[DE92-019252] 03 p0710 N93-13652
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046

OPTICAL ILLUSION
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation
08 p2160 N93-24366

OPTICAL IMAGES
U IMAGES

OPTICAL MASER MODULATION
U LIGHT MODULATION

OPTICAL MASERS
U LASERS

OPTICAL MATERIALS
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices
[AD-A253001] 02 p0446 N93-11071
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Optical limiting
[AD-A254620] 02 p0322 N93-12238
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Photonic materials and devices for optical information processing and computing applications
[AD-A256047] 04 p0982 N93-14578
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Ultrastructure processing and environmental stability of advanced structural and electronic materials
[AD-A256153] 04 p0831 N93-14665
Optical glasses for high-peak-power laser applications
[DE92-040403] 04 p0886 N93-14906
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
Synthesis and characterization of dipolar organic molecules for nonlinear optical materials
[AD-A257111] 05 p1302 N93-16118
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Picosecond studies of space optical materials
06 p1664 N93-18475
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Laser damage in thin film optical coatings
[AD-A259425] 07 p1909 N93-20005
Design and analysis of a fast, two-mirror soft-x-ray microscope
[NASA-CR-193035] 07 p2067 N93-20316
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
LUTE primary mirror materials and design study report
[NASA-CR-192487] 08 p2487 N93-22961
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Advances in nonlinear optical materials and devices
[NASA-CR-192681] 09 p2852 N93-25281
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Efficient nonlinear optical conversion of 1.319-micron laser radiation
[AD-A261309] 09 p2715 N93-26297
Development of organic nonlinear optical materials
[AD-A261332] 09 p2856 N93-26309
Experimental studies of stress management by optical fluorescence
[AD-A261539] 09 p2730 N93-26362
Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566
Ceramics technical activities, 1992 (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173508] 10 p3003 N93-27400
Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers
[AD-A262013] 10 p3004 N93-27669
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A262377] 10 p3147 N93-27695
Enhanced chromophore polymeric NLO materials
[AD-A262258] 10 p3147 N93-28111
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431
Extremely high rate deposition of polymer multilayer optical thin film materials
[DE93-009127] 10 p3053 N93-28433
Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489
infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
Multichip module high speed testing
[AD-A262989] 11 p3408 N93-29427
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Degradation of optical components in a space environment 11 p3582 N93-29692
Studies of effects on optical components and sensors: LDEF experiments AO-147 (ERB components) and S-0014 (APEX) 11 p3582 N93-29693
Effects of long term space environment exposure on optical substrates and coatings (S0050-2)
11 p3582 N93-29694
Problems in the implementation of x ray optics with x ray lasers
[DE93-009297] 11 p3438 N93-29781
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

OPTICAL MEASUREMENT
NT ASTRONOMICAL PHOTOMETRY
NT ASTRONOMICAL POLARIMETRY
NT COLORIMETRY
NT INFRARED PHOTOMETRY
NT OPTOMETRY
NT PHOTOMETRY
NT POLARIMETRY
NT SPECTROPHOTOMETRY
NT STELLAR SPECTROPHOTOMETRY
NT ULTRAVIOLET PHOTOMETRY
Interferometry with the Very Large Telescope
01 p0178 N93-10943
Towards an ESA strategy for optical interferometry in space. Recommendations of the ESA Space Interferometry Study Team (SIST)
01 p0178 N93-10944
Report of the Lunar Interferometry Study Team (LIST) activities 01 p0178 N93-10945

A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953

Interferometer optical design for the Imaging Fourier Transform Spectrometer (IFTS)
01 p0159 N93-10955

The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282

A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827

Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983

The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate
02 p0269 N93-11984

The time-dependent stress-optical behaviour of polycarbonate in the glass transition region
02 p0269 N93-11985

The measurement and calculation of birefringence in quenched polycarbonate specimens
02 p0269 N93-11986

Molecular orientation induced by cooling stressos in polycarbonate. 1: Free quenching
02 p0269 N93-11987

Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989

Gapwise density distributions in injection-moulded polymethylmethacrylate 02 p0270 N93-11990

Overview of recent diagnostic measurements at the USA MHD facilities
[DE92-015365] 02 p0454 N93-12087

Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279

Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551

Diagnostic of shock wave processes
[DE92-018059] 03 p0565 N93-13357

Gas temperature measurements using the dual-line detection Rayleigh scattering technique
03 p0599 N93-13668

Elastic and plastic strain measurement in high temperature environment using laser speckle
03 p0600 N93-13673

Laser-based strain measurements for high temperature applications 03 p0601 N93-13675

Optical probes for laser induced shocks
[AD-A256092] 04 p0884 N93-14284

Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477

Precise measurements made from a distance of local deformations independent of small object movements
[ETN-92-92723] 04 p0886 N93-15128

Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458

Development of a laser-based measurement system for modal testing of large space structures
05 p1083 N93-15766

Infrared fiber-optical temperature sensor
[AD-D015495] 05 p1167 N93-16492

Optical system for linearizing non-linear electro-optic
[AD-D015496] 05 p1303 N93-16495

Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234

Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB]
06 p1406 N93-18275

Tunable infrared and visible solid-state laser
06 p1543 N93-18473

Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087

A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519

Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247

Embedded fiber optic acoustic sensors
[AD-D015568] 07 p2060 N93-21249

Technical digest-symposium on optical fiber measurements, 1992
[PB93-102259] 07 p2068 N93-21505

Optical constants and scattering factors from reflectivity measurements: 50 eV to 5 keV
[DE93-003750] 07 p2068 N93-21674

Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290

Moire interferometry at high temperatures
08 p2328 N93-23380

Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398

A review of optically controlled microwave devices and circuits
[AD-A259647] 08 p2282 N93-23656

Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon
[DE93-005767] 08 p2509 N93-24017

Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042

A study of high-latitude auroral arcs using radar, optical, and in situ techniques 08 p2399 N93-24183

Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320

Atom wave interferometer
[AD-A260082] 08 p2484 N93-24410

Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072

Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731

Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789

Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292

Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524

Near-IR imaging of moderate redshift galaxy clusters
10 p3177 N93-26741

Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185

Spectral infrared hemispherical reflectance measurements for LDEF tray clamps
10 p3149 N93-28270

Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307

Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465

Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540

The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements
11 p3649 N93-28815

An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875

Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996

Fiber grating-based sensing system with interferometric wavelength-shift detection
[AD-D015697] 11 p3577 N93-29038

Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422

Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461

Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880

Optical blade vibration measurement
[ETN-93-93454] 11 p3259 N93-29999

Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224

Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557

Progress in speckle-shift strain measurement
12 p3693 N93-31558

OPAD 1991 12 p3693 N93-31559

Space-based astrometric optical interferometry with POINTS 12 p3845 N93-31758

Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921

Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420

OPTICAL MEASURING INSTRUMENTS
NT DIFFRACTOMETERS
NT ELECTROPHOTOMETERS
NT ELLIPSOMETERS
NT ETALONS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
NT LASER RANGE FINDERS
NT MICROWAVE REFLECTOMETERS
NT NEPHELOMETERS
NT OCULOMETERS
NT OPTICAL PYROMETERS
NT OPTICAL RANGE FINDERS
NT PHOTOMETERS
NT POLARIMETERS
NT REFLECTOMETERS
NT SEXTANTS
NT SPECTROPHOTOMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT TRANSMISSOMETERS
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS

A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812

An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881

The solar ultraviolet network subtractive double monochromator 01 p0183 N93-10931

Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011

Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279

Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560

Fibre-optic sensors using adiabatically tapered single-mode fibres
[AD-A254555] 03 p0708 N93-12642

An integrated optical sensor for GMAW feedback control
[DE92-018019] 03 p0610 N93-12793

Fiber optic sensors for environmental applications: A brief review
[DE92-040170] 03 p0710 N93-13576

Development of optical surface profiling instrumentation
[DE92-019252] 03 p0710 N93-13652

Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735

Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715

A temperature tracking SPICE2G.6 macromodel of the 6N134 optocoupler
[DE92-040093] 04 p0983 N93-15223

Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660

Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105

Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182

OptoElectronic Materials Center: A collaborative program including University of New Mexico, Stanford University, and California Institute of Technology
[AD-A258113] 06 p1540 N93-17894

Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239

Flow visualization and combustion diagnostic
06 p1485 N93-18480

Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766

Smart materials 07 p1845 N93-20624

Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917

Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975

Demonstration of automated proximity and docking technology 08 p2135 N93-22227

Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290

Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831

OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994

Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281

Priroda project: Optical sensors for environment research 08 p2362 N93-23782

Registration of the use of agricultural fields and soil erosion using satellite remote sensing
09 p2751 N93-24856

Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
Analysis and design of a novel robotic finger-tip sensor for adaptive grasping 09 p2719 N93-25745
Fibre optic sensors for heat transfer studies 09 p2853 N93-25748
MIT's interferometer CST testbed 09 p2609 N93-25836
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Optical interferometer testbed 10 p3060 N93-28168
Activities report of the Technische Dienst TNO-TU, Delft (Netherlands)
[ETN-93-93343] 10 p3219 N93-28201
The production and destruction of negative ions
[DE93-010527] 11 p3564 N93-28665
The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements 11 p3649 N93-28815
Environmental monitors in the Midcourse Space Experiments (MSX) 11 p3286 N93-28826
Precision optical interferometry in space
[NASA-CR-193264] 11 p3630 N93-29163
Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056
Telescience pilot experiment results using telePODI
[NLR-TP-90326-U] 12 p3823 N93-31118
OPAD 1991 12 p3693 N93-31559
Optically powered photomultiplier tube
[AD-D015735] 12 p3722 N93-32207

OPTICAL MEMORY (DATA STORAGE)

TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Optical disks become erasable 03 p0736 N93-13133
Ultra-dense optical mass storage
[AD-A255463] 04 p1004 N93-14785
Parallel readout of optical disks
[AD-A256625] 04 p1008 N93-15409
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709
NSSDC Conference on Mass Storage Systems and Technologies for Space and Earth Science Applications, volume 2
[NASA-CP-3165-VOL-2] 05 p1353 N93-16320
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Optical media standards for industry 11 p3617 N93-30451
The fundamentals and futures of removable mass storage alternatives 11 p3619 N93-30460
Electron trapping data storage system and applications 11 p3622 N93-30474
Electron trapping optical data storage system and applications 12 p3730 N93-31975

OPTICAL METHODS

U OPTICS

OPTICAL MICROSCOPES

Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128

OPTICAL MODULATION

U LIGHT MODULATION

OPTICAL PATHS

The CHARON program 01 p0177 N93-10942
Orbiting Space Interferometer (OSI): A first generation space interferometer 03 p0745 N93-13587
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Characterization of magneto-optical recording media 04 p0979 N93-14140
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Optical pathlength control on the JPL Phase B interferometer testbed 06 p1465 N93-18842
Theory and performance of the WPL Crosswind Profiler Model 2
[PB93-116606] 07 p2014 N93-21452
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728

OPTICAL POLARIZATION

Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983
Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching 02 p0269 N93-11987
Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
Polarization analysis of a balloon-borne solar magnetograph
[NASA-CR-191270] 05 p1167 N93-16458
Enhanced polarization-dependent coupling between an optical waveguide and laterally coupled photodetector
[MBB-Z-0338-90-PUB] 05 p1305 N93-17642
Rib arrow integrated optic polarizer 11 p3357 N93-30231

OPTICAL PROPERTIES

NT ABSORPTANCE
NT ABSORPTIVITY
NT BIDIRECTIONAL REFLECTANCE
NT BIREFRINGENCE
NT BRIGHTNESS
NT BRIGHTNESS DISTRIBUTION
NT COLOR
NT DICHROISM
NT LUMINOSITY
NT OPACITY
NT OPTICAL BISTABILITY
NT OPTICAL REFLECTION
NT PHOSPHORESCENCE
NT PHOTOCONDUCTIVITY
NT RADIANCE
NT REFLECTANCE
NT REFRACTIVITY
NT SKY BRIGHTNESS
NT SPECTRAL REFLECTANCE
NT STELLAR LUMINOSITY
NT TRANSMITTANCE
NT TRANSPARENCE
NT TURBIDITY
NT WATER COLOR

Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Basicity and optical basicities of slags
[NPL-DMM(A)-48] 02 p0447 N93-11408
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
A trainable image pattern classification system for detection of damaged soybean seeds 02 p0201 N93-12208
Surface analysis of Ln(2-x)Ce(x)CuO4 (Ln = Pr and Nd) single crystals grown by the top seeded solution method
[AD-A254905] 02 p0469 N93-12286
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Fibre-optic sensors using adiabatically tapered single-mode fibres
[AD-A254555] 03 p0708 N93-12642
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
Development of optical surface profiling instrumentation
[DE92-019252] 03 p0710 N93-13652
Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Prediction of nonlinear optical properties of large organic molecules 05 p1128 N93-17288
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
Semi-propellants for ducted rockets 05 p1092 N93-17612
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Light diffusion in stochastically perturbed media
[REPT-92-41] 06 p1661 N93-17873
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446
Tunable infrared and visible solid-state laser 06 p1543 N93-18473
Nanotechnology 06 p1678 N93-18489
Optical and magnetic signatures of localized excitations in polyaniline
[DE93-001954] 06 p1674 N93-18620
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Processability of polythiophene thin films by ultraviolet photo bleaching
[AD-A259043] 06 p1495 N93-19021
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20466
Growth and characterization of binary and pseudo-binary 3-5 compounds exhibiting non-linear optical behavior. Undergraduate research opportunities in microgravity science and technology
[NASA-CR-192143] 07 p2068 N93-21363
The influence of high clouds on climate 07 p1956 N93-21588
Estimating the vertical dimension of convective cloudiness over the polar ocean from AVHRR data 07 p1956 N93-21590
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
[NASA-TM-105943] 08 p2206 N93-22586
The effect of UV light on Ir absorption in chemically vapor deposited a-SiN(x):H films
[DE93-004502] 08 p2486 N93-22941
Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing
[DE93-006411] 08 p2419 N93-24028
Optical studies of laterally confined quantum well structures grown on ex-situ and in-situ patterned substrates
[AD-A260275] 08 p2511 N93-24167

Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641
Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams 09 p2658 N93-25564
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Electrochemical processing of electrically conductive polymer fibers
[AD-A261793] 09 p2657 N93-26386
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912
Contamination on LDEF: Sources, distribution, and history 10 p2998 N93-28272
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
Nonlinear optics in three level atomic systems
[AD-A262793] 10 p3148 N93-28376
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436
The Optical Properties Monitor (OPM): A multipurpose optical laboratory in space 11 p3266 N93-28729
Optically controlled active impedance element particularly suited for a microwave oscillator
[AD-D015723] 11 p3408 N93-29281
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353
Quantum devices using Si-based superlattices and structures
[AD-A263700] 11 p3595 N93-29383
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Ruled and holographic experiment (AO 138-5) 11 p3434 N93-29696
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619
Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

OPTICAL PUMPING
NT LASER PUMPING
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Progress toward x ray lasing between autoionizing transitions
[DE92-017428] 02 p0317 N93-11765
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
Self-consistent one-dimensional modelling of x ray laser plasmas
[DE92-019543] 03 p0712 N93-12571
Advances in laser cooling
[AD-A255969] 04 p0884 N93-14402
Multiple element ring laser
[AD-D015471] 05 p1173 N93-16469
Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326
Preliminary results on an optically-pumped Cs beam frequency standard 09 p2832 N93-24989
Miniature optically-pumped cesium beam resonator 09 p2833 N93-24990
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator 09 p2833 N93-24991
FALCON nuclear-reactor-pumped laser program and wireless power transmission
[DE93-007607] 09 p2715 N93-26597
Nonlinear optics in three level atomic systems
[AD-A262793] 10 p3148 N93-28376
A high field optical-pumping spin-exchange polarized deuterium source
[DE93-009208] 11 p3574 N93-28970
Femtosecond laser studies of excited state dynamics
[AD-A263708] 11 p3439 N93-29918
Excitation rate and background measurements during LIF studies on krypton
[DE93-013500] 12 p3732 N93-32304
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

OPTICAL PYROMETERS
Gas temperature measurements using the dual-line detection Rayleigh scattering technique 03 p0599 N93-13668
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
New pyro-optic techniques for imaging of long wavelength IR-Radiation (pyro-optic initiation program)
[AD-A260969] 09 p2856 N93-26224

OPTICAL RADAR
NT DIFFERENTIAL ABSORPTION LIDAR
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
Research on stimulated Raman scattering with applications to atmospheric lidar 02 p0322 N93-12163
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Guide to synchronization of video systems to IRIG timing
[AD-A254626] 02 p0285 N93-12240
The design, development, and test of balloonborne and groundbased lidar systems. Volume 1: Balloonborne coherent CO2 lidar system
[AD-A247551] 02 p0322 N93-12262
Development summary of a sympathetic discharge CO2 laser for lidar use
[NASA-CR-184433] 02 p0323 N93-12516
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar 03 p0653 N93-13614
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
Cloud and aerosol characterization for the ARM central facility: Multiple remote sensor techniques development
[DE93-000915] 05 p1202 N93-16535
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
Evaluation of the vertical distribution of the ice content in cirrus clouds from combined measurements of lidar and infrared radiometers
[ETN-93-92740] 06 p1587 N93-18631
Flight test operations 06 p1418 N93-19592
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Infrared backscatter climatology and MACAWS 07 p2009 N93-20098
Development of a 100 mJ, 5 Hz, flashlamp-pumped, Cr,Tm:YAG coherent lidar transmitter 07 p1912 N93-20100
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
Aerosol chemistry in GLOBE 07 p2009 N93-20102
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
Research on advanced Earth observing sensors 07 p1790 N93-20416
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408
Comparison of the efficiencies of lidar techniques for atmospheric-temperature measurement based on rotational Raman, and Rayleigh scattering 07 p1960 N93-21614
Representativity of wind measurement from space 07 p1961 N93-21617
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
Laser range camera data fusion
[DE93-005159] 08 p2263 N93-23313
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
Remote sensing of non-renewable resources 09 p2744 N93-24814
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging 09 p2713 N93-25389
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument 09 p2711 N93-25614
Ultraviolet waveguide lasers for phased array lidar
[AD-A261657] 09 p2715 N93-26363
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249

Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU]
10 p3048 N93-28132
The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements
11 p3649 N93-28815
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
Measurement of the rotation Raman spectra of nitrogen, oxygen, and water vapor under conditions of a temperature humidity lidar
[GKSS-92/E/32] 11 p3485 N93-31018
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187
Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224

OPTICAL RANGE FINDERS
NT LASER RANGE FINDERS
A single band processor for the computation of range from optical absorbance 11 p3363 N93-30272
On the implementation of the BIRIS range sensor for applications in robotic control and autonomous navigation 11 p3366 N93-30286

OPTICAL REFLECTION
Optical model analysis of gravity wave-critical layer interaction 03 p0658 N93-13888
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB]
06 p1406 N93-18275
Optical constants and scattering factors from reflectivity measurements: 50 eV to 5 keV
[DE93-003750] 07 p2068 N93-21674
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Estimating scene properties by analyzing color histograms with physics-based models
[AD-A262727] 10 p3111 N93-28399
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453

OPTICAL RELAY SYSTEMS
Optical beamformer
[AD-A254354] 02 p0448 N93-12272

OPTICAL RESONANCE
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Electron temperature of Gd plasma produced by laser resonance ionization
[DE91-017785] 03 p0718 N93-13732

OPTICAL RESONATORS
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Three-dimensional guiding effects in a free-electron laser 04 p0883 N93-14125
A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum
04 p0884 N93-14141
Quasi-optical power combining of solid state millimeter-wave sources: A proposal for graduate fellowship
[AD-A256644] 05 p1143 N93-15909
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
Modulation behavior of semiconductor lasers with optical feedback
[ETN-93-92567] 07 p1911 N93-20881
Phase differences of the fields in a Ramsey resonator for submillimetric frequency standards
09 p2840 N93-25042
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Diode-pumped laser altimeter
[NASA-CR-193166] 10 p3047 N93-27153
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276

OPTICAL SCANNERS
NT MULTISPECTRAL BAND SCANNERS
NT THEMATIC MAPPERS (LANDSAT)
Development of optical surface profiling instrumentation
[DE92-019252] 03 p0710 N93-13652
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Development of techniques required for the application of a laser to three dimensional visual sensing
[NASA-CR-191855] 05 p1174 N93-16706
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
Correlated optical observations with BATSE/CGRO on SCO X-1 05 p1344 N93-17313
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
The first Census Optical Character Recognition System Conference
[PB92-238542] 07 p2092 N93-21504
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
Machine-assisted human classification of segmented characters for optical character recognition testing and training
[PB93-152155] 08 p2529 N93-24631
Video scan rate conversion method and apparatus for achieving same
[AD-D015661] 09 p2854 N93-26091
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009

OPTICAL SENSORS
U OPTICAL MEASURING INSTRUMENTS

OPTICAL SIGNALS
U OPTICAL COMMUNICATION

OPTICAL SPECTRUM
U LIGHT (VISIBLE RADIATION)
U SPECTRA

OPTICAL SWITCHING
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices
[AD-A253001] 02 p0446 N93-11071
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
A study of small solid-state switched TEA CO2 lasers
03 p0607 N93-13814
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Optoelectronic materials center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A257136] 05 p1301 N93-16079
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU]
06 p1519 N93-18278
Processability of polythiophene thin films by ultraviolet photo bleaching
[AD-A259043] 06 p1495 N93-19021
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Nonlinear fiber optics
[AD-A259363] 07 p2068 N93-21245
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU]
08 p2464 N93-24599
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Ferroelectric liquid crystal optical interconnect switching systems
[AD-A263751] 11 p3596 N93-29859
Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180

OPTICAL THICKNESS
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
Saturation effects in absorption spectroscopy of the K(alpha) rays of aluminum 02 p0254 N93-12042
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
Atoms and molecules in supernova 1987A
03 p0699 N93-13851
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Pioneer Venus polarimetry and haze optical thickness
04 p1032 N93-14335
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
Low-damage multilayer mirror for the soft x ray region
[AD-D015621] 08 p2489 N93-24231
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436

OPTICAL TRACKING
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10681
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
Precise orbit computation and sea surface modeling
04 p0813 N93-15000
Optimal control of the Starfire Beam Director
[AD-A258839] 06 p1455 N93-19363
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
Deep-space navigation applications of improved ground-based optical astrometry
06 p1513 N93-19422

Optical tracking of charged particle beams
[AD-D015592] 07 p2061 N93-20802
Multi-aperture vision system coupled to neural network processors
[AD-A259353] 07 p2047 N93-21243
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
Geometric distortion analysis of a wide-field astrograph 09 p2621 N93-26111
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823
SWAT 2 overview
[AD-A262905] 11 p3578 N93-29139
SWAT laboratory test results
[AD-A262906] 11 p3578 N93-29140
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353

OPTICAL TRANSFER FUNCTION
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
Design and manufacture of optical system for use in UV lithography with the free electron laser
[DE93-005440] 08 p2307 N93-22539
Self-Referenced Speckle Holography (SRSH) image reconstruction performance
[AD-A262487] 10 p3045 N93-27661
Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465

OPTICAL TRANSITION
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
Further time-resolved electron-beam characterizations with optical transition radiation
[DE93-007891] 10 p3131 N93-26625

OPTICAL WAVEGUIDES
NT OPTICAL FIBERS
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518
Integrated test and package methods for integrated photonics
[DE93-000748] 05 p1145 N93-16230
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
Enhanced polarization-dependent coupling between an optical waveguide and laterally coupled photodetector
[MBB-Z-0338-90-PUB] 05 p1305 N93-17642
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Optical waveguides by ion exchange
[AD-D015564] 07 p2068 N93-21248
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Nonlinear Optics: Materials, Fundamentals, and Applications. Postdeadline papers
[AD-A261807] 10 p3147 N93-28123
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Nonlinear mode coupling in free electron lasers
[AD-A263999] 11 p3439 N93-29883
Optoelectronic technology consortium
[AD-A263580] 11 p3580 N93-29973
Rib arrow integrated optic polarizer 11 p3357 N93-30231
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides
[AD-A265787] 12 p3710 N93-31801
Quantum well optical waveguide modulators
[AD-A265421] 12 p3824 N93-32050
Modeling of optical waveguide biosensor structures
[VTT-PUBS-112] 12 p3824 N93-32421

OPTICS
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
Study of optical techniques for the Ames unitary wind tunnel, part 7
[NASA-CR-192165] 06 p1452 N93-18520
Integrated modeling of advanced optical systems 06 p1463 N93-18832
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-004] 11 p3354 N93-29090

OPTIMAL CONTROL
NT H-INFINITY CONTROL
NT LINEAR QUADRATIC GAUSSIAN CONTROL
NT LINEAR QUADRATIC REGULATOR
NT TIME OPTIMAL CONTROL
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459
Rapid maneuvering of large flexible orbiting systems 02 p0225 N93-11885
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
Optimal control computer programs
[NASA-TM-108384] 03 p0693 N93-13289
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Robust controller and estimator design using minimax methods 03 p0694 N93-13925
Sequential quadratic programming solutions to related aircraft trajectory optimization problems 03 p0505 N93-13926
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Digital bank-to-turn control and guidance 04 p0802 N93-14447
Optimal and robust control of robot manipulators 04 p0890 N93-14685
Fitting microphysical observations to a numerical model through an optimal control theory technique 04 p0924 N93-15100
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Methodologies of automatic control including fuzzy logic
[LAAS-92257] 06 p1631 N93-17814
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Discrete-time Markovian jump linear systems
[REPT-92-37] 06 p1631 N93-17870
Methods and convergence analysis in large scale nonlinear optimization
[AD-A258182] 06 p1616 N93-17898
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
Robust control with structured perturbations
[NASA-CR-192195] 06 p1633 N93-18579
Development of an hp-version finite element method for computational optimal control
[NASA-CR-192220] 06 p1639 N93-18882
A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922
Strategies for optimal control design of normal acceleration command following on the F-16
[AD-A258975] 06 p1450 N93-19095
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
Optimal control of the Starfire Beam Director
[AD-A258839] 06 p1455 N93-19363
Modeling human response errors in synthetic flight simulator domain 06 p1612 N93-19464
Guidance and flight control law development for hypersonic vehicles
[NASA-CR-192102] 07 p1786 N93-19960
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV] 07 p1821 N93-20121
Optimal guidance law development for an advanced launch system
[NASA-CR-192189] 07 p1820 N93-20313
Structural shape optimization of robotic links 07 p1918 N93-20717
Linear passive impedance 07 p1943 N93-20719
Grasp admittance center. A concept 07 p1918 N93-20720
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
Advanced booster guidance studies
[NASA-CR-192336] 07 p1829 N93-20896
Robust controller design: A bounded-input-bounded-output worst-case approach
[AD-A259367] 07 p2047 N93-21246
A decomposition approach to suboptimal control of discrete-time systems
[REPT-92-027] 07 p2049 N93-21552
Robust Neighboring Optimal Guidance for the Advanced Launch System --- Author
[NASA-CR-192087] 08 p2171 N93-22009
Advanced launch system trajectory optimization using suboptimal control 08 p2171 N93-22010
Neighboring suboptimal control for vehicle guidance 08 p2171 N93-22011
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
Trajectory optimization based on differential inclusion
[NASA-CR-4501] 08 p2181 N93-22459
Identification for robust control: What is the best approach?
[MEMT-16] 08 p2458 N93-23060
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display
[NASA-TM-103883] 08 p2122 N93-23419
A new conjugate gradient method for optimal control
[MATHS-REPT-A-174] 08 p2462 N93-24077
Learning optimal control using learning automata
[MATHS-REPT-A-176] 08 p2462 N93-24078
Deterministic methods in stochastic optimal control
[AD-A260478] 08 p2462 N93-24100
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Nonholonomic geometry, mechanics and control 09 p2724 N93-25270
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Optimal control of large space structures 09 p2819 N93-25343
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
What procedure to choose while designing a fuzzy control? Towards mathematical foundations of fuzzy control
[NASA-TM-108719] 09 p2820 N93-25459

Control and optimization of aircraft trajectories
09 p2596 N93-25543
Realtime control of multiple sensor systems
[AD-A261037] 09 p2680 N93-26226
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control
[NASA-CR-191442] 10 p3037 N93-27008
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Balancing for nonlinear systems
[MEMO-1071] 10 p3121 N93-28156
Artificial intelligence methodologies in flight related differential game, control and optimization problems
[AD-A262405] 11 p3541 N93-28498
Optimal control of the M/G/1 queue with repeated vacations of the server
[INRIA-RR-1637] 11 p3541 N93-28637
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420
An information theoretic approach to stochastic adaptive control application to manipulators with active inertia
11 p3359 N93-30247
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
Tethered systems control 12 p3689 N93-31453
Necessary and sufficient conditions for J-spectral factorizations with a J-lossless property for infinite-dimensional systems in continuous and discrete time
[W-9217] 12 p3798 N93-31512
Analytic system problems and J-lossless factorization for infinite-dimensional linear systems
[W-9218] 12 p3798 N93-31513
Sampled-data and discrete-time H2 optimal control
[W-9222] 12 p3798 N93-31525
H infinity-control with measurement-feedback for Pritchard-Salamon system
[W-9211] 12 p3799 N93-31628
The optimal projection equations for digital control of infinite-dimensional systems
[REPT-93-01] 12 p3799 N93-31851
Optimal control problems for parabolic boundary control systems 12 p3800 N93-32216
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365
Variational Trajectory Optimization Tool Set: Technical description and user's manual
[NASA-TM-4442] 12 p3690 N93-32381

OPTIMIZATION
NT DYNAMIC PROGRAMMING
NT FLIGHT OPTIMIZATION
NT GENETIC ALGORITHMS
NT H-INFINITY CONTROL
NT LINEAR PROGRAMMING
NT LINEAR QUADRATIC GAUSSIAN CONTROL
NT LINEAR QUADRATIC REGULATOR
NT MATHEMATICAL PROGRAMMING
NT NONLINEAR PROGRAMMING
NT OPERATIONS RESEARCH
NT OPTIMAL CONTROL
NT QUADRATIC PROGRAMMING
NT SIMPLEX METHOD
NT TIME OPTIMAL CONTROL
NT TRAJECTORY OPTIMIZATION

Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
An adaptive mesh-management algorithm for three-dimensional automatic finite element analysis
01 p0061 N93-10554
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Dynamic programming on a ring of processors
02 p0410 N93-11479
Path planning on a ring of processors
02 p0410 N93-11480
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Dynamic multimodal function optimization using genetic algorithms
[DE92-019602] 02 p0414 N93-12234
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
A genetic algorithm for search route planning
[AD-A254894] 02 p0414 N93-12284
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Program structure as a basis for the parallelization of global compiler optimizations
[AD-A254554] 03 p0681 N93-12641
Numerical optimization
[AD-A254575] 03 p0682 N93-12647
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
Fast optimization of static axisymmetric shell structures 03 p0630 N93-13921
Query processing in distributed database systems
04 p1001 N93-14218
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Multiobjective control/structure design optimization in the presence of practical constraints
04 p0898 N93-14446
An integrated optimization environment for structural configuration design 04 p0855 N93-14467
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Recursively generated networks and dynamical learning
[AD-A255441] 04 p0963 N93-14783
Cooperative control of multiple space manipulators
04 p0805 N93-14923
Optimized design of a 5 kW constant frequency series resonant converter for pulsed load space applications
04 p0807 N93-14935
A para-functional version of Warshall's algorithm
[MEMO-INF-92-23] 04 p0947 N93-15092
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
Optimal synthesis methods for silicon compilers
[ETN-92-92677] 04 p0947 N93-15125
Minimizing conflicts: A heuristic repair method for constraint-satisfaction and scheduling problems
[NASA-TM-108121] 04 p0964 N93-15286
Simple formulae for the optimization of the FEL gain length including the effects of emittance, betatron oscillations, and energy spread
[DE92-040378] 04 p0887 N93-15325
The spatial correlation function approach to response surface emission
[DE92-040875] 04 p0969 N93-15656
Updating and localizing structural errors based on minimization of equation errors
05 p1077 N93-15719
Experimental approach on the pyrotechnical shock reduction of Ariane-5 upper stage
05 p1075 N93-15764
Compiling Prolog to standard ML: Some optimizations
[AD-A256193] 05 p1232 N93-15841
Optimal allocation under partial ordering of lifetimes of components
[AD-A255577] 05 p1181 N93-16040
Implementation of a parallel stochastic solving method for linearly constrained concave global optimization problems using parallel computing
[AD-A257112] 05 p1255 N93-16119
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
The role of under-determined approximations in engineering and science application
05 p1274 N93-16763
Multidisciplinary design optimization using response surface analysis 05 p1065 N93-16796
Design optimization of natural laminar flow bodies in compressible flow
[NASA-CR-4478] 05 p1056 N93-16940
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems
05 p1074 N93-17290
Approximation, abstraction and decomposition in search and optimization 05 p1248 N93-17507
Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564
Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
A randomised schema mutator for evolutionary database optimisation
[TR-91-24] 05 p1356 N93-17595
Error feedback for reduction of quantization errors due to arithmetic operations in recursive digital filters
[EL-9] 05 p1272 N93-17633
A generalized asymptoticity problem in max algebra; the two-dimensional case
[REPT-92-29] 05 p1273 N93-17735
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
Vector approximation problems in geometric vector optimization
[REPT-92-39] 06 p1643 N93-17871
Aerodynamic design and analysis of fans using 3D computational codes
[DS-2140] 06 p1404 N93-17880
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084] 06 p1435 N93-17893
Optimum Design of High Speed Prop-Rotors
[NASA-CR-190915] 06 p1437 N93-18064
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
Optimum design of experiments in composite reliability
[AD-A257574] 06 p1477 N93-18178
The rudes and the shrewds: An experimental comparison of several evolutionary heuristics applied to the QAP problem
[REPT-91-042] 06 p1620 N93-18325
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434
On the optimality of LEPT and micron rules for parallel processors and dependent arrival processes
[TW-92-01] 06 p1630 N93-18443
Optimization of flow-injection analysis for on-line in-process control
[ETN-92-92826] 06 p1499 N93-18444
Optimality of a threshold policy on the M/M/1 queue with repeated vacations
[INRIA-RR-1419] 06 p1632 N93-18515
On optimal polling policies
[INRIA-RR-1541] 06 p1633 N93-18624
A simulated annealing approach to schedule optimization for the SES facility
06 p1634 N93-18662
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
Real-time scheduling using minimum search
06 p1637 N93-18676
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas
06 p1638 N93-18688
On optimization of radar measurements
06 p1516 N93-18747
Physical insight into the simultaneous optimization of structure and control 06 p1461 N93-18821
Design optimization of the JPL Phase B testbed
06 p1466 N93-18845
Optimization techniques applied to passive measures for in-orbit spacecraft survivability
[NASA-CR-184486] 06 p1466 N93-18859

Generalization and parallelization of messy genetic algorithms and communication in parallel genetic algorithms
[AD-A258994] 06 p1630 N93-18890
Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988
Optimization of three dimensional meshes
[ETN-92-92554] 06 p1647 N93-19008
HModel: An X tool for global model search
[DE93-002826] 06 p1627 N93-19512
Use of the microcomputer to solve large p-median problems
[INPE-5336-PRE/1735] 06 p1628 N93-19786
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972
Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009
Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013
(Generalized) LR parsing: From Knuth to Tomita
07 p2030 N93-20221
Comparison of artificial neural networks with a conventional heuristic technique for optimization problems
[AD-A259207] 07 p2046 N93-20552
Further developments in shape optimization of stress concentration regions. Part 1: General theory
07 p1927 N93-20630
Further developments in shape optimization of stress concentration regions. Part 2: Applications
07 p1928 N93-20631
Reliability of failure envelopes for composite materials
07 p1929 N93-20642
Structural shape optimization of robotic links
07 p1918 N93-20717
Some 2D test examples for the ISNaS incompressible code
[REPT-91-44] 07 p1901 N93-20752
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
Evaluation and comparative study of combinatorial optimization algorithms: Application to the problem of process placement
[RR-886-I] 07 p2043 N93-20798
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
Optimizing positioning of mechanical parts
[PAPER-C-1-5] 07 p2035 N93-20828
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines
[PAPER-C-1-6] 07 p2035 N93-20829
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
Effect of design selection on response surface performance
[NASA-CR-192275] 07 p2038 N93-20895
MSC/NASTRAN structure optimization test module version 67 (preliminary)
[REPT-5-191025] 07 p1945 N93-20907
Optimization and sensitivity computations for the conception of internal ventilation system in the aircraft engine
[ETN-93-93375] 07 p1785 N93-20913
Triangulating planar graphs while minimizing the maximum degree
[RUU-CS-92-07] 07 p2054 N93-20950
An analogue of Philon's line in n dimensions
[MEMO-1032] 07 p2054 N93-20957
SSG 4.117: Optimization of modern positioning techniques 07 p1972 N93-20983
Numerical modeling and optimization for the reconstruction of a polyhedron from its generalized gaussian image
[ETN-93-92683] 07 p2039 N93-21060
Estimation methods for parameters of multivariate autoregressive models
[ETN-93-92685] 07 p2059 N93-21062
Solution of quadratic distributed control problems by optimization methods
[ETN-93-93409] 07 p2040 N93-21303
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337
User areas in aircraft cockpit, using methods of rapid prototype development
[MBB-FE-315-S-PUB-0493] 08 p2426 N93-22389
Computer facilities optimization studies
[NASA-CR-192702] 08 p2432 N93-22471
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Optimization of the integration of inertia and GPS
08 p2120 N93-22787
Multidisciplinary optimization of a controlled space structure using 150 design variables
[NASA-CR-4502] 08 p2125 N93-22799
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
A local exponential transform method for global variance reduction in Monte Carlo transport problems
[DE92-018992] 08 p2468 N93-22926
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036
Time optimal paths for high speed maneuvering
[DE93-006251] 08 p2458 N93-23338
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
The SPOT system development program: SPOT AVAL
08 p2360 N93-23769
PASCAL subroutines for standard test problems in unconstrained minimization
[MATHS-REPT-A-155] 08 p2441 N93-24076
A new conjugate gradient method for optimal control
[MATHS-REPT-A-174] 08 p2462 N93-24077
Meteorological data assimilation by adaptive Bayesian optimization 08 p2409 N93-24272
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966
A state-of-the-art crystal filter design package using Windows 3.0 techniques 09 p2693 N93-25010
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
Neural networks: What non-linearity to choose
[NASA-CR-192948] 09 p2819 N93-25197
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
A preliminary sizing method for unmanned aircraft using multi-variate optimisation 09 p2587 N93-25408
A computational aerodynamic design optimization method using sensitivity analysis
09 p2589 N93-25552
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
Monte Carlo approach to the approximation of invariant measures
[PB93-159069] 09 p2830 N93-26317
Integrated approaches to parallelism in optimization and the solution of inverse problems
[AD-A261490] 09 p2829 N93-26344
Configuration optimization of space structures
09 p2670 N93-26415
Computation and theory in large-scale optimization
[AD-A261419] 09 p2813 N93-26450
Sensitivity calculations for a 2D, inviscid, supersonic forebody problem
[NASA-CR-191444] 10 p2928 N93-27004
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204
Optimization of closed-loop tactics in ballistic defense-offense scenarios 10 p2925 N93-27209
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27220
Elicitation of expert knowledge and assessment of imprecise prior densities for lifetime distributions
[MEMO-COSOR-92-12] 10 p3123 N93-27231
Mixed H2/H infinity control in a stochastic framework
[MEMO-COSOR-92-13] 10 p3109 N93-27232
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
The best variety or an almost best one? A comparison of subset selection procedures
[MEMO-COSOR-92-22] 10 p3123 N93-27237
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
Multidisciplinary design optimization: An emerging new engineering discipline
[NASA-TM-107761] 10 p2942 N93-27258
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
One-third-integrality in the metric polytope
[CWI-BS-R9209] 10 p3112 N93-27293
Optimal server assignment in the case of service times with monotone failure rates
[TW-92-04] 10 p3125 N93-27906
Speeding up parallelism detection for attribute grammars
[RUU-CS-92-18] 10 p3107 N93-27909
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
The Gribov problem in the frame of stochastic quantization
[SSCL-PREPRINT-740] 10 p3157 N93-28194
Computing modified Newton directions using a partial Cholesky factorization
[DE93-009584] 10 p3128 N93-28454
Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527
Optimal control of the M/G/1 queue with repeated vacations of the server
[INRIA-RR-1637] 11 p3541 N93-28637
Balanced approximation can be optimal
[OUEL-1950/92] 11 p3548 N93-28754
Preemptive scheduling with variable profile, precedence constraints and due dates
[INRIA-RR-1622] 11 p3538 N93-28937
Uncertainty reasoning in expert systems
[NASA-CR-193120] 11 p3548 N93-28973
Design optimization of space structures
11 p3278 N93-29122
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
Fuzzy learning under and about an unfamiliar fuzzy teacher 11 p3516 N93-29558
A multilevel approach to minimum cost network flows
[AD-A264008] 11 p3550 N93-29978
Optimal geometric design of robots for environments with obstacles 11 p3445 N93-30149
Parametric and combinatorial problems in constrained optimization
[AD-A264229] 11 p3555 N93-30363
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download
[ETN-93-94179] 11 p3466 N93-30573
Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616
Optimum design of multiwire cages for high-voltage applications
[AD-A264310] 11 p3400 N93-30995
Optimal design and imperfection sensitivity of nonlinear shell structures
[FFA-TN-1992-30] 12 p3739 N93-31123
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
Reduction method with system analysis for multiobjective optimization-based design
[NASA-CR-191456] 12 p3803 N93-31194
ALGODESK: An experimental comparison of eight evolutionary heuristics applied to the QAP problem
[REPT-92-052] 12 p3786 N93-31250

Optimization of adaptive resonance theory network with boltzmann machine
[PB93-188134] 12 p3797 N93-31332
Optimal solutions to a two-block H infinity problem
[MEMO-1080] 12 p3798 N93-31468
Duality and sensitivity in quadratic optimization over a sphere
[REPT-92-65] 12 p3804 N93-31470
On a class of geometric vector optimization problems
[REPT-92-51] 12 p3804 N93-31485
Job shop scheduling by local search
[MEMO-COSOR-92-29] 12 p3834 N93-31510
Periodic multiprocessor scheduling
[ETN-93-94043] 12 p3795 N93-31522
Sampled-data and discrete-time H2 optimal control
[W-9222] 12 p3798 N93-31525
The crease structure of the Karush-Kuhn-Tucker set in parametric optimization
[REPT-92-62] 12 p3806 N93-31551
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840
The optimal projection equations for digital control of infinite-dimensional systems
[REPT-93-01] 12 p3799 N93-31851
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Ant system for job-shop scheduling
[REPT-92-066] 12 p3792 N93-32346

OPTIMUM CONTROL
U OPTIMAL CONTROL

OPTIMUM THRUST PROGRAMMING
U THRUST PROGRAMMING

OPTOELECTRONIC DEVICES
NT PHOTODIODES
NT PHOTOTRANSISTORS
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Optoelectronics Research Center
[AD-A253132] 02 p0447 N93-11527
Programme and abstracts. Workshop on Expert Evaluation and Control of Compound Semiconductor Materials and Technologies No. 1: (EXAMTEC 199)
[AD-A254023] 02 p0292 N93-12071
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
Massively parallel optical-to-electronic data transfer
[AD-A254831] 03 p0688 N93-12733
Silicon vision: Elementary functions to be implemented on electronic retinas 03 p0692 N93-13242
The three to five semiconductor quantum well lasers and related optoelectronic devices on silicon
[AD-A255368] 03 p0608 N93-13864
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
Solid state research
[AD-A256019] 04 p0992 N93-14576
Photonic materials and devices for optical information processing and computing applications
[AD-A256047] 04 p0982 N93-14578
The III-V semiconductor quantum well lasers and related optoelectronic devices (on silicon). Oxide-defined semiconductor quantum well lasers and optoelectronic devices: Al-based III-V nativeoxide s
[AD-A255239] 04 p0885 N93-14667
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
Optoelectronics material center: A collaborative program including center for high technology materials of the University of New Mexico, Stanford University, California Institute of Technology
[AD-A256005] 04 p0886 N93-15115
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU] 06 p1519 N93-18278
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Device applications of layered structures 06 p1523 N93-18461
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Ultrafast measurements of 200 gigahertz Schottky photodiodes 09 p2688 N93-25392
Investigation of a background suppression transimpedance amplifier for photovoltaic detectors
[AD-A261828] 09 p2691 N93-26272
Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
JSEP annual report, 11 January 1991 - 10 January 1993
[AD-A261948] 10 p3031 N93-27918
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052

OPTOELECTRONIC SWITCHING
U OPTICAL SWITCHING

OPTOMETRY
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation 08 p2160 N93-24366

OR-GATES
U GATES (CIRCUITS)

ORATORY
U PUBLIC SPEAKING

ORBIT CALCULATION
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy 03 p0518 N93-13768
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
Complete analytical theory for the satellites of Neptune 04 p1046 N93-14833
Present-day plate motions: Retrieval from the TOPEX/Poseidon orbitography network (DORIS system) 04 p0918 N93-14993
Precise orbit computation and sea surface modeling 04 p0813 N93-15000
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario 06 p1454 N93-18899
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
The gas production rate of periodic comet d'Arrest 06 p1705 N93-19155
Asteroid-type orbit evolution near the 5:2 resonance 06 p1708 N93-19171
The recovery of asteroids after two observations 06 p1698 N93-19206
Asteroid orbital error analysis: Theory and application 06 p1454 N93-19214
Long-term orbital evolution of short-period comets found in Project Cosmo-DICE 06 p1454 N93-19215
Application of high-precision two-way ranging to Galileo Earth-1 encounter navigation 06 p1454 N93-19415
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites 06 p1454 N93-19419
Office of Spaceflight Standard Spaceborne Global Positioning System (GPS) user equipment project 07 p1780 N93-21417
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Precise GPS-based tracking of remote sensing satellites 08 p2122 N93-23587
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit 09 p2601 N93-24704
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft 09 p2601 N93-24705
Attitude analysis in Flatland: The plane truth 09 p2603 N93-24712
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem 09 p2603 N93-24718
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
The advances in F and T technology: Their benefits of and for space science and technology 09 p2831 N93-24979
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983
DORIS precise orbit determination and location system performances of ultra stable oscillators 09 p2608 N93-24997
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters 09 p2676 N93-26106
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Ofeq-2 orbit, attitude, and flight evaluation 10 p2924 N93-27198
Detail design of Mars transfer orbit 10 p2953 N93-28046
The effect of clock, media, and station location errors on Doppler measurement accuracy 11 p3246 N93-29588
Precise tracking of the Magellan and Pioneer Venus orbiters by Same-Beam Interferometry. Part 2: Orbit determination analysis 11 p3270 N93-29589
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335

ORBIT DECAY
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707

ORBIT EQUATIONS
U ORBITAL MECHANICS

ORBIT MANEUVERING ENGINE (SPACE SHUTTLE)
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036

ORBIT PERTURBATION
NT SATELLITE PERTURBATION
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
Orbit perturbations due to an axi-symmetric gravitational field, analyzed over extended periods of time
[RAE-TM-SPACE-386] 02 p0220 N93-11486
Dynamics of space debris 02 p0219 N93-11904
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586

The gas production rate of periodic comet d'Arrest
06 p1705 N93-19155
Evolution of the Quadrantid meteor stream
06 p1708 N93-19177
On the asteroidal jet-stream Flora A
06 p1710 N93-19185
Asteroid proper elements and secular resonances
06 p1710 N93-19186
Comet nongravitational forces and meteoritic impacts
06 p1712 N93-19207
The mass of (1) Ceres from perturbations on (348) May
06 p1720 N93-19262
Formation of the Leonid meteor stream and storm
06 p1721 N93-19267
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358

ORBIT SPECTRUM UTILIZATION
Federal Communications Commission (FCC) Transponder Loading Data Conversion Software. User's guide and software maintenance manual, version 1.2
[NASA-CR-191067] 09 p2808 N93-24947

ORBIT TRANSFER VEHICLES
Electric propulsion applications
01 p0020 N93-10029
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
A 26 kW arcjet system for on-orbit demonstration
01 p0021 N93-10031
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix
[NASA-CR-184490] 05 p1075 N93-16556
Space transfer vehicle concepts and requirements study, phase 2
[NASA-CR-192430] 05 p1075 N93-16660
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
Transport: Introduction 05 p1384 N93-16911
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Electric propulsion 05 p1095 N93-16916
Improved methods for reusable aeroclassified orbital transfer vehicle optimization
[DLR-FB-91-41] 06 p1454 N93-18785
H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
Lunar transfer vehicle studies
08 p2173 N93-22087
Aerobraking technology studies
08 p2173 N93-22089
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Autonomous rendezvous targeting techniques for national launch system application
08 p2145 N93-22284
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22287
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft
08 p2148 N93-22299
Proposed CTV design reference missions in support of Space Station Freedom 08 p2148 N93-22300
OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation
[NASA-CR-192525] 09 p2611 N93-25510
Space transfer vehicle concepts and requirements study. Volume 2, book 2: System and program requirements trade studies
[NASA-CR-192526] 09 p2611 N93-25511
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Space transfer concepts and analyses for exploration missions. Technical directive 12: Beamed power systems study
[NASA-CR-192532] 09 p2599 N93-26146
Representative systems for space exploration
09 p2897 N93-26395
An analytical optimization of electric propulsion orbit transfer vehicles
[NASA-CR-191129] 10 p2985 N93-27060
Cryogenic transfer module for geosynchronous orbit
10 p2920 N93-27176
Propulsion needs for lunar/Mars missions
10 p2967 N93-27798
ELITE program: Electric insertion transfer experiment
11 p3264 N93-28709
Advanced engine study program
[NASA-CR-187217] 11 p3287 N93-28946
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
Mars sample return mission: Two alternate scenarios
11 p3233 N93-29746
SPECS: Orbital debris removal
11 p3234 N93-29754
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039

ORBITAL ASSEMBLY
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
Contact detection and contact motion for error recovery in the presence of uncertainties
02 p0398 N93-11956
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592
Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads 03 p0509 N93-13165
Space Shuttle orbiter modifications to support Space Station Freedom
[NASA-TM-108050] 03 p0520 N93-13455
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539
SHARC: Space Habitat, Assembly and Repair Center
[NASA-CR-192031] 06 p1606 N93-18153
Pre-integrated truss space station and method of assembly
[NASA-CASE-MSC-22015-1] 07 p1823 N93-20042
Robot-friendly connector --- space truss structures
[NASA-CASE-MSC-21864-1] 07 p1914 N93-20117
Research on large structure assembly technology: Research on deployable assembly structure
07 p1795 N93-20444
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience
07 p1816 N93-21429
Six-Degree-of-Freedom Test Facility
08 p2136 N93-22231
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Space Station Freedom assembly and operation at a 51.6 degree inclination orbit
[NASA-TM-107731] 09 p2615 N93-25174
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Dynamics of on-orbit construction process
09 p2669 N93-26406
Interaction dynamics and control for orbital assembly
09 p2669 N93-26407
Controls for orbital assembly of large space structures
09 p2620 N93-26408
Structural load control during construction
09 p2669 N93-26409
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Expert systems for assembly sequence evaluation
09 p2669 N93-26411
Space teleoperations technology for Space Station evolution 10 p2970 N93-27823
An evolutionary construction facility for Space Station Freedom 10 p2971 N93-27839
Welding/brazing for Space Station repair
10 p2971 N93-27840
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors
10 p2971 N93-27841
Automated assembly of large space structures
10 p2971 N93-27842
Structures and materials technology discipline
10 p2973 N93-27865
Space Station: Orbiter berthing
11 p3274 N93-29031
Space construction activities
[NASA-CR-192690] 11 p3274 N93-29108
Interaction dynamics of on-orbit construction
11 p3274 N93-29109
Hybrid CMS methods with model reduction for assembly of structures 11 p3274 N93-29110
Controls of interaction dynamics of orbital assembly
11 p3275 N93-29111
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
JSC flight experiment recommendation in support of Space Station robotic operations
12 p3691 N93-32121

ORBITAL ELEMENTS
Dynamics of space debris 02 p0219 N93-11904
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Precessional quantities for the Earth over 10 Myr
06 p1579 N93-18964
Numerical investigation of the Earth's rotation during a complete precession cycle 06 p1580 N93-18965
Variations of the Milankovitch frequencies in time
06 p1580 N93-18966
The orbital record in stratigraphy
06 p1582 N93-18974
Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada
06 p1582 N93-18975
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
P/Machholz 1986 8 and quadrantid meteoroid stream. Orbital evolution and relationship
06 p1700 N93-19119
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
A Southern Hemisphere radar meteor orbit survey
06 p1701 N93-19121
Simulated families: A test for different methods of family identification 06 p1701 N93-19125
Bias correction factors for near-Earth asteroids
06 p1701 N93-19127
Asteroid-type orbit evolution near the 5:2 resonance
06 p1708 N93-19171
On the asteroidal jet-stream Flora A
06 p1710 N93-19185
Asteroid proper elements and secular resonances
06 p1710 N93-19186
A computer search for asteroid families
06 p1711 N93-19199

Asteroid orbital error analysis: Theory and application
06 p1454 N93-19214
The vicinity of Jupiter: A region to look for comets
06 p1719 N93-19253
Determination of orbits of comets: P/Kearns-Kwee, P/Gunn, including nongravitational effects in the comets' motion 06 p1454 N93-19254
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Detail design of Mars transfer orbit
10 p2953 N93-28046
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks 12 p3687 N93-31069

ORBITAL FLIGHT TESTS (SHUTTLE)
U SPACE TRANSPORTATION SYSTEM FLIGHTS

ORBITAL MANEUVERING VEHICLES
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
An investigation of error correcting techniques for OMV data
[NASA-CR-190942] 03 p0682 N93-12654
Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
Rendezvous radar for the orbital maneuvering vehicle
07 p1814 N93-21419
Collision avoidance for CTV: Requirements and capabilities 07 p1817 N93-21437
On-orbit operational scenarios, tools, and techniques
07 p1817 N93-21442
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Rendezvous radar for the orbital maneuvering vehicle
08 p2145 N93-22283
Collision avoidance for CTV: Requirements and capabilities 08 p2147 N93-22294
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft
08 p2148 N93-22299
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308

ORBITAL MANEUVERS
Rapid maneuvering of large flexible orbiting systems
02 p0225 N93-11885
Numerical modeling of a vortex stabilized arcjet
02 p0232 N93-11889
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Orbital manoeuvre effects on large flexible antennae
05 p1078 N93-15729
A synthetic environment for satellite modeling and satellite orbital motion
[AD-A258847] 06 p1470 N93-19068
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
Rendezvous radar for the orbital maneuvering vehicle
07 p1814 N93-21419
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Collision avoidance for CTV: Requirements and capabilities 08 p2147 N93-22294
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952

ORBITAL MECHANICS
NT KEPLER LAWS
Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
Orbit perturbations due to an axi-symmetric gravitational field, analyzed over extended periods of time
[RAE-TM-SPACE-386] 02 p0220 N93-11486
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Complete analytical theory for the satellites of Neptune 04 p1046 N93-14833
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Orbital, Rotational, and Climatic Interactions
[NASA-CP-3185] 06 p1579 N93-18962
Asteroids, Comets, Meteors 1991
[NASA-CR-191879] 06 p1700 N93-19113
Stochasticity of comet P/Slaughter-Burnham
06 p1702 N93-19128
Debris about asteroids: Where and how much?
06 p1703 N93-19136
The orbital evolution of real asteroids near the 4:1 mean-motion resonance with Jupiter
06 p1704 N93-19146
Cometary orbital evolution in the outer planetary region 06 p1712 N93-19204
Determination of orbits of comets: P/Kearns-Kwee, P/Gunn, including nongravitational effects in the comets' motion 06 p1454 N93-19254
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
On the normalized Hamiltonian formulation of the restricted three-body problem 07 p1944 N93-20727
Use of non-spherical gravity harmonics for relative motion GN/C (category 2) 08 p2141 N93-22262
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684
Optimal transfers between libration-point orbits in the elliptic restricted three-body problem
09 p2608 N93-25758
Detail design of Mars transfer orbit
10 p2953 N93-28046

ORBITAL MOTION
U ORBITS

ORBITAL POSITION ESTIMATION
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
The recovery of asteroids after two observations
06 p1698 N93-19206
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy
06 p1512 N93-19418
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites
06 p1454 N93-19419
German participation in the activities of the CSTG Subcommission on Satellite Laser Ranging (SLRS)
07 p1971 N93-20971
SSG 2.106: Determination of orbits to cm-accuracy
07 p1971 N93-20973
SSG 4.119: Relativistic effects in geodesy
07 p1973 N93-20985

ORBITAL RENDEZVOUS
NT EARTH ORBITAL RENDEZVOUS
Autoguidance video sensor for docking
02 p0230 N93-11954
Optimal impulsive trajectories for orbital rendezvous between elliptic orbits 04 p0813 N93-15103
TRAC based sensing for autonomous rendezvous
07 p1813 N93-21412
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station
07 p1780 N93-21413
Rendezvous radar for the orbital maneuvering vehicle
07 p1814 N93-21419
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
07 p1780 N93-21426
Autonomous rendezvous and capture system design
07 p1815 N93-21427
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience
07 p1816 N93-21429
An overview of autonomous rendezvous and docking system technology development
07 p1816 N93-21431
An autonomous rendezvous and docking system using cruise missile technology 07 p1816 N93-21432
On-orbit demonstrations of automated closure and capture using ESA-developed proximity operations technologies and an existing serviceable NASA Explorer platform spacecraft 07 p1816 N93-21433
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
Operator-assisted planning and execution of proximity operations subject to operational constraints
07 p1817 N93-21436
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation
07 p1817 N93-21440
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
Six-Degree-of-Freedom Test Facility
07 p1817 N93-21443
Soviet automated rendezvous and docking system overview 07 p1818 N93-21444
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
Six-Degree-of-Freedom Test Facility
08 p2136 N93-22231
Manned versus unmanned rendezvous and capture
08 p2137 N93-22234
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237
Applicability of relative GPS to automated rendezvous between the space shuttle and space station
08 p2138 N93-22241
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation
08 p2138 N93-22242
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Autonomous rendezvous and capture system design
08 p2138 N93-22244
Laser docking sensor engineering model
08 p2139 N93-22247
The real-time operations of the Space Shuttle Orbiter during rendezvous and proximity operations
08 p2139 N93-22249
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom
08 p2140 N93-22252
TRAC based sensing for autonomous rendezvous
08 p2140 N93-22253
Flight Support System (FSS) docking and umbilical services systems 08 p2140 N93-22254
Automated rendezvous and proximity operations
08 p2141 N93-22257
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware
08 p2141 N93-22260
Virtual reality applications to automated rendezvous and capture 08 p2141 N93-22261
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
Results of prototype software development for automation of shuttle proximity operations
08 p2142 N93-22264
Soviet automated rendezvous and docking system overview 08 p2142 N93-22265
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
Video guidance sensor for autonomous capture
08 p2142 N93-22267
Space Shuttle Program: Automatic rendezvous, proximity operations, and capture (category 3)
08 p2143 N93-22269
CTV rendezvous techniques 08 p2143 N93-22270
An autonomous rendezvous and docking system using cruise missile technologies 08 p2143 N93-22272
Optical correlators for automated rendezvous and capture 08 p2143 N93-22273
Automatic rendezvous and capture system development in a manned environment 08 p2143 N93-22274
Performance capabilities of a Phase One Automatic Rendezvous and Capture System
08 p2144 N93-22275
Relative navigation requirements for automatic rendezvous and capture systems
08 p2144 N93-22276
Automated rendezvous and capture system
08 p2144 N93-22277
A comparison of laser based ranging systems for AR/C category 1: Hardware 08 p2144 N93-22278
New developments in astrodynamics algorithms for autonomous rendezvous 08 p2144 N93-22279
Onboard navigation rendezvous expert system
08 p2144 N93-22280

An overview of autonomous rendezvous and docking system technology development at General Dynamics
08 p2145 N93-22281
Rendezvous radar for the orbital maneuvering vehicle
08 p2145 N93-22283
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics
08 p2147 N93-22293
Automated rendezvous and docking with video imagery 08 p2148 N93-22298
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft
08 p2148 N93-22299
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306
The role of smart systems in rendezvous, close proximity operations and docking maneuvers
08 p2150 N93-22310
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
Electro-optical rendezvous and docking sensors
08 p2150 N93-22314
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
08 p2151 N93-22316
Communications and tracking technology discipline
10 p2972 N93-27856
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652

ORBITAL RESONANCES (CELESTIAL MECHANICS)
Stochasticity of comet P/Slaughter-Burnham
06 p1702 N93-19128
The orbital evolution of real asteroids near the 4:1 mean-motion resonance with Jupiter
06 p1704 N93-19146
injecting asteroid fragments into resonances
06 p1705 N93-19152

ORBITAL SERVICING
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Requirements and applications for robotic servicing of military space systems 02 p0230 N93-11953
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair 02 p0400 N93-11965
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974
Automatic system for installation and replacement of Space Station components
[NASA-CASE-LEW-14906-1] 02 p0329 N93-12203
Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Support and servicing requirements for large observatories in space 03 p0746 N93-13589
A concept for a supervised autonomous robot
04 p0810 N93-14950
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience
07 p1816 N93-21429
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
Six-Degree-of-Freedom Test Facility
08 p2136 N93-22231
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation
08 p2138 N93-22242
Space Station Freedom as an engineering experiment station: An overview 08 p2187 N93-22631
Group Task Force on Satellite Rescue and Repair
[NASA-TM-108713] 08 p2193 N93-23040
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319

ORBITAL SIMULATORS
U SPACE SIMULATORS

ORBITAL SPACE TESTS
The LDEF experience. Materials
07 p1847 N93-20811
Protection of composite materials in space. The LDEF experience 07 p1847 N93-20812
Recommended practices for in-space and ground laboratory. Atomic oxygen exposure and analysis
07 p1848 N93-20814
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707

ORBITAL TRANSFER
U TRANSFER ORBITS

ORBITAL WORKSHOPS
NT SKYLAB 1
The initial flight anomalies of Skylab 1
09 p2619 N93-24692

ORBITALS
NT ELECTRON ORBITALS
NT MOLECULAR ORBITALS

ORBITING ASTRONOMICAL OBSERVATORY
U OAO

ORBITING SOLAR OBSERVATORY
U OSO

ORBITRONS
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950

ORBITS
NT CIRCULAR ORBITS
NT EARTH ORBITS
NT ECCENTRIC ORBITS
NT ELLIPTICAL ORBITS
NT GEOSYNCHRONOUS ORBITS
NT LUNAR ORBITS
NT PARKING ORBITS
NT PLANETARY ORBITS
NT POLAR ORBITS
NT SATELLITE ORBITS
NT SOLAR ORBITS
NT SPACECRAFT ORBITS
NT STELLAR ORBITS
NT TRANSFER ORBITS
Orbit-orbit branching rules 10 p3146 N93-27350

ORDER-DISORDER TRANSFORMATIONS
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
First-principles approach to alloy phase stability
[DE93-001323] 05 p1115 N93-17031
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Radiation-induced disordering and defect production in CuAu and NiAl studied by molecular dynamics simulation
[DE93-007506] 09 p2649 N93-25336
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Phase transitions in the dual lattice in Potts model
[ROM1F-90-752] 10 p3152 N93-27700
Ordering and displacive transformations in Ni-Al alloys
[DE93-009553] 10 p3001 N93-28371
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Order-disorder transformations in Ni-Al alloys
[DE93-009293] 11 p3326 N93-30389
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093
Numerical evidence for two types of localized states in a two-dimensional disordered lattice
[DE92-642677] 12 p3827 N93-31159
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805
Nonclassical disordered phase in the strong quantum limit of frustrated antiferromagnets
[DE92-645691] 12 p3815 N93-31806
Relativistic band gaps in one-dimensional disordered systems
[DE93-609841] 12 p3829 N93-31814
Investigation of transitions from order to chaos in dynamical systems
[DE93-014437] 12 p3833 N93-32290

ORDNANCE
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
Hot-wire vs laser, is there a difference?
[DE92-019337] 02 p0310 N93-11554
Flash radiographic studies of hypervelocity projectile interactions with explosives
[AD-A258387] 06 p1497 N93-18260
Small ICBM Laser Firing Unit (LFU)
07 p1864 N93-20138
Laser-initiated ordnance for air-to-air missiles
07 p1864 N93-20139
Laser diode ordnance design
07 p1864 N93-20140
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Proposed system safety design and test requirements for the microlaser ordnance system
07 p1864 N93-20144
Laser diode initiated detonators for space applications
07 p1865 N93-20147
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
Ordnance thermal battery
[AD-D015722] 11 p3412 N93-30201
Commissioning and operating instructions of one pint (US) mixer
[MRL-TN-634] 12 p3713 N93-31639

OREGON
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611

ORES
U MINERALS

ORGANELLES
NT CHLOROPLASTS
NT MITOCHONDRIA

ORGANIC BORON COMPOUNDS
Separation of compounds with multiple -OH groups from dilute aqueous solutions via complexation with organoboronate
[DE92-041201] 05 p1107 N93-17358
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657

ORGANIC CHEMISTRY
The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Giant planets: Clues on current and past organic chemistry in the outer solar system
06 p1591 N93-18551

ORGANIC COMPOUNDS
NT ACETIC ACID
NT ACETYLENE
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
NT ALBUMINS
NT ALDOSTERONE
NT ALIPHATIC HYDROCARBONS
NT ALKANES
NT ALKENES
NT AMINO ACIDS
NT ASCORBIC ACID
NT AZOLES
NT BENZENE
NT BUTANES
NT CAFFEINE
NT CARBOHYDRATES
NT CARBON TETRAFLUORIDE
NT CARBONIC ANHYDRASE
NT CARBOXYHEMOGLOBIN
NT CARBOXYLIC ACIDS
NT CELLULOSE
NT CHLOROBENZENES
NT CHOLESTEROL
NT CITRIC ACID
NT COENZYMES
NT CUBANE
NT CYCLIC COMPOUNDS

NT CYCLIC HYDROCARBONS
NT CYCLOBUTANE
NT CYCLOHEXANE
NT CYCLOPROPANE
NT CYTOCHROMES
NT DEOXYRIBONUCLEIC ACID
NT DICARBOXYLIC ACIDS
NT DIENES
NT DIPHENYL COMPOUNDS
NT ENZYMES
NT ETHANE
NT ETHYLENE
NT FLUORINE ORGANIC COMPOUNDS
NT FLUOROCARBONS
NT FLUOROHYDROCARBONS
NT FLUOROPOLYMERS
NT FORMIC ACID
NT GLUCOSE
NT GLYCOGENS
NT HEMOGLOBIN
NT HEPTANES
NT HETEROCYCLIC COMPOUNDS
NT HISTIDINE
NT HMX
NT HYDROCARBONS
NT INDOLES
NT LACTIC ACID
NT LIPIDS
NT LIPOPROTEINS
NT LIQUEFIED NATURAL GAS
NT LYSOZYME
NT MELANIN
NT METHANE
NT METHYLENE
NT MONOSACCHARIDES
NT MYOGLOBIN
NT NAPHTHALENE
NT NATURAL GAS
NT NUCLEOTIDES
NT ORGANIC BORON COMPOUNDS
NT ORGANIC LIQUIDS
NT ORGANIC PEROXIDES
NT ORGANIC PHOSPHORUS COMPOUNDS
NT ORGANIC SILICON COMPOUNDS
NT ORGANIC SULFUR COMPOUNDS
NT OXIDASE
NT PEPTIDES
NT PERFLUOROALKANE
NT PHOSPHAZENE
NT PHTHALOCYANIN
NT POLYPEPTIDES
NT POLYSACCHARIDES
NT POLYTETRAFLUOROETHYLENE
NT PROPANE
NT PROPYLENE
NT PROSTAGLANDINS
NT PROTEINS
NT PYRIDINES
NT PYRIDOXINE
NT PYRROLES
NT QUINONES
NT RDX
NT RHODAMINE
NT RIBONUCLEIC ACIDS
NT SEROTONIN
NT SUGARS
NT TEFLON (TRADEMARK)
NT TETRAHYDROFURAN
NT TETRAZOLES
NT TOLUENE
NT TRIENES
NT XYLOSE

Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774

Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091

Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514

Vapor pressure data analysis methodology, statistics, and applications
[AD-A255090] 03 p0536 N93-12743

Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791

ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982

Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435

Synthesis and characterization of dipolar organic molecules for nonlinear optical materials
[AD-A257111] 05 p1302 N93-16118

The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta*-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454

The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984

The Moon: Biogenic elements
06 p1591 N93-18548

Comets: Role and importance to exobiology
06 p1592 N93-18556

The role of organic polymers in the structure of cometary dust
06 p1719 N93-19256

Special fibres from natural polymers
07 p1837 N93-21151

Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants
07 p1839 N93-21164

Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683

Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748

Determination of rates of reaction in the gas-phase in the troposphere. Theory and practice. 5. Rate of indirect photoreaction
[PB93-149334] 08 p2402 N93-24569

Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674

Femtosecond dynamics in hydrogen-bonding solvents: Formamides
[DE93-003476] 09 p2643 N93-25123

Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696

Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228

Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423

Method for retarding oxidation of an organic substrate
[NASA-CASE-LEW-15306-2] 10 p3006 N93-28425

Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665

Standard and reference materials for marine science, third edition
[PB93-185684] 11 p3489 N93-30830

Visualizing weld metal solidification using organic analogs
11 p3293 N93-30973

Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797

ORGANIC COOLANTS

Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641

ORGANIC FLUORINE COMPOUNDS

U FLUORINE ORGANIC COMPOUNDS

ORGANIC LASERS

NT DYE LASERS

ORGANIC LIQUIDS

Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188

ORGANIC MATERIALS

The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California
[DE92-019172] 02 p0373 N93-11734

Z306 molecular contamination ad hoc committee results
03 p0546 N93-12774

CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity
03 p0511 N93-13178

Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457

Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718

Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398

Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197

Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290

Molecular-scale hybrid polymer ceramics
06 p1496 N93-18487

Organic material: Asteroids, meteorites, and planetary satellites
06 p1592 N93-18555

Comets: Role and importance to exobiology
06 p1592 N93-18556

A strong 3.4 micron emission feature in comet Austin 1989c1
06 p1706 N93-19162

Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation
06 p1709 N93-19183

Special fibres from natural polymers
07 p1837 N93-21151

Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662

Mid-infrared spectroscopy of solids in relation to the composition of interstellar and intergalactic dust
08 p2550 N93-24179

Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334

Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027

ORGANIC NITRATES

NT CELLULOSE NITRATE
NT NITROGLYCERIN
NT PETN

Energetic composites of cyclodextrin nitrate esters and nitrate ester plasticizers
[AD-D015364] 02 p0274 N93-11665

ORGANIC PEROXIDES

Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry
03 p0654 N93-13726

ORGANIC PHOSPHORUS COMPOUNDS

NT PHOSPHAZENE

Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423

Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622

ORGANIC SEMICONDUCTORS

The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289

Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108

ORGANIC SILICON COMPOUNDS

Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218

Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724

Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800

Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231

Thermal isomerization and decomposition of ethynyldisilanes
[DE92-040578] 05 p1102 N93-16012

Organosilicon compounds and polymers and silicon ceramics
[AD-A260056] 08 p2242 N93-24408

Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309

Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028

ORGANIC SOLIDS

Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767

ORGANIC SULFUR COMPOUNDS

The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta*-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454

Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467

Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146

ORGANIC SUPERCONDUCTORS
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834
The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta"-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498

ORGANISMS
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Ground testing of bioconvective variables such as morphological characterizations and mechanisms which regulate macroscopic patterns 05 p1224 N93-17303
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
Planetary Biology and Microbial Ecology: Molecular Ecology and the Global Nitrogen cycle
[NASA-CR-4497] 09 p2803 N93-26157
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214

ORGANIZATIONS
NT EUROPEAN SPACE AGENCY
NT NORTH ATLANTIC TREATY ORGANIZATION (NATO)
NT WORLD METEOROLOGICAL ORGANIZATION
Aerospace Industries Association of Canada
[CTN-92-60590] 01 p0001 N93-10644
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Information for management, planning, and decision-making in nonprofit organizations: Toward a comprehensive model 04 p1000 N93-14209
Source hierarchy list. Volume 1: A through D
[AD-A256100] 04 p1001 N93-14265
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195
Source header list. Volume 1: A through J
[AD-A256000] 05 p1352 N93-16063
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
Source hierarchy list. Volume 3: O through Z
[AD-A256102] 05 p1352 N93-16065
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Technology and the 21st Century government organization
[DE93-002506] 08 p2519 N93-22982
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Meteosat operational programme current missions and services 08 p2357 N93-23752
Earth observation programmes and plans of the Commission of the European Communities (CEC) 08 p2372 N93-23843
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS) 08 p2372 N93-23844
Eumetsat practice for protection of its satellite data 08 p2373 N93-23850
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Functional Economic Analysis Guidebook, version 1.1
[AD-A261390] 09 p2886 N93-26305
Evolving information systems: Beyond temporal information systems
[TR-92-04] 10 p3167 N93-27886
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887
Business reengineering in information intensive organizations
[ISBN-90-9005061-2] 10 p3164 N93-27937
Minimum security requirements for multi-user operating systems
[PB93-185999] 11 p3522 N93-30832
The management of change: Implications for the information professional 12 p3838 N93-31222
Forecasting and planning for changing patterns of Scientific and Technical Communication (STC) 12 p3838 N93-31223
The standards process: X3 information processing systems 12 p3840 N93-31966

ORGANOMETALLIC COMPOUNDS
NT CARBOXYHEMOGLOBIN
NT CHLOROPHYLLS
NT FERROCENES
NT HEMOGLOBIN
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics
[AD-A250930] 01 p0088 N93-10247
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
CVD of AlN and SiC using cyclic organometallic precursors
[AD-A246910] 02 p0266 N93-11413
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
The deposition characteristics of copper(I) compounds for CVD by FT-IR spectroscopy
[DE92-010778] 02 p0467 N93-12134
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Organometallic chemistry of bimetallic compounds
[DE93-002773] 05 p1115 N93-17201
Distance analysis of Patterson calculations and molecular mechanics as aids in structure solution
[DE93-001224] 05 p1325 N93-17351
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Molecular orbital studies of the bonding in heavy element organometallics
[DE93-005291] 06 p1658 N93-19756
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Low-temperature deposition of ZrC thin films from a single source precursor
[DE93-007333] 08 p2514 N93-24518
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Synthetic lubricating oil greases containing metal chelates of Schiff bases
[AD-D015694] 11 p3333 N93-29458
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

ORGANOMETALLIC POLYMERS
Water soluble polysiloxanes with pendant 1-oxypyridin-3-yl groups
[AD-A250637] 01 p0036 N93-10246
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188
Organometallic NLO polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the knoevenagel condensation
[AD-A250214] 02 p0265 N93-11192
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Tailored organometallic polymers
[AD-A262446] 10 p3004 N93-27697
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610

ORGANOMETALLIC VAPOR DEPOSITION
U METALORGANIC CHEMICAL VAPOR DEPOSITION

ORIENTATION
Apparatus for checking threaded hole perpendicularity
[NASA-CASE-LEW-15444-1] 04 p0882 N93-14840
Uncertainty in object pose determination with three light-stripe range measurements
[AD-A261435] 09 p2857 N93-26488

ORIFICE FLOW
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535
An analytical study of dilution jet mixing in a cylindrical duct
[NASA-TM-106181] 10 p2944 N93-27160

ORIFICES
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
Scientific predictability of solid rocket performance: Analyses of the processing parameters 03 p0526 N93-13824
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535

ORION AIRCRAFT
U P-3 AIRCRAFT

ORION CONSTELLATION
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
ORION NEBULA
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
ORNITHOPTER AIRCRAFT
U RESEARCH AIRCRAFT
OROGRAPHIC CLOUDS
U CAP CLOUDS
OROGRAPHY
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique 04 p0923 N93-15088
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Effects of Taiwan orography on the motion and structure of typhoons
[AD-A261819] 09 p2786 N93-26270
ORR-SOMMERFELD EQUATIONS
On the cross-stream spectral method for the Orr-Sommerfeld equation
[NASA-TM-107737] 09 p2845 N93-26086
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
ORRERIES
U ASTRONOMICAL MODELS
ORTHO PARA CONVERSION
Optimizing liquid hydrogen storage systems 07 p1879 N93-20692
ORTHOGONAL FUNCTIONS
NT WALSH FUNCTION
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials 01 p0045 N93-10470
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry 02 p0373 N93-12002
Estimation of EOF expansion coefficients from incomplete data
[AD-A255252] 03 p0697 N93-13886
Introduction to real orthogonal polynomials
[AD-A256448] 04 p0968 N93-14609
Strong sequentiality of left-linear overlapping rewriting systems
[CWI-CS-R9146] 05 p1267 N93-16721
An orthogonal estimation algorithm for complex number systems
[RR-405] 06 p1621 N93-18568
Multiresolution feature analysis and wavelet decomposition of atmospheric flows
[AD-A259420] 07 p1996 N93-20003
Discrete orthogonal wavelets
[REPT-91-45] 07 p2052 N93-20862
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
On transfinite abstract reduction systems
[CWI-CS-R9205] 10 p3117 N93-27550
Sobolev-type orthogonal polynomials with a small number of real zeros
[REPT-92-64] 12 p3806 N93-31549
ORTHOGONAL MULTIPLEXING THEORY
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
ORTHOGONALITY
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Introduction to real orthogonal polynomials
[AD-A256448] 04 p0968 N93-14609
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Inverse problems for orthogonal matrices, Toda flows, and signal processing
[AD-A258810] 06 p1647 N93-18987
A simple proof of confluence for weakly orthogonal combinatory reduction systems
[CWI-CS-R9234] 10 p3119 N93-27998
Study on various problems in statistical planning and inference
[AD-A262484] 11 p3554 N93-29411
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
Some new results for chain-sequence polynomials
[MEMO-1081] 12 p3806 N93-31515
ORTHONORMAL FUNCTIONS
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry 02 p0373 N93-12002
ORTHOPEDICS
Design of a portable powered seat lift 08 p2429 N93-22190
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
ORTHOPHOTOGRAPHY
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
ORTHOSTATIC TOLERANCE
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females
[NASA-TP-3298] 07 p2022 N93-20318
ORTHOTROPIC CYLINDERS
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads 09 p2726 N93-25533
ORTHOTROPIC PLATES
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
Consistent shear constitutive relations for laminated plates 01 p0028 N93-10509
Orthotropic circular plate on nonlinear elastic subgrade 01 p0053 N93-10513
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Fatigue resistance of orthotropic plates with trapezoidal stiffeners
[TRL-TRANS-T3908] 09 p2726 N93-25419
ORTHOTROPIC SHELLS
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges 01 p0045 N93-10471
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials 02 p0339 N93-12194
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition
[AD-A257733] 05 p1188 N93-17690
OSCILLATING CYLINDERS
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
OSCILLATING FLOW
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Mass transfer in oscillating flows: Efficient drying via pulse combustors
[PB92-204403] 01 p0081 N93-10449
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
OSCILLATION DAMPERS
Overview of the vibroimpact damping of packaged particles 01 p0056 N93-10528
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity
[DE92-018153] 03 p0707 N93-13090
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330
OSCILLATIONS
NT AIRFOIL OSCILLATIONS
NT ELECTRON OSCILLATIONS
NT HARMONIC OSCILLATION
NT HYDROFOIL OSCILLATIONS
NT MOLECULAR OSCILLATIONS
NT NONSTABILIZED OSCILLATION
NT PLASMA OSCILLATIONS
NT PRESSURE OSCILLATIONS
NT SELF OSCILLATION
NT SOLAR OSCILLATIONS
NT SOUTHERN OSCILLATION
NT STABLE OSCILLATIONS
NT STELLAR OSCILLATIONS
NT TRANSVERSE OSCILLATION
NT WING OSCILLATIONS
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Lift coefficient of a randomly oscillating hydroplane
[DRA/MAR-TM(MTH)-91320] 02 p0197 N93-11377
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Dynamics of planetary waves in the atmosphere 02 p0363 N93-11898
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity
[DE92-018153] 03 p0707 N93-13090
Nonlinear stability of combustion-driven acoustic oscillations in resonance tubes
[DE92-012153] 03 p0699 N93-13262
Neutrino(e) appearance for neutrino(mu)-neutrino(tau) oscillations in matter
[DE92-040303] 03 p0772 N93-13533
Parameter studies of helium-neon lasers at 543 nm 03 p0606 N93-13747
A laboratory investigation of raindrop oscillations 03 p0666 N93-13790
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
Low-frequency oscillations in radiative-convective models
[DE92-018779] 04 p0922 N93-14901
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
Weld pool oscillation during gas tungsten arc welding
[ETN-92-92796] 05 p1177 N93-16568
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
SSF loads and controllability during assembly 06 p1465 N93-18838
An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889
Aircraft landing gear shimmy 06 p1441 N93-19029
On oscillatory motion of a spring-mass system subjected to piecewise constant forces 07 p1934 N93-20670
Liquid oscillations under strong surface tension in a circular cylindrical container
[LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062

Learning characteristics of a space-time neural network as a tether skiprope observer 08 p2197 N93-22176
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
Experiments on a diode-laser-pumped Rb-87 maser 09 p2716 N93-25030
Controlling an optical frequency by a single ion 09 p2841 N93-25051
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Vortex shedding in oscillatory flow 09 p2700 N93-25438
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Substantiation of a stochastic model of rhythmic phenomena
[AD-A261232] 09 p2830 N93-26262
Galactic oscillations 10 p3188 N93-26808
A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Neutrino oscillations and a new Faraday effect
[DE93-606111] 11 p3571 N93-30789
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution. Appendix 7 --- Transform Domain Skiprope Observer for tethered satellites
[NASA-CR-192836] 12 p3756 N93-31041
Three-neutrino oscillations in matter and topological phases
[DE93-608386] 12 p3813 N93-31290
Coulomb-blockade oscillations in quantum dots and wires
[ETN-93-94055] 12 p3831 N93-31621
Irregular oscillations of the West Antarctic Ice Sheet 12 p3759 N93-31884
Massive neutrinos
[DE93-609989] 12 p3821 N93-32026
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

OSCILLATORS
NT CRYSTAL OSCILLATORS
NT HARMONIC OSCILLATORS
NT MAGNETRONS
NT MECHANICAL OSCILLATORS
NT MICROWAVE OSCILLATORS
NT PENDULUMS
NT PIEZOELECTRIC CRYSTALS
NT VOLTAGE CONTROLLED OSCILLATORS
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Singular perturbation methods for nonlinear dynamical systems and waves
[AD-A254116] 01 p0144 N93-10660
On some practical consideration of the electron beam breakup transit time oscillator
[DE92-017406] 02 p0445 N93-11919
Theory for a high power free electron laser and tactical applications
[AD-A255161] 02 p0323 N93-12405
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Transient x ray laser schemes at 1 millimicron and at 2 millimicron
[DE92-040670] 05 p1171 N93-15948
Improvement in the control aspect of laser frequency stabilization for SUNLITE project 05 p1175 N93-16798
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Time evolution of Caldirola-Kanai oscillators
[PREPRINT-846] 05 p1272 N93-17712
Suppression of mode-beating in a saturated hole-coupled FEL oscillator
[DE93-002554] 06 p1542 N93-19745
Study of the generalized parametric oscillator
[PREPRINT-815] 07 p2059 N93-21178
Simultaneous operation of a free-electron laser on two harmonically related wavelengths
[DE93-003745] 07 p1912 N93-21969
Optimization of the integration of inertia and GPS 08 p2120 N93-22787
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
DORIS precise orbit determination and location system performances of ultra stable oscillators 09 p2608 N93-24997
Miniaturization and stability: A new generation of ovenised oscillators 09 p2693 N93-25004
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard 09 p2842 N93-25058
Information transmission using CHAOS
[AD-A261519] 09 p2883 N93-26377
Mass spectra of the particle-antiparticle system with a Dirac oscillator interaction 10 p3146 N93-27351
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
A study of subterahertz HEMT monolithic oscillators 10 p3011 N93-27732
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Quasi-optical antenna-mixer-array design for terahertz frequencies 10 p3015 N93-27752
A quasioptical resonant-tunneling-diode oscillator operating above 200 GHz 10 p3017 N93-27764
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774
Transformation of the Kepler problem 10 p3156 N93-28088
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772
Bifurcations phenomena in a nonlinear oscillator: Approximate analytical studies versus computer simulation results 11 p3407 N93-29037
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084
An improved linear ion trap physics package 11 p3384 N93-29587
The flight performance of the Galileo orbiter USO 11 p3386 N93-29603
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
On the dynamics of aeroelastic oscillators with one degree of freedom
[REPT-92-96] 12 p3815 N93-31653
Steady states in the twin-well potential oscillator: Computer simulations and approximate analytical studies
[REPT-40/1992] 12 p3722 N93-32214

OSCILLOSCOPES
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145

OSEEN APPROXIMATION
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035

OSMOSIS
NT REVERSE OSMOSIS
Structure and thermodynamics of the soft ion model electrolyte solutions
[AD-A262293] 10 p3136 N93-28246

OSMOTIC PRESSURE
U OSMOSIS

OSO
Orbiting Space Interferometer (OSI): A first generation space interferometer 03 p0745 N93-13587
HARDI: A high angular resolution deployable interferometer for space 03 p0745 N93-13588
Support and servicing requirements for large observatories in space 03 p0746 N93-13589

OSPREY AIRCRAFT
U V-22 AIRCRAFT

OTF
U OPTICAL TRANSFER FUNCTION

OTOLITH ORGANS
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility
[NASA-CR-193304] 12 p3774 N93-32364

OTV
U ORBIT TRANSFER VEHICLES

OUTER RADIATION BELT
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Radiation belt dynamic and quasi-static modeling based on CRRES data: Outer-belt short-term response data base
[AD-A256483] 04 p0916 N93-14899

OUTER SPACE TREATY
The province and heritage of mankind reconsidered: A new beginning 03 p0681 N93-14018

OUTGASSING
Investigations of the effects of contamination on UV optics 01 p0159 N93-10949
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
The gas production rate of periodic comet d'Arrest 06 p1705 N93-19155
Lightcurve of comet Austin(1989c1) and its dust mantle development 06 p1707 N93-19167
Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237
Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances 06 p1717 N93-19240
Effects of spacecraft materials outgassing products on cryogenic surfaces
[AD-A262671] 10 p2963 N93-27686
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
Return flux experiment 11 p3266 N93-28727

OUTLET FLOW
Effects of cooling-air injection on secondary flows and losses in a turbine cascade
[NAL-TR-1121T] 02 p0307 N93-12382
Gas storage and recovery system
[NASA-CASE-MSC-22091-1] 10 p3021 N93-28136

OUTLETS
NT VENTS

OUTLETS (GEOLOGY)
U ESTUARIES

OUTLIERS (STATISTICS)
Identification of significant outliers in time series data
[AD-A262437] 10 p3125 N93-27659

OUTPUT
NT CARDIAC OUTPUT
NT LASER OUTPUTS
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164

OVER-THE-HORIZON RADAR
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Obtaining medians and other quantiles with limited memory space
[AD-A254506] 03 p0683 N93-12722
OTH-B radar system: System summary
[AD-A261727] 09 p2681 N93-26247

High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
Characteristics of high-frequency signals, noise, availability, and duration of bandwidths based on ROTHR Amchitka spectrum measurements
[AD-A264480] 11 p3393 N93-30423

OVERCAST
U CLOUD COVER

OVERPRESSURE
Measurement and evaluation of blast overpressure during F-15A crew station vulnerability assessment test
[AD-A257152] 05 p1227 N93-16033
Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532

OVERTONES
U HARMONICS

OXALATES
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037

OXIDASE
Inorganic and biological electron transfer across an electronically conductive composite polymer membrane
[AD-A261642] 09 p2656 N93-26172

OXIDATION
NT ELECTROCHEMICAL OXIDATION
NT PHOTOOXIDATION
NT RUSTING
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Some results of the oxidation investigation of copper and silver samples flown on LDEF
01 p0034 N93-10580
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Additional results on space environmental effects on polymer matrix composites: Experiment A0180
01 p0038 N93-10586
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
Near-IR absorption spectra for the C70 fullerene anions
[AD-A253658] 02 p0246 N93-11280
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441
Influence of surface defects and local structure on oxygenate reaction pathways over metal oxide surfaces
[DE92-040013] 03 p0539 N93-13573
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
The isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
04 p0913 N93-14207
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516
Homogeneous-heterogeneous combustion: Thermal and chemical coupling
[DE93-002881] 05 p1100 N93-15840
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
C-13 solid-state NMR study of ethylene oxidation over supported silver catalysts
[DE92-040584] 05 p1102 N93-16016
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
Stability of metal particle and metal particulate media
05 p1170 N93-16329
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Oxidation and volatilization of a niobium alloy
[DE93-001927] 05 p1116 N93-17392
Study of the different oxidation states of nickel base superalloys
[ETN-92-92555] 05 p1116 N93-17495
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
The development of new, low-cost perfluoroalkylether fluids with excellent low and high-temperature properties
[NASA-CR-190865] 06 p1492 N93-18229
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-192306] 07 p1847 N93-20756
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Mechanisms and controlling characteristics of the catalytic oxidation of methane
[DE93-005719] 07 p1852 N93-21835
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
The surface interaction of oxygen with a gamma TiAl
[DE93-003847] 08 p2227 N93-22517
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Direct conversion of light hydrocarbon gases to liquid fuel
[DE93-004916] 08 p2245 N93-23321
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
Hydrazine decay in the atmosphere: Controlled-environment chamber studies and kinetic modeling
[AD-A260252] 08 p2389 N93-24165
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Direct methane conversion to methanol
[DE93-009183] 09 p2660 N93-25497
Mechanisms of decomposition and oxidation of borane compounds
[AD-A261137] 09 p2645 N93-26045
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
Development of vanadium-phosphate catalysts for methanol production by selective oxidation of methane
[DE93-012568] 10 p2996 N93-28374
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates
[AD-A262762] 11 p3493 N93-28939
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Thermal oxidation of HCN by NO2 in shock waves
11 p3318 N93-30064
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962
New directions for the catalytic conversion of methane
[PB93-188795] 12 p3702 N93-31435
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938
Chemical reactivity of the Martian soil
12 p3867 N93-31963
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367

OXIDATION RESISTANCE
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344

Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
High temperature oxidation protection of carbon/carbon composites
[REPT-921-430-105] 02 p0239 N93-11589
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Environmental effects on iron aluminides
[DE92-016341] 03 p0542 N93-13237
Study of the different oxidation states of nickel base superalloys
[ETN-92-92555] 05 p1116 N93-17495
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-1] 06 p1495 N93-19332
Atomic oxygen protective coating with resistance to undercutting at defect sites
[NASA-CASE-LEW-15306-1] 07 p1859 N93-20566
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe
07 p1838 N93-21160
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A]
07 p1783 N93-21479
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718
Sputter ion plating on Ti6Al4V and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Metal alloy and method of preparation thereof
[AD-D015670] 09 p2652 N93-26234
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Exploration of multilayer concepts for oxidation protection of carbon-carbon composites
[AD-A262380] 10 p2991 N93-27653
Method for retarding oxidation of an organic substrate
[NASA-CASE-LEW-15306-2] 10 p3006 N93-28425
Ultrahigh temperature assessment study: Ceramic matrix composites
[AD-A262740] 11 p3295 N93-28592
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
High temperature, oxidation resistant noble metal-Al alloy thermocouple
[NASA-CASE-LEW-15515-1] 12 p3729 N93-31298
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-2] 12 p3708 N93-31300

OXIDATION-REDUCTION REACTIONS

The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Methane oxidation over dual redox catalysts
[DE92-012454] 08 p2217 N93-22431
Carbon dioxide, climate, and the deep ocean circulation: Carbon chemistry model
[DE93-005061] 08 p2383 N93-22602
Integrated oxygen recovery system
[NASA-CR-192343] 08 p2426 N93-22663
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073
Electron conducting adducts of water-soluble redox polyelectrolytes and enzymes
[AD-A259938] 08 p2241 N93-24154
Correlations between the ligand electrochemical parameter, E(sub L)(L) and the Hammett substituent parameter sigma
[AD-A260299] 08 p2223 N93-24264
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
Integrated oxygen recovery system
[NASA-CR-192982] 09 p2801 N93-26088
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Stability and reactivity of dimethylethoxysilane
10 p2997 N93-28258
Development of vanadium-phosphate catalysts for methanol production by selective oxidation of methane
[DE93-012568] 10 p2996 N93-28374
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797

OXIDE FILMS

Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
New electronic materials
[AD-A255612] 04 p0868 N93-15010
The chemical potential from extrinsic ions in oxide films on aluminum
[DE92-041313] 05 p1118 N93-15667
Evaluation of cerium oxide coated Cu cermets as inert anodes for aluminum electrowinning
[DE92-019333] 05 p1126 N93-17173
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Textured coatings from colloidal suspensions of faceted oxide microcrystals
[DE93-006601] 08 p2240 N93-24033
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090
Corrosion-erosion of alloys exposed in fluidised bed combustors
[NPL-DMM(A)-80] 12 p3705 N93-31602
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Affecting factors to the electrical properties of RuO2 thick-film resistors
[DE93-768332] 12 p3721 N93-32055

OXIDES

NT ALUMINUM OXIDES
NT ANHYDRIDES
NT BARIUM OXIDES
NT BERYLLIUM OXIDES
NT BISMUTH OXIDES
NT BORON OXIDES
NT BSCCO SUPERCONDUCTORS
NT CALCIUM OXIDES
NT CARBON DIOXIDE
NT CARBON MONOXIDE
NT CERIUM OXIDES
NT CHLORINE OXIDES
NT CHROMIUM OXIDES
NT COBALT OXIDES
NT COESITE
NT COPPER OXIDES
NT DIOXIDES
NT GALLIUM OXIDES
NT GERMANIUM OXIDES
NT HEMATITE
NT HYDROGEN PEROXIDE
NT ILMENITE
NT INORGANIC PEROXIDES
NT IRON OXIDES
NT LANTHANUM OXIDES
NT LEAD OXIDES
NT LITHIUM OXIDES
NT MAGNESIUM OXIDES
NT MANGANESE OXIDES
NT METAL OXIDES
NT MIXED OXIDES
NT MOLYBDENUM OXIDES
NT NICKEL OXIDES
NT NITRIC OXIDE
NT NITROGEN DIOXIDE
NT NITROGEN OXIDES
NT NITROUS OXIDES
NT ORGANIC PEROXIDES
NT PEROXIDES
NT PYROXENES
NT QUARTZ
NT RUTILE
NT SAPPHIRE

NT SILICON DIOXIDE
NT SILICON OXIDES
NT STISHOVITE
NT STRONTIUM OXIDES
NT SULFUR DIOXIDES
NT SULFUR OXIDES
NT TIN OXIDES
NT TITANIUM OXIDES
NT TUNGSTEN OXIDES
NT URANIUM OXIDES
NT VANADIUM OXIDES
NT YBCO SUPERCONDUCTORS
NT YTTRIUM OXIDES
NT ZINC OXIDES
NT ZIRCONIUM OXIDES
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
VLSI design for reliability - hot electron
[AD-A253942] 01 p0074 N93-10715
Sealant research for solid oxide fuel cells
[DE92-019044] 02 p0345 N93-11513
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
Lunar cement 05 p1382 N93-16897
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19632
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
The Westinghouse solid oxide fuel cell program: Clean, efficient energy for the future
[DE93-003487] 08 p2380 N93-23287
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Experimental study of the electrolysis of silicate melts 10 p2997 N93-26679
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Guanidine based vehicle/binders for use with oxides, metals, and ceramics
[NASA-CASE-LEW-15314-2] 10 p3006 N93-28423
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844

OXIDIZERS
NT LIQUID OXIDIZERS
NT LIQUID OXYGEN
NT PHOTOCHEMICAL OXIDANTS
NT ROCKET OXIDIZERS
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718
Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

OXOSILANES
U POLYSILANES

OXYFLUORIDES
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105

OXYGEN
NT LIQUID OXYGEN
NT OXYGEN ISOTOPES
NT OXYGEN 18
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
Comparisons of molecular sieve oxygen concentrators for potential medical use aboard commercial aircraft
[AD-A253648] 02 p0387 N93-11279
Selective carbon oxygen bond scission during reactions of oxygenates on single crystal catalysts
[DE92-018687] 02 p0247 N93-11439
An NMR study of the occupation of C(sub 60) interstitial sites by oxygen molecules
[DE92-019436] 02 p0437 N93-11640
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
Oxygen electrode reaction in molten carbonate fuel cells
[DE92-040180] 03 p0636 N93-12812
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Lunar mining of oxygen using fluorine
[LPI-CONTRIB-748] 03 p0761 N93-13980
Postoperative hyperbaric oxygen treatment of peripheral nerve damage
[AD-A255842] 03 p0676 N93-14084
Near-infrared oxygen airglow from the Venus nightside 04 p1026 N93-14308
High-temperature, high-pressure oxygen metering valve
[NASA-CASE-MSC-21823-1] 04 p0891 N93-14843
Heteroepitaxial diamond growth
[AD-A257356] 05 p1317 N93-16175
Nifedipine for treatment of high altitude pulmonary edema
[AD-A256959] 05 p1225 N93-16187
Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839
Processing lunar soils for oxygen and other materials 05 p1381 N93-16889
Oxygen from the lunar soil by molten silicate electrolysis 05 p1382 N93-16890
Vapor phase pyrolysis 05 p1108 N93-16891
Plasma separation 05 p1313 N93-16892
Processing of metal and oxygen from lunar deposits 05 p1382 N93-16895
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
The surface interaction of oxygen with a gamma TiAl
[DE93-003847] 08 p2227 N93-22517
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions 08 p2249 N93-22850
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Non-adiabatic curve crossings in dissociative electron attachment of condensed O2
[AD-A262129] 10 p2995 N93-28186
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828
Vibrational spectroscopy of shock-compressed fluids 11 p3318 N93-30072
Dioxygen reduction in various acid electrolytes
[AD-A263564] 11 p3317 N93-30664
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089

OXYGEN AFTERGLOW
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137

OXYGEN ANALYZERS
Test and evaluation report of the Catalyst Research Oxygen Monitor, Model Miniox 3
[AD-A255849] 04 p0881 N93-14105

OXYGEN ATOMS
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
LDEF atomic oxygen fluence update 03 p0546 N93-12771
LDEF yaw and pitch angle estimates 03 p0524 N93-12772
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications 03 p0656 N93-13784
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
A study of mid-latitude 5577 A OI dayglow emissions 04 p0913 N93-14199

The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Low Earth orbit atomic oxygen simulation for durability evaluation of solar reflector surfaces
04 p0819 N93-15594
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Method and apparatus for producing a thermal atomic oxygen beam
[NASA-CASE-LEW-15614-1] 06 p1656 N93-19026
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Atomic oxygen protective coating with resistance to undercutting at defect sites
[NASA-CASE-LEW-15306-1] 07 p1859 N93-20566
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
Long Duration Space Materials Exposure (LDSE)
08 p2189 N93-22638
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Mechanisms of decomposition and oxidation of borane compounds
[AD-A261137] 09 p2645 N93-26045
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
A study of the UV and VUV degradation of FEP
10 p3007 N93-28261
LDEF fiber-composite materials characterization
10 p2992 N93-28264
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel
10 p2992 N93-28265
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
An XPS study of space-exposed polyimide film
10 p3007 N93-28267
Surface characterization of selected LDEF tray clamps
10 p3001 N93-28271
Optical characterization of LDEF contaminant film
10 p3149 N93-28274
LDEF thermal control coatings post-flight analysis
10 p3008 N93-28278
Atomic oxygen effects on LDEF experiment AO171
10 p3138 N93-28281
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF
10 p3008 N93-28282
Second LDEF Post-Retrieval Symposium interim results of experiment A0034 10 p3008 N93-28283
The interaction of atomic oxygen with copper: An XPS, AES, XRD, optical transmission, and stylus profilometry study 10 p3149 N93-28284
Method for retarding oxidation of an organic substrate
[NASA-CASE-LEW-15306-2] 10 p3006 N93-28425
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561
Method for preparation of a microporous structure with layered interstitial surface treatment
[NASA-CASE-MSC-21487-2] 11 p3296 N93-29023
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1
[NASA-TM-108408] 11 p3331 N93-29193
Damage areas on selected LDEF aluminum surfaces
11 p3283 N93-29374
Refinements on the pinhole camera measurements of the LDEF attitude 11 p3283 N93-29622
LDEF microenvironments, observed and predicted
11 p3283 N93-29623
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558

OXYGEN COMPOUNDS
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091

OXYGEN DEFICIENCY
U HYPOXIA

OXYGEN DETECTORS
U OXYGEN ANALYZERS

OXYGEN IONS
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-000600] 05 p1306 N93-15697
Apical oxygen ions and the electronic structure of the high T(sub c) cuprates
[PREPRINT-828] 05 p1324 N93-17223
Low-energy measurements of electron capture by multicharged ions from excited hydrogen atoms
[DE93-001642] 05 p1292 N93-17345
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Space plasma physics research
[NASA-CR-192158] 06 p1665 N93-18404
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388

OXYGEN ISOTOPES
NT OXYGEN 18
Isotopic composition of galactic cosmic ray boron, carbon, nitrogen, and oxygen 04 p1020 N93-14866
New techniques for positron emission tomography in the study of human neurological disorders
[DE93-002098] 05 p1224 N93-15900
Magnetic susceptibility variations in Loess sequences and their relationship to astronomical forcing
06 p1580 N93-18967
Orbital tuning of marine sedimentary cores: An automatic procedure based on a general linear model
[MPIM-79] 08 p2415 N93-23856
Oxygen isotopes implanted in the LDEF spacecraft
10 p2997 N93-28256
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882
Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites
12 p3867 N93-31962

OXYGEN MASKS
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757

OXYGEN PLASMA
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Resonant membrane spatial light modulators
[AD-A253893] 02 p0252 N93-12186
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
04 p0819 N93-15597
Oxygen plasma resistant phosphine oxide containing imide/arylene copolymers
[NASA-TM-107712] 07 p1859 N93-20300
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505

OXYGEN PRODUCTION
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
Impact of lunar oxygen production on direct manned Mars missions 03 p0540 N93-13984
In-situ lunar oxygen extraction
04 p0806 N93-14929
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
Lunar beneficiation 05 p1381 N93-16887
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Application of manufactured products
05 p1383 N93-16902
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Electromagnetic launch of lunar material
05 p1384 N93-16914
Lunar resource assessment: An industry perspective
05 p1387 N93-17246
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
Lunar resources: Oxygen from rocks and soil
06 p1735 N93-18787
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-26675
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Innovative techniques for the production of energetic radicals for lunar processing including cold plasma processing of local planetary ores
10 p2997 N93-26677
Oxygen and iron production by electrolytic smelting of lunar soil 10 p2997 N93-26678
Experimental study of the electrolysis of silicate melts
10 p2997 N93-26679
Lunar mining of oxygen using fluorine
10 p2997 N93-26680
Oxygen production on Mars and the Moon
10 p3021 N93-26683
Modeling, simulation, and high-autonomy control of a Martian oxygen production plant
10 p3021 N93-26693
Development of a material processing plant for lunar soil 10 p3021 N93-26694
Full system engineering design and operation of an oxygen plant 10 p3021 N93-26696
An integrated database with system optimization and design features 10 p3168 N93-26697
Comparison of portable crewmember protective breathing equipment (CPBE) designs
[DOT/FAA/AM-93/6] 10 p3086 N93-27121
Space Station propulsion integrated propulsion test article 10 p2970 N93-27818
SPE (tm) electrolyzers for space propulsion
10 p2970 N93-27819
Electrical power integration for lunar operations
10 p2988 N93-27966
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Options for a lunar base surface architecture
10 p3214 N93-27974
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464
Benefits of in situ propellant utilization for a Mars sample return mission
[NASA-TM-106243] 11 p3341 N93-28695
Alkali metal carbon dioxide electrochemical system for energy storage and/or conversion of carbon dioxide to oxygen
[NASA-CASE-LEW-14973-1] 11 p3464 N93-28974
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Method for producing oxygen from lunar materials
[NASA-CASE-MSC-21759-1] 11 p3312 N93-29617

OXYGEN SPECTRA
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
Observations of comet Levy 1990c in the (OI) 6300-A line with an imaging Fabry-Perot
06 p1698 N93-19224

Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
Gravity waves from O2 airglow 09 p2772 N93-25547

OXYGEN SUPPLY EQUIPMENT
NT OXYGEN MASKS
Study on environment control and life support technology 07 p1789 N93-20413
Integrated oxygen recovery system
[NASA-CR-192343] 08 p2426 N93-22663
Integrated oxygen recovery system
[NASA-CR-192982] 09 p2801 N93-26088
Comparison of portable crewmember protective breathing equipment (CPBE) designs
[DOT/FAA/AM-93/6] 10 p3086 N93-27121
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649

OXYGEN SYSTEMS
U OXYGEN SUPPLY EQUIPMENT

OXYGEN 18
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Comparison of total body water estimates from O-18 and bioelectrical response prediction equations
[NASA-TP-3299] 08 p2421 N93-23734

OXYGEN-HYDROCARBON ROCKET ENGINES
Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code 02 p0247 N93-11450
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535
Propulsion technology discipline 10 p2973 N93-27863
Advanced Earth-to-orbit propulsion technology information, dissemination and research
[NASA-CR-192561] 11 p3287 N93-28680

OXYGENATION
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968

OZONE
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Ozone and temperature trends 02 p0350 N93-11089
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Ozone depletion and chlorine loading potentials 02 p0351 N93-11093
Future chlorine-bromine loading and ozone depletion 02 p0352 N93-11095
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Reinterpretation of ozone data from Base Roi Baudouin (Antarctica)
[AERONOMICA-ACTA-A-365] 02 p0352 N93-11127
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677
Atmospheric reactive nitrogen: A model study of natural and anthropogenic sources and the role of microbial soil emissions
[DE92-010717] 02 p0354 N93-11744
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
Absolute absorption cross sections of ozone at 300 K, 228 K and 195 K in the wavelength region 185-240 nm
[NASA-CR-191267] 03 p0645 N93-13274
An investigation of the processes controlling ozone in the upper stratosphere
[DE92-019621] 03 p0645 N93-13615
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications 03 p0656 N93-13784
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses 03 p0657 N93-13796
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Indoor ozone concentrations: Ventilation rate impacts and mechanisms of outdoor concentration attenuation
[DE93-000633] 05 p1205 N93-17576
Reports to the nation on our changing planet. Fall 1992, no. 2: Our ozone shield
[NASA-CR-190953] 06 p1573 N93-18438
Studies of ozone deposition 07 p1989 N93-20166
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Atlanta ozone precursor monitoring study data report
[PB92-220656] 07 p1991 N93-21495
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Global ozone monitoring experiment 08 p2364 N93-23793
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
Simulation of the formation and transport of ozone in the atmospheric boundary layer
[ESA-TT-1243] 08 p2402 N93-24615
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
Kelvin waves in total column ozone
[NASA-CR-192984] 09 p2764 N93-25431
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations 09 p2784 N93-25741
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Derivation of total ozone amount from NOAA/TOVS data 10 p3071 N93-26997
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Study to determine the nature and extent of ozone and ozone precursor transport in selected areas of California
[PB93-184828] 11 p3470 N93-29669
Potential effects of HFC-152a on global ozone and climate
[DE93-008018] 11 p3471 N93-29792
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
Making clean gasoline: The effect on jet fuels
[AD-A264302] 12 p3713 N93-32085
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

OZONE DEPLETION
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Ozone depletion and chlorine loading potentials 02 p0351 N93-11093
Radiative forcing of climate 02 p0351 N93-11094
Future chlorine-bromine loading and ozone depletion 02 p0352 N93-11095
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Ultraviolet radiation changes 02 p0352 N93-11098
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
A computer simulation of ecosystem processes in forests for application to air pollution, acid precipitation, and global change
[DE92-019616] 03 p0643 N93-12927
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
An experimental and theoretical study of degradation pathways for atmospheric halocarbons 03 p0646 N93-13624
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Reports to the nation on our changing planet. Fall 1992, no. 2: Our ozone shield
[NASA-CR-190953] 06 p1573 N93-18438
Trends in middle-atmosphere ozone 06 p1575 N93-18500
Studies of ozone deposition 07 p1989 N93-20166
Climatological study of ozone in the boundary layer above Belgium
[MISC-SER-A-127] 07 p1989 N93-20925
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
Global ozone monitoring experiment 08 p2364 N93-23793
Millimeter wave Atmospheric Sounder (MAS) 08 p2364 N93-23795
The quasi-biennial oscillation in the middle atmosphere 08 p2397 N93-23965

An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations
[RAND/N-3464-AF] 09 p2767 N93-26327
Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519
Advanced Earth Observing Satellite (ADEOS)
11 p3279 N93-29648
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671

OZONE HOLES
U OZONE DEPLETION

OZONE LAYER
U OZONOSPHERE

OZONOMETRY
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
Absolute absorption cross sections of ozone at 300 K, 228 K and 195 K in the wavelength region 185-240 nm
[NASA-CR-191267] 03 p0645 N93-13274
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Atlanta ozone precursor monitoring study data report
[PB92-220656] 07 p1991 N93-21495
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200

OZONOSPHERE
Ozone depletion and chlorine loading potentials
02 p0351 N93-11093
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Radiative transfer in the middle atmosphere
03 p0652 N93-13482
An investigation of the processes controlling ozone in the upper stratosphere
[DE92-019621] 03 p0645 N93-13615
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Energy and global warming impacts of CFC alternative technologies for foam building insulations
[DE92-019477] 05 p1200 N93-16085
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic)
06 p1584 N93-19555
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
Rossby-gravity waves in tropical total ozone data
[NASA-CR-192983] 09 p2764 N93-25432
Results from the US/Russian Meteor-3/Total Ozone Mapping Spectrometer
[NASA-TM-104576] 11 p3467 N93-28682
Advanced Earth Observing Satellite (ADEOS)
11 p3279 N93-29648

P

P WAVES
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure
04 p0913 N93-14225
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Analysis of seismograms from nuclear explosions of known yield at Degelen Mountain and Konystan in east Kazakhstan, USSR
[AWE-O-2/92] 10 p3073 N93-27703
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412

P-I-N DIODES
U DIODES
U P-I-N JUNCTIONS

P-I-N JUNCTIONS
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special 03 p0509 N93-13166
High speed imaging for flash radiography using PIN diodes
[DE92-040959] 04 p0882 N93-15381
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Infrared-induced photoconductivity and electroluminescence in forward-biased a-Si:H pin-diodes
[MBB-Z-0376-91-PUB] 06 p1671 N93-18092
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
Study of the compatibility of PIN detector circuits and field effect transistors. Extension to high mobility and one dimensional electron gas transitors
[LAAS-92242] 08 p2283 N93-23863
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000072] 09 p2862 N93-25163
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Study of the Staebler-Wronski degradation effect in a-Si:H based p-i-n solar cell
[NASA-CR-193076] 10 p3066 N93-28406
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500

P-N JUNCTIONS
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
GaAs gate dynamic memory technology
[AD-A254801] 03 p0720 N93-12748
Investigation of microgravity effects on solidification phenomena of selected materials
03 p0510 N93-13168
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962

P-TYPE SEMICONDUCTORS
Impact sensitivity reduction via exo-electron control
01 p0015 N93-10004
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Study and development of ohmic contacts on n and p type indium phosphide by autocatalytic chemical deposition of metals and alloys
[ECL-92-23] 07 p1856 N93-20062
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000072] 09 p2862 N93-25163

P-3 AIRCRAFT
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553

PACE
U PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE

PACIFIC ISLANDS
NT JAPAN
NT NEW ZEALAND
NT PHILIPPINES
Atoll Research Bulletin numbers 355-364: 40th anniversary issue
[PB93-169654] 10 p3062 N93-27421

PACIFIC OCEAN
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE92-011856] 01 p0128 N93-10621
Evaluation of Seasat/Geosat orbits and altimetry with application to long-term sea level changes in the North Pacific 01 p0103 N93-10847
Lessons drawn from 2 existing satellite networks: ARABSAT and EUTELSAT. Application to the Pacific basin projects
[REPT-921-440-101] 02 p0282 N93-11591
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion
03 p0652 N93-13481
Deep convection and its relation to the large-scale circulation in the tropical Pacific
03 p0654 N93-13725
Modeling and observations of deep circulation in the eastern South Pacific Ocean 03 p0670 N93-13841
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
Internal gravity waves in the equatorial Pacific
[DE93-001517] 05 p1211 N93-17653
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns
07 p2007 N93-20092
Tropical Pacific moisture variability
07 p2007 N93-20093
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
[MPIM-76] 08 p2396 N93-23635
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226

Measurements of nitric acid, carboxylic acids, and selected aerosol species for the NASA/GTE Pacific Mission - West (PEM-WEST)
[NASA-CR-192976] 09 p2763 N93-25287
Tropical cyclogenesis in the western North Pacific
09 p2783 N93-25714
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region
10 p3022 N93-26641
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method
10 p3074 N93-28249
Wave information studies of US coastlines: Verification of Pacific Ocean deepwater hindcast wave information
[AD-A262714] 10 p3081 N93-28396
Upper ocean model of dissolved atmospheric gases
[DE93-010151] 11 p3487 N93-29327
Fugitive hydrocarbon emissions from Pacific OCS facilities. Volume 2: Executive summary and user's guide
[PB93-173805-VOL-2] 11 p3471 N93-29861
Analysis of a simulation of the seasonal cycle in the tropical Pacific Ocean in an eddy-resolving global ocean model
[AD-A264007] 11 p3488 N93-29977
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056
Measurements of ocean currents across the continental margin off Point Sur, California, during March 1989
[AD-A264853] 11 p3489 N93-30178
Total CO2 and nitrate measurements in the southwest pacific during austral autumn, 1990
[PB93-188415] 12 p3769 N93-31333

PACKAGES
NT EREP
NT INSTRUMENT PACKAGES
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213

PACKAGING
NT ELECTRONIC PACKAGING
Battery selection for space experiments
03 p0512 N93-13184
Integrated test and package methods for integrated photonics
[DE93-000748] 05 p1145 N93-16230
Performance oriented packaging testing for liquid propellant, XM1846
[AD-A258430] 06 p1496 N93-17865
Design and packaging of fault tolerant optoelectronic multiprocessor computing system
[AD-A260051] 08 p2442 N93-24407
Instrumentation for measurement of gas permeability of polymeric membranes 09 p2720 N93-25609
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527

PACKET SWITCHING
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
On-board B-ISDN fast packet switching architectures. Phase 1: Study
[NASA-CR-189144] 06 p1457 N93-18703
A robust coding scheme for packet video
07 p1881 N93-20174
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Fault-tolerant onboard digital information switching and routing for communications satellites
[NASA-TM-4471] 10 p2956 N93-26895
On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884

PACKET TRANSMISSION
NT ALOHA SYSTEM
High performance interconnection between high data rate networks 02 p0279 N93-11118
A simple, effective media access protocol system for integrated, high data rate networks
02 p0279 N93-11119
A current assessment of single site locating technology 08 p2267 N93-23608

PACKETS (COMMUNICATION)
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
Flow control using the theory of zero sum Markov games
[INRIA-RR-1597] 11 p3553 N93-28507
On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884

PACKING
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991

PACKING DENSITY
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478

PAIN
The effect of pain on task performance: A review of the literature
[AD-A254336] 04 p0938 N93-15216

PAINTS
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Removal of THD from painted test panels by liquid systems
[AD-A255624] 04 p0850 N93-15064
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
Progress report on conductive paints, 3 August - 30 September 1992
[DE93-001353] 06 p1494 N93-18530
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561

PAIR PRODUCTION
Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992
[PB92-181106] 02 p0438 N93-11715
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
Research in elementary particle physics
[DE92-017869] 03 p0704 N93-13251
Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Dynamical approach to pair production from strong fields
[DE92-040224] 05 p1283 N93-16011
Theory working group: Summary of the results
[PREPRINT-803] 05 p1297 N93-16423
QCD corrections to Z pair hadronic production
[PREPRINT-832] 05 p1288 N93-16954
An introduction to the pair-reflection model of X-ray spectra in AGN's 05 p1367 N93-17110
Muon rates at the LHC
[NOTA-INTERNA-971] 05 p1300 N93-17645
Study of electroweak interactions
[DE93-004367] 07 p2061 N93-20385
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-810] 07 p2062 N93-20923
The discovery of the tau lepton
[DE93-004013] 07 p2063 N93-21718
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
Pion pair production in photon-photon collisions
[DE93-606114] 11 p3571 N93-30790
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792

PAKISTAN SPACE PROGRAM
Pakistan Space and Upper Atmosphere Research Commission 07 p1819 N93-21285

PALAPA SATELLITES
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659

PALEOCLIMATOLOGY
How life affects the geochemical cycle of carbon
[NASA-CR-191241] 03 p0644 N93-13031
Atmospheric, climatic and environmental research
[NASA-CR-191367] 03 p0664 N93-13718
Sensitivity of climate models: Comparison of simulated and observed patterns for past climates
[DE93-000893] 05 p1201 N93-16176
Geodynamic contributions to global climatic change
06 p1575 N93-18963
Precessional quantities for the Earth over 10 Myr
06 p1579 N93-18964
Variations of the Milankovitch frequencies in time
06 p1580 N93-18966
Ice ages and geomagnetic reversals
06 p1580 N93-18968
Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972
A gas extraction system for the measurement of carbon dioxide and carbon isotopes in polar ice cores
[DE93-005289] 08 p2412 N93-22225
Drill/borescope system for the Mars Polar Pathfinder
11 p3647 N93-28805
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
Macrofossil records of West Antarctic Ice Sheet retreat during the Holocene 12 p3759 N93-31881
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883

PALEOMAGNETISM
Magnetic susceptibility variations in Loess sequences and their relationship to astronomical forcing
06 p1580 N93-18967

PALLADIUM
Palladium-chromium static strain gages for high temperatures 03 p0600 N93-13671
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115

PALLADIUM ALLOYS
The direct Monte Carlo method for calculating alloy phases
[DE93-000436] 05 p1113 N93-16450
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532

PALLADIUM COMPOUNDS
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623

PAN (POLYACRYLONITRILE)
U POLYACRYLONITRILE

PANEL FLUTTER
A finite element method for nonlinear panel flutter
01 p0045 N93-10472
Control of panel flutter at high supersonic speed
01 p0009 N93-10900
Hypersonic panel flutter in a rarefied atmosphere
03 p0505 N93-13928
Hypersonic panel flutter in a rarefied atmosphere
[NASA-CR-4514] 10 p2929 N93-27084

PANEL METHOD (FLUID DYNAMICS)
A field panel method for transonic flows
01 p0006 N93-10547
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205

Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other 03 p0591 N93-13920
Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567
Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565
The influence of the rotor test facilities ROTEST and ROTOS on the rotor inflow
[DLR-MITT-91-16] 07 p1785 N93-21173
Further development of the CANAERO computer code to include a time-stepping capability
[DREA-CR-91-478] 07 p2042 N93-21820
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171
Panel methods for aerodynamic analysis and design
[NLR-TP-91404-U] 12 p3674 N93-32357

PANELS
NT CURVED PANELS
NT RECTANGULAR PANELS
NT WING PANELS
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
Removal of THD from painted test panels by liquid systems
[AD-A255624] 04 p0850 N93-15064
Acoustically induced vibration of platform mounted equipment containing printed circuit boards 05 p1082 N93-15762
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications 05 p1085 N93-15780
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Sun sensor implementation using solar power arrays
[AD-A257627] 05 p1198 N93-17717
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
Sandwiched structural panel having a bi-directional core structure
[NASA-CASE-MFS-28796-1] 06 p1479 N93-19022
Liquid crystal displays replacing the CRT and CLE of future cockpits 06 p1447 N93-19783
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Automating an orbiter approach to Space Station Freedom to minimize plume impingement 08 p2149 N93-22305
Interagency Advanced Power Group Solar Photovoltaic Panel Fall Meeting minutes
[DE93-006188] 08 p2376 N93-22330
Modeling the heat release rate of aircraft cabin panels
[DOT/FAA/CT-92/3] 08 p2118 N93-23222
A review of design and manufacturing methodologies for stiffened composite panels used in aircraft 08 p2128 N93-23943
A computational approach to predicting the extent of arc root damage in CFC panels 09 p2642 N93-24890
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Multi-parameter optimization tool for low-cost commercial fuselage crown designs 11 p3305 N93-30658
Comparison of hand laid-up tape and filament wound composite cylinders and panels with and without impact damage 11 p3306 N93-30859
Optimization of composite sandwich cover panels subjected to compressive loadings 11 p3306 N93-30862
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864

PANORAMIC CAMERAS
Preliminary results from the ROSAT WFC all sky survey: A sample of low galactic column density AGN's 05 p1362 N93-17131
Geology of the Apollo 17 site 06 p1738 N93-18803

PANT PROGRAM
Shape-stable reentry body nose tip
[AD-D015437] 04 p0817 N93-14725

PARABOLAS
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363

PARABOLIC ANTENNAS
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598
Wide-angle radiation pattern calculation of paraboloidal reflector antennas: A comparative study
[EUT-91-E-252] 10 p3026 N93-27226
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746

PARABOLIC BODIES
Current displacement in parabolic cylinder
[ETN-93-93423] 08 p2278 N93-22681
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359

PARABOLIC DIFFERENTIAL EQUATIONS
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Efficient solution of parabolic equations by Krylov approximation methods
[NASA-CR-191235] 03 p0697 N93-13409
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
Parabolized Navier-Stokes methods for hypersonic flows 06 p1529 N93-18565
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
Kernel Optimum Nearly-analytical Discretization (KOND) algorithm applied to parabolic and hyperbolic equations
[NIFS-191] 07 p2033 N93-20548
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766

PARABOLIC FLIGHT
Automatic control laws for aircraft in parabolic flight
[DILC-EST-TR-211] 02 p0214 N93-11160
Acceleration levels on the KC-135 07 p1784 N93-21124
Polyreactions in microgravity environment 08 p2251 N93-22859

PARABOLIC REFLECTORS
NT PARABOLOID MIRRORS
Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors 10 p2971 N93-27841
A satellite-tracking millimeter-wave reflector antenna system for mobile satellite-tracking
[NASA-CASE-NPO-18772-1-CU] 11 p3381 N93-28955
Array-fed reflector systems with limited scan 11 p3371 N93-30318

PARABOLIC VELOCITY
U ESCAPE VELOCITY

PARABOLOID MIRRORS
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752

PARABOLOIDS
U PARABOLIC BODIES

PARACHUTE DESCENT
A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121

PARACHUTE FABRICS
Ribless ram air parachute
[AD-D015351] 02 p0195 N93-11050
High efficiency, low weight and volume energy absorbent seam
[AD-D015531] 07 p1877 N93-20765

PARACHUTES
Ribless ram air parachute
[AD-D015351] 02 p0195 N93-11050
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Space shuttle solid rocket booster main parachute damage reduction team report
[NASA-TM-4437] 06 p1455 N93-18067
High efficiency, low weight and volume energy absorbent seam
[AD-D015531] 07 p1877 N93-20765
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035
A computational model that couples aerodynamic and structural dynamic behavior of parachutes during the opening process
[AD-A264115] 11 p3241 N93-30119

PARACHUTING
U PARACHUTE DESCENT

PARADOXES
The Schoenmaker's paradox: Its solution in a belief dependence framework
[LP-91-05] 05 p1273 N93-17725

PARALLAX
NT STELLAR PARALLAX
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Asteroid detection and monitoring using a satellite-borne visible scanner
[AD-A259797] 08 p2543 N93-23455
A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818

PARALLEL COMPUTERS
NT CONNECTION MACHINE
NT MASSIVELY PARALLEL PROCESSORS
NT MIMD (COMPUTERS)
NT SIMD (COMPUTERS)
Scalable parallel communications 02 p0279 N93-11117
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Dynamic programming and image processing on distributed memory parallel machines
[ETN-92-92174] 02 p0409 N93-11478
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
Research summary, January 1989 - June 1990
[NASA-CR-190960] 03 p0687 N93-13694
A para-functional version of Warshall's algorithm
[MEMO-INF-92-23] 04 p0947 N93-15092
Parallelism in a main-memory DBMS: The performance of PRISMA/DB
[MEMO-INF-92-25] 04 p0958 N93-15093
Progammable connection parallel architecture: Design and routing
[ETN-92-92676] 04 p0958 N93-15124
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038] 04 p0878 N93-15187
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Implementing the multiprefix operation on parallel and vector computers
[AD-A256367] 04 p0959 N93-15207
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems 05 p1353 N93-16322
An overview of MANIFOLD and its implementation
[CWI-CS-R9142] 05 p1236 N93-16365

Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Automating FEA programming 05 p1251 N93-17524
Architecture/environment evaluation
[AD-A257849] 06 p1613 N93-18348
Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Numerical Wind Tunnel: Requirements and the outline 06 p1411 N93-19288
The operating system for Numerical Wind Tunnel 06 p1411 N93-19290
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
A coupled multi-ALU processing node for a highly parallel computer
[AD-A259455] 07 p2043 N93-20240
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
An investigation of multi-block structured algorithms for parallel CFD applications by a solution of 1D Burgers equation
[ETN-93-93703] 08 p2297 N93-23871
Parallel-vector unsymmetric Eigen-Solver on high performance computers
[NASA-CR-191417] 08 p2433 N93-24491
Fast parallel algorithms that compute transitive closure of a fuzzy relation
[NASA-CR-192950] 09 p2818 N93-25190
A software development approach for parallel processing systems integrating object-oriented and functional paradigms 09 p2816 N93-25481
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
A-stable diagonally implicit Runge-Kutta-Nystrom methods for parallel computers
[CWI-NM-R9208] 10 p3107 N93-27375
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
Parallel software tools at Langley Research Center
[NASA-TM-108995] 11 p3520 N93-29070
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
High performance computing and communications program 11 p3627 N93-30715

PARALLEL FLOW
NT PIPE FLOW
NT THREE DIMENSIONAL FLOW
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows
[ISAS-RN-646] 03 p0491 N93-12716
Instability of spatially periodic flows 05 p1160 N93-16810
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
On the disturbances development in the supersonic boundary layer 07 p1763 N93-20686
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131
A parallel implicit incompressible flow solver using unstructured meshes
[AD-A263395] 11 p3424 N93-29851
SPOT satellite mapping of Ice Stream B 12 p3760 N93-31887

PARALLEL PLATES
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects 03 p0594 N93-14077
Method and apparatus for controlling protein crystallization
[NASA-CASE-MFS-28688-1] 05 p1323 N93-17043
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
Mesh effect in a parallel plate analyzer
[NIFS-203] 06 p1669 N93-19931
Ionospheric plasma flow about a system of electrically biased flat plates
[NASA-CR-191119] 08 p2194 N93-23131

PARALLEL PROCESSING (COMPUTERS)
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
Fault-tolerant and efficient parallel computation
[AD-A253350] 01 p0140 N93-10213
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Implementation of parallel algorithms
[AD-A253638] 01 p0140 N93-10227
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
AMR on the CM-2
[NASA-CR-190747] 01 p0138 N93-10736
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
Scalable parallel communications 02 p0279 N93-11117
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
A process monitor for the transputer
[RSRE-MEMO-4554] 02 p0408 N93-11389
Ten15 developments to support parallelism
[RSRE-MEMO-4545] 02 p0409 N93-11406
The efficient parallel iterative solution of large sparse linear systems
[DE92-018769] 02 p0425 N93-11446
Parallel architecture for image processing with optic fiber guided missile
[REPT-921-320-101] 02 p0418 N93-11584
ScaLAPACK: A scalable linear algebra library for distributed memory concurrent computers
[DE92-017823] 02 p0426 N93-11636
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Automatic data partitioning on distributed memory multicomputers
[NASA-CR-190976] 02 p0418 N93-11651
Operator assistant to support deep space network link monitor and control 02 p0288 N93-11939
An implementation of a parallel MOL solver on the Intel Gamma parallel computer
[DE92-018947] 02 p0419 N93-12233
Analysis of fault-tolerant neurocontrol architectures
[NASA-TM-105898] 02 p0215 N93-12305
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
Static assignment of complex stochastic tasks using stochastic majorization
[NASA-CR-189716] 02 p0416 N93-12403
An application of exponential neural networks to event-train recognition
[AD-A254948] 03 p0690 N93-12548
Program structure as a basis for the parallelization of global compiler optimizations
[AD-A254554] 03 p0681 N93-12641
Graphics-based parallel programming tools
[AD-A254406] 03 p0683 N93-12763
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Parallel computing systems
[AD-A255076] 03 p0689 N93-12852
HIPPI and Fibre Channel
[DE92-040346] 03 p0689 N93-13046
Turbomachinery CFD on parallel computers
[NASA-TM-105932] 03 p0689 N93-13154
Simulation of excitatory/inhibitory interactions in single auditory neurons
[AD-A253614] 03 p0675 N93-13252
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Engineering of massively interconnected computer systems
[AD-A255501] 04 p0958 N93-14645
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
Two-stage target tracking system and method
[AD-D015412] 04 p0982 N93-14880
MOVE: A neutral network paradigm for robotic control 04 p0805 N93-14925
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1006 N93-15044
Sonar processing on CESAR
[FFI-92/7007] 04 p0974 N93-15074
Parallelism in a main-memory DBMS: The performance of PRISMA/DB
[MEMO-INF-92-25] 04 p0958 N93-15093
Progammable connection parallel architecture: Design and routing
[ETN-92-92676] 04 p0958 N93-15124
Work efficient hashing on parallel and vector computers
[AD-A256355] 04 p0959 N93-15205
Implementing the multiprefix operation on parallel and vector computers
[AD-A256367] 04 p0959 N93-15207
Transactional distributed shared memory
[AD-A256222] 04 p0941 N93-15240
Implementation and analysis of NP-complete algorithms on a distributed memory computer
[AD-A256564] 04 p0951 N93-15405
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
Analog Very Large Scale Integration (VLSI) implementations of artificial neural networks
[AD-A256621] 04 p0966 N93-15408
Parallel simulation today
[NASA-CR-189733] 04 p0951 N93-15432
Research Studies on Advanced Optical Module/Head Designs for Optical Data Storage
[NASA-CR-191307] 04 p0984 N93-15505
A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
A structural approach to the photonic processor
[AD-A260688] 04 p0986 N93-15648
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
ATOMIC: A low-cost, very high-speed LAN
[AD-A257140] 05 p1233 N93-15855
The design and implementation of a parallel persistent object system
[AD-A257447] 05 p1233 N93-15869
High speed networks, visualization, and massive parallelism in the Advanced Computing Laboratory
[DE92-017412] 05 p1254 N93-15880
Optimal allocation under partial ordering of lifetimes of components
[AD-A255577] 05 p1181 N93-16040
Proceedings of the MIT Student Workshop on VLSI and Parallel Systems
[AD-A256795] 05 p1145 N93-16054
Report on the FX-91 programming language
[AD-A256798] 05 p1234 N93-16057

Implementation of a parallel stochastic solving method for linearly constrained concave global optimization problems using parallel computing
[AD-A257112] 05 p1255 N93-16119
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272
An improved spectral graph partitioning algorithm for mapping parallel computations
[DE93-002593] 05 p1236 N93-16364
An overview of MANIFOLD and its implementation
[CWI-CS-R9142] 05 p1236 N93-16365
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Compiler assisted recovery for fault-tolerant highly parallel multiprocessor architectures
[AD-A256942] 05 p1255 N93-16430
Advanced parallel systems
[AD-A256958] 05 p1255 N93-16434
Scalable problems and memory bounded speedup
[NASA-CR-189726] 05 p1230 N93-16554
Parallel processing for linear programming
[ISBN-90-6275-754-5] 05 p1256 N93-16565
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
A general purpose subroutine for fast fourier transform on a distributed memory parallel machine
[NASA-CR-189724] 05 p1241 N93-16681
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
An algebraic foundation for FORTRAN 90 communication intrinsics
[DE92-040393] 05 p1269 N93-16990
Parallel processing for scientific computations
[NASA-CR-191910] 05 p1256 N93-17028
PDDP: A Parallel Data Distribution Preprocessor
[DE92-040400] 05 p1256 N93-17207
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
Parallel contraction of binary dags
[REPT-92-36] 06 p1616 N93-17848
A model for security and distribution of management information systems
[ETN-93-93029] 06 p1685 N93-18107
High-level parallel programming
[AD-A257977] 06 p1629 N93-18185
Identification and control of non-linear time-varying dynamical systems using artificial neural networks
[AD-A257595] 06 p1450 N93-18193
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Architecture/environment evaluation
[AD-A257849] 06 p1613 N93-18348
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434
On the optimality of LEPT and micron rules for parallel processors and dependent arrival processes
[TW-92-01] 06 p1630 N93-18443
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
Generalization and parallelization of messy genetic algorithms and communication in parallel genetic algorithms
[AD-A258994] 06 p1630 N93-18890
X-AAARF: An X window based version of the AFIT Algorithm Animation Research Facility
[AD-A258832] 06 p1625 N93-19065
Development of a protocol usage guideline for conservative parallel simulations
[AD-A258851] 06 p1630 N93-19070
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
The operating system for Numerical Wind Tunnel 06 p1411 N93-19290
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
Stimulated photorefractive optical neural networks
[AD-A258825] 06 p1663 N93-19333
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
A discrete ordinate response matrix method for massively parallel computers
[DE93-003463] 06 p1631 N93-19621
Software for parallel processing applications
[DE93-002510] 06 p1627 N93-19744
The performance of cache-based error recovery in multiprocessors
[NASA-CR-192142] 07 p2029 N93-20006
A coupled multi-ALU processing node for a highly parallel computer
[AD-A259455] 07 p2043 N93-20240
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
ProperCAD: A portable object-oriented parallel environment for VLSI CAD
[NASA-CR-192308] 07 p2033 N93-20603
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
PAC: Parallel Algebraic Computations: Current researches and perspectives
[RR-876-M] 07 p2044 N93-20949
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Verification methods of the behavioral specifications: Study and implementation
[ETN-93-92687] 07 p2044 N93-21064
Modeling and simulation of a formal neural network: Implementation on a 'Hypercube FPS T-40' parallel machine
[ETN-93-92688] 07 p2045 N93-21065
Transient dynamics capability at Sandia National Laboratories
[DE93-002285] 07 p2041 N93-21549
Level 3 BLAS for distributed memory concurrent computers
[DE93-003613] 07 p2029 N93-21730
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Research in models for massively parallel computing
[DE93-003748] 07 p2045 N93-21852
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Los Alamos HPDS: High-speed data transfer
[DE93-003804] 08 p2434 N93-22074
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
The MSFC space station/space operations mechanism test bed 08 p2149 N93-22309
Efficiently modeling neural networks on massively parallel computers 08 p2453 N93-22353
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
Copper Mountain conference on iterative methods, volume 2
[DE93-004994] 08 p2466 N93-22405
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512
Parallel processor for real-time structural control
[DE93-006284] 08 p2446 N93-22545
Survey of benchmarks
[NPL-DITC-192/91] 08 p2436 N93-22816
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Applications and accuracy of the parallel diagonal dominant algorithm
[NASA-CR-191431] 08 p2438 N93-23173
Parallel processing research in the former Soviet Union
[PB93-134435] 08 p2447 N93-23204
Massively parallel implementation of the Penn State/NCAR mesoscale model
[DE93-004874] 08 p2394 N93-23320
Reducing communication inefficiencies for a flexible programming paradigm
[DE93-005670] 08 p2438 N93-23327
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Asynchronous design for parallel processing architectures
[AD-A259776] 08 p2448 N93-23453
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
Northeast Parallel Architectures Center (NPAC)
[AD-A259627] 08 p2448 N93-23653
Investigation of proof techniques within the EVES verification technology
[DREO-FR-92-5451-02] 08 p2440 N93-23730
Match and move: An approach to data parallel computing
[AD-A259915] 08 p2449 N93-23999
Parallel-vector unsymmetric Eigen-Solver on high performance computers
[NASA-CR-191417] 08 p2433 N93-24491
Optimal message log reclamation for independent checkpointing
[NASA-CR-192886] 09 p2815 N93-24749
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
A comparison using APPL and PVM for a parallel implementation of an unstructured grid generation program
[NASA-CR-191425] 09 p2808 N93-25073
Monte-Carlo methods make Dempster-Shafer formalism feasible
[NASA-CR-192945] 09 p2828 N93-25140
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
Fast parallel algorithms that compute transitive closure of a fuzzy relation
[NASA-CR-192950] 09 p2818 N93-25190
RAMA: A file system for massively parallel computers
[NASA-CR-192906] 09 p2815 N93-25297
PCG: A software package for the iterative solution of linear systems on scalar, vector and parallel computers
[DE93-007366] 09 p2809 N93-25315
Structured adaptive mesh refinement on the connection machine
[DE93-007368] 09 p2816 N93-25316
Data parallel finite element techniques for large-scale computational fluid dynamics 09 p2699 N93-25334
Hierarchical dynamics in distributed information processing 09 p2875 N93-25350
FORTRAN M as a language for building earth system models
[DE93-007897] 09 p2763 N93-25370
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Toward a parallel recursive spectral bisection mapping tool
[DE93-006632] 09 p2816 N93-25414
A software development approach for parallel processing systems integrating object-oriented and functional paradigms 09 p2816 N93-25481
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Deterministic parallel FORTRAN
[DE93-008665] 09 p2816 N93-25522
Implicit multigrid solution of the compressible Navier-Stokes equations with application to distributed parallel processing 09 p2702 N93-25546
Splash 2 09 p2814 N93-25575
A novel method for characterization of superconductors: Physical measurements and modeling of thin films 09 p2871 N93-25584
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
Parallel matrix computations
[AD-A260783] 09 p2828 N93-25687
Massively-parallel computational fluid dynamics
[AD-A261815] 09 p2707 N93-26269
Integrated approaches to parallelism in optimization and the solution of inverse problems
[AD-A261490] 09 p2829 N93-26344
Source-level debugging of automatically parallelized programs
[AD-A261520] 09 p2813 N93-26378
Joint services electronics program
[AD-A261801] 09 p2692 N93-26539
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669
Neural networks for calibration tomography
[NASA-TM-106352] 10 p3045 N93-26906
Parallel solution of high-order numerical schemes for solving incompressible flows
[NASA-TM-4451] 10 p3106 N93-27040
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Rutger's CAM2000 chip architecture
[NASA-CR-193078] 10 p3151 N93-27094
USRA/RIACS
[NASA-CR-193216] 10 p3092 N93-27224

Formal specification of MANIFOLD: A preliminary study
[CWI-CS-R9215] 10 p3093 N93-27254
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling
[MEMO-COSOR-92-08] 10 p3124 N93-27277
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
Verification of parameterised synchronous concurrent algorithms with OBJ3: The pixel planes architecture revisited
[CWI-CS-R9225] 10 p3095 N93-27378
Specification of MANIFOLD, version 1.0
[CWI-CS-R9220] 10 p3095 N93-27388
Verification of parallel systems via decomposition
[CWI-CS-R9203] 10 p3107 N93-27539
Efficient grid based techniques for solving the Weighted Region Least Cost Path problem on multicomputers
[AD-A262153] 10 p3107 N93-27548
Massively parallel searching for better algorithms
[DE93-009501] 10 p3107 N93-27623
The impact of communication style on machine resource usage for the iWarp parallel processor
[AD-A262425] 10 p3107 N93-27657
Random-like interconnects, fault tolerance and grain-size studies for optoelectronic computing
[AD-A262360] 10 p3107 N93-27689
Electronic neural networks 10 p2964 N93-27711
Embedded multiprocessor technology for VHSIC insertion 10 p2964 N93-27713
Automatic management of parallel and distributed system resources 10 p2965 N93-27715
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
Efficient communication for parallel computing
[AD-A261966] 10 p3108 N93-27951
On parallel data structuring: A parallel priority queue
[RUU-CS-92-19] 10 p3108 N93-28061
Workform processing: A new paradigm for fault-tolerant distributed parallel computation
[AD-A262087] 10 p3108 N93-28222
Sparse matrix algorithms on distributed memory multiprocessors
[DE93-009368] 10 p3103 N93-28231
An integrated environment for the development of scientific and engineering applications
[AD-A262277] 10 p3103 N93-28239
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
Digital parallel processor array for optimum path planning
[NASA-CASE-NPO-18727-1-CU] 10 p3108 N93-28427
A programming tool for detailed analysis of FORTRAN operation counts
[DE93-009606] 10 p3105 N93-28455
Design of a hardware discrete event simulation coprocessor
[AD-A262614] 11 p3537 N93-28478
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Parallel computation and the basis system
[DE93-008755] 11 p3537 N93-28544
A multiarchitecture parallel-processing development environment
[NASA-TM-106180] 11 p3538 N93-28628
How to write fast and clear parallel programs using algebra
[DE93-000797] 11 p3524 N93-28640
BlockSolve v1.1: Scalable library software for the parallel solution of sparse linear systems
[DE93-011391] 11 p3524 N93-28644
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894
Preemptive scheduling with variable profile, precedence constraints and due dates
[INRIA-RR-1622] 11 p3538 N93-28937
A simple parallel prefix algorithm for compact finite-difference schemes
[NASA-CR-191448] 11 p3525 N93-28976
Implementation of a multidomain Navier-Stokes code on the Intel iPSC2 hypercube
[FFA-TN-1992-37] 11 p3418 N93-28994
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Computing for magnetic fusion energy research: An updated vision
[DE93-010394] 11 p3587 N93-29190
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Implementation of parallel algorithms
[AD-A263126] 11 p3529 N93-29496
Exploiting the memory hierarchy in sequential and parallel sparse Cholesky factorization
[AD-A262849] 11 p3539 N93-29508
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
Using synthetic-perturbation techniques for tuning shared memory programs
[PB93-178572] 11 p3539 N93-29677
Communications neural net processors
[AD-A263330] 11 p3542 N93-29763
Data parallelism
[DE93-009300] 11 p3539 N93-29782
Full abstraction for a shared variable parallel language
[AD-A263547] 11 p3530 N93-29821
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Class notes: Programming parallel algorithms CS 15-840B (Fall 1992)
[AD-A263549] 11 p3530 N93-29823
Tactical satellites 11 p3284 N93-29893
Use of a genetic algorithm to solve two-fluid flow problems on an NCUBE multiprocessor computer
[DE93-009630] 11 p3425 N93-30184
A parallel processing system for intensive I/O 11 p3362 N93-30262
A transputer based parallel processing architecture for robotics applications 11 p3362 N93-30263
Optimized partitioning and balancing for parallel processing 11 p3365 N93-30280
Parallel processing and learning: Variability and chaos in self-organization of activity in groups of neurons
[AD-A264224] 11 p3539 N93-30361
High-performance mass storage system for workstations 11 p3618 N93-30457
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525
Promoting high-performance computing and communications
[ISBN-0-16-041828-3] 11 p3522 N93-30570
Multiprocessing MCNP on an IBM RS/6000 cluster
[DE93-008712] 11 p3540 N93-30633
Transputers, parallel processing in embedded systems for image compression in space applications
[NLR-TP-89242-U] 11 p3522 N93-30840
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Scheduling data transfers in parallel computers and communications systems 12 p3836 N93-31132
The performance of PAGOSA on several MIMD parallel computers
[DE93-003243] 12 p3786 N93-31183
Generalized steady-state, applied to 2-D, 3-D massively parallel computing
[REPT-92-71] 12 p3795 N93-31504
A blueprint for a parallel parser generator
[MEMO-INF-92-65] 12 p3795 N93-31616
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640
Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
Beyond data parallelism: The advantages of multiple parallelizations in combinatorial search
[AD-A265008] 12 p3796 N93-32080
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Massively parallel support for a case-based planning system 12 p3797 N93-32135
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313
Feed-forward volume rendering algorithm for moderately parallel MIMD machines
[NASA-CR-191158] 12 p3792 N93-32322
Application of compiler-assisted multiple instruction rollback recovery to speculative execution
[NASA-CR-193360] 12 p3796 N93-32355
Mapping robust parallel multigrid algorithms to scalable memory architectures
[NASA-CR-191470] 12 p3793 N93-32359
Parallel Jacobi iteration in implicit step-by-step methods
[CWI-NM-R9218] 12 p3810 N93-32394
Explicit, high-order Runge-Kutta-Nystroem methods for parallel computers
[CWI-NM-R9219] 12 p3796 N93-32395
Parallel block predictor-corrector methods of Runge-Kutta type
[CWI-NM-R9220] 12 p3797 N93-32396

PARALLEL PROGRAMMING

An adaptive differencing scheme for elliptic flows 02 p0297 N93-11197
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
Dynamic programming on a ring of processors 02 p0410 N93-11479
Path planning on a ring of processors 02 p0410 N93-11480
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Z-buffer on a transputer-based machine 02 p0410 N93-11483
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
Graphics-based parallel programming tools
[AD-A254406] 03 p0683 N93-12763
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Parallel on-line parsing in constant time
[MEMO-INF-91-64] 04 p0958 N93-15082
A para-functional version of Warshall's algorithm
[MEMO-INF-92-23] 04 p0947 N93-15092
PRISMA/DB: A parallel, main-memory relational DBMS
[MEMO-INF-92-12] 04 p0959 N93-15141
Data fragmentation for parallel transitive closure strategies
[MEMO-INF-92-17] 04 p0959 N93-15142
An axiomatic treatment of partial correctness and deadlock in a shared variable parallel language
[AD-A256234] 04 p0960 N93-15494
Multiparadigm design environments
[AD-A257149] 05 p1231 N93-16031
Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478
Automating FEA programming 05 p1251 N93-17524
Parallel step-by-step methods
[CWI-NM-R9116] 05 p1256 N93-17545
Parallel-iterated Runge-Kutta methods for stiff ordinary differential equations
[CWI-NM-R9117] 05 p1257 N93-17549
Parallel simulation of stochastic Petri nets using recursive equations
[INRIA-RR-1520] 05 p1257 N93-17738
High-level parallel programming
[AD-A257977] 06 p1629 N93-18185
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651

ProperCAD: A portable object-oriented parallel environment for VLSI CAD
[NASA-CR-192308] 07 p2033 N93-20603
Efficient and accurate on-line computation of motor torques for robotic manipulators
07 p1918 N93-20710
Evaluation and comparative study of combinatorial optimization algorithms: Application to the problem of process placement
[RR-886-I] 07 p2043 N93-20798
MODULA-2* and its compilation
[INRIA-RR-1421] 07 p2037 N93-20859
Local edge grouping by simple process iteration
[INRIA-RR-1559] 07 p2043 N93-20866
A contribution to the study of OR-parallel in PROLOG over distributed memory machines
[ETN-93-92681] 07 p2044 N93-20886
PAC: Parallel Algebraic Computations: Current researches and perspectives
[RR-876-M] 07 p2044 N93-20949
Implementation and performance evaluation of a parallel transitive closure algorithm on PRISMA/DB
[MEMO-INF-92-45] 08 p2448 N93-23873
Match and move: An approach to data parallel computing
[AD-A259915] 08 p2449 N93-23999
Synthetic-perturbation tuning of MIMD programs
[PB93-161339] 09 p2812 N93-26321
Source-level debugging of automatically parallelized programs
[AD-A261520] 09 p2813 N93-26378
Parallel programming with PCN
[DE93-008087] 10 p3105 N93-26627
Parallel computing strategies for block multigrid implicit solution of the Euler equation 10 p2922 N93-27190
Formal specification of MANIFOLD: A preliminary study
[CWI-CS-R9215] 10 p3093 N93-27254
Speeding up parallelism detection for attribute grammars
[RUU-CS-92-18] 10 p3107 N93-27909
A C++ interface for programming on the Connection Machine
[INRIA-RR-1698] 11 p3538 N93-29487
Data parallelism
[DE93-009300] 11 p3539 N93-29782
Full abstraction for a shared variable parallel language
[AD-A263547] 11 p3530 N93-29821
Class notes: Programming parallel algorithms CS 15-840B (Fall 1992)
[AD-A263549] 11 p3530 N93-29823
The midway distributed shared memory system
[AD-A264645] 11 p3534 N93-30523
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Practical results on parallel parsing
[REPT-92-79] 12 p3794 N93-31493
Generalized steady-state, applied to 2-D, 3-D massively parallel computing
[REPT-92-71] 12 p3795 N93-31504
Implementations of the double dot parsing algorithm
[REPT-92-73] 12 p3788 N93-31506
Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986
Beyond data parallelism: The advantages of multiple parallelizations in combinatorial search
[AD-A265008] 12 p3796 N93-32080

PARALLEL STRIP LINES
U MICROSTRIP TRANSMISSION LINES

PARALLELEPIPEDS
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877

PARALLELOGRAMS
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160

PARAMAGNETIC AMPLIFIERS
U MASERS

PARAMAGNETIC RESONANCE
NT ELECTRON PARAMAGNETIC RESONANCE
X pulse radiation around the critical surface
02 p0318 N93-12027
Nonlinear behavior of resonant absorption in a plasma at microwave frequency 02 p0319 N93-12032

PARAMAGNETISM
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
High-energy spin-density-wave correlated fluctuations in paramagnetic Cr + 5 at. percent V
[DE93-003165] 07 p1857 N93-21958

PARAMETER IDENTIFICATION
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
Symmetric matrix-vector product on a ring of processors 02 p0410 N93-11481
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
Identifiability of linear systems in physical coordinates
[NASA-TM-107695] 03 p0625 N93-13125
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy
03 p0518 N93-13768
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Flight testing: Past, present, and future
04 p0777 N93-14615
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
Updating and localizing structural errors based on minimization of equation errors
05 p1077 N93-15719
The use of inverse frequency response functions for multi degree-of-freedom modal parameter identification with error bounds 05 p1077 N93-15720
Modal identification of mechanical structures by means of tuned base-motion excitation
05 p1077 N93-15721
Practical aspects of on-orbit modal identification using free-decay data 05 p1079 N93-15734
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
Parameter identification and adaptive control of cooperating robots
[AD-A256984] 05 p1259 N93-16256
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis
[RR-442-PT-2] 06 p1528 N93-18440
A structure detection algorithm for nonlinear dynamic rational models
[RR-439] 06 p1649 N93-18508
Identification of nonlinear wave forces. Part 1: Time domain-analysis
[RR-441-PT-1] 06 p1528 N93-18510
Tools of modeling, identification, and signal processing for fault diagnosis in continuous-time systems
[LAAS-92153] 06 p1649 N93-18625
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
SSG 4.118: Inverse geodetic problems
07 p1973 N93-20984
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
Accurate test limits with estimated parameters
[MEMO-1024] 07 p1877 N93-21397
A modal test of a space-truss for structural parameter identification
[DE93-004043] 08 p2323 N93-22518
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Identification for the control of MIMO industrial processes
[EUT-91-E-256] 10 p3010 N93-27229
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191462] 10 p2946 N93-27264
Parameter identification for nonlinear aerodynamic systems
[NASA-CR-193072] 10 p2930 N93-27282
The identification of analytical device models
[ISBN-90-6275-764-2/CIP] 10 p3100 N93-27874
Using pseudo Kalman-filters in the presence of constraints application to sensing behaviors
[INRIA-RR-1669] 10 p3122 N93-28442
A Kolmogorov-Smirnov type test for ergodic diffusion processes
[INRIA-RR-1696] 10 p3122 N93-28447
Speech recognition by recursive stochastic modelling
[ISBN-90-9005038-8] 11 p3382 N93-29266
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423
Parameter identification of time-varying systems using neural networks 11 p3356 N93-30226
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
The parameterization of vertical turbulent mixing processes in a general circulation model of the tropical Pacific
[KNMI-WR-92-03] 12 p3758 N93-31594

PARAMETERIZATION
NT PARAMETER IDENTIFICATION
A reappraisal of compound equilibrium finite elements
01 p0063 N93-10561
On the use of coupled finite element boundary element models in numerical design analysis
01 p0063 N93-10563
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall
03 p0663 N93-13489
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Parameterization in finite precision
04 p0953 N93-15537
On formulations of path-following techniques for structural stability analysis
[LR-676] 05 p1186 N93-16346
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Use of cloud observations and mesoscale meteorology models to evaluate and improve cloud parameterizations
[DE93-003245] 05 p1217 N93-17572
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Reliability of failure envelopes for composite materials
07 p1929 N93-20642
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture
09 p2833 N93-24995
An analysis of the Generalized Lambda Distribution
[AD-A262485] 11 p3555 N93-29447
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
The crease structure of the Karush-Kuhn-Tucker set in parametric optimization
[REPT-92-62] 12 p3806 N93-31551

PARAMETERS
U INDEPENDENT VARIABLES

PARAMETRIC AMPLIFIERS
Study of the generalized parametric oscillator
[PREPRINT-815] 07 p2059 N93-21178
Advances in nonlinear optical materials and devices
[NASA-CR-192681] 09 p2852 N93-25281
Squeezed states of damped oscillator chain
10 p3143 N93-27329

PARAMETRIC OSCILLATORS
U PARAMETRIC AMPLIFIERS

PARASITIC DISEASES
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population
02 p0381 N93-11307
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Project MEDSAT 11 p3231 N93-29739

PARITY
Weak-electromagnetic interference in polarized eD scattering
[DE93-001763] 04 p0978 N93-15486

Maximal CP violation via Higgs-boson exchange
[DE93-002417] 05 p1290 N93-17044
A (72, 36; 15) box code 09 p2671 N93-24663
Golay and other box codes 09 p2678 N93-26116
Tutorial: Performance and reliability in redundant disk arrays 11 p3537 N93-30463

PARKING ORBITS
Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367

PARKS
NT NATIONAL PARKS

PARSING ALGORITHMS
Japanese/English machine translation using sublanguage patterns and reversible grammars 03 p0686 N93-13494
Parallel on-line parsing in constant time
[MEMO-INF-91-64] 04 p0958 N93-15082
An algorithm for the construction of dependency trees
[MEMO-INF-92-39] 05 p1240 N93-16668
Generalized LR parsing for general context-free grammars
[CWI-CS-R9153] 05 p1242 N93-16853
Dynamic parsers, evolving grammars and incremental languages
[PREPRINT-863] 05 p1243 N93-16998
Tomita's algorithm: Extensions and applications
[MEMO-INF-91-68] 07 p2030 N93-20220
(Generalized) LR parsing: From Knuth to Tomita 07 p2030 N93-20221
Recursive ascent parsing 07 p2030 N93-20222
A parsing algorithm for non-deterministic context-sensitive languages 07 p2031 N93-20223
Unrestricted on-line parsing and transduction with graph structured stacks 07 p2031 N93-20224
Substring parsing for arbitrary context-free grammars 07 p2031 N93-20225
Detection and correction of morpho-syntactic errors in shift-reduce parsing 07 p2031 N93-20226
Tomita's algorithm in practical applications 07 p2031 N93-20227
An empirical comparison of generalized LR tables 07 p2031 N93-20228
Bottom-up parallelization of Tomita's algorithm 07 p2031 N93-20229
Automated program recognition by graph parsing
[AD-A259609] 08 p2441 N93-24125
Left-corner and head-corner chart parsing
[MEMO-INF-92-55] 10 p3096 N93-27489
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
Evaluating master-slave implementation of double-dot parsing for massive parallel MIMD systems
[REPT-92-78] 12 p3794 N93-31473
Practical results on parallel parsing
[REPT-92-79] 12 p3794 N93-31493
Implementations of the double dot parsing algorithm
[REPT-92-73] 12 p3788 N93-31506
A blueprint for a parallel parser generator
[MEMO-INF-92-65] 12 p3795 N93-31616
Creating a structured knowledge base by parsing natural language text 12 p3839 N93-31854

PARTIAL DIFFERENTIAL EQUATIONS
NT BIHARMONIC EQUATIONS
NT BURGER EQUATION
NT CAUCHY-RIEMANN EQUATIONS
NT ELLIPTIC DIFFERENTIAL EQUATIONS
NT EULER-CAUCHY EQUATIONS
NT FOKKER-PLANCK EQUATION
NT GAUSS EQUATION
NT LIOUVILLE EQUATIONS
NT PARABOLIC DIFFERENTIAL EQUATIONS
NT POISSON EQUATION
NT VLASOV EQUATIONS
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He
[DE92-014739] 01 p0087 N93-10083
Improved numerical simulation of Euler equations 01 p0080 N93-10309
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Discontinuous initial value problem of nonlinear elasticity by similarity approach 01 p0064 N93-10569
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Domain decomposition: A bridge between nature and parallel computers
[NASA-CR-189709] 02 p0425 N93-11246
Krylov subspace methods for complex non-Hermitian linear systems
[NASA-CR-190931] 02 p0409 N93-11458
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Automatic differentiation bibliography
[DE92-040599] 05 p1263 N93-15944
A simple method to generate integrable symplectic maps
[PREPRINT-795] 05 p1265 N93-16416
On a class of stochastic reaction-diffusion equations in two space dimensions
[PREPRINT-777] 05 p1265 N93-16442
C-integrable nonlinear partial differential equations in N + 1 dimensions
[PREPRINT-833] 05 p1269 N93-16955
Stochastic quantization, stochastic calculus and path integrals: Selected topics
[PREPRINT-837] 05 p1279 N93-16992
Lie point symmetries and exact solutions of nonlinear differential equations
[PREPRINT-840] 05 p1269 N93-16994
Symmetry group of partial differential equations and of differential difference equations: The Toda lattice versus the Korteweg-de Vries equation
[PREPRINT-841] 05 p1270 N93-16995
Integrable nonlinear evolution equations with constraints: 1
[PREPRINT-824] 05 p1270 N93-17220
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Galerkin coarse grid approximation for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-35] 06 p1524 N93-17847
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1665 N93-18100
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
Particle approximation for first order stochastic partial differential equations
[INRIA-RR-1502] 06 p1646 N93-18597
Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468
Exact finite element method 07 p1939 N93-20699
Global stabilization of linear analytic systems
[RR-403] 07 p2051 N93-20738
C-integrable nonlinear PDE's. 1
[PREPRINT-787] 07 p2051 N93-20805
C-integrable nonlinear PDE's. 2
[PREPRINT-788] 07 p2053 N93-20874
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
The symmetry equation package for REDUCE
[MEMO-1053] 08 p2469 N93-23866
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Coverings and nonlocal symmetries
[MEMO-1057] 08 p2470 N93-24109
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
Feature-oriented signal processing under nonlinear partial differential equations
[AD-A259951] 08 p2470 N93-24245
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
Some new results for solving linear systems arising from computational fluid dynamics problems 09 p2699 N93-25349
PDE: Differential, geometric and algebraic methods in nonlinear filtering
[AD-A260967] 09 p2829 N93-26222
An invitation to structured (meta)population models
[CWI-AM-R9113] 10 p3124 N93-27294
Moving-finite-element solution of time-dependent partial differential equations in two space dimensions
[CWI-NM-R9206] 10 p3113 N93-27303
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
Wavelet local extrema applied to image processing
[AD-A262362] 10 p3118 N93-27691
Non-isospectral extension of the chiral model and its geometry
[SSCL-PREPRINT-735] 10 p3128 N93-28101
Continuous symmetries of discrete equations
[SSCL-PREPRINT-738] 10 p3121 N93-28163
Index mappings for interactive editing of symbolic matrices
[DE93-009316] 11 p3549 N93-29060
Difference methods for hyperbolic problems with emphasis on space-centered approximations
[ONERA-NT-1990-4] 11 p3550 N93-30136
Existence and uniqueness of limit cycles for a special system of differential equations on the plane
[REPT-92-63] 12 p3806 N93-31550
On waveform multigrid method
[NASA-CR-191455] 12 p3808 N93-31843
A remark about the mean curvature
[DE93-619668] 12 p3809 N93-32285

PARTIAL PRESSURE
Partial admission and unsteady flow in radial turbines 01 p0078 N93-10059
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE92-011856] 01 p0128 N93-10621
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue 08 p2164 N93-24394
Biological conversion of synthesis gas
[DE93-009092] 09 p2660 N93-25523
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902

PARTICLE ACCELERATION
Research and development of superconducting linear accelerators for neutral particle beam applications
[DE92-019043] 02 p0444 N93-11652
Stimulated Brillouin backscattering instability in the case of a high power laser: Application to wave pulsation particle acceleration experiments 02 p0317 N93-12024
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Fine structure of auroral particle acceleration 04 p0912 N93-14121
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982 06 p1565 N93-18072
Observations of Pc5 Alfven wave effects in the quiet time auroral ionosphere: Indications of energetic particle acceleration 06 p1733 N93-19588
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere 08 p2394 N93-23388
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
A double-peaked solar flare: Conclusions on particle transport 12 p3879 N93-31415
Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification 12 p3854 N93-31686
Massive neutrinos
[DE93-609989] 12 p3821 N93-32026

PARTICLE ACCELERATOR TARGETS
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443

Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186

PARTICLE ACCELERATORS
NT BETATRONS
NT CYCLIC ACCELERATORS
NT CYCLOTRONS
NT ELECTRON ACCELERATORS
NT ION ACCELERATORS
NT LINEAR ACCELERATORS
NT STORAGE RINGS (PARTICLE ACCELERATORS)
NT SUPERCONDUCTING SUPER COLLIDER
NT SYNCHROTRONS
NT VAN DE GRAAFF ACCELERATORS
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
The foxhole accelerating structure
[DE92-019052] 02 p0443 N93-11429
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Real-time data archiving for GTA
[DE92-018613] 03 p0733 N93-12567
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
Properties of the superconductor in accelerator dipole magnets
[ISBN-90-9004244-X] 05 p1280 N93-16573
The first level energy trigger of the L3 experiment/description of the hardware
[NOTA-INTERNA-987] 06 p1659 N93-17937
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
Design of a high current proton accelerator 07 p1766 N93-21873
Chaotic dynamics in accelerator physics
[DE93-004600] 08 p2515 N93-22766
Analysis and correction of noise on electronic circuits in an accelerator environment
[DE93-004816] 08 p2280 N93-23319
Semiweak production of a top quark accompanied by a bottom quark and 2 jets at hadron colliders
[NIKHEF-H/91-27] 10 p3132 N93-27508
Analog signal isolation techniques
[DE93-008059] 10 p3147 N93-27524
Studies of high energy phenomena using muons
[DE93-009373] 10 p3140 N93-28367
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
The ZEUS uranium calorimeter: Main characteristics and first operating experience
[NIKHEF-H/92-15] 12 p3728 N93-31117
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

PARTICLE BEAMS
NT ATOMIC BEAMS
NT ELECTRON BEAMS
NT ION BEAMS
NT MOLECULAR BEAMS
NT NEUTRAL BEAMS
NT NEUTRINO BEAMS
NT NEUTRON BEAMS
NT PION BEAMS
NT PROTON BEAMS
NT RELATIVISTIC ELECTRON BEAMS
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
Research and development of superconducting linear accelerators for neutral particle beam applications
[DE92-019043] 02 p0444 N93-11652
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
A simple model for SLC positron stability issues
[DE92-019644] 03 p0706 N93-12992
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708
Reliability of numerical solutions of a diffusion equation modeling RF noise-induced dilution in particle beams
[DE92-040620] 05 p1296 N93-16022
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
An investigation of coherent quadrupole beam--beam effects
[DE92-041191] 05 p1297 N93-16527
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
Optical tracking of charged particle beams
[AD-D015592] 07 p2061 N93-20802
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768
Use of particle beams for lunar prospecting 11 p3650 N93-28822
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103

PARTICLE CHARGING
Comparison of the electrical charging and discharging environments of multiple aircraft-borne electric-field measurement systems 09 p2583 N93-24887

PARTICLE COLLISIONS
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
High energy hadron-hadron collisions
[DE92-018253] 02 p0441 N93-12224
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
Dynamical approach to pair production from strong fields
[DE92-040224] 05 p1283 N93-16011
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
First results from the SLD silicon calorimeters
[DE93-001805] 05 p1167 N93-16219
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings
[DE92-556477] 05 p1298 N93-16646
Status of QCD
[PREPRINT-842] 05 p1298 N93-16996
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477
An incoherent scatter experiment for the measurement of particle collisions 06 p1723 N93-19528
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 2: The upper part of the F region 06 p1727 N93-19553
The effect of different collision operators on the standard data analysis model 06 p1670 N93-19584
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2082 N93-20875
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Search for exotic particles at CDF
[DE93-004421] 08 p2480 N93-22687
A study of four-jet events and search for double parton interactions at square root of s = 1.8 TeV
[DE93-005973] 08 p2480 N93-22693
Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Particle simulation for 10.6 micron picosecond laser-induced breakdown in gases 09 p2712 N93-25280
Strangeness production in S + Pb and p + Pb collisions at 200 GeV/c per nucleon nucleon
[DE93-007654] 09 p2847 N93-25326
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
[DE93-007725] 09 p2848 N93-25366
Collisional energy transfer in biomolecular ion-molecule dynamics
[AD-A260911] 09 p2849 N93-25659
The physics of spin polarized gases
[AD-A261396] 09 p2850 N93-26288
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Semiweak production of a top quark accompanied by a bottom quark and 2 jets at hadron colliders
[NIKHEF-H/91-27] 10 p3132 N93-27508
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630
Meson-meson interactions and phi-enhancement in nucleus collisions
[DE93-010725] 11 p3565 N93-28831
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334

Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054
Multidimensional intermittency in hadronic collisions
[DE93-010562] 11 p3577 N93-30532
Pion pair production in photon-photon collisions
[DE93-606114] 11 p3571 N93-30790
Orbital motion calculation using Lie method in collider nonlinear magnetic field
[DE93-605733] 11 p3571 N93-30800
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
Baryon number violation and particle collider experiments
[NIKHEF-H/92-14] 11 p3572 N93-31008
Two jet production in hadron collisions at order alpha(sub s)(sup 3) in QCD
[DE93-010563] 12 p3822 N93-32159

PARTICLE COUNTERS
U RADIATION COUNTERS

PARTICLE DECAY
U RADIOACTIVE DECAY

PARTICLE DENSITY (CONCENTRATION)
NT CARRIER DENSITY (SOLID STATE)
NT ELECTRON DENSITY (CONCENTRATION)
NT ELECTRON DENSITY PROFILES
NT ELECTRON DISTRIBUTION
NT ION DENSITY (CONCENTRATION)
NT IONOSPHERIC ELECTRON DENSITY
NT IONOSPHERIC ION DENSITY
NT MAGNETOSPHERIC ELECTRON DENSITY
NT MAGNETOSPHERIC ION DENSITY
NT PLASMA DENSITY
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307

PARTICLE DETECTORS
U RADIATION COUNTERS

PARTICLE DIFFUSION
NT ELECTRON DIFFUSION
NT IONIC DIFFUSION
LABAN-PEL: A two-dimensional, multigroup diffusion, high-order response matrix code
[DE92-626845] 01 p0144 N93-10624
Longitudinal beam dynamics with rf noise
[DE92-040645] 03 p0707 N93-13108
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures 03 p0770 N93-13476
The use of chaos metrics to analyze Lagrangian particle diffusion models
[AD-A256142] 04 p0967 N93-14255
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Reliability of numerical solutions of a diffusion equation modeling RF noise-induced dilution in particle beams
[DE92-040620] 05 p1296 N93-16022
Stochastic reaction diffusion equations and interacting particle systems
[PREPRINT-796] 05 p1265 N93-16417
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
A transmission/escape probabilities model for neutral particle transport in the outer regions of a diverted tokamak
[DE93-006550] 08 p2497 N93-24045
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
A method for transient, three-dimensional neutron transport calculations
[DE93-007243] 09 p2847 N93-25256
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

PARTICLE EMISSION
NT ELECTRON EMISSION
NT FIELD EMISSION
NT ION EMISSION
NT NEUTRON EMISSION
NT PHOTOELECTRIC EMISSION
NT SECONDARY EMISSION
NT THERMIONIC EMISSION
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Application of multistep compound and multistep direct models for data evaluation
[DE93-000865] 05 p1285 N93-16304
Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464
Particle emission from artificial cometary materials 06 p1710 N93-19188
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090

PARTICLE ENERGY
NT ELECTRON ENERGY
NT ELECTRON STATES
A study of the generation of linear energy transfer spectra for space radiations
[NASA-TM-4410] 03 p0772 N93-13572
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135
Neutron-proton bremsstrahlung experiments
[DE93-003737] 07 p2065 N93-21968
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973

PARTICLE FLUX
U FLUX (RATE)

PARTICLE FLUX DENSITY
NT ELECTRON FLUX DENSITY
NT NEUTRON FLUX DENSITY
NT PROTON FLUX DENSITY
Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641

PARTICLE IN CELL TECHNIQUE
Particle simulation algorithms with short-range forces in MHD and fluid flow
[DE93-000407] 05 p1306 N93-15670
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272

PARTICLE INTERACTIONS
NT ELECTRON CAPTURE
NT ELEMENTARY PARTICLE INTERACTIONS
NT HIGH ENERGY INTERACTIONS
NT ION ATOM INTERACTIONS
NT MESON-MESON INTERACTIONS
NT MESON-NUCLEON INTERACTIONS
NT MOLECULAR COLLISIONS
NT MOLECULAR INTERACTIONS
NT NUCLEAR CAPTURE
NT NUCLEAR INTERACTIONS
NT NUCLEON-NUCLEON INTERACTIONS
NT PLASMA-PARTICLE INTERACTIONS
NT SPIN-ORBIT INTERACTIONS
NT STRONG INTERACTIONS (FIELD THEORY)
NT WAVE-PARTICLE INTERACTIONS
NT WEAK ENERGY INTERACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
Two-photon physics and the coming generation of heavy ion colliders
[DE92-015850] 01 p0156 N93-10732
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
Low energy theorems in pion production
[DE92-040071] 04 p0977 N93-15279
Nuclear structure research
[DE93-000405] 05 p1285 N93-16239
Stochastic reaction diffusion equations and interacting particle systems
[PREPRINT-796] 05 p1265 N93-16417
Rotational band structure of intruder configurations: Success and limitations of the Cranked Shell Model
[DE93-001713] 05 p1288 N93-16972
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Dressed skeleton expansion and the coupling scale ambiguity problem
[DE93-002516] 05 p1331 N93-17185
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
Experimental studies of elementary particle interactions at high energies
[DE93-003652] 05 p1294 N93-17575
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics
[NOTA-INTERNA-991] 06 p1653 N93-17942
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Neutrino masses and solar neutrinos
[DE93-002416] 06 p1655 N93-18522
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
An experimental test of the LPM effect: Bremsstrahlung suppression at high energies
[DE93-004019] 06 p1660 N93-19495
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
On a possible non-Lorentzian energy-dependence of the K neutral(sub S)
[PREPRINT-807] 07 p2053 N93-20903
A study of four-jet events and search for double parton interactions at square root of s = 1.8 TeV
[DE93-005973] 08 p2480 N93-22693
Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739
Particle physics
[DE93-006894] 08 p2482 N93-22992
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Notes on radial drift for dalitz detection
[DE93-006971] 09 p2846 N93-24959
Twistor diagrams and a quantum field theory 09 p2871 N93-25423
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential 10 p3141 N93-27314
Galilean covariant harmonic oscillator 10 p3145 N93-27341
Summary talk --- particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
The improvement of hadronic matrix elements in lattice QCD
[SSCL-PREPRINT-737] 10 p3157 N93-28162
Localized solutions of N + 1 dimensional evolution equations
[SSCL-PREPRINT-753] 10 p3157 N93-28210

Leading non-logarithmic contribution to the electropenguin diagram and phenomenology of kaon decays
[SSCL-PREPRINT-745] 10 p3137 N93-28388
Experimental challenges at future hadron colliders (lectures for the 1992 Saint Croix Summer School)
[DE93-008613] 10 p3140 N93-28429
Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751
Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
Low-energy behaviour of few-particle scattering amplitudes in two dimensions
[DE93-609834] 11 p3572 N93-30944
Odderon dominance in dipole model of hadron elastic scattering
[DE93-608329] 12 p3819 N93-31243
SQUIDs in thermal detectors of weakly interacting particles
[DE93-609531] 12 p3729 N93-31247
Interactions between tetraalkylammonium ions and silicates
[ETN-93-94057] 12 p3703 N93-31622
The structure of the dayside boundary layer between the Venus ionosphere and the shocked solar wind
12 p3853 N93-31678
A unified approach to classical and quantum physics
[DE93-609843] 12 p3833 N93-32411

PARTICLE LADEN JETS
Particle-jet interactions in an MHD second stage combustor
[DE92-016390] 02 p0455 N93-12309
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534

PARTICLE MASS
NT ELECTRON MASS
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Neutrino mass
[DE92-017411] 03 p0701 N93-12588
In situ dust mass distribution measurements from the Giotto encounter with comet P/Halley
03 p0753 N93-13602
The experimental status of neutrino masses and mixings
[DE93-000862] 05 p1285 N93-16303
Neutrino mass and mixing, and non-accelerator experiments
[DE93-000867] 05 p1286 N93-16306
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-792] 05 p1287 N93-16414
Global continuous symmetry and the 17keV neutrino
[PREPRINT-868] 05 p1288 N93-16966
Solitons on domain walls
[PREPRINT-876] 05 p1289 N93-16980
Instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
QCD spectroscopy and phenomenology with improved actions
[PREPRINT-857] 05 p1106 N93-17015
Meson spectroscopy and decay constants with Wilson fermions at beta = 6.4
[PREPRINT-823] 05 p1291 N93-17213
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341
Direct searches for neutrino mass
[DE93-003867] 08 p2479 N93-22068
Heavy quark masses
[SSCL-PREPRINT-772] 10 p3133 N93-27699
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
Summary talk --- particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
Physical parameters of the intermediate vector boson in the standard electroweak theory and the t-quark mass
[SSCL-PREPRINT-757] 10 p3135 N93-28142
Massive neutrinos
[DE93-609989] 12 p3821 N93-32026
Proposal for an absolute, atomic definition of mass
[DE93-609842] 12 p3815 N93-32410

PARTICLE MOTION
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
On development of a three-dimensional particle motion tracking system
[DE92-015846] 03 p0704 N93-13263
Dual mass and torsion 03 p0728 N93-13498
Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Integrable cellular automata
[PREPRINT-869] 05 p1269 N93-16967
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Methods development for electron transport
[AD-A257986] 05 p1295 N93-17698
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
Electron acceleration in the magnetosphere
07 p1997 N93-20283
The acquisition of velocity fields via the automatic analysis of motion, exemplarily demonstrated in a rotating fluid
[MPIS-102/1991] 07 p1902 N93-21023
Motion of charged particles in pulsar magnetospheres
08 p2550 N93-24161
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
An investigation of laser velocimetry measurements within high speed, complex flows
09 p2697 N93-25237
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Spinning particles in Schwarzschild space-time
[NIKHEF-H/92-09] 10 p3156 N93-27511

PARTICLE PRECIPITATION
NT ELECTRON PRECIPITATION
NT PROTON PRECIPITATION
Global zones of particle precipitation as observed by EXOS-C
[AD-A256397] 04 p0917 N93-15466
Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic)
06 p1584 N93-19555
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
Sounding rocket observations of precipitating ions in the morning auroral region 09 p2773 N93-25732
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562

PARTICLE PRODUCTION
NT PAIR PRODUCTION
NT PHOTOPRODUCTION
Study on the pi(sup -)p yields eta' pi(sup 0)n reaction at 38 and 100 GeV/c momenta
[DE92-624593] 01 p0153 N93-10328
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
Two-photon physics and the coming generation of heavy ion colliders
[DE92-015850] 01 p0156 N93-10732
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
A Polytropic solar model 02 p0487 N93-11264
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Heavy gauge boson and lambda(b) baryon searches at CDF
[DE92-019551] 03 p0705 N93-13537
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
B(sub c) production --- pseudoscalar meson
[PREPRINT-806] 05 p1287 N93-16444
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
CP violation in B(sub C) decays
[PREPRINT-871] 05 p1288 N93-16977
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment
[NOTA-INTERNA-994] 06 p1536 N93-17810
Strangeness signals in heavy ion collisions
[DE93-002935] 06 p1657 N93-19516
Anomalous WWZ couplings at future e(+)e(-) colliders
[PREPRINT-814] 07 p2066 N93-21177
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
New approach to the interaction of cosmic rays with nuclei in spacecraft shielding and the human body
[DE93-006263] 08 p2559 N93-22544
Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739
Recent experiments on spin physics in high energy hadron interactions
[DE93-007900] 09 p2851 N93-25301
Strangeness production in S + Pb and p + Pb collisions at 200 GeV/c per nucleon nucleon
[DE93-007654] 09 p2847 N93-25326
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
Time evolution of the quark-gluon plasma
[DE93-008703] 10 p3149 N93-27620
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Studies of high energy phenomena using muons
[DE93-009373] 10 p3140 N93-28367
Meson-meson interactions and phi-enhancement in nucleus collisions
[DE93-010725] 11 p3565 N93-28831
Elementary particle interactions
[DE93-005113] 11 p3568 N93-29764
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
Parton's picture of the electroweak processes in high energy e(+)e(-)-collisions
[DE93-606107] 11 p3571 N93-30788
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Covariant description of the delta in nuclear matter
[KVI-951] 12 p3817 N93-31149

PARTICLE SIZE DISTRIBUTION
Experimental investigation of rocket injector atomization 02 p0248 N93-11454

Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Global survey of effective particle size in liquid water clouds by satellite observations
04 p0921 N93-14862
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
High-energy laser-particle interaction
06 p1543 N93-18469
Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165
Studies of dispersed phase systems: Ostwald ripening and metal matrix composites 07 p1808 N93-21106
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
A study of mass size distributions and particle deposition velocities in ambient air 09 p2763 N93-25263
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602
Prediction of propellant behavior in spinning flow of a space motor 10 p2923 N93-27193
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

PARTICLE SPIN
NT ELECTRON SPIN
NT ISOTOPIC SPIN
NT NUCLEAR SPIN
The spin of the nucleon in deep inelastic lepton scattering experiments
[DE92-018854] 03 p0702 N93-13073
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom
[NOTA-INTERNA-993] 06 p1653 N93-17944
Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186
Overview of spin physics
[DE93-006412] 08 p2483 N93-24029
Recent experiments on spin physics in high energy hadron interactions
[DE93-007900] 09 p2851 N93-25301
Phase space localization for anti-de Sitter quantum mechanics and its zero curvature limit
10 p3144 N93-27333
Spinning particles in Schwarzschild space-time
[NIKHEF-H/92-09] 10 p3156 N93-27511
Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549
Radiation reaction for the classical relativistic spinning particle in scalar, tensor and linearized gravitational fields
[DE93-608191] 12 p3757 N93-31304
A generalization of Dirac non-linear electrodynamics, and spinning charged particles
[DE93-609847] 12 p3821 N93-31907
Helicity amplitudes for matter-coupled gravity
[DE93-609932] 12 p3832 N93-32025

PARTICLE TELESCOPES
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721

PARTICLE THEORY
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Research program in elementary particle theory
[DE92-017399] 01 p0155 N93-10840
Research in particle physics beyond the standard model
[DE92-012240] 01 p0155 N93-10878
Nucleon structure functions from deep inelastic muon scattering
[NIKHEF-H+K/92-01] 02 p0442 N93-11130
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
Medium energy nuclear physics research
[DE92-016972] 02 p0442 N93-12444
Research in elementary particle physics
[DE92-017869] 03 p0704 N93-13251
Research in particle theory
[DE93-002868] 05 p1284 N93-16147
BRST field theory of relativistic particles
[NIKHEF-H/92-04] 05 p1286 N93-16341
On Gupta-Bleuler quantization of systems with second-class constants
[NIKHEF-H/92-05] 05 p1264 N93-16342
Theoretical particle physics
[DE93-000649] 05 p1329 N93-16357
Stochastic reaction diffusion equations and interacting particle systems
[PREPRINT-796] 05 p1265 N93-16417
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
The first particle: The electron
[NOTA-INTERNA-974] 05 p1295 N93-17646
Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
Experimental particle physics
[DE93-003884] 06 p1655 N93-18538
Natural selection and particle physics: A thrust for artificial intelligence research
[INPE-5335-PRE/1734] 06 p1641 N93-19823
The discovery of the tau lepton
[DE93-004013] 07 p2063 N93-21718
Charm physics at Fermilab E791
[DE93-006020] 08 p2480 N93-22543
Theoretical studies in elementary particle physics
[DE93-005923] 08 p2481 N93-22883
Investigations in dynamics of gauge theories in theoretical particle physics
[DE93-007260] 08 p2484 N93-24448
An investigation of neutrino properties through study of the sun, supernovae, the early universe and lab data
09 p2898 N93-25180
Summary talk --- particle physics
[SSCL-PREPRINT-724] 10 p3134 N93-28097
Physical parameters of the intermediate vector boson in the standard electroweak theory and the t-quark mass
[SSCL-PREPRINT-757] 10 p3135 N93-28142
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
Theory of deep-inelastic scattering reactions and x-rescaling model
[DE93-604519] 12 p3820 N93-31821

PARTICLE TRACKS
Explaining cloud chamber tracks
[DE92-040502] 04 p0972 N93-15057
Charged particle track reconstruction using artificial neural networks
[DE93-003014] 06 p1658 N93-19630
Interplanetary meteoroid debris in LDEF metal craters
11 p3638 N93-29372
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488

PARTICLE TRAJECTORIES
NT ELECTRON TRAJECTORIES
Computation of single solid particle impact on the target of ductile material to study the rebound characteristics of particle 02 p0336 N93-11372
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Particle emission from artificial cometary materials
06 p1710 N93-19188
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090
Some features of particle orbit behavior in LHD configurations
[NIFS-211] 09 p2859 N93-25216
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Symmetries and motions in manifolds
[NIKHEF-H/92-08] 10 p3128 N93-27510
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Simulation and calculation of diffusive aerosol deposition
[DE93-007518] 11 p3474 N93-30506

PARTICLES
NT AEROSOLS
NT ALPHA PARTICLES
NT ANTINEUTRINOS
NT ANTINUCLEONS
NT ANTIPARTICLES
NT ANTIPROTONS
NT ARGON PLASMA
NT BARYONS
NT BETA PARTICLES
NT BOSONS
NT BOUNDARY LAYER PLASMAS
NT CHARGED PARTICLES
NT COLD NEUTRONS
NT COLD PLASMAS
NT COLLISIONAL PLASMAS
NT COLLISIONLESS PLASMAS
NT CONDUCTION ELECTRONS
NT COSMIC DUST
NT COSMIC PLASMA
NT DENSE PLASMAS
NT DEUTERIUM PLASMA
NT DEUTERONS
NT DROPS (LIQUIDS)
NT DUST
NT ELECTRON BEAMS
NT ELECTRON PLASMA
NT ELECTRON PRECIPITATION
NT ELECTRON RADIATION
NT ELECTRON-POSITRON PAIRS
NT ELECTRON-POSITRON PLASMAS
NT ELECTRONS
NT ELEMENTARY PARTICLES
NT ENERGETIC PARTICLES
NT ETA-MESONS
NT EVEN-EVEN NUCLEI
NT FAST NEUTRONS
NT FERMIONS
NT FOG
NT GLUONS
NT GRAVITONS
NT HADRONS
NT HEAVY NUCLEI
NT HELIUM PLASMA

NT HIGH ENERGY ELECTRONS
NT HIGH TEMPERATURE PLASMAS
NT HOT ELECTRONS
NT HYDROGEN PLASMA
NT HYPERNUCLEI
NT HYPERONS
NT INNER RADIATION BELT
NT INTERPLANETARY DUST
NT IONIZED GASES
NT KAONS
NT LASER PLASMAS
NT LEPTONS
NT LUNAR DUST
NT MAGNETIC CLOUDS
NT MAGNETIC MONOPOLES
NT MAGNETICALLY TRAPPED PARTICLES
NT MESONS
NT METAL PARTICLES
NT METAL POWDER
NT METALLIC PLASMAS
NT MICROPARTICLES
NT MICROPLASMAS
NT MIST
NT MUONS
NT NEUTRAL PARTICLES
NT NEUTRINOS
NT NEUTRONS
NT NITROGEN PLASMA
NT NONEQUILIBRIUM PLASMAS
NT NUCLEAR PARTICLES
NT NUCLEI (NUCLEAR PHYSICS)
NT NUCLEONS
NT ODD-EVEN NUCLEI
NT OUTER RADIATION BELT
NT OXYGEN PLASMA
NT PARTICULATES
NT PARTONS
NT PHOTOELECTRONS
NT PHOTONS
NT PIONS
NT PLASMA CLOUDS
NT PLASMA FOCUS
NT PLASMA JETS
NT PLASMA LAYERS
NT PLASMA SHEATHS
NT PLASMAS (PHYSICS)
NT POLARONS
NT POLLEN
NT POSITRONS
NT POWDER (PARTICLES)
NT POWDERED ALUMINUM
NT PROTONS
NT QUARKS
NT RADIATION BELTS
NT RADIO JETS (ASTRONOMY)
NT RAINDROPS
NT RECOIL PROTONS
NT RELATIVISTIC ELECTRON BEAMS
NT RELATIVISTIC PARTICLES
NT RELATIVISTIC PLASMAS
NT RHO-MESONS
NT ROTATING PLASMAS
NT SOLAR CORPUSCULAR RADIATION
NT SOLAR COSMIC RAYS
NT SOLAR ELECTRONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
NT SOLAR WIND
NT SOOT
NT SPACE PLASMAS
NT STELLAR WINDS
NT STRONGLY COUPLED PLASMAS
NT TERRESTRIAL DUST BELT
NT THERMAL NEUTRONS
NT THERMAL PLASMAS
NT TOROIDAL PLASMAS
NT TRAPPED PARTICLES
NT VECTOR MESONS
NT ZODIACAL DUST

Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359
Two-phase flow modeling with discrete particles
[DE92-017850] 03 p0583 N93-13356
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Wind tunnel seeding particles for laser velocimeter 05 p1057 N93-16770
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Nanotechnology 06 p1678 N93-18489
In-situ determination of optical properties of sea water and particle characteristics in the Corfu Sea (Mediterranean): Report on the first joint campaign of the Mito project
[BCRS-92-04] 07 p2018 N93-20741
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206
Alternative descriptions of wave and particle aspects of the harmonic oscillator 10 p3142 N93-27317
Mass spectra of the particle-antiparticle system with a Dirac oscillator interaction 10 p3146 N93-27351
Scattering by irregular particles in anomalous diffraction and discrete dipole approximations 12 p3817 N93-31154

PARTICULATE FILTERS
U FLUID FILTERS

PARTICULATE REINFORCED COMPOSITES
An investigation into thermomechanical fatigue of metal matrix composites 03 p0534 N93-13810
Superstrength metal composite material and process for making the same
[AD-D015379] 04 p0836 N93-15246
The prediction of the overall behavior of viscous composites
[ITN-93-85184] 05 p1098 N93-16855
Characterization and defect analysis of high temperature aluminum-based metal matrix composites 06 p1480 N93-19060
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites 07 p1843 N93-21525
Dynamic deformations and analysis of a metal matrix composite 09 p2634 N93-25234
Fracture micromechanics of ceramic composites 10 p2920 N93-27172
Design of interfaces in metal matrix composites
[AD-A262052] 11 p3296 N93-29001

PARTICULATES
NT SOOT
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
On development of a three-dimensional particle motion tracking system
[DE92-015846] 03 p0704 N93-13263
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
Characterisation and dynamic modelling of the near-earth space particulate environment 04 p1019 N93-14637
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
Fluid separator
[NASA-CASE-MFS-28658-1] 05 p1163 N93-17039
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
Particle collection efficiency of a cyclonic combustor
[DE93-003198] 06 p1484 N93-19620
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites 07 p1843 N93-21525
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Development of the nested fiber filter
[DE93-005015] 08 p2315 N93-23322
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
The determination of particulate contamination in miniature ball bearings
[DE93-006261] 08 p2316 N93-23675
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Environmental Verification Experiment for the Explorer Platform (EVEEP) 11 p3266 N93-28726
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF 11 p3283 N93-29362

PARTITIONS (MATHEMATICS)
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
Combinatorial and topological phase structure of non-perturbative n-dimensional quantum gravity
[PREPRINT-861] 05 p1331 N93-17224
The semantics of plural noun phrases
[LP-91-07] 06 p1614 N93-17827
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Bipartitioning of LOTOS specifications
[MEMO-INF-92-50] 08 p2439 N93-23359
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
A novel recursive partitioning criterion
[AD-A259921] 08 p2464 N93-24564
On partitions into unequal squares and related problems
[MEMO-1055] 10 p3120 N93-28003
Optimized partitioning and balancing for parallel processing 11 p3365 N93-30280
Direct Monte Carlo simulation of the chemical equilibrium composition of detonation products
[DE92-040372] 11 p3315 N93-30447
The crease structure of the Karush-Kuhn-Tucker set in parametric optimization
[REPT-92-62] 12 p3806 N93-31551

PARTITIONS (STRUCTURES)
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835

PARTONS
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics
[NOTA-INTERNA-991] 06 p1653 N93-17942
Inclusive beauty decays and the spectator model
[PREPRINT-790] 07 p2061 N93-20850
A study of four-jet events and search for double parton interactions at square root of s = 1.8 TeV
[DE93-005973] 08 p2480 N93-22693
Parton's picture of the electroweak processes in high energy e(+)e(-)-collisions
[DE93-606107] 11 p3571 N93-30788

PASCAL (PROGRAMMING LANGUAGE)
Automating software design system DESTA 05 p1250 N93-17519
PASCAL subroutines for standard test problems in unconstrained minimization
[MATHS-REPT-A-155] 08 p2441 N93-24076
Macro function language hardware manual
[AD-A262109] 10 p3103 N93-28182

PASSENGER AIRCRAFT
NT BO-105 HELICOPTER
NT BOEING 720 AIRCRAFT
NT BOEING 747 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT CH-47 HELICOPTER
NT COMMUTER AIRCRAFT
NT EUROPEAN AIRBUS
NT H-53 HELICOPTER
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277
The design of a long range megatransport aircraft
[NASA-CR-192077] 05 p1064 N93-17711
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
Tesseract: Supersonic business transport
[NASA-CR-192072] 06 p1435 N93-17977
Eagle RTS: A design for a regional transport aircraft
[NASA-CR-192032] 06 p1435 N93-18017

A second-generation high speed civil transport: Stingray
[NASA-CR-192022] 06 p1437 N93-18059
The Trojan --- supersonic transport
[NASA-CR-192013] 06 p1437 N93-18060
Preliminary design of a high speed civil transport: The Opus 0-001
[NASA-CR-192018] 06 p1437 N93-18061
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989
[ETN-93-93702] 08 p2126 N93-23401
MD-11: When appearances deceive
[ETN-93-93695] 08 p2126 N93-23416
Aircraft fire protection system
[CA-PATENT-1-296-970] 08 p2118 N93-24592
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652
Civil tiltrotor transport point design: Model 940A
[NASA-CR-191446] 12 p3701 N93-32234

PASSENGERS
An investigation of ground access mode choice for departing passengers
[TT-9201] 02 p0217 N93-11224
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863

PASSES
U GAPS (GEOLOGY)

PASSIVATION
U PASSIVITY

PASSIVE NOSETIP TECHNOLOGY
U PANT PROGRAM

PASSIVE SATELLITES
NT BEACON SATELLITES
NT LAGEOS (SATELLITE)
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
Spaceborne passive radiative cooler 11 p3378 N93-28802

PASSIVITY
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
An empirical approach to predicting long term behavior of metal particle based recording media 05 p1170 N93-16330
Passivity and stress corrosion cracking of AISI 316 stainless steel in chloride-containing solutions
[ETN-92-92783] 05 p1113 N93-16580
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Low-temperature emitter-passivation for silicon solar cells
[DE93-002483] 07 p1987 N93-21487
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Fundamental aspects in the design of passive alloys
[DE93-009028] 11 p3320 N93-28545
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002

PATCH TESTS
Patch testing of ceramic barrier filters
[DE93-005017] 08 p2315 N93-23294

PATENT POLICY
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 41)
[NASA-SP-7039(41)-SECT-1] 01 p0171 N93-10078
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 42)
[NASA-SP-7039(42)-SECT-1] 06 p1685 N93-18110
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 42)
[NASA-SP-7039(42)-SECT-2] 06 p1686 N93-18410
NASA patent abstracts bibliography: A continuing bibliography. Section 1: Abstracts (supplement 43)
[NASA-SP-7039(43)-SECT-1] 12 p3839 N93-31923
NASA patent abstracts bibliography: A continuing bibliography. Section 2: Indexes (supplement 43)
[NASA-SP-7039(43)-SECT-2] 12 p3842 N93-32376

PATENTS
Patent write-ups: Patents available for licensing
[AD-A256694] 05 p1402 N93-16113
Meteor burst communication system
[AD-D015470] 05 p1139 N93-16466
Center for Space Microelectronics Technology
[NASA-CR-192799] 08 p2279 N93-22812

PATH PLANNING
U TRAJECTORY PLANNING

PATHOGENESIS
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
Viral hepatitis in the US Air Force, 1980 - 1989 02 p0377 N93-11287
HIV variability and perspectives of a vaccine 02 p0378 N93-11294
Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations 02 p0379 N93-11297
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Transactions: Tropospheric ozone and the environment. Papers from an international conference
[PB92-217017] 03 p0643 N93-12941

PATHOGENS
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995

PATHOLOGICAL EFFECTS
Carboxyalkylated hemoglobin as a potential blood substitute
[AD-A252329] 02 p0384 N93-11561
Effects of commercial flight pollution on human health 12 p3753 N93-31931

PATHOLOGY
NT HUMAN PATHOLOGY
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696
Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698
The prevalence of artificial lens implants in the civil airman population
[DOT/FAA/AM-92/14] 09 p2794 N93-25214

PATHS
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Implementation of the pure pursuit path tracking algorithm
[AD-A255524] 04 p0944 N93-14569
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
Walkway friction: Experiment and analysis 11 p3293 N93-30966

PATIENTS
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Development and enhancement of a mode of performance and decision making under stress in a real life setting
[AD-A257796] 06 p1598 N93-18363
Automatic detection of seizures with applications 09 p2796 N93-25592
A fiber optic probe for the detection of cataracts 09 p2796 N93-25593
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347

PATTERN DISTRIBUTION
U DISTRIBUTION (PROPERTY)

PATTERN METHOD (FORECASTING)
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220

PATTERN RECOGNITION
NT CHARACTER RECOGNITION
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Misclassification rates of likelihood and predictive discriminant functions for small samples
[AD-A253640] 01 p0146 N93-10208
The development of optical techniques for component inspection in the aerospace industry 01 p0093 N93-10307
Optimization of neural network topology and information content using Boltzman methods
[PB92-205418] 01 p0142 N93-10450
Joint Services Electronics Program
[AD-A253842] 01 p0076 N93-10829
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
Autonomous star sensing and pattern recognition for spacecraft attitude determination 01 p0177 N93-10876
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
Pattern recognition applied to H(sub alpha) spectroheliograms solar rotation and meridional circulation 01 p0182 N93-10924
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
Extraction of shape information from predicted irradiance profiles in infrared images
[RSRE-MEMO-4464] 02 p0447 N93-11342
Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
The physics of pattern formation at liquid interfaces
[DE92-016971] 02 p0462 N93-11747
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Transient Reduction Analysis using Neural Networks (TRANN)
[DE92-012150] 02 p0421 N93-12153
A trainable image pattern classification system for detection of damaged soybean seeds 02 p0201 N93-12208
Nonlinear resistive grid wavelet transformations for texture feature extraction
[AD-A254705] 02 p0285 N93-12332
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Automatic pattern recognition techniques for geometrical correction on satellite data 03 p0687 N93-13913
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
Neural nets for scene analysis
[AD-A255976] 04 p0961 N93-14409
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510
Geometric invariants and object recognition
[AD-A255317] 04 p0943 N93-14546
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A255433] 04 p0962 N93-14551
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
Workstation tools for feature extraction and classification for nonstationary and transient signals
[AD-A255389] 04 p0947 N93-15228
Neural network architectures for general image recognition
[AD-A256017] 04 p0964 N93-15258
Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
Adaptive machine vision
[AD-A257363] 05 p1301 N93-16007
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206

Fuzzy set methods for object recognition in space applications
[NASA-CR-191778] 05 p1238 N93-16559
Back propagation neural networks for facial verification
[DE93-001428] 05 p1260 N93-16604
Recognition of fiducial marks applied to robotic systems
[NASA-CR-191857] 05 p1168 N93-16659
Investigation and modification of a commercially available tactile sensor suited for robotic applications
[NASA-CR-191833] 05 p1178 N93-16665
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
A metric for line segments
[CWI-BS-R9126] 05 p1268 N93-16832
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Fuzzy Set Methods for Object Recognition in Space Applications
[NASA-CR-191975] 06 p1618 N93-18224
Automatic rule generation for high-level vision 06 p1618 N93-18225
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Membership generation using multilayer neural network 06 p1618 N93-18227
Possibilistic clustering for shape recognition 06 p1618 N93-18228
One and two dimensional discrete wavelet transforms
[AD-A257981] 06 p1502 N93-18241
General method of pattern classification using the two-domain theory
[NASA-CASE-MSC-21737-1] 06 p1619 N93-18282
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
Artificial neural networks application simulator 06 p1642 N93-18502
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
A toposcopic investigation of brain electrical activity induced by motion sickness
[AD-A259024] 06 p1599 N93-18952
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355
Recognition of partially occluded threat objects using the annealed Hopefield network 06 p1612 N93-19466
Advances in speech processing 06 p1517 N93-19771
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
Research in text processing
[AD-A259434] 07 p2087 N93-20010
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system 07 p1967 N93-20529
Development of an automated cartographic system 07 p1967 N93-20530
Application possibilities for automated digitizing 07 p1967 N93-20531
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement 07 p1967 N93-20532
Reflections on segmentation
[RR-873-I] 07 p2034 N93-20791
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation
[NASA-CR-192619] 07 p1892 N93-20910
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941
Fuzzy set methods for object recognition in space applications
[NASA-CR-191986] 07 p2041 N93-21563
Use of neural networks in the analysis of complex systems
[DE93-003554] 07 p2049 N93-21847
Recognition of partially occluded threat objects based on hybrid Hopfield neural network 07 p1777 N93-21939
Knowledge From Pictures (KFP) 08 p2465 N93-22187
Possibilistic clustering for shape recognition 08 p2450 N93-22208
The 3-D image recognition based on fuzzy neural network technology 08 p2450 N93-22210
Determining the number of hidden units in multi-layer perceptrons using F-ratios 08 p2451 N93-22214
Adaptive fuzzy system for 3-D vision 08 p2451 N93-22216
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Photonic correlator pattern recognition: Application to autonomous docking 08 p2148 N93-22303
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Spectroscopic and dynamical studies of highly energized small polyatomic molecules
[DE93-006504] 08 p2480 N93-22712
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
Localization and positioning using combinations of model views
[AD-A259734] 08 p2460 N93-23472
3D pose from 3 corresponding points under weak-perspective projection
[AD-A259737] 08 p2460 N93-23473
3D object recognition: Symmetry and virtual views
[AD-A259738] 08 p2460 N93-23474
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems 08 p2349 N93-23546
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data 08 p2350 N93-23552
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm 08 p2354 N93-23576
The creation of a DEM from SPOT data 08 p2355 N93-23582
Feature detection using ERS-1 SAR data 08 p2356 N93-23586
Automatic feature extraction and localization using data fusion of radar and infrared images 08 p2270 N93-23628
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects
[AD-A259711] 08 p2440 N93-23638
Recognizing 3D objects for 2D images: An error analysis
[AD-A260150] 08 p2469 N93-23707
Three dimensional object recognition using an unsupervised neural network: Understanding the distinguishing features
[AD-A260048] 08 p2461 N93-23712
Normal modes of the atmosphere as estimated by principal oscillation patterns and derived from quasi-geostrophic theory
[MPIM-81] 08 p2397 N93-23857
Planning multiple observations for object recognition
[AD-A259879] 08 p2440 N93-23959
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019
One-class classifier networks for target recognition applications
[DE93-006288] 08 p2271 N93-24043
Face recognition with neural networks
[AD-A259587] 08 p2462 N93-24066
Perception/action: An holistic approach
[AD-A259597] 08 p2428 N93-24067
Space efficient 3D model indexing
[AD-A259571] 08 p2462 N93-24085
Visualization of gravity wave data by Iris Explorer (a computer program)
[FFI-92/7022] 08 p2399 N93-24090
Distance metric between 3D models and 2D images for recognition and classification
[AD-A260069] 08 p2463 N93-24313
Analytical representation of contours
[AD-A260151] 08 p2471 N93-24415
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Shape-contour recognition using moment invariants
[ISBN-0-315-61036-0] 08 p2444 N93-24624
Failure monitoring in dynamic systems: Model construction without fault training data 09 p2672 N93-24666
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779
EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
A novel optical/digital processing system for pattern recognition 09 p2814 N93-25603
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
Sparse arrangements and the number of views of polyhedral scenes
[RUU-CS-92-24] 10 p3120 N93-28065
Feature modelling and conversion: Key concepts to concurrent engineering
[REPT-92-44] 10 p3103 N93-28220
Robust and fast computation of edge characteristics in image sequences
[INRIA-RR-1689] 10 p3105 N93-28446
Recognizing parameterized objects from range data
[OUEL-1918/92] 11 p3523 N93-28486
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
A corner matching and tracking strategy applied to videophony
[OUEL-1933/92] 11 p3380 N93-28896
Multi-channel holographic birfurcative neural network system for real-time adaptive EOS data analysis 11 p3614 N93-29231
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm 11 p3512 N93-29535
The fusion of information via fuzzy integration 11 p3517 N93-29568
Neural networks application to divergence-based passive ranging
[NASA-TM-103981] 11 p3245 N93-29653
Spatial Light Modulators (SLMs) surface quality
[AD-A263249] 11 p3579 N93-29656
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A264831] 11 p3543 N93-29791

Mixed limit theorems for pattern analysis
[AD-A263735] 11 p3549 N93-29854
A neural network based approach for machine fault diagnosis
[VTT-TIED-1274] 11 p3543 N93-29998
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Feature segmentation using a multiple-stack based chain coding algorithm 11 p3359 N93-30243
A robust multi-operator 3-D edge detection approach for range image segmentation 11 p3366 N93-30288
Recognizing partially overlapping objects 11 p3366 N93-30289
Cloud classification from satellite imagery using neural computing 11 p3367 N93-30297
Classification of radar clutter in an air traffic control environment 11 p3246 N93-30299
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU] 11 p3449 N93-30413
Qualitative methods in computer vision
[AD-A264335] 11 p3533 N93-30418
Multiresolution analysis of SAR data
[AD-A264727] 11 p3393 N93-30576
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
Extracting projective information from single views of 3D point sets
[OUEL-1927/92] 12 p3785 N93-31151
Automatic acquisition of elevation points in map-making using the TUEK 200 12 p3745 N93-31263
Automatic recognition of solar features 12 p3880 N93-31421
A segmental hidden Markov model for speech pattern processing
[RSRE-MEMO-4599] 12 p3716 N93-31610
Design of coupled mace filters for optical pattern recognition using practical spatial light modulators
[NASA-CR-193192] 12 p3823 N93-31841
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846
Piecewise linear neural networks
[AD-A265031] 12 p3799 N93-32082

PATTERN REGISTRATION
Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953
Iterative point matching for registration of free-form curves
[INRIA-RR-1658] 10 p3122 N93-28441
Recognizing parameterized objects from range data
[OUEL-1918/92] 11 p3523 N93-28486

PATTERNS
Patterns for knowledge discovery in databases 06 p1688 N93-19712

PAULI EXCLUSION PRINCIPLE
Variational derivation of equation for generalized pair correlation function 05 p1254 N93-16778

PAVEMENTS
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Unified Airport Design and Analysis Concepts Workshop
[DOT/FAA/RD-92/17] 05 p1069 N93-16309
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Development of user guidelines for a three-dimensional finite element pavement model 05 p1070 N93-16311
Micro mechanical behavior of pavements 05 p1070 N93-16312
Thermoviscoelastic analysis of pavements 05 p1070 N93-16313
FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314
Federal Aviation Administration pavement modeling 05 p1071 N93-16315
State of the art review of rutting and cracking inpavements 05 p1071 N93-16316
Development of a unified airport pavement analysis and design system 05 p1071 N93-16317
Unified airport pavement design procedure 05 p1071 N93-16318
Three-dimensional stress analysis of multilayered airport pavements: Integral transform approach 05 p1072 N93-16319
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
Asphalt mixtures modified with tall oil pitches and cellulose fibres
[VTT-PUBS-99] 06 p1494 N93-18699
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103

PAYLOAD CONTROL
A berthing and fastening strategy for orbital replacement units 07 p1814 N93-21420
Payload operations for precursor mission E-1 08 p2155 N93-24342
The refined decentralized concept and development support 08 p2162 N93-24378
Payload operations 08 p2163 N93-24384
A magnetic isolation and pointing system for the astrometric telescope facility 10 p2960 N93-27563

PAYLOAD DELIVERY (STS)
Space transportation: The content and uses of Shuttle cost estimates. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-115] 08 p2531 N93-23097

PAYLOAD DEPLOYMENT & RETRIEVAL SYSTEM
NT REMOTE MANIPULATOR SYSTEM
Attached payload issues 08 p2163 N93-24388

PAYLOAD INTEGRATION
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
Preparing safety data packages for experimenters using the Get Away Special (GAS) carrier system 03 p0512 N93-13186
Vehicle/payload interface specification for the reusable reentry satellite
[NASA-CR-187883] 04 p0824 N93-15631
Space Station Freedom user's guide
[NASA-TM-108105] 04 p0825 N93-15650
Introduction to Space Station Freedom 08 p2182 N93-22608
How to get on board Space Station Freedom 08 p2183 N93-22611
WP-2 attached payload accommodations 08 p2190 N93-22641
The role of the APM centre to support Columbus precursor flights 08 p2156 N93-24344
COMPASS: A computerized payload operations support system for Columbus 08 p2161 N93-24377
The refined decentralized concept and development support 08 p2162 N93-24378
Assured crew return vehicle man-systems integration standards
[NASA-CR-193065] 09 p2614 N93-26329
Space transportation analysis and design (Reissue A)
[AD-A262752] 11 p3271 N93-28487
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644

PAYLOAD INTEGRATION PLAN
Experiment module/support module interface specification for the reusable reentry satellite
[NASA-CR-187885] 05 p1086 N93-15805

PAYLOAD RETRIEVAL (STS)
The Wakeshield Facility: Free flyer and commercial experiment transporter programs 07 p1807 N93-21105
Retrievable payload carrier, next generation Long Duration Exposure Facility: Update 1992 11 p3283 N93-29705

PAYLOAD STATIONS
A process for prototyping onboard payload displays for Space Station Freedom 05 p1073 N93-17315
STS-43 Space Shuttle mission report
[NASA-CR-193064] 09 p2612 N93-25957

PAYLOAD TRANSFER
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929

PAYLOADS
NT ASTRO MISSIONS (STS)
NT EARTH RADIATION BUDGET EXPERIMENT
NT GEOPHYSICAL FLUID FLOW CELLS
NT GET AWAY SPECIALS (STS)
NT PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE
NT PLASMA INTERACTION EXPERIMENT
NT SHUTTLE IMAGING RADAR
NT SPACE SHUTTLE PAYLOADS
NT SPACE STATION PAYLOADS
NT SPACELAB
NT SPACELAB PAYLOADS
NT X RAY ASTROPHYSICS FACILITY
Attached payloads on Space Station Freedom and Columbus 01 p0014 N93-10929
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
Acoustic fill factors for a 120 inch diameter fairing
[NASA-CR-189284] 02 p0434 N93-11634
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Manipulation strategies for massive space payloads
[NASA-CR-190844] 03 p0611 N93-12952
The DSI small satellite launcher 03 p0511 N93-13180
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems 03 p0556 N93-13983
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
The use of reverberant-room acoustic testing for spacecraft structures and their payloads 05 p1085 N93-15786
Outline for reusable reentry satellite system specification, volumes 1 - volume 9
[NASA-CR-185958] 05 p1086 N93-15791
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars
[NASA-CR-191638] 05 p1377 N93-16630
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
National Aeronautics and Space Administration 05 p1358 N93-17091
Lunar surface rovers 05 p1390 N93-17262
Development of vendor evaluation criteria and post-implementation considerations for MSFC center-wide executive information system 05 p1345 N93-17316
Reliability evaluation methodology for NASA applications 05 p1182 N93-17328
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410

Nonlinear robust controller design for multi-robot systems with unknown payloads
06 p1552 N93-19462
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
Laser docking sensor engineering model
08 p2139 N93-22247
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134
GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168
The Eureca concept and missions
08 p2156 N93-24343
The effect of missions and payload performance on the configuration of an orbital injection system design
08 p2156 N93-24349
COMPASS: A computerized payload operations support system for Columbus 08 p2161 N93-24377
Payload operations 08 p2163 N93-24384
Reusable reentry satellite system specification. Volume 1-9
[NASA-CR-192969] 08 p2196 N93-24543
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission
09 p2603 N93-24717
STS-39 Space Shuttle mission report
[NASA-CR-193063] 09 p2611 N93-25955
STS-37 Space Shuttle mission report
[NASA-CR-193062] 09 p2612 N93-25956
STS-47 Space Shuttle mission report
[NASA-CR-193056] 09 p2612 N93-25960
STS-42 Space Shuttle mission report
[NASA-CR-193059] 09 p2613 N93-25989
STS-48 Space Shuttle mission report
[NASA-CR-193060] 09 p2613 N93-25990
STS-46 Space Shuttle mission report
[NASA-CR-193058] 09 p2613 N93-25991
STS-50 Space Shuttle mission report
[NASA-CR-193057] 09 p2613 N93-25992
STS-52 Space Shuttle mission report
[NASA-CR-193061] 09 p2613 N93-25993
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
ROSETTA: The ESA sample return mission
10 p2953 N93-28049
Multipurpose satellite bus (MPS)
11 p3232 N93-29743
Assessment of Columbus payload operations capabilities by scheduling with the MARS system
[ESA-STR-235] 11 p3281 N93-30106
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133
Aerospace payload design and development
[AD-A264502] 11 p3289 N93-30402
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
Ground Robotic Hand Applications for the Space Program study (GRASP)
[NASA-CR-193571] 12 p3737 N93-32235

PBRE (REACTORS)
U PEBBLE BED REACTORS

PCB
U POLYCHLORINATED BIPHENYLS

PCM (MATERIALS)
U PHASE CHANGE MATERIALS

PCM (MODULATION)
U PULSE CODE MODULATION

PCM TELEMETRY
Design of a PCM data compressor --- pulse code modulation
[DE92-019469] 02 p0404 N93-11539

PDM (MODULATION)
U PULSE DURATION MODULATION

PEARLITE
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912

PEBBLE BED REACTORS
Space Nuclear Thermal Propulsion (SNTP) Air Force facility 10 p2955 N93-26968

PECULIAR GALAXIES
Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660
09 p2607 N93-25396
The galaxy velocity field and CDM models
10 p3176 N93-26737

PEDOLOGY
U SOIL SCIENCE

PEEK
Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites
03 p0534 N93-13908
Creep damage of carbon fiber reinforced PEEK
07 p1862 N93-20639
Creep of PEEK-graphite fibre composite material
07 p1930 N93-20644
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
The design of mechanically compatible fasteners for human mandible reconstruction
09 p2796 N93-25569
Evaluation of polyaryl adhesives in elastomer-stainless steel joints
[DE93-009794] 11 p3329 N93-28551
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Advanced fiber/matrix material systems
11 p3305 N93-30854

PEELING
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658

PEENING
NT SHOT PEENING

PEGASUS AIR-LAUNCHED BOOSTER
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Spacecraft and launch systems for TACSAT applications 11 p3284 N93-29904

PELAGIC ZONE
The orbital record in stratigraphy
06 p1582 N93-18974

PELLETS
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685

PELTIER EFFECTS
Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873

PENDULUMS
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Desktop chaotic systems: Intuition and visualization
[NASA-TM-106258] 12 p3808 N93-31847

PENETRANTS
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640

PENETRATION
The effects of chemistry on weld profiles in partial and full penetration welds
[DE92-016865] 02 p0327 N93-11679
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Characterisation and dynamic modelling of the near-earth space particulate environment
04 p1019 N93-14637
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
Weld pool oscillation during gas tungsten arc welding
[ETN-92-92796] 05 p1177 N93-16568
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
Wetting of fibers measured by LPR-90 equipment
07 p1835 N93-21139
GTAW penetration based on electrode tip location versus weld joint center line
[DE93-004910] 08 p2311 N93-22494
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
Method for providing EMI/EMP hardening and breakdown protection in composite materials
[AD-D015638] 09 p2634 N93-25283
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
Analysis of shaped charge jet penetration experiments with Pen
[UCRL-LR-110773] 09 p2730 N93-26177
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178
Lunar regolith penetrators and cutters
11 p3276 N93-29117
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

PENETRATION BALLISTICS
U TERMINAL BALLISTICS

PENETROMETERS
A lunar penetrator to determine solar-wind-implanted resources at depth in the lunar regolith
05 p1386 N93-17239
Horizontal stress in-situ by cone penetrometers and related studies
[AD-A260503] 08 p2401 N93-24418
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570

PENNING DISCHARGE
Suppression of the e(-) coextracted from a Penning surface-plasma H(-) source
[DE92-040350] 03 p0714 N93-12997
Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778

PENNING EFFECT
Optical detection of laser-cooled ions in a Penning trap 09 p2838 N93-25031

PENNSYLVANIA
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157

PENTACHLORIDES
U CHLORIDES

PENTAERYTHRITOL TETRANITRATE
U PETN

PENTOSE
NT XYLOSE

PEPTIDES
NT POLYPEPTIDES
Cytokines as vaccine adjuvants: Interleukin 1 and its synthetic peptide 163-171 02 p0382 N93-11309

Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889
Organization of the human circadian system
[AD-A264675] 12 p3774 N93-32015

PERCENTAGE
U RATIOS

PERCEPTION
NT AUDITORY PERCEPTION
NT BINAURAL HEARING
NT MOTION PERCEPTION
NT OLFACTORY PERCEPTION
NT PAIN
NT PROPRIOCEPTION
NT SENSORY PERCEPTION
NT SOUND LOCALIZATION
NT SPACE PERCEPTION
NT TACTILE DISCRIMINATION
NT TOUCH
NT VERTICAL PERCEPTION
NT VISUAL DISCRIMINATION
NT VISUAL PERCEPTION
Object recognition with a robot hand
02 p0420 N93-11457
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Machine perception exploiting high-level spatio-temporal models 03 p0693 N93-13244
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258

PERCEPTRONS
U SELF ORGANIZING SYSTEMS

PERCHLORATES
NT AMMONIUM PERCHLORATES
NT LITHIUM PERCHLORATES
NT POTASSIUM PERCHLORATES
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142

PERCOLATION
Macroscopic properties of random and quasiperiodic media
[AD-A255984] 04 p0990 N93-14413
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717

PERFECT GAS
U IDEAL GAS

PERFLUORO COMPOUNDS
NT PERFLUOROALKANE
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Determination of the thermal stability of perfluoropolyalkyl ethers by tensimetry
[NASA-TM-106081] 09 p2654 N93-25093
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352

PERFLUOROALKANE
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026

PERFORATED PLATES
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Evaluation of acoustic impedance models for a perforated plate
[NAL-TR-1133] 02 p0435 N93-12375
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806

PERFORATING
Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301
Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477

PERFORMANCE
Experience with explosive detection systems in airports 07 p1770 N93-21895
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176

PERFORMANCE PREDICTION
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
A comparison of the achieved and predicted defect rates of some continuously operating electronic equipment
[RTP/909/10-ISSUE-2] 02 p0288 N93-11364
A model for analytical performance prediction of hypervapotron
[DE92-018885] 02 p0305 N93-12010
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
Predicted and tested performance of durable TPS
02 p0228 N93-12454
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Identifiability in the autopsy model of reliability theory
03 p0620 N93-13710
Sequential quadratic programming solutions to related aircraft trajectory optimization problems
03 p0505 N93-13926
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
Parallelism in a main-memory DBMS: The performance of PRISMA/DB
[MEMO-INF-92-25] 04 p0958 N93-15093
Approximate performability analysis using generalized stochastic Petri nets
[MEMO-INF-92-11] 04 p0971 N93-15119
Development of NASA/DOE NTP system performance models
[NASA-TM-105982] 04 p0827 N93-15428
MGMtool: A performance modelling tool based on matrix geometric techniques
[MEMO-INF-92-35] 05 p1236 N93-16338
Accurate and efficient layout extraction
[ISBN-90-9004806-5] 05 p1147 N93-16499
Interim report on the analysis of the microwave power module
[NASA-TM-106012] 05 p1148 N93-16713
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
Optical pathiength control on the JPL Phase B interferometer testbed 06 p1465 N93-18842
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435
A performance model for thick composite cylinders subjected to external hydrostatic pressure
[DE93-002425] 06 p1560 N93-19476
CO2 lidar backscatter experiment
07 p2009 N93-20103
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
CASE/simulation systems 07 p2088 N93-20165
The JPL/NASA/TAMU nickel-cadmium battery model development status 07 p1985 N93-20509
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
Computer simulations and performance predictions for explosive detection systems 07 p1777 N93-21938
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367
Performance prediction of relational database management systems
[ISBN-0-315-69232-4] 08 p2526 N93-23383
Rotor design optimization using a free wake analysis
[NASA-CR-177612] 09 p2575 N93-25075
Transient performance of fan engine with water ingestion
[NASA-CR-190778] 09 p2573 N93-25134
Statistical modelling of software reliability
[NASA-CR-192985] 09 p2809 N93-25257
A cognitive architecture for human performance process model research
[AD-A261040] 09 p2797 N93-25815
The effects of reaction on axial compressor performance 09 p2594 N93-25882
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
Intelligent, real-time problem solving, phase 3
[AD-A261441] 09 p2829 N93-26345
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650
LDEF materials data analysis: Representative examples 10 p2998 N93-28285
MASTRE trajectory code update to automate flight trajectory design, performance predictions, and vehicle sizing for support of shuttle and shuttle derived vehicles: Programmers manual
[NASA-CR-192558] 10 p2954 N93-28321
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
The identification of early warning signals prior to contractor default
[AD-A262828] 11 p3609 N93-29433
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit
[ESA-TT-1267] 11 p3248 N93-29464
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Predicting radiation induced performance decrements of AH-1 helicopter crews. Volume 2: Evaluation of modeling and simulation techniques for predicting radiation induced performance decrements
[AD-A262872] 11 p3506 N93-29484
Predicting aircrew training performance with psychometric g
[AD-A264021] 11 p3498 N93-30026
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741
Automated failure mode effects and criticality analyses for reliability prediction of multibody mechanical systems 12 p3738 N93-31107
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

PERFORMANCE TESTS
Uprated OMS engine status: Altitude testing results
01 p0022 N93-10036
Testing techniques 01 p0078 N93-10060
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
The imaging Fourier transform spectrometer: Performance and tolerance analysis
01 p0086 N93-10952
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032

The role of turbomachinery testing for stability in distorted flow
[PNR-90943] 02 p0210 N93-11040
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
The technical background to standards for shackles
[NPL-DMM(A)-51] 02 p0325 N93-11325
The electron-beam water calorimeter project at the National Physical Laboratory
[NPL-RSA(EXT)-30] 02 p0310 N93-11410
Operating characteristics of a 7.6 mm (0.30 inch) diameter two-stage light-gas gun
[DE92-018783] 02 p0217 N93-11447
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Validation test report for the first-generation dart Gulf Stream forecasting system
[AD-A254286] 02 p0373 N93-11821
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Laboratory testing of the electrosource traction battery
[DE92-017993] 02 p0292 N93-12057
Measured data for the Sandia 34-meter vertical axis wind turbine
[DE92-019807] 02 p0348 N93-12075
An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
MHD integrated topping cycle project
[DE92-018087] 02 p0456 N93-12504
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation
[AD-A254941] 03 p0727 N93-12546
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019301] 03 p0689 N93-12797
The VELOPT code for estimating performance of a Fabry-Perot velocimeter
[DE92-015566] 03 p0596 N93-12831
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Advanced water-cooled phosphoric acid fuel cell development
[DE92-019979] 03 p0638 N93-13040
Cloud curve algorithm test program
[AD-A253918] 03 p0662 N93-13099
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
All-metal, compact heat exchanger for space cryocoolers
[NASA-CR-190861] 03 p0559 N93-13604
Thermally stable electrolytes for rechargeable lithium batteries, phase 2
[NASA-CR-190878] 03 p0573 N93-13610
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
Engineering data transfer test with EDMICS using MIL-R-28002 (Raster)
[DE92-019808] 03 p0738 N93-13619
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
Thermal control systems for low-temperature heat rejection on a lunar base
[NASA-CR-191286] 03 p0679 N93-13717
Validation test of 125 Ah advanced design IPV nickel-hydrogen flight cells
[NASA-TM-105912] 03 p0527 N93-14079
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
Facilities and capabilities catalog for landing and escape systems
[NASA-RP-1282] 04 p0814 N93-14495
Flight termination systems commonality standard
[AD-A255349] 04 p0789 N93-14517
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
Precision tests of gravitation: Liquid-supported torsion balance experiments and a tower experiment 04 p0914 N93-14589
Development of an expendable particle sensor
[AD-A255702] 04 p0881 N93-14653
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Contaminant effects in solid oxide fuel cells
[DE92-040255] 04 p0908 N93-15323
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Overview of environmental test plans for Space Station Freedom work package 4 04 p0824 N93-15623
Spacecraft Structures and Mechanical Testing, volume 2
[ESA-SP-321-VOL-2] 05 p1076 N93-15718
TELECOM 2 deployable reflectors 05 p1082 N93-15761
Solar thermal electric and biomass power: Program overviews, fiscal years 1990-1991
[DE92-010582] 05 p1193 N93-15850
ExperCAT case studies
[AD-A256177] 05 p1211 N93-15871
Evaluation of fast ADC's
[DE92-040582] 05 p1145 N93-16013
Single and cross hot wire anemometry in incompressible flow
[LR-663] 05 p1167 N93-16280
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum
[AD-A256319] 05 p1061 N93-16404
Parallel algorithms for simulating continuous time Markov chains
[NASA-CR-189729] 05 p1238 N93-16550
Scalable problems and memory bounded speedup
[NASA-CR-189726] 05 p1230 N93-16554
Automated Weather Observing System (AWOS) Data Acquisition System (ADAS) Operational Test and Evaluation (OT/E) integration and OT/E operational test plan
[DOT/FAA/CT-TN90/65] 05 p1214 N93-16631
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Networking electrochemical membrane separation devices: Theory and application
[DE93-001381] 05 p1106 N93-17066
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Test and integration concept for complex helicopter avionic systems
[MBB-UD-0605-91-PUB] 05 p1065 N93-17547
integrated helmet system testing for a nightflying helicopter
[MBB-UD-0604-91-PUB] 05 p1065 N93-17570
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003358] 05 p1198 N93-17574
Study of an adaptive maintenance strategy for logic systems
[ETN-92-92673] 05 p1252 N93-17640
Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter
[AD-A257694] 05 p1141 N93-17689
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
Performance oriented packaging testing for liquid propellant, XM1846
[AD-A258430] 06 p1496 N93-17865
Unit analysis and testing
[AD-A258435] 06 p1616 N93-17867
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
Actively controlled shaft seals for aerospace applications
[NASA-CR-191901] 06 p1547 N93-18371
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Structural control sensors for the CASES GTF 06 p1464 N93-18837
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI 06 p1417 N93-19326
The 1991 LLWAS anemometer test program
[AD-A258844] 06 p1538 N93-19365
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064
Determination of pyrotechnic functional margin 07 p1863 N93-20134
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
Research on advanced Earth observing sensors 07 p1790 N93-20416
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Development of transistors (equivalent to 2SC3321) 07 p1797 N93-20460
Development of power MOSFET (150 W class) 07 p1797 N93-20461
Improvement of voltage reference Zener diode (1SZ48A) 07 p1797 N93-20462
Air Force Ni-Cd cell qualification program update 07 p1984 N93-20505
Nickel-hydrogen CPV battery update 07 p1986 N93-20518
Design considerations for rechargeable lithium batteries 07 p1987 N93-20527
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
MMU applications for automated rendezvous and capture 07 p1817 N93-21438
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003490] 07 p1988 N93-21732
Environmental assessment for the brilliant pebbles tether test at the Nevada test site
[DE93-003869] 07 p1952 N93-21839
Performance testing of explosives and weapons detection systems 07 p1769 N93-21889
A framework for the objective test and evaluation of explosive detection technology 07 p1769 N93-21890

Validation of simulated explosives for testing TNA explosives detection systems 07 p1769 N93-21891
Airport testing of a new thermal neutron analysis explosives detection system 07 p1769 N93-21892
Development of a multi-sensor in situ fiber optic fluorometer
[DE93-004646] 07 p1995 N93-21975
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306
Thin silicon solar cells
[DE93-007420] 08 p2376 N93-22532
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Safety and performance of a long life lithium-thionyl chloride battery
[DE93-005348] 08 p2279 N93-22821
Fluid mechanics applications for the design and test of the surface tension tank OST-2
08 p2248 N93-22841
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
A procedure for defining lightning risk to air vehicles
09 p2583 N93-24885
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
Miniaturization and stability: A new generation of ovenised oscillators 09 p2693 N93-25004
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Measuring hearing protection device performance using the metrosonics db-3100 sound level analyzer (dosimeter)
[AD-A260852] 09 p2801 N93-25787
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
Synthetic-perturbation tuning of MIMD programs
[PB93-161339] 09 p2812 N93-26321
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz
10 p3014 N93-27749
Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
Time delay measurements of current primary FAA air/ground transmitters and receivers
[DOT/FAA/CT-TN93/14] 11 p3379 N93-28555
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate
[AD-A262594] 11 p3596 N93-29424
Performance measurement systems: A best practices study
[AD-A262180] 11 p3506 N93-29444
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490
FDDI installation and performance analysis
[AD-A263263] 11 p3529 N93-29497
Testability of artificial neural networks: A behavioral approach
[REPT-92-047] 12 p3797 N93-31254
Testing of an experimental FMS
12 p3676 N93-31277
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
National Media Laboratory: Media testing results
12 p3840 N93-31972
Performance of a distributed superscalar storage server 12 p3841 N93-31978
Architectural assessment of mass storage systems at GSFC 12 p3841 N93-31980
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313

PERFUSION
U DIFFUSION

PERIDOTITE
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785

PERIHELIONS
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166

PERIOD EQUATIONS
U PERIODIC FUNCTIONS

PERIODIC FUNCTIONS
NT TRIGONOMETRIC FUNCTIONS
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358
The WG sequences: Quasi perfect binary sequences
08 p2271 N93-23631
Properties of readings of periodically correlated random processes
[AD-A261225] 09 p2686 N93-26573
Introduction to a behavioral approach of continuous-time systems
[MEMO-COSOR-92-05] 10 p3112 N93-27244
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
A remark on the invariant measure for the nonlinear Schroedinger equation
[DE93-609840] 11 p3552 N93-30946

PERIODIC ORBITS
U ORBITS

PERIODIC PROCESSES
U CYCLES

PERIODIC VARIATIONS
NT ANNUAL VARIATIONS
NT DIURNAL VARIATIONS
NT SECULAR VARIATIONS
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
[NASA-RP-1281] 02 p0367 N93-11168
Periodicities in pulsar microstructure
02 p0484 N93-11230
Radial and nonradial periods and growth rates of an Al Velorum model
[DE92-011369] 03 p0743 N93-13339
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156
The time variability of Jupiter's synchrotron radiation
04 p0973 N93-14227
The central engine of AGN's and its cosmological evolution 05 p1372 N93-17138
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
The x ray variability of NGC6814: Power spectra
06 p1562 N93-18712
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
The cyclic carbonates of the Latemar Massif: Evidence for the orbital forcing of a carbonate platform during the Middle Triassic 06 p1582 N93-18976
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns
07 p2007 N93-20092
Experimental studies of instabilities in radially imploding plasmas
[DE93-003831] 08 p2492 N93-22427
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations 08 p2536 N93-23901
Climate data bases of the People's Republic of China, 1841-1988
[DE93-007907] 09 p2764 N93-25517
Substantiation of a stochastic model of rhythmic phenomena
[AD-A261232] 09 p2830 N93-26262
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Extracting infinite system properties from finite size clusters: Phase randomization/boundary condition averaging
[AD-A264712] 11 p3551 N93-30503
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32038

PERIODICALS
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
Evolution of the scientific paper
[DE92-019696] 03 p0735 N93-12994
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
TRADOC Library and Information Network (TRALINET). Union list of periodicals (TULIP)
[AD-A258935] 06 p1688 N93-19451
USA aviation digest index, 1989, volume 11
[AD-A258673] 07 p2089 N93-20388
Index to USA aviation digest, 1990
[AD-A258678] 07 p2089 N93-20389
Beyond interlibrary loan state-of-the-art article retrieval
[DE93-004425] 08 p2523 N93-22723
The management of change: Implications for the information professional 12 p3838 N93-31222

PERIODICITY
U PERIODIC VARIATIONS

PERIODICITY (BIOLOGY)
U RHYTHM (BIOLOGY)

PERIPHERAL EQUIPMENT (COMPUTERS)
NT PRINTERS (DATA PROCESSING)
NT REMOTE CONSOLES

PERIPHERAL NERVOUS SYSTEM
Postoperative hyperbaric oxygen treatment of peripheral nerve damage
[AD-A255842] 03 p0676 N93-14084
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535

PERIPHERAL VISION
A simple computational model of center-surround receptive fields in the retina
[AD-A264723] 11 p3496 N93-30515

PERIPHERIES
U BOUNDARIES

PERMAFROST
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114

A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298

PERMALLOYS (TRADEMARK)
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528

PERMANENT MAGNETS
A theoretical study of the performance of a small permanent magnet, three-phase alternator when driving a purely resistive load via a full-wave rectification circuit
[RAE-TR-84009] 02 p0289 N93-11434
Open-loop characteristics of magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TP-3229] 02 p0277 N93-11613
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Wide range, permanent magnet Compton spectrometer
[DE92-017312] 03 p0596 N93-12762
Magnetic hardening studies and novel techniques for preparation of high performance magnets
[AD-A254761] 03 p0698 N93-12865
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Design of a compact application-oriented free-electron laser
[DE92-040391] 05 p1172 N93-16183
Variable-speed generators with flux weakening
09 p2694 N93-25599
High efficiency magnetic bearings
10 p2962 N93-27574
Forces on a magnet moving past figure-eight coils
[DE93-009965] 11 p3561 N93-29189
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

PERMEABILITY
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Determination of the permeability of carbon aerogels by gas flow measurements
[DE92-019574] 03 p0550 N93-12888
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
Tritium permeation model for plasma facing components
[DE93-007044] 08 p2499 N93-24465
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Instrumentation for measurement of gas permeability of polymeric membranes 09 p2720 N93-25609
Membrane technology: A search for membranes for submarine atmosphere control
[AD-A260581] 09 p2801 N93-25904
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Selectivity and permeability of microporous block copolymer membranes
[AD-A263189] 10 p3006 N93-28382
Gas permeability of E/EP semicrystalline diblock copolymers
[AD-A263241] 11 p3329 N93-28560
NASA in-step: Permeable membrane experiment
11 p3267 N93-28736

PERMEATING
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Numerical simulation of permeation from deposited droplets: Model expansion
[MTL-TR-92-23] 09 p2706 N93-25953
Gas permeability of E/EP semicrystalline diblock copolymers
[AD-A263241] 11 p3329 N93-28560

PERMITTIVITY
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Numerical modelling of fringing fields and their use for complex permittivity measurements at high frequencies
[AD-A253994] 01 p0072 N93-10359
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Two-fluid measurements on thin films
[PB92-205350] 02 p0308 N93-12475
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
Numerical analysis of permittivity with loss in isotropic binary composites
[AD-A255203] 03 p0534 N93-13940
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Dielectric constant measurement probe assembly and apparatus and method
[AD-D015537] 07 p1890 N93-20766
Electromagnetic characterization measurements at 1000 C in Aerospatiale Microwave Department
[REPT-921-430-114] 07 p1884 N93-20938
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Explosive detection using dielectrometry
07 p1770 N93-21898
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Dielectric for the supercapacitors
[AD-A260124] 08 p2283 N93-24072
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation
[AD-A260283] 08 p2483 N93-24261
The third-order permittivity of quartz obtained by different methods 09 p2840 N93-25046
Liquid filled variable capacitor
[AD-D015639] 09 p2687 N93-25212
Electrorheological fluids: A structural approach to mechanisms
[AD-A260563] 09 p2645 N93-25879
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336

PERMUTATIONS
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-003365] 07 p2057 N93-21963
Inverting sets and the packing problem
[DE93-003822] 08 p2466 N93-22075
Partitioning a chordal graph into transitive subgraphs for parallel sparse triangular solution
[DE93-006614] 08 p2446 N93-22512
Soft decoding a self-dual (48, 24; 12) code
09 p2671 N93-24662
On the treewidth and pathwidth of permutation graphs
[RUU-CS-92-13] 10 p3113 N93-27305
Treewidth and pathwidth of permutation graphs
[RUU-CS-92-30] 10 p3101 N93-28093

PEROVSKITES
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Perovskite solid electrolytes for SOFC
[DE92-019981] 03 p0638 N93-13041
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Oriented, single-phase thin films of potassium tantalate-niobate
[AD-D015543] 07 p2077 N93-20027
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803

PEROXIDES
NT HYDROGEN PEROXIDE
NT INORGANIC PEROXIDES
NT ORGANIC PEROXIDES
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
An electrocatalytic cathode device and a method for making such a cathode
[AD-D015586] 07 p1890 N93-20396
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902

PERSHING MISSILE
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406

PERSIAN GULF
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239

PERSONAL COMPUTERS
NT IBM PERSONAL COMPUTERS
NT MACINTOSH PERSONAL COMPUTERS
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results
01 p0078 N93-10058
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
Automated Estimating System (AES), version 5.1. User's manual
[DE93-000380] 04 p0946 N93-15003
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
USACE geotechnical earthquake engineering software, report 1 WESHAKE for personal computers (version 1.0)
[AD-A257068] 04 p0917 N93-15459
Development of a menu driven materials data base for use on personal computers: Aircraft structures technical memorandum
[AD-A256317] 05 p1097 N93-16403
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
The economic use of PC for cartographic distributed tasks 07 p1967 N93-20534
The importance of the PC in the cartographic-photogrammetric service field
07 p1967 N93-20535
On-orbit operational scenarios, tools, and techniques
07 p1817 N93-21442
Fundamentals of PC operation and maintenance
[PB93-117471] 07 p2029 N93-21453
Integrated FASTBUS, VME and CAMAC diagnostic software at Fermilab
[DE93-004424] 07 p2042 N93-21845
The Data Egg: A new solution to text entry barriers
08 p2530 N93-22192
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
DataMir: A PC-based computer system for application at Space Station Mir 08 p2158 N93-24358
A distributed heterogeneous client-server environment
[DE93-007496] 09 p2875 N93-25319
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943

Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Case study of technology use in adult literacy programs
[PB93-163905] 10 p3161 N93-27415
Generic Application Layer for PC-controlled VME measuring systems (GAL PC-VME)
[OEFZS-4630] 10 p3103 N93-28204
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Prototype and short-run printed circuit board creation
[AD-A263245] 11 p3409 N93-29655
Low cost instrumentation: Parallel port analog to digital converter
[AD-A263468] 11 p3433 N93-30584
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
A PC-based simulation of the National Transonic Facility's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224

PERSONALITY
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
Accident proneness: A research review
[DOT/FAA/AM-93/9] 11 p3498 N93-28622
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

PERSONALITY TESTS
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291
International application of the DLR test-system: Continuation of the cooperation with Iberia in pilot selection
[DLR-FB-92-12] 08 p2425 N93-24104
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425

PERSONNEL
NT AIR TRAFFIC CONTROLLERS (PERSONNEL)
NT AIRCRAFT PILOTS
NT ASTRONAUTS
NT COSMONAUTS
NT CREWS
NT ENGINEERS
NT FLIGHT CREWS
NT FLIGHT SURGEONS
NT FLYING PERSONNEL
NT GROUND CREWS
NT INSTRUCTORS
NT MEDICAL PERSONNEL
NT NAVIGATORS
NT OPERATORS (PERSONNEL)
NT PILOTS (PERSONNEL)
NT PROGRAMMERS
NT SCIENTISTS
NT SPACECREWS
NT TEST PILOTS
The NASA/National Space Science Data Center trapped radiation environment model program, 1964 - 1991
[NASA-TM-107993] 02 p0349 N93-11003
Viral hepatitis in the US Air Force, 1980 - 1989 02 p0377 N93-11287
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force 02 p0377 N93-11292
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function 02 p0379 N93-11299
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Highlights 92/2 03 p0775 N93-13474
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
Body composition and physical performance
[AD-A255627] 04 p0938 N93-14161
Walter Reed Army Institute of Research biannual report
[AD-A255630] 04 p0933 N93-14162
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Working together, virtually 04 p0954 N93-15547
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
The status of the Senior Executive Service, 1991
[SES-92-07] 06 p1683 N93-18439
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Goddard Space Flight Center: Decision to contract for plant operations and maintenance. Report to the Chair, Subcommittee on VA, HUD, and Independent Agencies, Committee on Appropriations, US Senate
[GAO/NSIAD-93-92] 07 p2086 N93-21357
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
Organizational politics, participation in decision-making, and job satisfaction
[DOT/FAA/AM-92/17] 09 p2796 N93-25203
Procedural justice, occupational identification, and organizational commitment
[DOT/FAA/AM-92/21] 09 p2872 N93-25204
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011
Cardiovascular risk factors in an Italian Air Force population: Preliminary report 12 p3775 N93-32252

PERSONNEL DEVELOPMENT
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
Human factors research in aircrew performance and training: 1986-1991
[AD-A254455] 03 p0677 N93-12609
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Desktop Computing Integration Project 05 p1254 N93-16795
Requirements for an automated human factors, manpower, personnel, and training (HMPT) planning tool
[AD-A258531] 07 p2026 N93-21753
FY 1991 safety program status report
[NASA-TM-108707] 08 p2257 N93-23136
Design and implementation of a pilot orientation program for new NASA engineering employees
[NASA-TM-105907] 09 p2872 N93-26205
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657

PERSONNEL MANAGEMENT
Total quality management: Strengths and barriers to implementation and cultural adaptation 05 p1182 N93-16788
Some effects of time usage patterns on the productivity of engineers 05 p1343 N93-17301
Neural network applications: A literature review
[AD-A258148] 05 p1262 N93-17797
Needs assessment final report 06 p1682 N93-19406
A longitudinal examination of applicants to the air traffic control supervisory identification and development program
[DOT/FAA/AM-92/16] 09 p2796 N93-25213
Exploring the link between intrinsic motivation and quality
[AD-A261722] 09 p2722 N93-26246
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575

PERSONNEL SELECTION
NT PILOT SELECTION
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Astronaut candidate strength measurement using the Cybex 2 and the LIDO Multi-Joint 2 dynamometers
[NASA-CR-185679] 02 p0389 N93-12195
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Selection of astronauts for European space missions 08 p2156 N93-24345
The European astronauts training programme 08 p2156 N93-24346
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
Selection by simulation: A work sample approach to the selection of process algebras
[ISBN-9-09-005483-9] 12 p3811 N93-31618
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

PERSPIRATION
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269

PERTURBATION
NT ORBIT PERTURBATION
NT SATELLITE PERTURBATION
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222

Atomic structure and spectral perturbations in dense and hot plasmas 02 p0321 N93-12049
Difference approximations for hyperbolic conservation laws and consistency with characteristics [NAL-TR-1098T] 02 p0428 N93-12350
Analysis of a linearly constrained least squares algorithm for adaptive beamforming [AD-A255017] 03 p0695 N93-12582
Magnetic field perturbation caused by bending vibrations of a quadrupole [DE92-040644] 03 p0623 N93-13003
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
On computing accurate singular values and eigenvalues of acyclic matrices [AD-A255892] 03 p0697 N93-14036
Perturbations of the Robertson-Walker space 04 p1015 N93-14134
Modelling Directional Solidification [NASA-CR-191301] 04 p0995 N93-15309
Minimum eigenvalue separation [AD-A256570] 05 p1262 N93-15848
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation [AD-A255712] 05 p1281 N93-15936
Adaptation to transient postural perturbations [NASA-CR-190959] 05 p1227 N93-16699
Robust control with structured perturbations [NASA-CR-192195] 06 p1633 N93-18579
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
Perturbation problems in fluid dynamics [AD-A258934] 06 p1535 N93-19450
On the stability of nonlinear viscous vortices in three-dimensional boundary layers [NASA-CR-189637] 07 p1899 N93-20254
Experimental studies of instabilities in radially imploding plasmas [DE93-003831] 08 p2492 N93-22427
Accurate computation and continuation of homoclinic and heteroclinic orbits for singular perturbation problems [NASA-CR-4503] 08 p2466 N93-22672
Large scale control and distributed computing systems under stochastic structural perturbations [AD-A260501] 08 p2447 N93-22933
Probabilistic finite elements for fatigue and fracture analysis [NASA-CR-191098] 08 p2326 N93-23053
A multiple scales approach to sound generation by vibrating bodies [NASA-CR-191414] 08 p2294 N93-23409
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence [NASA-TM-103926] 08 p2294 N93-23417
Computation of nonlinear optical scattering by droplets [AD-A260333] 08 p2490 N93-24267
Robust controls with structured perturbations [NASA-CR-192956] 09 p2817 N93-24757
Boundary plasma modelling for ITER [DE93-007963] 09 p2859 N93-25302
Cellular and tissue injury during nonfreezing cold injury and frostbite [AD-A260574] 09 p2795 N93-25900
Synthetic-perturbation tuning of MIMD programs [PB93-161339] 09 p2812 N93-26321
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations [NASA-CR-193045] 10 p3072 N93-27284
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions [DE93-010516] 11 p3587 N93-29303
Algorithms for point set congruence [AD-A264016] 11 p3532 N93-29980
Study of effects of small perturbations on chaotic systems [DE93-009762] 11 p3557 N93-30048
Vibration control of flexible space structures in noisy environment 11 p3285 N93-30235
Mithras studies of the boundary between open and closed field lines [AD-A264758] 11 p3479 N93-30562
Non-perturbative calculation of equilibrium polarization of stored electron beams [DE93-764500] 11 p3577 N93-30607
Transient (approximately equals 10 s) VLF amplitude and phase perturbations due to lightning-induced electron precipitation into the ionosphere (the Trimpi effect) 11 p3396 N93-30736
ELF propagation in deep and shallow sea water 11 p3397 N93-30739
Differential inclusions governed by convex and nonconvex perturbation of a sweeping process [DE92-644668] 12 p3802 N93-31160
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters [AD-A265779] 12 p3690 N93-32335

PERTURBATION THEORY
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
Singular perturbation methods for nonlinear dynamical systems and waves [AD-A254116] 01 p0144 N93-10660
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems [ISBN-0-315-64278-5] 02 p0298 N93-11241
Studies in quantum field theory [DE92-011035] 02 p0470 N93-11276
Orbit perturbations due to an axi-symmetric gravitational field, analyzed over extended periods of time [RAE-TM-SPACE-386] 02 p0220 N93-11486
Perturbation theory for the solution of systems of linear equations [AD-A254994] 02 p0428 N93-12511
Cross sections and rate coefficients for the electron-impact excitation of He-like ions [ISAS-RN-647] 03 p0703 N93-13095
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED [DE92-040505] 04 p0977 N93-15378
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory [DE92-040506] 04 p0969 N93-15379
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space [DE92-040503] 05 p1328 N93-15940
Study of precision accelerometers and fractal aggregates in microgravity [CTN-93-60622] 05 p1168 N93-16935
Interacting Euclidean three-dimensional quantum gravity [PREPRINT-867] 05 p1330 N93-16965
On the stability of a stringy black hole [PREPRINT-879] 05 p1365 N93-16983
Dressed skeleton expansion and the coupling scale ambiguity problem [DE93-002516] 05 p1331 N93-17185
Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project) [MBB-UD-0601-91-PUB] 05 p1057 N93-17568
Lie-admissible perturbation methods for open quantum systems [PREPRINT-845] 06 p1651 N93-17840
Workshop on hadron structure from photo-reactions at intermediate energies [DE93-001904] 06 p1655 N93-18509
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem [INRIA-RR-1495] 06 p1647 N93-18653
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Canonical floquet perturbation theory [AD-A258970] 06 p1721 N93-19358
Optimal guidance law development for an advanced launch system [NASA-CR-192189] 07 p1820 N93-20313
A structural study of charge-density-wave perturbations in mixed-halide MX solids [DE93-005449] 08 p2503 N93-22747
A mechanism for capture into resonance [PB93-145761] 08 p2469 N93-23648
Biped control via nonlinear dynamics 09 p2718 N93-25697
The galaxy velocity field and CDM models 10 p3176 N93-26737
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
A singular perturbation theorem for evolution equations and time-scale arguments for structured population models [CWI-AM-R9201] 10 p3112 N93-27295
The method of minimal normal forms --- for solving nonlinear differential equations [DE93-008060] 10 p3118 N93-27627
Influence of stochastic contact resistance on coupling losses [MEMO-1067] 10 p3028 N93-28076
Recent progress in lattice QCD [DE93-006827] 10 p3157 N93-28312
Ordering and displacive transformations in Ni-Al alloys [DE93-009553] 10 p3001 N93-28371
Electron interactions with non-linear polyatomic molecules and their radicals and ions [AD-A262279] 11 p3568 N93-29446
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials 11 p3343 N93-30063
Parton's picture of the electroweak processes in high energy e(+)e(-)-collisions [DE93-606107] 11 p3571 N93-30788
Perturbation technique for identification of the lowest modes of rotors with fluid interaction 12 p3738 N93-32277

PESTICIDES
NT INSECTICIDES
The coupling of synoptic and valley winds in the Tennessee Valley [DE93-001559] 05 p1217 N93-17180
Monitoring human tissues for toxic substances [PB92-223239] 07 p2024 N93-21498
Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual [PB93-161628] 10 p3068 N93-27055
Regenerable biocide delivery unit, volume 2 [NASA-CR-185701-VOL-2] 10 p3082 N93-27360

PETN
Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Detonation reactions frozen by free expansion and analyzed by mass spectrometry [DE92-018605] 02 p0274 N93-11566
Growth and defects of explosives crystals [DE93-003866] 07 p2082 N93-21780
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Detection of explosives material on single microparticles 07 p1774 N93-21916
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives 07 p1774 N93-21921
A GC/ECD approach for the detection of explosives and taggants 07 p1775 N93-21924
Dry immunochemical sensor for the detection of PETN vapor 07 p1776 N93-21930
The importance of sterically hindered shear in determining the sensitivity of explosive crystals [DE93-003861] 10 p3009 N93-28296
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive [LA-UR-92-1427] 11 p3345 N93-30074
Computational analysis of slip in PETN [DE92-040222] 11 p3598 N93-30445

PETRI NETS
Approximate performability analysis using generalized stochastic Petri nets [MEMO-INF-92-11] 04 p0971 N93-15119
Architectures for intelligent machines [NASA-CR-191875] 05 p1231 N93-16621
Approximation methods for stochastic petri nets [NASA-CR-191851] 05 p1276 N93-16662
A Petri net controller for distributed hierarchical systems [NASA-CR-191862] 05 p1276 N93-16675
Utilizing semantic networks to database and retrieve generalized stochastic colored Petri nets [NASA-CR-191853] 05 p1355 N93-16707
TokenPasser: A petri net specification tool [NASA-CR-191816] 05 p1241 N93-16725
Parallel simulation of stochastic Petri nets using recursive equations [INRIA-RR-1520] 05 p1257 N93-17738
A proposal of an architecture for the coordination level of intelligent machines [NASA-CR-191990] 06 p1613 N93-18516
Flow models of distributed computations: Event structures and nets [INRIA-RR-1482] 06 p1646 N93-18612
Flow models of distributed computations: Three equivalent semantics for CCS [INRIA-RR-1484] 06 p1622 N93-18613
Comparison properties of stochastic decision free Petri nets [INRIA-RR-1433] 06 p1649 N93-18646
Estimates of cycle times in stochastic Petri nets [INRIA-RR-1572] 07 p2058 N93-20897
Formal specification and timing analysis of high-integrity real-time systems [REPT-92-041] 07 p2028 N93-21185
CTOS course [NASA-CR-191866] 07 p2047 N93-21204
A distributed Petri Net controller for a dual arm testbed [NASA-CR-192733] 07 p2048 N93-21373

Task sequence planning in a robot workcell using AND/OR nets
[NASA-CR-192735] 07 p2049 N93-21391
Multispectral intelligent fusion techniques
08 p2352 N93-23564
Performance and state-space analyses of systems using Petri nets
[NASA-CR-193195] 08 p2443 N93-24604
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Performance analysis of communication protocols using D-timed Petri net 11 p3356 N93-30227
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
Timing analysis of real-time systems
[REPT-92-060] 12 p3803 N93-31251
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465
An extended algorithm for performance evaluation of timed event graphs
[REPT-92-75] 12 p3787 N93-31474
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101

PETROGRAPHY
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study
01 p0117 N93-10163
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa
01 p0123 N93-10192
Thin-sectioning and analysis of fine-grained meteoritic materials
[NASA-CR-185693] 02 p0485 N93-11546
Refining the granulite suite 06 p1736 N93-18789
The Apollo 17 mare basalts: Serenely sampling Taurus-Littrow 06 p1738 N93-18804
The Apollo 17 samples: The Massifs and landslide
06 p1738 N93-18809
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Reconstruction of late Wisconsinan Ice Sheet and sea-level implications 12 p3758 N93-31879
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938

PETROLEUM
U CRUDE OIL

PETROLEUM PRODUCTS
NT ASPHALT
NT DIESEL FUELS
NT GASOLINE
NT TARS
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control
11 p3512 N93-29533
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 1
[PB93-186492] 12 p3712 N93-31326
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 2
[PB93-186500] 12 p3713 N93-31327

PETROLOGY
NT PETROGRAPHY
Impactites from Popigai Crater
01 p0117 N93-10164
Sudbury Breccia and suevite as glacial indicators transported 600 km to Kentland Astrobleme, Indiana
01 p0117 N93-10165
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
Venus steep-sided domes: Relationships between geological associations and possible petrogenetic models 04 p1038 N93-14359
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17
06 p1738 N93-18808
Impact melt breccias at the Apollo 17 landing site
06 p1739 N93-18810
Basaltic impact melts in the Apollo collections: How many impacts and which events are recorded?
06 p1739 N93-18813
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Troctolitic anorthosite from 77115: A magnesian member of the alkalic suite 06 p1740 N93-18816
Carbon petrology in cometary dust
06 p1716 N93-19232
Geochemistry and petrology of primitive achondrite meteorites LEW 88280, MAC 88177, ALHA 81187, EET 84302, and LEW 88663 09 p2896 N93-26067
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954

PH
Fibre-optic sensors using adiabatically tapered single-mode fibres
[AD-A254555] 03 p0708 N93-12642
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
The Martian ocean: First acid, then alkaline
12 p3866 N93-31958

PH FACTOR
Preparation of silicon oxynitride thin films by plasma chemical vapor deposition for chemical implantation. Application to a pH ISFET
[ECL-91-12] 02 p0291 N93-11574
Electronic control of pH at sulfonated polyaniline electrodes
[AD-A260074] 08 p2222 N93-23963
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers
[AD-A260163] 08 p2240 N93-24073

PHANTOM AIRCRAFT
NT F-4 AIRCRAFT

PHARMACOLOGY
NT PSYCHOPHARMACOLOGY
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
Autoradiographic distribution and applied pharmacological characteristics of dextromethorphan and related antitissue/anticonvulsant drugs and novel analogs
[AD-A255607] 04 p0935 N93-15009
AFRRI Reports --- Radiobiology
[AD-A257231] 05 p1221 N93-15965
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Global planning of several plants
06 p1635 N93-18667
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change
08 p2191 N93-22648
Pharmacokinetics and Pharmacodynamics in Space
[NASA-CP-10048] 11 p3494 N93-29502
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882

PHASE ANGLE
U PHASE SHIFT

PHASE CHANGE MATERIALS
Latent heat thermal energy storage for lunar oxygen production
[DE92-017817] 04 p0907 N93-15219
Applications of fibrous substrates containing insolubilized phase change polymers
08 p2320 N93-22181
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2
[NASA-CR-192698] 08 p2511 N93-24147
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230
Thermal energy storage flight experiment in microgravity 11 p3265 N93-28720
Kodak phase-change media for optical tape applications 12 p3730 N93-31974

PHASE COHERENCE
The x ray variability of NGC6814: Power spectra
06 p1562 N93-18712
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541

PHASE CONJUGATION
NT FOUR-WAVE MIXING
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Phase conjugation using CO2 lasers
03 p0607 N93-13812
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Stimulated Brillouin scattering phase conjugation
06 p1664 N93-18471
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
Phase conjugation in optical fiber via stimulated Brillouin scattering with feedback from a barium titanate crystal
[AD-A258824] 06 p1675 N93-19088
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990

PHASE CONJUNCTION
NT FOUR-WAVE MIXING

PHASE CONTROL
SCRUNCHER phase and amplitude control
[DE92-040225] 04 p0870 N93-15421
Variable phase sine wave generator for active phased arrays
[AD-D015558] 07 p1888 N93-20028
Experimental results of the performance of the new phase and frequency controller
09 p2839 N93-25035
Phase discriminating capacitive array sensor system
[NASA-CASE-GSC-13460-1] 09 p2691 N93-26104
Improvements in X-band transmitter phase stability through Klystron body temperature regulation
09 p2678 N93-26114

PHASE DEMODULATORS
Design and integration of high bit rate four phase monolithic demodulators and modulators at X band
[LAAS-92354] 11 p3414 N93-31030

PHASE DETECTORS
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver
06 p1506 N93-18913

The effect of an adaptive optical system's spatio-temporal response on imaging performance
[AD-A258848] 06 p1663 N93-19069
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Signal phase pattern sensitive neural network system and method
[AD-D015571] 07 p2046 N93-20308

PHASE DEVIATION
Performance results of a 300-degree linear phase modulator for spaceborne communications applications 09 p2672 N93-24670

PHASE DIAGRAMS
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411
Magnetic properties of high-T(c) superconductors
[DE92-018809] 02 p0460 N93-11533
Calculation of binary phase diagrams between the actinide elements, rare earth elements, and transition metal elements
[DE92-019119] 02 p0249 N93-11801
Solutions without phase-slip for the Ginsburg-Landau equation
[PB92-115575] 03 p0696 N93-12889
Analysis of OSPREY processes and conventional power aluminum alloys
[AD-A255764] 04 p0846 N93-15056
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
The titanium-aluminum phase diagram: A review of the near Ti-50 at. pct. Al phase fields
[AD-A255685] 05 p1112 N93-16299
The direct Monte Carlo method for calculating alloy phases
[DE93-000436] 05 p1113 N93-16450
First-principles studies of phase stability and the structural and dynamical properties of metal hydrides
[DE92-040855] 05 p1104 N93-16589
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
Phase diagram by frustrated vortices in Potts models
[ROM1F-92-860] 05 p1281 N93-17217
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
New developments in the 'ab initio' determination of transition metal alloy phase diagrams
[DE93-002540] 07 p1856 N93-21488
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
The influence of gravity on the equilibrium and the growth of tenuous structures 08 p2249 N93-22851
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
New ground states in unconventional superconductors 09 p2688 N93-25282
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Thermodynamic analysis of the binary systems Mo-V, Ni-V, Si-V, and Ti-V
[PB93-173185] 10 p3155 N93-26637

PHASE ERROR
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis 03 p0699 N93-13907
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537
Study of a VLF distributed antenna array 11 p3398 N93-30749

PHASE LOCKED SYSTEMS
Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563
Real-time edge-enhanced optical correlator
[NASA-CASE-NPO-18521-1-CU] 04 p0981 N93-14404
Application of multirate digital filter banks to wideband all-digital phase-locked loops design 06 p1505 N93-18908
Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers 06 p1506 N93-18912
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver 06 p1506 N93-18913
Precision digital phase lock loop circuit
[AD-D015594] 07 p1891 N93-20785
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
Experimental results of the performance of the new phase and frequency controller 09 p2839 N93-25035
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
A fuzzy control design case: The fuzzy PLL 11 p3515 N93-29555
High-power Ka-band amplifier 11 p3385 N93-29590
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922

PHASE MATCHING
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167

PHASE MODULATION
NT BINARY PHASE SHIFT KEYING
NT PHASE SHIFT KEYING
NT QUADRATURE PHASE SHIFT KEYING
Demodulation processes in auditory perception
[AD-A255748] 04 p0935 N93-15053
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
Performance results of a 300-degree linear phase modulator for spaceborne communications applications 09 p2672 N93-24670
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
Spatial Light Modulators (SLMs) surface quality
[AD-A263249] 11 p3579 N93-29656
A systolic-array structure for MTCM receivers 11 p3357 N93-30236
Design and integration of high bit rate four phase monolithic demodulators and modulators at X band
[LAAS-92354] 11 p3414 N93-31030

PHASE RESPONSE
U FREQUENCY RESPONSE
U PHASE SHIFT

PHASE SEPARATION (MATERIALS)
Frustrated phase separation and high temperature superconductivity
[DE92-019249] 02 p0459 N93-11501
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
Nucleation, crystal growth, and liquid/liquid phase separation in materials in microgravity, phase 3
[CTN-93-60612] 05 p1131 N93-16493
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses and glassy-metals, phase 1
[CTN-93-60630] 05 p1133 N93-16918
Electronic structure and phase separation in superconducting cuprates
[PREPRINT-889] 05 p1323 N93-17025
Liquid/liquid phase separation and crystallization of materials in microgravity aboard NASA KC-135 flights 07 p1810 N93-21119
Phase separation under a weak concentration gradient 08 p2226 N93-22853
Recovery and separation of precious metals from space 10 p3001 N93-26686
Phase separation and superconductivity in the U equals infinity limit of the extended multiband Hubbard model
[SSCL-PREPRINT-763] 10 p3151 N93-27580
Mean field phase diagram of two band tJ model for CuO2 layers
[SSCL-PREPRINT-764] 10 p3151 N93-27581
Superconductivity, phase separation and charge transfer instability in the U = infinity limit of the three band model of the CuO2 planes
[SSCL-PREPRINT-749] 10 p3153 N93-28140
Phase separation and superconductivity in the Kondo-like spin-hole coupled model
[SSCL-PREPRINT-759] 10 p3153 N93-28144
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517

PHASE SHIFT
NT SAGNAC EFFECT
Phase-stepping fiber-optic projected fringe system for surface topography measurements
[NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
Design and operation of a bunched-beam, phase-spread measurement
[DE92-040230] 03 p0708 N93-13508
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis 03 p0699 N93-13907
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522
Signal phase pattern sensitive neural network system and method
[AD-D015571] 07 p2046 N93-20308
Computer simulation of a general purpose satellite modem
[AD-A259083] 07 p1882 N93-20392
Precision digital phase lock loop circuit
[AD-D015594] 07 p1891 N93-20785
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Structure and utility of blind speed intervals associated with Doppler measurements of range rate
[DOT/FAA/CT-TN92/27] 08 p2122 N93-23063
Fiber optic interferometer configuration with pump-induced phase carrier
[AD-D015617] 08 p2489 N93-24156
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
Microwave interrogation frequency noise and clock frequency stability: Experimental results 09 p2842 N93-25056
Advanced technology development multi-color holography
[NASA-CR-192451] 09 p2711 N93-26154
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084

PHASE SHIFT CIRCUITS
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290
Analysis of MMIC arrays for use in the ACTS Aero Experiment
[NASA-TM-106073] 08 p2180 N93-22589
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Modification of the S-band phase shifter model 331A-3 of Electromagnetic Sciences Inc.
[DIGEL-1992-5] 11 p3399 N93-30536

PHASE SHIFT KEYING
NT BINARY PHASE SHIFT KEYING
NT QUADRATURE PHASE SHIFT KEYING
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
The use of subcarriers in future DSN missions 06 p1507 N93-18915
Adaptive predistortion linearization of nonlinear power amplifiers
[ISBN-0-315-60483-2] 08 p2286 N93-24611
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270

Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier
11 p3386 N93-29599
An error control protocol based on trellis coded modulations 11 p3358 N93-30237
Comparison of diversity combining, interleaving, and decoding techniques of a scintillated channel
11 p3362 N93-30266
Temporal synchronization of frequency hopped DPSK
11 p3365 N93-30285
Signal processor based MSAT trellis coded M-DPSK with adaptive Doppler phasor correction
11 p3373 N93-30332
Two-stage Doppler phasor corrected TCM/DMPSK for shadowed mobile satellite channels
11 p3373 N93-30333

PHASE STABILITY (MATERIALS)
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486

PHASE TRANSFORMATIONS
NT ARC MELTING
NT BOILING
NT COAL LIQUEFACTION
NT EVAPORATION
NT EVAPOTRANSPIRATION
NT FILM BOILING
NT FREEZING
NT LIQUEFACTION
NT MARTENSITIC TRANSFORMATION
NT MELTING
NT NUCLEATE BOILING
NT SUBLIMATION
NT VAPORIZING
NT ZONE MELTING
Phase transformations in 40-60-GPa shocked gneisses from the Haughton Crater (Canada): An Analytical Transmission Electron Microscopy (ATEM) study
01 p0117 N93-10163
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
Frustrated phase separation and high temperature superconductivity
[DE92-019249] 02 p0459 N93-11501
An analytic description of thick-wall bubbles
[DE92-016465] 02 p0432 N93-11759
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
C60 transformations at high pressures
[DE92-019546] 03 p0701 N93-12806
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Is Ishtar Terra a thickened basaltic crust?
04 p1024 N93-14292
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Comments on 'Kinetic Study on the Hexacelsian-Celsian Phase Transformation'
[NASA-TM-105917] 04 p0850 N93-14886
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Phase behavior of Au and Pt surfaces
[DE92-041021] 05 p1112 N93-16203
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia
[DE92-040720] 05 p1319 N93-16391
Au(111) and Pt(111) surface phase behavior
[DE92-040881] 05 p1321 N93-16598
Supersymmetry in spin glass dynamics
[PREPRINT-843] 05 p1279 N93-16957
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206
Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Structural transformation of nickel hydroxide films during anodic oxidation
[DE93-001863] 06 p1488 N93-18535
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization
[ETN-93-92992] 07 p1859 N93-20909
Grain refinement of Al-Cu-Ti alloys in microgravity
07 p1810 N93-21120
Aspects of the electroweak phase transition
[DE93-004629] 07 p2063 N93-21723
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Aerosol phase transformation in the atmosphere
[DE93-001903] 08 p2384 N93-22936
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005
Analysis of residual phases in nickel aluminide powders produced by reaction synthesis
[DE93-005680] 08 p2233 N93-24014
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres
[AD-A260304] 08 p2223 N93-24235
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
Coarsening of a quiescent electrorheological fluid I: Experiment
[DE93-006776] 09 p2642 N93-24972
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
Position sensitive atom probe study of the decomposition of a Cu-2.6 at. percent Co alloy
[DE93-006737] 09 p2653 N93-26500
Computation of complex solidification morphologies using a phase-field model
[PB93-156743] 09 p2869 N93-26547
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064
A Riemann problem for an elastic bar that changes phase
[AD-A262827] 11 p3452 N93-29432
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Rapidly activated dynamic phase transitions in nonlinear solids
[AD-A263601] 11 p3299 N93-29982
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970
A dynamical model of structural phase transition in La2CuO4
[DE93-605325] 11 p3602 N93-31025
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
The Lipkin model second order phase transition in the deformed su(2) algebra description
[DE93-608201] 12 p3807 N93-31661
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

PHASE VELOCITY
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Baroclinic wave packets in models and observations
03 p0663 N93-13361
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Transverse wave motion in constrained mechanical systems 03 p0628 N93-13634
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles
06 p1517 N93-19573
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies
10 p3016 N93-27758
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084

PHASE-SPACE INTEGRAL
Harmonic oscillator states in aberration optics
10 p3143 N93-27331
Phase space localization for anti-de Sitter quantum mechanics and its zero curvature limit
10 p3144 N93-27333
The algebra of supertraces for 2+1 super de Sitter gravity 10 p3144 N93-27337

PHASED ARRAYS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects
03 p0568 N93-14048
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Definition study PHARUS
[AD-A256560] 04 p0860 N93-14805
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Broadband quadrifilar phased array helix
[AD-D015506] 05 p1139 N93-16519
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
Research on phased array antenna
07 p1795 N93-20446
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
Novel optical processor for phased array antenna
[AD-A260474] 08 p2273 N93-24277
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview
09 p2680 N93-26128
Ultraviolet waveguide lasers for phased array lidar
[AD-A261657] 09 p2715 N93-26363
Microstrip antennas on/in anisotropic material layers
[AD-A261700] 09 p2681 N93-26383
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455
Tolerance theory of phased array antennas: A statistical approach 11 p3369 N93-30307
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
Phased array for mobile satellite communications
[ESA-TT-1280] 12 p3716 N93-31342
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046
Fix-tracking system
[AD-D015738] 12 p3718 N93-32210

PHASES
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269

PHENOLIC RESINS
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Thermostructural responses of carbon phenolics in a restrained thermal growth test 05 p1128 N93-17333
Polymer foam cell growth in microgravity
07 p1808 N93-21108
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150

PHENOLS
NT BISPHENOLS
Preconversion catalytic deoxygenation of phenolic functional groups
[DE92-018304] 02 p0244 N93-10986
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595

PHENOMENOLOGY
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
[DE93-003470] 07 p2098 N93-21775
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Recent progress in lattice QCD
[DE93-006827] 10 p3157 N93-28312

PHENYLS
NT POLYCHLORINATED BIPHENYLS
NT POLYPHENYLS
X ray crystal structure of an organoindium alkoxide dimer, (Ph2InOSiMe3)2
[AD-A257404] 05 p1315 N93-15862
Intramolecular bridge/terminal oxo exchange within (MoV2O3) (4+) complexes containing linear oxo bridges
[AD-A261230] 09 p2851 N93-26518
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898

PHILIPPINES
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655

PHILOSOPHY
NT PARADOXES
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
The lunar community church: Contributions to lunar living and to evolution of ethical and spiritual thinking
03 p0676 N93-14020
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829

PHOBOS
The Prospector mission
[DE93-000656] 05 p1385 N93-17194
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Phobos and Deimos are sources of meteoroids
06 p1700 N93-19116
Spacecraft studies of Phobos and Mars
[NASA-CR-193298] 11 p3651 N93-30635

PHONEMES
Perception and the temporal properties of speech
[AD-A261439] 09 p2686 N93-26490
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403

PHONEMICS
Perception and the temporal properties of speech
[AD-A261439] 09 p2686 N93-26490

PHONETICS
Perception-based and machine-oriented signal processing within speech understanding systems
03 p0692 N93-13239
Speech research
[AD-A260643] 09 p2675 N93-25639
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403

PHONONS
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Review of phonon behavior and microstructural development leading to martensitic transformations in Ni(x)Al(100-x) alloys
[DE92-014782] 02 p0256 N93-11519
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Theory of normal metals
[DE92-016828] 02 p0262 N93-12476
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099

PHOSPHATES
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
NT CALCIUM PHOSPHATES
NT POTASSIUM PHOSPHATES
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
Bonding in simple phosphate glass
[DE92-019437] 03 p0550 N93-12917
Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Neutron study of crystal-field transitions in ErPO4
[DE93-004131] 07 p2081 N93-21719
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality
09 p2838 N93-25025
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956

PHOSPHAZENE
Water-soluble polyphosphazenes and their hydrogels
[AD-A264883] 11 p3340 N93-30909

PHOSPHIDES
NT GALLIUM PHOSPHIDES
NT INDIUM PHOSPHIDES
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016

PHOSPHINES
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861

Oxygen plasma resistant phosphine oxide containing imide/arylene copolymers
[NASA-TM-107712] 07 p1859 N93-20300
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567

PHOSPHORESCENCE
Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14086

PHOSPHORIC ACID
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446
Dioxygen reduction in various acid electrolytes
[AD-A263564] 11 p3317 N93-30664

PHOSPHORIC ACID FUEL CELLS
Gas cooled fuel cell systems technology development
[DE92-0012983-3103] 03 p0636 N93-12683
Advanced water-cooled phosphoric acid fuel cell development
[DE92-019979] 03 p0638 N93-13040
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
Advanced water-cooled phosphoric acid fuel cell development
[DE93-000215] 05 p1197 N93-17008
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003358] 05 p1198 N93-17574
Advanced water-cooled phosphoric acid fuel cell development
[DE93-003490] 07 p1988 N93-21732
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Eleventh Annual Conference on Energy Conservation and Storage Technologies
[DE93-768429] 12 p3748 N93-32038

PHOSPHORS
Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14086
Field-emitter arrays for RF vacuum microelectronics
[AD-A258211] 06 p1518 N93-18203
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326

PHOSPHORUS
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511

PHOSPHORUS COMPOUNDS
NT ADENINES
NT ADENOSINE TRIPHOSPHATE
NT CALCIUM PHOSPHATES
NT GALLIUM PHOSPHIDES
NT INDIUM PHOSPHIDES
NT ORGANIC PHOSPHORUS COMPOUNDS
NT PHOSPHATES
NT PHOSPHAZENE
NT PHOSPHIDES
NT PHOSPHINES
NT PHOSPHORIC ACID
NT POTASSIUM PHOSPHATES
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446

PHOTICS
Neurophysiological analysis of circadian rhythm entrainment
[AD-A264681] 12 p3774 N93-32018

PHOTOABSORPTION
Optical studies of laterally confined quantum well structures grown on ex-situ and in-situ patterned substrates
[AD-A260275] 08 p2511 N93-24167
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Quantum spectra and dynamics 12 p3831 N93-31129
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799
Infinite volume extrapolations of finite cluster calculations. How correct are these?
[AD-A265648] 12 p3809 N93-32170

PHOTOACOUSTIC SPECTROSCOPY
COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264
Free radical and overtone spectroscopy
[NASA-CR-192136] 07 p1850 N93-21555
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
Pulsed laser photoacoustic spectrometer for study of solid materials
[DE93-605290] 11 p3441 N93-31023
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

PHOTOCATHODES
Experimental and theoretical investigation of high gradient acceleration
[DE92-015299] 02 p0315 N93-11278
Possible application of transient electromagnetic pulses to high brightness e-guns
[DE92-040360] 05 p1138 N93-16100
Theoretical and experimental studies in accelerator physics
[DE92-040333] 05 p1296 N93-16110
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Observation of a charge limit for photocathode electron guns
[DE93-006948] 08 p2485 N93-24464
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation 11 p3319 N93-30101
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

PHOTOCHEMICAL OXIDANTS
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070

PHOTOCHEMICAL REACTIONS
NT PHOTODECOMPOSITION
NT PHOTOLYSIS
NT PHOTOSYNTHESIS
NT RADIOLYSIS
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser 02 p0245 N93-11135
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
A physico-chemical study of some areas of fundamental significance to biophysics
[DE92-019916] 03 p0672 N93-13083
Photochemical dynamics of surface oriented molecules
[DE92-019813] 03 p0703 N93-13106
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications 03 p0656 N93-13784
Informal Conference on Photochemistry
[AD-A255824] 03 p0540 N93-14033
Near-infrared oxygen airglow from the Venus nightside 04 p1026 N93-14308
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
Proceedings of the Sixteenth DOE Solar Photochemistry Research Conference
[DE93-001760] 05 p1193 N93-15899
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Reaction kinetics and product distributions in photoelectrochemical cells
[DE93-003885] 05 p1198 N93-17471
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals 06 p1708 N93-19173
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune
[NASA-CR-192131] 07 p2099 N93-20732
Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731
Photochemical observation of ion flows in membrane channels
[AD-A259869] 08 p2219 N93-22731
Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889
Chemical kinetics and photochemical data for use in stratospheric modeling
[NASA-CR-192795] 08 p2392 N93-23124
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
Chlorotrifluoroethylene decay in the atmosphere: Controlled-environment chamber studies
[AD-A259902] 08 p2388 N93-23989
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors 09 p2772 N93-25535
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
The Martian lower atmosphere 09 p2897 N93-26394
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359
Trend survey of the global environment adaptation type industrial technology
[DE93-781441] 10 p3071 N93-28434
Membrane-based photochemical systems as models for photosynthetic cells
[DE93-009758] 11 p3310 N93-28911
Magnetic resonance studies of photo-induced electron transfer reactions
[DE93-012239] 11 p3311 N93-29182
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068

Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions
11 p3319 N93-30075
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
Photo-desorption from copper alloys
[DE93-011872] 11 p3326 N93-30490
Global changes and the air-sea exchange of chemicals
[DE93-605636] 12 p3750 N93-31092
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions
[PB93-180925] 12 p3754 N93-32070
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

PHOTOCHEMISTRY
U PHOTOCHEMICAL REACTIONS

PHOTOCLINOMETRY
U PHOTOGRAMMETRY

PHOTOCONDUCTIVITY
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813
Characterization of semi-insulating gallium arsenide
[AD-A257255] 05 p1316 N93-16081
The contribution of electronically excited states to the radiation chemistry of organic systems
[DE92-040465] 05 p1104 N93-16585
Infrared-induced photoconductivity and electroluminescence in forward-biased a-Si:H pin-diodes
[MBB-Z-0376-91-PUB] 06 p1671 N93-18092
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417

PHOTOCONDUCTORS
A five-channel, diamond photoconducting x ray detector array for z-pinch experiments
[DE92-017345] 01 p0164 N93-10839
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
Dual active layer photoconductor
[AD-D015423] 04 p0993 N93-14820
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150

PHOTOCURRENTS
U ELECTRIC CURRENT
U PHOTOELECTRIC EMISSION

PHOTODECOMPOSITION
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052

PHOTODETACHMENT
Diagnostics and modeling of H(-) ion sources
[AD-A250664] 02 p0440 N93-11867
Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875
Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Correlation in photodetachment
[DE93-001843] 05 p1291 N93-17078
Formation of ions and radicals from icy grains in comets
06 p1708 N93-19172
Dynamics of collision processes
[DE93-007143] 09 p2849 N93-25509
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
The production and destruction of negative ions
[DE93-010527] 11 p3564 N93-28665
Partial cross sections in H(-) photodetachment
[DE93-011570] 11 p3569 N93-30130

PHOTODETECTORS
U PHOTOMETERS

PHOTODIODES
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special
03 p0509 N93-13166
An acoustic charge transport imager for high definition television applications
[NASA-CR-191295] 03 p0572 N93-13448
Ultraviolet spectroscopy of Comet Austin (1989c1) using a two-dimensional diode array detector
04 p1017 N93-14444
Organic/IR-Semiconductor heterojunctions for low-cost, high temperature IR arrays
[AD-A255971] 04 p0868 N93-15108
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Ultrafast measurements of 200 gigahertz Schottky photodiodes
09 p2688 N93-25392
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission
12 p3860 N93-31725
Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420

PHOTODISSOCIATION
A time-resolved two-laser probe of Cr(CO)6 photodissociation dynamics
[AD-A250930] 01 p0088 N93-10247
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Thermochemistry of transition metal clusters
[DE92-018713] 02 p0262 N93-12480
Photodissociation processes
[PB92-222702] 03 p0702 N93-13067
An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624
Venus: The case for a wet origin and a runaway greenhouse
04 p1031 N93-14331
Final Report, 1 November 1988 - 31 October 1991 --- spectroscopy of adsorbed and photodissociated molecules
[AD-A255979] 04 p0976 N93-14424
Development of laser-ion beam photodissociation methods
[DE92-040512] 04 p0886 N93-15058
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
Photodissociation dynamics of cluster ions
[AD-A256375] 04 p0917 N93-15463
Observations of cometary parent molecules with the IRAM radio telescope
06 p1697 N93-19143
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals
06 p1708 N93-19173
Long slit spectroscopy of NH2 in comets Halley, Wilson, and Nishikawa-Takamizawa-Tago
06 p1698 N93-19230
Evolution of near UV Halley's spectrum in the inner coma
06 p1716 N93-19235
Velocity distributions of H and OH produced through solar photodissociation of H2O
06 p1720 N93-19266
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
Ionization probes of molecular structure and chemistry
[DE93-008211] 09 p2847 N93-25310
Molecular processes in comets
[NASA-CR-193143] 10 p3204 N93-27537
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933
Femtosecond laser studies of excited state dynamics
[AD-A263708] 11 p3439 N93-29918
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E)
11 p3318 N93-30068
Optically switchable conductive polymers
[AD-A264751] 11 p3397 N93-30557
Quantum spectra and dynamics
12 p3831 N93-31129

PHOTOELASTIC ANALYSIS
An iterative approach to curved ray photoelastic analysis
07 p1928 N93-20635
The use of phase-stepping in the photoelastic analysis of complex components
07 p1928 N93-20636
Design and implementation of an interactive isochromatic fringe-analysis system using machine-vision techniques
11 p3369 N93-30305

PHOTOELASTIC STRESS MEASUREMENT
U PHOTOELASTIC ANALYSIS

PHOTOELASTICITY
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181

PHOTOELECTRIC CATHODES
U PHOTOCATHODES

PHOTOELECTRIC CELLS
NT PHOTOVOLTAIC CELLS
NT SOLAR CELLS

PHOTOELECTRIC EFFECT
NT PHOTOCONDUCTIVITY
NT PHOTOELECTRIC EMISSION
NT PHOTOIONIZATION
Apparatus and method for non-contact surface voltage probing by scanning photoelectron emission
[AD-D015583] 07 p1891 N93-20799
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298

PHOTOELECTRIC EMISSION
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
Collective excitations photoemission spectra and optical gaps in strongly correlated Fermi systems
[PREPRINT-881] 05 p1289 N93-17017
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
Electronic structure studies of YBa2Cu3O(x)(6.2 less than equal to x less than or equal to 6.9) using angle resolved photoemission
[DE93-004811] 08 p2501 N93-22493
Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104
Laser field assisted photoemission using femtosecond laser pulses
[DE93-007277] 09 p2712 N93-25378
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642

PHOTOELECTRIC GENERATORS
NT PHOTOVOLTAIC CELLS
NT SOLAR CELLS

PHOTOELECTRIC PHOTOMETERS
U ELECTROPHOTOMETERS

PHOTOELECTRICITY
NT PHOTOCONDUCTIVITY
NT PHOTOELECTRIC EFFECT
NT PHOTOELECTRIC EMISSION
NT PHOTOIONIZATION
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
Microscopic origins of metastable effects in a-Si:H and deep defect characterization in a-Si,Ge:H alloys
[DE92-010588] 02 p0463 N93-11813

A Pennsylvania State University/General Electric Get Away Special (GAS) experiment
03 p0511 N93-13177
Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing
[DE93-006411] 08 p2419 N93-24028

PHOTOELECTROCHEMICAL DEVICES
Reaction kinetics and product distributions in photoelectrochemical cells
[DE93-003885] 05 p1198 N93-17471

PHOTOELECTROCHEMISTRY
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692
Proceedings of the Sixteenth DOE Solar Photochemistry Research Conference
[DE93-001760] 05 p1193 N93-15899
Study on photochemical and photoelectrochemical etching of gallium arsenide
[ECL-91-25] 07 p1851 N93-21824

PHOTOELECTROMAGNETIC DETECTORS
U RADIATION MEASURING INSTRUMENTS

PHOTOELECTRON SPECTROSCOPY
Photoionization dynamics and cation spectroscopy with coherent VUV radiation
[DE92-015841] 01 p0154 N93-10730
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Signal-to-noise assessment and measurement in spectroscopies with particular reference to Auger and x ray photoelectron spectroscopies
[NPL-DMM(A)-45] 02 p0247 N93-11396
Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100
Surface contamination on LDEF exposed materials
03 p0547 N93-12776
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Space station protective coating development
07 p1848 N93-20816
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
The in situ observation of epitaxial diamond thin film nucleation and growth using emission electron microscopy
[AD-A259616] 08 p2510 N93-24126
Ionization probes of molecular structure and chemistry
[DE93-008211] 09 p2847 N93-25310
Analysis of the gap in high-temperature superconductors using photoemission spectroscopy
09 p2865 N93-25744
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
An XPS study of space-exposed polyimide film
10 p3007 N93-28267
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Energy spectra and photoelectron work function from YBa2Cu3O7 high-T(sub c) superconductor
[DE93-606329] 11 p3600 N93-30766

PHOTOELECTRONICS
U ELECTRONICS
U PHOTOELECTRICITY

PHOTOELECTRONS
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Shot noise limits to sensitivity of optical interferometry
03 p0745 N93-13586
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Design of a compact application-oriented free-electron laser
[DE92-040391] 05 p1172 N93-16183
Photoelectron enhanced plasma-line intensities at angles with the geomagnetic field as measured by EISCAT 06 p1724 N93-19536
Tristatic observations of natural plasma lines with the EISCAT UHF radar 06 p1725 N93-19537
Apparatus and method for non-contact surface voltage probing by scanning photoelectron emission
[AD-D015583] 07 p1891 N93-20799
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Diffraction and holography with photoelectrons and Auger electrons: Some new directions
[DE93-007664] 11 p3313 N93-29766
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
A quality monitor and monitoring technique employing optically stimulated electron emission
[NASA-CASE-LAR-15063-1] 11 p3449 N93-30414
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Energy spectra and photoelectron work function from YBa2Cu3O7 high-T(sub c) superconductor
[DE93-606329] 11 p3600 N93-30766
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095

PHOTOEMISSION
U PHOTOELECTRIC EMISSION

PHOTOEMISSIVITY
U EMISSIVITY
U PHOTOELECTRIC EMISSION

PHOTOENGRAVING
Preparation of permanent photowritten optical diffraction gratings in irradiated glasses
[AD-D015623] 08 p2241 N93-24257

PHOTOEXCITATION
Erasable optical information storage in the polyanilines
[AD-A254873] 02 p0480 N93-12438
Workshop on Super-Intense Laser-Atom Physics
[AD-A254833] 03 p0604 N93-12734
Velocity distributions of H and OH produced through solar photodissociation of H2O
06 p1720 N93-19266
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501

PHOTOGEOLOGY
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae
03 p0768 N93-14092
The geology of the Venera/Vega landing sites
04 p1024 N93-14296
Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871

PHOTOGRAMMETRY
Stereoscopy and parallax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Autonomous star sensing and pattern recognition for spacecraft attitude determination
01 p0177 N93-10876
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Object based multi-image matching
[SER-C-375] 02 p0309 N93-11330
Photogrammetric point determination using digital imagery of three-line scanner systems
[SER-C-372] 02 p0309 N93-11346
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
The importance of the PC in the cartographic-photogrammetric service field
07 p1967 N93-20535
Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data
08 p2350 N93-23552
A Digital Landscape Model for Europe (DLME)
08 p2351 N93-23554
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Studies on dynamism in photogrammetry
08 p2374 N93-24122

PHOTOGRAPH INTERPRETATION
U PHOTOINTERPRETATION

PHOTOGRAPHIC EMULSIONS
NT NUCLEAR EMULSIONS
The emulsion chamber technology experiment
11 p3268 N93-28743

PHOTOGRAPHIC EQUIPMENT
NT CAMERAS
NT FAINT OBJECT CAMERA
NT FRAMING CAMERAS
NT HIGH SPEED CAMERAS
NT MULTISPECTRAL BAND CAMERAS
NT PANORAMIC CAMERAS
NT PINHOLE CAMERAS
NT SCHMIDT CAMERAS
NT STREAK CAMERAS
NT TELEVISION CAMERAS
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324

PHOTOGRAPHIC FILM
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40
03 p0509 N93-13163

PHOTOGRAPHIC MEASUREMENT
NT PHOTOGRAMMETRY
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
Measurement of 1s2s(sup 3)S(sub 1)-1s2p(sup 3)P(sub 2,0) intervals in helium-like neon
[DE93-009243] 11 p3563 N93-28521

PHOTOGRAPHIC PROCESSING
Management and minimization of photographic wastes at Pantex Plant
[MHSMP-92-01] 04 p0910 N93-14739

PHOTOGRAPHIC RECORDING
Light curve and fan-shaped coma of comet P/Tempel 2 in 1988-1989 06 p1700 N93-19114
Fragmentation and densities of meteoroids
06 p1700 N93-19118
A new method for astrometric observations of asteroids 06 p1698 N93-19220

PHOTOGRAPHS
NT LUNAR PHOTOGRAPHS
NT MARS PHOTOGRAPHS
NT MICROPHOTOGRAPHS
NT MOTION PICTURES
Meteorological and site influences affecting the comparison of nephelometer and photographic determinations of light extinction at rural sites in the Eastern US
[PB92-195999] 01 p0126 N93-10433
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050

Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records
06 p1703 N93-19137
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827
Capabilities and constraints of combustion diagnostics in microgravity 07 p1869 N93-20185
Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
Cape Photographic Durchmusterung, volume 1
[NASA-RP-1300-VOL-1] 09 p2890 N93-26002
Cape Photographic Durchmusterung, volume 2
[NASA-RP-1300-VOL-2] 09 p2890 N93-26003
Cape Photographic Durchmusterung, volume 3
[NASA-RP-1300-VOL-3] 09 p2890 N93-26004
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56
[NASA-TM-107560] 10 p2956 N93-27538
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453

PHOTOGRAPHY
NT ACOUSTICAL HOLOGRAPHY
NT AERIAL PHOTOGRAPHY
NT ALL SKY PHOTOGRAPHY
NT ASTRONOMICAL PHOTOGRAPHY
NT AUTORADIOGRAPHY
NT COLOR INFRARED PHOTOGRAPHY
NT COLOR PHOTOGRAPHY
NT ELECTRO-OPTICAL PHOTOGRAPHY
NT FRACTOGRAPHY
NT FRAME PHOTOGRAPHY
NT HIGH SPEED PHOTOGRAPHY
NT HOLOGRAPHY
NT INFRARED IMAGERY
NT INFRARED PHOTOGRAPHY
NT MULTISPECTRAL PHOTOGRAPHY
NT ORTHOPHOTOGRAPHY
NT PHOTOMICROGRAPHY
NT SATELLITE-BORNE PHOTOGRAPHY
NT SCHLIEREN PHOTOGRAPHY
NT SHADOWGRAPH PHOTOGRAPHY
NT SPACEBORNE PHOTOGRAPHY
NT SPECKLE HOLOGRAPHY
NT STEREOPHOTOGRAPHY
NT STEREOSCOPY
NT STREAK PHOTOGRAPHY
NT ULTRAVIOLET PHOTOGRAPHY
NT ULTRAVIOLET PHOTOMETRY
Geology of the Apollo 17 site
06 p1738 N93-18803
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
The Taurid meteoroid complex
09 p2889 N93-25536
Photographic industry and electronic imaging: The emergence of electronic still photography
[PB93-169399] 09 p2711 N93-26324
Flash x ray system: Techniques and applications
[DE93-011477] 11 p3430 N93-28645

PHOTOINTERPRETATION
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Experience of the Finnish National Scientific Research Center (VTT) in the interpretation of AVIRIS spectrometric image 06 p1570 N93-19879
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography
[BCRS-91-44] 07 p1968 N93-20740
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data
07 p1955 N93-21583
Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213
Mapping from SPOT data 08 p2349 N93-23544
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
The photointerpretation of the area taken over from agriculture by intense urbanization at Villabate (Palermo, Italy) 09 p2742 N93-24800
Hel's peninsula coastal zone changes in the last 40 years on a base of remote sensing methods
09 p2747 N93-24832
Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Rejection of archival photographic objects as optical counterparts of gamma ray bursters
[MPE-PREPRINT-228] 11 p3631 N93-30642

PHOTOIONIZATION
Development of laser excited atomic fluorescence and ionization methods
[DE92-016199] 01 p0089 N93-10611
Photoionization dynamics and cation spectroscopy with coherent VUV radiation
[DE92-015841] 01 p0154 N93-10730
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
Multiphoton ionization and ion-pair formation in molecular hydrogen
[DE92-019026] 02 p0438 N93-11829
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Correlation in photodetachment
[DE93-001843] 05 p1291 N93-17078
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Studies of the formation chemical reactivity and properties of small clusters application to an understanding of aerosol formation and heterogeneous chemistry
[DE93-005920] 08 p2221 N93-23309
The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
The reionization of the universe: The feedback of galaxy formation on the intergalactic medium
10 p3182 N93-26771
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
Long slit spectroscopy of NGC 5506
10 p3198 N93-26861
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
Excitation of atoms and molecules in collisions with highly charged ions
[DE93-007306] 10 p3132 N93-27520
Quasiclassical approach to ionization of atoms by strong laser pulses: The comparison with the simpleman's models and Newtonian dynamics
[DE93-008738] 10 p3137 N93-28463
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762

PHOTOLITHOGRAPHY
Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Soft X Ray Projection Lithography Topical Meeting. Volume 8: Technical digest
[AD-A254756] 03 p0709 N93-12850
A differential equation design method for finite-conjugate, multi-mirror imaging systems
04 p0979 N93-14165
Acousto-optic frequency excision
06 p1523 N93-18460
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962

PHOTOLUMINESCENCE
NT X RAY FLUORESCENCE
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
Programme and abstracts. Workshop on Expert Evaluation and Control of Compound Semiconductor Materials and Technologies No. 1: (EXAMTEC 199)
[AD-A254023] 02 p0292 N93-12071
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers
03 p0607 N93-13773
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Spin dependent recombination in conjugated polymers: An optically detected magnetic resonance study
[DE93-001221] 05 p1126 N93-17349
Infrared photoluminescence spectroscopy
06 p1485 N93-18466
Photoluminescent thermography in hypersonic blowdown wind tunnel: Feasibility study with pinpoint measurement
[ONERA-NT-1992-8] 06 p1407 N93-18617
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Photoluminescence of silicon nanostructures formed by ion beam implantation
[DE93-006777] 09 p2862 N93-24958
Analysis of transient photoluminescence measurements on GaAs and AlGaAs double heterostructures
[AD-A261154] 09 p2867 N93-25947
Visible light emission from porous silicon examined by photoluminescence and Raman spectroscopy
[DE93-006780] 09 p2646 N93-26502
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Luminescence study of ion-implanted and MBE-grown Er-doped GaAs and Al(x)Ga(1-x)As
[AD-A262602] 11 p3591 N93-28471
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619

PHOTOLUMINESCENT BANDS
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581

PHOTOLYSIS
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862
An investigation of the processes controlling ozone in the upper stratosphere
[DE92-019621] 03 p0645 N93-13615
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
C60 interactions with surfaces, gaseous species and photons: An overview
[DE92-040738] 04 p0978 N93-15654
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861

Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals 06 p1708 N93-19173
Infrared tunable difference frequency laser source [DE93-005128] 07 p1912 N93-21709
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion [PB93-132702] 08 p2222 N93-23347
Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction [DE93-007735] 10 p3131 N93-26614
Effects of cloud-radiation interactions on tropospheric chemistry [DE93-003465] 10 p3073 N93-28004
Study of intermediates from transition metal excited-state electron-transfer reactions [DE93-010904] 10 p3137 N93-28359
The photodissociation and reaction dynamics of vibrationally excited molecules [DE93-010896] 11 p3565 N93-28879
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067

PHOTOMAPPING
System integration issues in digital photogrammetric mapping [AD-A254046] 01 p0103 N93-10781
Photogrammetric GIS technology: Feature mapping on digital stereo imagery [AD-A254255] 02 p0477 N93-11748
Usefulness of the CAESAR scanner for operational vegetation mapping [BCRS-91-39] 05 p1190 N93-16289
Wildfire and MAMS data from STORMFEST [NASA-TM-108393] 06 p1588 N93-19898
Calibration, navigation, and registration of MAMS data for FIFE [NASA-TM-108397] 08 p2342 N93-22699
US Army evaluation of the Electronic Map Data (EMD) prototype [AD-A261693] 09 p2757 N93-26369
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM [DE93-007724] 10 p3030 N93-26612
Monitoring vegetation greenness with satellite data [PB93-190882] 12 p3744 N93-31213
Digital reading of road network data in developing a cartographic information system 12 p3744 N93-31259
Vegetation mapping for environment management and monitoring [ETN-93-93466] 12 p3747 N93-32342

PHOTOMASKS
Physical implementations of an antimask in URA based coded mask systems [INPE-5338-PRE/1737] 01 p0153 N93-10312

PHOTOMECHANICAL EFFECT
Discussion of the optical effects created by a laser source on particles under microgravity 07 p1811 N93-21126

PHOTOMETERS
NT ELECTROPHOTOMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
Holographic optical interconnects for multichip modules [AD-A253403] 01 p0086 N93-10408
Phase-stepping fiber-optic projected fringe system for surface topography measurements [NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
Integrated filter and detector array for spectral imaging [NASA-CASE-NPO-18317-1-CU] 03 p0709 N93-13419
Direct optical to microwave conversion [RL-TR-91-375] 04 p0859 N93-14728
A temperature tracking SPICE2G.6 macromodel of the 6N134 optocoupler [DE92-040093] 04 p0983 N93-15223
Enhanced polarization-dependent coupling between an optical waveguide and laterally coupled photodetector [MBB-Z-0338-90-PUB] 05 p1305 N93-17642
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems [AD-A257799] 06 p1671 N93-18238
Acousto-optic frequency excision 06 p1523 N93-18460
Device applications of layered structures 06 p1523 N93-18461
Reduced electrical bandwidth receivers for direct detection 4-ary PPM optical communication intersatellite links [NASA-CR-192310] 07 p1880 N93-19993
Optoelectronics research in the former Soviet Union [PB93-111516] 07 p2069 N93-21804
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering [AD-D015642] 09 p2852 N93-25358
Laser physics and laser techniques [AD-A261595] 09 p2715 N93-26524
A broadband THz receiver for low background space applications 10 p3020 N93-27782
The NPL reference hazemeter [NPL-QU-94] 12 p3729 N93-31325

PHOTOMETRY
NT ASTRONOMICAL PHOTOMETRY
NT INFRARED PHOTOMETRY
NT SPECTROPHOTOMETRY
NT STELLAR SPECTROPHOTOMETRY
NT ULTRAVIOLET PHOTOMETRY
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate [NASA-TM-108588] 06 p1561 N93-18709
Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data 06 p1699 N93-19257
Geometry and photometry in 3D visual recognition [AD-A259443] 07 p2066 N93-20126
Implementation and evaluation of a three-dimensional photometric sampler [AD-A258636] 07 p1905 N93-20361
Topography from shading and stereo 09 p2879 N93-25803
Starburst ages in HII galaxies 10 p3183 N93-26777
Declining rotation curves in interacting galaxies 10 p3192 N93-26829

PHOTOMICROGRAPHY
Moire-fringe images of twin boundaries in chemical vapor deposited diamond [AD-A253729] 01 p0035 N93-10231

PHOTOMULTIPLIER TUBES
Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument [AD-A256830] 05 p1166 N93-15688
Development of microchannel plates in advanced wind-tunnel instrumentation [NASA-CR-181947] 05 p1166 N93-15716
Experimental investigations in particle physics at intermediate energies [DE93-000406] 05 p1284 N93-16160
Milagro: A low energy threshold extensive air shower array [DE93-000852] 05 p1400 N93-17383
Optically powered photomultiplier tube [AD-D015735] 12 p3722 N93-32207

PHOTON ABSORPTIOMETRY
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses [DE93-002625] 06 p1676 N93-19617
The production and destruction of negative ions [DE93-010527] 11 p3564 N93-28665

PHOTON BEAMS
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering [DE92-018934] 02 p0448 N93-11627
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods [DE92-019032] 02 p0445 N93-11831
Thermal imaging of synchrotron beams on silicon crystals [DE92-018182] 03 p0719 N93-12562
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source [DE93-007893] 09 p2848 N93-25368
Poster session: Fifth Users Meeting for the Advanced Photon Source [DE93-006019] 09 p2598 N93-26498
The Amsterdam Pulse Stretcher AmPS as a photon source 10 p3139 N93-28338
Research programs from the University of South Carolina on high energy physics [DE93-007829] 11 p3574 N93-28969
Laser-assisted chemical vapor deposition of InN on Si(100) [AD-A264266] 12 p3731 N93-31095

PHOTON DENSITY
Using harmonic oscillators to determine the spot size of Hermite-Gaussian laser beams 10 p3049 N93-27328

PHOTON-ELECTRON INTERACTION
Hard photon emission from high energy electrons and positrons in single crystals [DE93-606328] 11 p3600 N93-30770
Single t-quark production in high energy (gamma)e collisions [DE92-644947] 11 p3572 N93-30930

PHOTONIC PROPULSION
NT LASER PROPULSION

PHOTONIC SWITCHING
U OPTICAL SWITCHING

PHOTONICS
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 14: Photorefractive materials effects, and devices [AD-A253001] 02 p0446 N93-11071
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9 [AD-A253472] 02 p0447 N93-11099
Photonics and other approaches to high speed communications [NASA-CR-190362] 02 p0279 N93-11116
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. Ilfornia on 9-11 april 1991 [AD-A254682] 03 p0709 N93-12666
Real-time quality assurance testing using photonic techniques: Application to iodine water system [NASA-CR-184413] 03 p0619 N93-12692
Symposium on Polymeric Materials for Photonic and Optical Applications [AD-A255820] 03 p0554 N93-14029
Fiber optic data bus radiation effects study [AD-A255821] 03 p0711 N93-14031
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting [AD-A255423] 04 p0981 N93-14506
Photonic materials and devices for optical information processing and computing applications [AD-A256047] 04 p0982 N93-14578
A structural approach to the photonic processor [AD-A260688] 04 p0986 N93-15648
Integrated test and package methods for integrated photonics [DE93-000748] 05 p1145 N93-16230
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical [AD-A258663] 06 p1664 N93-19947
Optical computing. Volume 6: Organization of the Optical Society of America photonic science topical meeting series [AD-A261267] 09 p2856 N93-26266
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects [PB93-181261] 11 p3410 N93-29671
Ferroelectric liquid crystal optical interconnect switching systems [AD-A263751] 11 p3596 N93-29859
Advanced microwave frequency sources and filters based on superconducting Photonic Band Gap (PBG) structures [AD-A264404] 11 p3597 N93-30175

PHOTONS
Laser and optical physics [AD-A253619] 01 p0088 N93-10251
Two-photon physics and the coming generation of heavy ion colliders [DE92-015850] 01 p0156 N93-10732
High energy x ray imaging diagnostic on Nova [DE92-018067] 02 p0451 N93-11495
Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992 [PB92-181106] 02 p0438 N93-11715
Exciton kinetics in poly(di-n-hexylsilane) [DE92-018278] 02 p0283 N93-11800
Bremsstrahlung absorption in plasmas 02 p0321 N93-12047
Image potential states at metal-dielectric interfaces [DE92-017019] 02 p0466 N93-12124
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources 04 p1050 N93-14639
High-energy emissions from young pulsars: Perspective from the outer gap model [DE92-040365] 04 p1022 N93-15324
C60 interactions with surfaces, gaseous species and photons: An overview [DE92-040738] 04 p0978 N93-15654

Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics
[NOTA-INTERNA-991] 06 p1653 N93-17942
Study of electroweak interactions
[DE93-004367] 07 p2061 N93-20385
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations
[PB93-126092] 07 p2064 N93-21828
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques 07 p1767 N93-21875
A novel approach to design optimization of nuclear-based explosive detection systems 07 p1777 N93-21935
Neutron-proton bremsstrahlung experiments
[DE93-003737] 07 p2065 N93-21968
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Correlative studies of astrophysical sources of very high and ultra high energy gamma-rays
[NASA-CR-192781] 09 p2888 N93-25172
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
Distribution of photons in squeezed polymode light 10 p3143 N93-27325
Two photon annihilation operators and squeezed vacuum 10 p3143 N93-27326
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178
Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
A unique photon bombardment system for space applications 11 p3286 N93-28790
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068
Applications of the photorefractive effect and damage induced effects in fibers
[AD-A264339] 11 p3580 N93-30205
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032
Infinite volume extrapolations of finite cluster calculations. How correct are these?
[AD-A265648] 12 p3809 N93-32170

PHOTONUCLEAR REACTIONS
Photodisintegration of the deuteron at high energy
[DE92-017066] 02 p0445 N93-12108
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Nuclear studies with intermediate energy probes
[DE93-002785] 07 p2062 N93-21481
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Photoerosion in astrophysical environments 10 p3205 N93-28450

PHOTOOXIDATION
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

PHOTOPLASTICITY
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070

PHOTOPRODUCTION
Low energy theorems in pion production
[DE92-040071] 04 p0977 N93-15279
Experimental studies of elementary particle interactions at high energies
[DE93-003652] 05 p1294 N93-17575
High energy physics
[DE93-002411] 06 p1659 N93-17911
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics
[NOTA-INTERNA-991] 06 p1653 N93-17942
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Theoretical aspects of electroweak and other interactions in medium energy physics
[DE93-003714] 06 p1657 N93-19507
Nuclear studies with intermediate energy probes
[DE93-002785] 07 p2062 N93-21481
Particle physics
[DE93-006894] 08 p2482 N93-22992
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Elementary particle interactions
[DE93-005113] 11 p3568 N93-29764

PHOTORECEPTORS
Photoreceptors regulating circadian behavior: A mouse model
[AD-A264881] 11 p3497 N93-30908
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061

PHOTORECONNAISSANCE
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046

PHOTOREDUCTION
U PHOTOCHEMICAL REACTIONS

PHOTORESISTIVITY
U PHOTOCONDUCTIVITY

PHOTORESISTORS
U PHOTOCONDUCTORS

PHOTOSENSITIVITY
NT PHOTOTROPISM
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589

PHOTOSENSORS
U PHOTOELECTRICITY
U RADIATION MEASURING INSTRUMENTS

PHOTOSPHERE
NT SOLAR GRANULATION
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem 01 p0183 N93-10927
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
The source of five-minute period photospheric umbral oscillations 08 p2548 N93-23214
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
ORFEUS: Scientific targets and optical performance 08 p2537 N93-23905
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
The detection of low-degree solar gravity mode oscillations by differential radius observations, 1986-1987 11 p3652 N93-28605
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345
Photospheric abundances 12 p3878 N93-31408
First ionization potential fractionation 12 p3878 N93-31411
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

PHOTOSYNTHESIS
Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Nitrogen control of chloroplast development and differentiation
[DE92-017392] 03 p0671 N93-12768
Characteristics of phytoplankton as monitors of the physical environment
[AD-A255009] 03 p0642 N93-12870
Phytoplankton photosynthesis in natural mixed layers
[AD-A255010] 03 p0671 N93-12871
Proceedings of the Sixteenth DOE Solar Photochemistry Research Conference
[DE93-001760] 05 p1193 N93-15899
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Recent research efforts in the area of biotechnology for fuels and chemicals: Poster session papers
[DE92-041130] 05 p1129 N93-17459
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
Kinetic studies of interfacial photocurrents in platinized chloroplasts
[DE93-002344] 09 p2792 N93-25104
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Membrane-based photochemical systems as models for photosynthetic cells
[DE93-009758] 11 p3310 N93-28911
Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181

PHOTOTHERMAL CONVERSION
An overview of current activities at the National Solar Thermal Test Facility
[DE92-041160] 05 p1196 N93-16553
Conversion efficiency in solar thermal systems 07 p1982 N93-20301
A review of the experience gained in 10 years operation of Gould's solar industrial process heat system
[DE93-003991] 08 p2381 N93-23970

PHOTOTHERMOTROPISM
U ANISOTROPY
U PHOTOTROPISM
U TEMPERATURE EFFECTS

PHOTOTRANSISTORS
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU] 08 p2464 N93-24599

PHOTOTROPISM
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
PHOTOTUBES
NT PHOTOMULTIPLIER TUBES
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
PHOTOVOLTAGES
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers
[AD-A265780] 12 p3750 N93-32417
PHOTOVOLTAIC CELLS
NT SOLAR CELLS
Contactless optoelectronic integrated circuits for remote fiber optic communication and sensing applications
[AD-A253573] 02 p0290 N93-11507
Photovoltaic power system for a lunar base 04 p0806 N93-14930
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
Development of a commercial photovoltaic concentrator module
[DE93-002594] 05 p1196 N93-16655
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Lewis Research Center battery overview 07 p1983 N93-20493
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000072] 09 p2862 N93-25163
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
A photovoltaic catenary-tent array for the Martian surface
[NASA-CR-191144] 10 p2976 N93-26703
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
STRV1-b flight experiment 11 p3265 N93-28723
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download
[ETN-93-94179] 11 p3466 N93-30573
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
PHOTOVOLTAIC CONVERSION
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Cost analysis methodology: Photovoltaic Manufacturing Technology Project
[DE92-016441] 03 p0639 N93-13528
NREL photovoltaic subcontract reports: Abstracts and document control information
[DE92-016408] 04 p0907 N93-14817
Photovoltaic power system for a lunar base
04 p0806 N93-14930
Development of a commercial photovoltaic concentrator module
[DE93-002594] 05 p1196 N93-16655
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Enabling lunar and space missions by laser power transmission 05 p1393 N93-17423
Interagency Advanced Power Group Solar Photovoltaic Panel Fall Meeting minutes
[DE93-006188] 08 p2376 N93-22330
Battery compatibility with photovoltaic charge controllers
[DE93-005373] 08 p2377 N93-22537
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
Film fabrication technologies at NREL
09 p2658 N93-25563
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
A PWM current-source inverter for interconnection between a photovoltaic array and the utility line
[EUT-91-E-253] 10 p3065 N93-27227
Trend survey of the global environment adaptation type industry technology
[DE93-781442] 10 p3066 N93-28435
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
Large-area, triple-junction a-Si alloy production scale-up
[DE93-010007] 12 p3750 N93-32177
PHTHALOCYANIN
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
PHUGOID OSCILLATIONS
U OSCILLATIONS
U PITCH (INCLINATION)
PHYSICAL CHEMISTRY
NT CRYOCHEMISTRY
NT QUANTUM CHEMISTRY
The 200th American Chemical Society Geochemistry Division Symposium on Progress in Marine Chemistry
[AD-A253757] 01 p0129 N93-10887
Chemical and physical effects in the bulk of cometary analogs 06 p1716 N93-19234
Atmospheric chemistry and physical fate of HCFCs and HFCs and their degradation products
[PB93-131449] 08 p2385 N93-23267
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Gravity-related phenomena in materials science
08 p2161 N93-24372
Use of statistics in computational chemistry
[AD-A264307] 11 p3315 N93-30365
The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites
12 p3862 N93-31937
PHYSICAL CONSTANTS TESTING REACTOR
U NUCLEAR RESEARCH AND TEST REACTORS
U WATER COOLED REACTORS
PHYSICAL ENDURANCE
U PHYSICAL FITNESS
PHYSICAL EXAMINATIONS
Estimates of Human Immunodeficiency Virus (HIV) incidence and trends in the US Air Force
02 p0377 N93-11292
Transcutaneous Analyte Measuring Methods (TAMM), phase 2
[AD-A256327] 04 p0936 N93-15192
Improved head support stand adjustable by compoundturnbuckle
[AD-D015384] 04 p0936 N93-15249
Guide for aviation medical examiners
[PB92-219690] 07 p2024 N93-21047
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces
12 p3781 N93-32260
Changes in some lifestyle parametres in Norwegian pilots as students, and after 6 and 12 years of service
12 p3781 N93-32261
PHYSICAL EXERCISE
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
Exercise during long term exposure to space: Value of exercise during space exploration
05 p1222 N93-16807
Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410
AFTERRISE: Deep body temperature following exercise
[AD-A259887] 08 p2421 N93-23984
Utilization of the graded universal testing system to increase the efficiency for assessing aerobic and anaerobic capacity 09 p2794 N93-26077
Combined strength and endurance training: Functional and morphological adaptations to ten weeks of training
[AD-A261059] 09 p2802 N93-26229
Exercise/recreation facility for a lunar or Mars analog
11 p3230 N93-29733
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude
[AD-A263544] 11 p3495 N93-29820
Daily exercise routines 12 p3689 N93-31455
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas
12 p3780 N93-32257
Objective improvements obtained by control of diet and physical training in Spanish Air Force fighter pilots
12 p3780 N93-32258
PHYSICAL FACTORS
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
Factors influencing the interlaminar fracture toughness and its evaluation in composites
[FFA-TN-1991-34] 11 p3451 N93-29076
PHYSICAL FITNESS
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
A progressive resistance weight training program designed to improve the armor crewman's strength
[AD-A255553] 04 p0934 N93-14556
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
Exercise during long term exposure to space: Value of exercise during space exploration
05 p1222 N93-16807
Muscle glycogen, fiber type, aerobic fitness, and anaerobic capacity of West Coast US Navy Sea-Air-Land personnel (SEALs)
[AD-A258364] 06 p1596 N93-18209
Combined strength and endurance training: Functional and morphological adaptations to ten weeks of training
[AD-A261059] 09 p2802 N93-26229
Changes in some lifestyle parametres in Norwegian pilots as students, and after 6 and 12 years of service
12 p3781 N93-32261
PHYSICAL OPTICS
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
Large orbit gyroklystron development at Los Alamos
[DE92-040370] 05 p1144 N93-15938
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
Design of dispersion section for the ATF harmonic generation FEL
[DE93-001655] 05 p1174 N93-16970
Inverse Free Electron Laser accelerator
[DE93-001963] 05 p1175 N93-17654
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233
An iterative approach to curved ray photoelastic analysis 07 p1928 N93-20635
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741

Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118
An acoustic scattering code [AD-A265863] 12 p3816 N93-32316

PHYSICAL PROPERTIES
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields [DE92-018865] 02 p0301 N93-11638
High temperature superconductor materials and applications [NASA-CR-184437] 03 p0719 N93-12691
Synthesis and properties of novel cluster phases [DE92-017388] 03 p0545 N93-12697
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
A comparison between families obtained from different proper elements 06 p1721 N93-19270
Copper/solder intermetallic growth studies [AD-A259856] 08 p2232 N93-23955

PHYSICAL SCIENCES
The 1991 lectures in complex systems [AD-A259428] 07 p2050 N93-20008

PHYSICAL WORK
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge [AD-A264260] 11 p3497 N93-30894

PHYSICS
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
JPRS report: Science and technology. Central Eurasia: Physics and mathematics [JPRS-UPM-93-002] 11 p3560 N93-29022
Temporal and spatial analysis in knowledge-based physics problem-solving 12 p3814 N93-31651

PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE
Report on microgravity experiment by TR-1A rocket [NASDA-EG-920021] 07 p1875 N93-21950

PHYSIOCHEMISTRY
Fires on board aircraft: Toxicological risk in flight 06 p1428 N93-19694

PHYSIOGRAPHY
U GEOMORPHOLOGY

PHYSIOLOGICAL ACCELERATION
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185

PHYSIOLOGICAL DEFENSES
NT IMMUNE SYSTEMS
Physiological stress from chemical defense clothing and equipment [AD-A255786] 03 p0676 N93-14028
Plasmid encoded virulence of Yersinia [FOA-B-40419-4.4] 10 p3082 N93-28199

PHYSIOLOGICAL EFFECTS
NT PHYSIOLOGICAL RESPONSES
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets [AD-A252427] 01 p0132 N93-10709
Metabolic factors influencing myocardial recovery from acidosis (CiC3) [AD-A252376] 01 p0132 N93-10796
An overview of gravitational physiology [NASA-TM-102849] 02 p0391 N93-12319
Physiologically constrained aerocapture for manned Mars missions [NASA-TM-103954] 03 p0521 N93-12720
Physiological effects of positive pressure ventilation [AD-A254809] 03 p0674 N93-12751
SLS-1 flight experiments preliminary significant results [NASA-TM-108033] 03 p0520 N93-13613
Thermal stress in US Air Force operations [AD-A255785] 03 p0676 N93-14027
Bibliography of scientific publications of the Naval Biodynamics Laboratory [AD-A255952] 04 p1051 N93-14657
Cardiopulmonary discipline science plan [NASA-TM-108040] 06 p1599 N93-19648
Health effects of low-frequency electric and magnetic fields [DE93-005675] 06 p1599 N93-19838
Neuroscience discipline science plan [NASA-TM-108041] 06 p1600 N93-19882
Regulatory physiology discipline science plan [NASA-TM-108038] 06 p1594 N93-19891
Musculoskeletal discipline science plan [NASA-TM-108039] 06 p1600 N93-19392
Long duration human exposure to microgravity 07 p1802 N93-21073
Space life sciences overview 07 p1802 N93-21074
Eye movements under altered gravitoinertial forces 07 p1809 N93-21111
Cerebral autoregulation in microgravity 07 p1809 N93-21112
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals [PB92-227347] 07 p1856 N93-21497
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
Task Analysis of Shuttle Entry and Landing Activities [NASA-TM-104761] 08 p2178 N93-22702
Micromotional studies of utricular and canal afferents [NASA-CR-192703] 08 p2417 N93-22800
Orbiter Autoland reliability analysis [NASA-TM-4464] 08 p2194 N93-23139
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment [AD-A259909] 08 p2427 N93-23995
Physiological experiments within the project AustroMir 08 p2157 N93-24354
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions 08 p2165 N93-24398
The acute inhalation toxicity of pyrolysis products of halon 1301 [AD-A260874] 09 p2795 N93-25629
AFRRI research, fiscal year 1991 [AD-A260933] 09 p2911 N93-25710
Growth factor involvement in tension-induced skeletal muscle growth [NASA-CR-193023] 10 p3083 N93-27113
Variations of time-to-incapacitation and carboxyhemoglobin values in rats exposed to two carbon monoxide concentrations [DOT/FAA/AM-93/7] 10 p3082 N93-27152
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations [DOT/FAA/AM-93/8] 10 p3083 N93-27158
Evaluation of test methods and requirements for respiratory protection systems 21 [AD-A262466] 11 p3501 N93-28757
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits [AD-A262862] 11 p3506 N93-29471
Issues on human acceleration tolerance after long-duration space flights [NASA-TM-104753] 11 p3495 N93-29651
Sonic boom problem for future highspeed aircraft [ONERA-NT-1990-3] 11 p3241 N93-30020
The Environmental Symptoms Questionnaire (ESQ): Development and application [AD-A264127] 11 p3495 N93-30196
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC) [AD-A264492] 11 p3496 N93-30400
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures [AD-A264179] 11 p3497 N93-30882
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929
Survey of smoking habits in the Spanish Air Force 12 p3781 N93-32262
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267

PHYSIOLOGICAL FACTORS
NT PHYSICAL FACTORS
Characteristics of phytoplankton as monitors of the physical environment [AD-A255009] 03 p0642 N93-12870
Cognitive factors in the air events of the Air Force during the last decade 06 p1426 N93-19682
The cumulative formulation of (physiologically) structured population models [CWI-AM-R9205] 10 p3124 N93-27298
Artificial gravity experiment satellites 10 p2949 N93-28018
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502
Cardiovascular risk factors in an Italian Air Force population: Preliminary report 12 p3775 N93-32252
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255
Biological parameters and cardiovascular risk factors with the flying personnel of the Belgian Armed Forces 12 p3781 N93-32260

PHYSIOLOGICAL RESPONSES
Eye movements and visual information processing [AD-A250198] 01 p0132 N93-10278
Physiological analyses of the afferents controlling brain neurochemical systems [AD-A253185] 02 p0375 N93-11146
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men [NASA-TM-103949] 02 p0374 N93-12014
An overview of gravitational physiology [NASA-TM-102849] 02 p0391 N93-12319
Functional MRI studies of human vision on a clinical imager [DE92-017448] 03 p0674 N93-12566
Forest declines: Some perspectives on linking processes and patterns [DE92-019946] 03 p0642 N93-12828
Phytoplankton photosynthesis in natural mixed layers [AD-A255010] 03 p0671 N93-12871
SLS-1 flight experiments preliminary significant results [NASA-TM-108033] 03 p0520 N93-13613
AFRRI Reports --- Radiobiology [AD-A257231] 05 p1221 N93-15965
The Proceedings of the Hypobaric Decompression Sickness Workshop [AD-A257612] 06 p1597 N93-18362
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females [NASA-TP-3298] 07 p2022 N93-20318
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition [NASA-TP-3297] 07 p2026 N93-20319
Cerebral autoregulation in microgravity 07 p1809 N93-21112
Aimed arm movements under changed gravity 07 p1809 N93-21113
Respiratory response to varying degrees of tilt and lower body negative pressure 07 p1809 N93-21114
Cytokines and immune surveillance in humans [NASA-CR-192728] 08 p2447 N93-22828
Measuring variation in ecosystem sensitivity to stress [AD-A259521] 08 p2387 N93-23450
A demonstration of motion base design alternatives for the National Advanced Driving Simulator [NASA-TM-103881] 08 p2428 N93-24490
Autonomic physiological data associated with simulator discomfort [NASA-CR-177609] 09 p2794 N93-24738
JPRS report: Science and technology. Central Eurasia: Life sciences [JPRS-ULS-92-022] 09 p2795 N93-25407
AFRRI research, fiscal year 1991 [AD-A260933] 09 p2911 N93-25710
Metabolic response of environmentally isolated microorganisms to industrial effluents: Use of a newly described cell culture assay 09 p2794 N93-26066
Autogenic-feedback training improves pilot performance during emergency flying conditions [NASA-TM-104005] 10 p2940 N93-27076
Secondary injury factors and preventative treatment [PB93-176014] 10 p3084 N93-27409
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness [AD-A263033] 10 p3084 N93-27923
State of the art: Ecological biomarkers [DE93-006621] 11 p3469 N93-28992
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502
Beta-adrenergic blockade and lactate metabolism during exercise at high altitude [AD-A263544] 11 p3495 N93-29820
Trial of emergency ration of the Spanish Air Force 12 p3778 N93-32247
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility [NASA-CR-193304] 12 p3774 N93-32364

PHYSIOLOGICAL TELEMETRY
U BIOTELEMETRY

PHYSIOLOGICAL TESTS
NT VESTIBULAR TESTS
International application of the DLR test-system: Continuation of the cooperation with Iberia in pilot selection [DLR-FB-92-12] 08 p2425 N93-24104
Pilot Candidate Selection Method (PCSM): What makes it work? [AD-A262871] 11 p3498 N93-29481
Daily exercise routines 12 p3689 N93-31455

PHYSIOLOGY
NT ELECTROPHYSIOLOGY
NT EXERCISE PHYSIOLOGY
NT GRAVITATIONAL PHYSIOLOGY
NT NEUROPHYSIOLOGY
NT PSYCHOPHYSIOLOGY
NT RESPIRATORY PHYSIOLOGY
Mechanisms of immune failure in burn injury 02 p0376 N93-11285
Biomedical Polar Research Workshop Minutes [NASA-TM-108026] 05 p1221 N93-16799

Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
A review of models of the human temperature regulation system [AD-A258023] 06 p1595 N93-17918
Abstracts of papers presented at the annual meeting of the Society of General Physiologists [AD-A257718] 06 p1596 N93-18211
The role of central monoaminergic systems in arousal and selective attention [AD-A258500] 06 p1597 N93-18264
Development and enhancement of a mode of performance and decision making under stress in a real life setting [AD-A257796] 06 p1598 N93-18363
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion [AD-A258803] 06 p1590 N93-18982
A method for investigating human factor aspects of military aircraft accidents 06 p1422 N93-19656
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
Aircraft accident injuries in the Hellenic Air Force in the last 20 years 06 p1429 N93-19698
The influence of individual sensivity to stress on the behavior (attitude and performance) of avoidance of an accident 06 p1430 N93-19705
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography [BCRS-91-44] 07 p1968 N93-20740
Improved inhalation technology for setting safe exposure levels for workplace chemicals 08 p2423 N93-22164
A modular, programmable measurement system for physiological and spaceflight applications 08 p2305 N93-22201
Bibliography of the Biosciences Division: 1986 to present [DCIEM-92-20] 08 p2419 N93-23343
A linear, time-varying simulation of the respiratory tract system [DE93-004515] 08 p2421 N93-24009
Columbus payload requirements in human physiology 08 p2163 N93-24386
Autonomic physiological data associated with simulator discomfort [NASA-CR-177609] 09 p2794 N93-24738
Anatomy and physiology of plant conductive systems [PB93-156032] 09 p2793 N93-25877
Entropy reduction via simplified image contourization 09 p2804 N93-25924
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit 09 p2794 N93-26073
Physiological indices of mental workload [AD-A261692] 09 p2798 N93-26391
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality [AD-A263240] 11 p3494 N93-29620
Melatonin, the pineal gland, and circadian rhythms [AD-A264099] 12 p3772 N93-31061
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine [AD-A265497] 12 p3773 N93-31917
Geochemical, genetic, and physiological control of pollutant biodegradation [AD-A264106] 12 p3753 N93-32027

PHYTOPLANKTON
Molecular biology in studies of oceanic primary production [DE92-016101] 01 p0128 N93-10283
Characteristics of phytoplankton as monitors of the physical environment [AD-A255009] 03 p0642 N93-12870
Phytoplankton photosynthesis in natural mixed layers [AD-A255010] 03 p0671 N93-12871
New approaches to the measurement of chlorophyll, related pigments and productivity in the sea [NASA-CR-190879] 03 p0673 N93-13612
Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast [NASA-CR-192120] 06 p1586 N93-18360
Upper ocean mixing: The use of algal pigments as biological tracers for turbulent diffusion [AD-A258803] 06 p1590 N93-18982
How do zooplankton feed? A critical microgravity experiment 07 p1806 N93-21097
The environmental biogeochemistry of open ocean and partially enclosed marine systems 08 p2413 N93-23130
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea [AD-A261205] 09 p2757 N93-25868
Moored instrument for time series studies of primary production and other microbial rate processes [DE93-010148] 10 p3079 N93-26943
Chemical and biological variability in the upper water column [AD-A262207] 10 p3080 N93-27684

PHYTOTRONS
A membrane-based subsystem for water-vapor recovery from plant-growth chambers [NASA-CR-177602] 07 p2025 N93-20065
Growing wheat to maturity in reduced gas pressures [NASA-CR-193245] 11 p3491 N93-29216

PICKOFFS
U SENSORS

PICKUPS
U SENSORS

PICOSECOND PULSES
Three-dimensional guiding effects in a free-electron laser 04 p0883 N93-14125
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses [DE93-002625] 06 p1676 N93-19617
The multi-cavity free-electron laser [DE93-002569] 06 p1543 N93-19747
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation [AD-A259372] 06 p1522 N93-19853
New analysis of KrF picosecond pulse experiment [DE93-003805] 08 p2308 N93-23290
Active microparticle media [AD-A259722] 08 p2487 N93-23639
Spectra of stable sonoluminescence [AD-A260621] 09 p2844 N93-25637
Laser physics and laser techniques [AD-A261595] 09 p2715 N93-26524
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses [DE93-010416] 11 p3594 N93-29249

PICTURE ELEMENTS
U PIXELS

PICTURE TUBES
Computer-controlled alignment for a 2000-line color monitor 11 p3247 N93-30324

PIEZOELECTRIC CERAMICS
NT LEAD ZIRCONATE TITANATES
Piezoelectric and electrostrictive materials for transducers applications, volume 1 [AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2 [AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3 [AD-A250891] 01 p0072 N93-10280
Piezoelectric and electrostrictive materials for transducers applications, volume 4 [AD-A250892] 01 p0072 N93-10282
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes [DE92-017042] 02 p0276 N93-11494
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications [AD-A255959] 04 p0990 N93-14422
The modeling of piezoceramic patch interactions with shells, plates and beams [NASA-CR-189740] 05 p1278 N93-16611
Smart patch piezoceramic actuator issues 06 p1462 N93-18822
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827
Metal-coated, ordered void piezoelectric ceramic material [AD-D015540] 07 p1859 N93-20304
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell [NASA-CR-191439] 08 p2473 N93-22878
Accurate evaluation of the real and imaginary material constants for a piezoelectric resonator in the radial mode [DREA-CR-91-451] 08 p2508 N93-23727
Passive vibration damping materials: Piezoelectric ceramics composites for vibration damping applications [AD-A260792] 09 p2727 N93-25690
Damage detection and mitigation of composite structures using smart materials [AD-A261121] 09 p2639 N93-25945
Active damping control of a flexible space structure using piezoelectric sensors and actuators [AD-A262884] 10 p2973 N93-28248
Demonstration and fabrication of large area 1-3 PZT composite panels [AD-A262904] 10 p2992 N93-28305
Materials for adaptive structural acoustic control, volume 1 [AD-A264619] 11 p3562 N93-30121
Materials for adaptive structural acoustic control, volume 2 [AD-A264620] 11 p3563 N93-30385

PIEZOELECTRIC CRYSTALS
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials [DILC-EST-TN-224] 02 p0334 N93-11158
Thermal effects on the frequency response of piezoelectric crystals [DE92-019039] 03 p0720 N93-12819
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992 [AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992 [AD-A257308] 05 p1121 N93-16190
A dynamic analysis of piezoelectric strained elements [AD-A259011] 06 p1651 N93-19014
Sensor technology for internal inspection systems [PB93-101020] 07 p1907 N93-21652
Solution of large, sparse systems of linear equations in massively parallel applications [DE93-004243] 07 p2045 N93-21741
The measurement of the resonant frequency of quartz crystal units: An ongoing saga 09 p2833 N93-24996
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality 09 p2838 N93-25025
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043
Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
IR materials producibility [AD-A261099] 09 p2853 N93-25766

PIEZOELECTRIC GAGES
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials [DILC-EST-TN-224] 02 p0334 N93-11158
Feasibility of piezoresistive pressure sensors with polycrystalline silicon gauges [LAAS-92324] 12 p3728 N93-31127

PIEZOELECTRIC TRANSDUCERS
NT PIEZOELECTRIC GAGES
Piezoelectric and electrostrictive materials for transducers applications, volume 1 [AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2 [AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3 [AD-A250891] 01 p0072 N93-10280
Piezoelectric and electrostrictive materials for transducers applications, volume 4 [AD-A250892] 01 p0072 N93-10282
Advanced modeling and optimization of piezoelectric composites [AD-A253800] 02 p0242 N93-12296
Very high temperature silicon on silicon pressure transducers 03 p0601 N93-13679
Reliability of sol-gel derived ferroelectric memories [AD-A255358] 04 p0991 N93-14560
Acoustic emission of structural materials exposed to open flames [PB93-138980] 08 p2477 N93-23951
Calibration of a standard transducer using a laser interferometer (TTCP calibration round-robin) [NRC-34387] 08 p2305 N93-24289
Sealed acoustical element using conductive epoxy [AD-D015736] 12 p3730 N93-32208

PIEZOELECTRICITY
Control of panel flutter at high supersonic speed 01 p0009 N93-10900

Advanced modeling and optimization of piezoelectric composites
[AD-A253800] 02 p0242 N93-12296
Thermal effects on the frequency response of piezoelectric crystals
[DE92-019039] 03 p0720 N93-12819
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Broadband vibroacoustic frequency control via piezoelectric films
[ONERA-RT-8/3654-RY-010-R] 04 p0974 N93-15129
Smart materials for Army structures
[AD-A254925] 04 p0836 N93-15218
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Nonlinear acoustic-electromagnetic coupling in materials 06 p1482 N93-18486
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944
A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014
Piezoelectric response of precisely poled PVDF to shock compression greater than 10 GPa
[DE93-002469] 06 p1539 N93-19636
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
The third-order permittivity of quartz obtained by different methods 09 p2840 N93-25046
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Smart structural composites with piezoelectric micro-constituents
[AD-A260970] 09 p2640 N93-26225
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332
An acoustic charge transport imager for high definition television applications
[NASA-CR-193081] 10 p3030 N93-26701
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
NMR and optical studies of piezoelectric polymers
[DE93-010967] 10 p3006 N93-28361
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337

PIEZORESISTIVE TRANSDUCERS
NT PIEZOELECTRIC GAGES
SiC device development for high temperature sensor applications 03 p0601 N93-13677

PIGMENTS
NT CHLOROPHYLLS
NT CYTOCHROMES
NT MELANIN
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
Chemical and biological variability in the upper water column
[AD-A262207] 10 p3080 N93-27684
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950
Epoxy self-priming topcoats
[AD-D015737] 12 p3711 N93-32209

PIGS (SWINE)
U SWINE

PILOT ERROR
Modeling human response errors in synthetic flight simulator domain 06 p1612 N93-19464
Effects of medium blood alcohol levels on pilots' performance in the Sea King Simulator MK-41 06 p1426 N93-19683
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827
Autogenic-feedback training improves pilot performance during emergency flying conditions
[NASA-TM-104005] 10 p2940 N93-27076
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855

PILOT PERFORMANCE
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
Design of instrument approach procedure charts: Comprehension speed of missed approach instructions coded in text or icons
[PB92-205673] 02 p0204 N93-11252
Relating cognitive function to military aviator performance in early HIV infection 02 p0379 N93-11298
Modified optimal control pilot model for computer-aided design and analysis
[NASA-TM-4384] 02 p0214 N93-11459
Selective factors affecting rotary wing aviator performance with symbology superimposed on night vision goggles
[AD-A254983] 02 p0390 N93-12508
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
How expert pilots think 04 p0786 N93-15017
Methodology for studying and training expertise 04 p0786 N93-15018
Monitoring of pilot actions as part of a knowledge-based system for pilot assistance 04 p0797 N93-15184
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities
[AD-A256921] 05 p1060 N93-16186
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
An analysis of a sustained flight operation training mission in Navy attack aircraft
[AD-A258199] 06 p1602 N93-18205
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
Modeling the performance of the human (pilot) interaction in a synthetic flight domain: Information theoretic approach 06 p1612 N93-19465
Concepts for conformal and body-axis attitude information for spatial awareness presented in a helmet-mounted display
[NASA-TM-4438] 08 p2129 N93-23408
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
Attention factors associated with head-up display and helmet-mounted display systems
[AD-A260204] 08 p2427 N93-24001
Attitude awareness enhancements for the F-16 head-up display
[AD-A260280] 08 p2428 N93-24168
Perceptual factors that influence use of computer enhanced visual displays
[NASA-CR-192961] 09 p2811 N93-26150
Autogenic-feedback training improves pilot performance during emergency flying conditions
[NASA-TM-104005] 10 p2940 N93-27076
Age 60 Project: Consolidated database experiments
[HS-TR-8025-3C(R2)] 10 p3087 N93-27851
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853
A new class of mission support for combat air-crew 11 p3501 N93-28854
Pilot intent and error recognition as part of a knowledge based cockpit assistant 11 p3502 N93-28855
The design and development of the new RAF standard HUD format 11 p3502 N93-28856
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
The quest for an integrated flying helmet 11 p3502 N93-28860
The physiological limitations of man in the high G environment 11 p3503 N93-28861
Oculo-motor responses and virtual image displays 11 p3503 N93-28862
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Predicting radiation induced performance decrements of AH-1 helicopter crews. Volume 2: Evaluation of modeling and simulation techniques for predicting radiation induced performance decrements
[AD-A262872] 11 p3506 N93-29484
An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information
[AD-A263874] 11 p3507 N93-29688
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
The effects of superimposing symbology on a simulated night vision goggle display
[AD-A263458] 11 p3508 N93-30590
Training effectiveness assessment: Methodological problems and issues 11 p3237 N93-30684
Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
The test memorization of symbols and numbers: A computer generated test for visual sensitivity 12 p3775 N93-31233
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability 12 p3776 N93-31236
The PARAT tests as examination system 12 p3776 N93-31238
Nutrition, Metabolic Disorders and Lifestyle of Aircrew
[AGARD-CP-533] 12 p3777 N93-32240
Nutritional assessment of United States tactical air command pilots 12 p3778 N93-32242
Changes in food and energy intake in military aircrew 12 p3778 N93-32246
Idiopathic Reactive Hypoglycemia in a population of healthy trainees of an Italian Air Force military school 12 p3779 N93-32248
Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces 12 p3775 N93-32254
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas 12 p3780 N93-32257

Objective improvements obtained by control of diet and physical training in Spanish Air Force fighter pilots
12 p3780 N93-32258
Survey of smoking habits in the Spanish Air Force
12 p3781 N93-32262
The effects of an antijet lag diet
12 p3781 N93-32263
Subjective mood and fatigue of C-141 crew during Desert Storm
12 p3782 N93-32264
C-141 aircrew sleep and fatigue during the Persian Gulf conflict
12 p3782 N93-32265
Digital flight data as a measure of pilot performance associated with fatigue from continuous operations during the Persian Gulf conflict
12 p3782 N93-32268
Effects of caffeine on mental performance and mood: Implications for aircrew members
12 p3783 N93-32269

PILOT PLANTS
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Eleventh Annual Conference on Alcohol and Biomass Energy Technologies
[DE93-716346] 05 p1194 N93-15952
Study on new biomass energy systems
[DE93-768470] 12 p3749 N93-32057

PILOT SELECTION
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312
Asthma in aircrew: Assessment, treatment and disposition
02 p0393 N93-11315
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
International application of the DLR test-system: Continuation of the cooperation with Iberia in pilot selection
[DLR-FB-92-12] 08 p2425 N93-24104
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
Pilot Candidate Selection Method (PCSM): What makes it work?
[AD-A262871] 11 p3498 N93-29481
Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
Phases of the project development and examination methodologies
12 p3775 N93-31231
The position test: A computer generated process for acquisition of inductive logic thinking
12 p3775 N93-31232
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
The concentration loading test system: A computer generated process for acquisition of attentiveness control
12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
The PARAT tests as examination system
12 p3776 N93-31238
Abridged procedural guide to aircrew anthropometric accommodation assessment
[AD-A265220] 12 p3777 N93-32006

PILOT TRAINING
Combat aircraft operations: Training requirements for the German Air Force tactical flying units and the noise problem
01 p0148 N93-10667
Possibilities and limitations of flying training in the German Air Force
01 p0011 N93-10668
Combat aircraft noise: The operator's perspective
01 p0148 N93-10669
Human noise exposure criteria for combat aircraft training areas
01 p0148 N93-10670
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
The modelling of turbulence and downbursts for flight simulators
03 p0507 N93-13542
Does cockpit management training reduce aircrew error?
04 p0785 N93-15014
Cockpit decision making
04 p0786 N93-15015
How expert pilots think
04 p0786 N93-15017
Methodology for studying and training expertise
04 p0786 N93-15018
Enhanced Aeronautical Resource Management training alternatives
04 p0786 N93-15019
Embedded ADM reduces helicopter human error accidents
04 p0787 N93-15024
Measuring risk in single-engine and twin-engine helicopters
04 p0787 N93-15025
Workshop on Aeronautical Decision Making (ADM). Volume 1: Executive summary
[AD-A257016] 05 p1226 N93-16189
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990
06 p1425 N93-19677
Underlying causes of human error in US Army rotary wind accidents
06 p1425 N93-19678
Prediction of success from training
06 p1430 N93-19702
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training
06 p1430 N93-19706
Attention factors associated with head-up display and helmet-mounted display systems
[AD-A260204] 08 p2427 N93-24001
Autogenic-feedback training improves pilot performance during emergency flying conditions
[NASA-TM-104005] 10 p2940 N93-27076
Predicting aircrew training performance with psychometric g
[AD-A264021] 11 p3498 N93-30026
Part 1: Executive summary
11 p3236 N93-30674
Helicopter simulator standards
11 p3236 N93-30675
Helicopter simulation: An aircrew training and qualification perspective
11 p3236 N93-30676
Simulators for corporate pilot training and evaluation
11 p3236 N93-30678
Training effectiveness assessment: Where are we?
11 p3236 N93-30679
Current training: Where are we?
11 p3236 N93-30680
Helicopter simulator qualification
11 p3237 N93-30681
Helicopter simulation: Making it work
11 p3237 N93-30682
Helicopter training simulators: Key market factors
11 p3237 N93-30683
Training effectiveness assessment: Methodological problems and issues
11 p3237 N93-30684
Determining the transferability of flight simulator data
11 p3237 N93-30685
Progress through precedent: Going where no helicopter simulator has gone before
11 p3237 N93-30686
Transfer of training and simulator qualification or myth and folklore in helicopter simulation
11 p3237 N93-30687
Background and objectives of the PARAT program
12 p3775 N93-31230
Mandatory multi-engined training syllabus
[CAP-601] 12 p3776 N93-31729

PILOTED CENTRIFUGES
U HUMAN CENTRIFUGES

PILOTLESS AIRCRAFT
NT DRONE AIRCRAFT
Air cell --- model aircraft power supplies
[CA-PATENT-APPL-SN-2001346]
01 p0072 N93-10368
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle
[AD-A247261] 02 p0208 N93-12053
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Fuzzy control of an unmanned helicopter
08 p2455 N93-22366
A teleoperated unmanned rotorcraft flight test technique
08 p2132 N93-22369
Microwave-powered aircraft
[CA-PATENT-1-295-019] 08 p2128 N93-24591
A preliminary sizing method for unmanned aircraft using multi-variate optimisation
09 p2587 N93-25408
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409

PILOTS
Aviation accidents, incidents, and violations: Psychological predictors among US pilots
04 p0783 N93-14693
Aircraft accident report: Tomy International, Inc., d/b/a Scenic Air Tours flight 22, Beech Model E18S, N342E in-flight collision with terrain, Mount Haleakala, Maui, Hawaii, 22 April 1992
[PB93-910401] 09 p2583 N93-25827

PILOTS (PERSONNEL)
NT AIRCRAFT PILOTS
NT TEST PILOTS
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus
06 p1431 N93-19707
Tobacco and health of the pilot
[ETN-93-93693] 08 p2421 N93-23414
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611

PINCH EFFECT
NT PLASMA PINCH
NT REVERSE FIELD PINCH
NT ZETA PINCH

PINEAL GLAND
The Gordon Research Conference on Pineal Cell Biology
[AD-A264840] 11 p3497 N93-30904
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061

PINHOLE CAMERAS
Measurement of three-dimensional crack tip deformation by digital image processing
08 p2329 N93-23590
Intensity distribution of the x ray source for the AXAF VETA-I mirror test
09 p2854 N93-26184
Refinements on the pinhole camera measurements of the LDEF attitude
11 p3283 N93-29622

PINHOLE OCCULTER FACILITY
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning
[NASA-CR-184410] 02 p0220 N93-12213

PINHOLES
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090

PINNING
NT FLUX PINNING
EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329

PINS
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
Pyrotechnic modeling for the NSI and pin puller
07 p1866 N93-20153

PINTLES
Diesel injector fouling bench test methodology
[AD-A254532] 03 p0609 N93-12600

PION BEAMS
Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838
Design features of a seven-cell high-gradient superconducting cavity
[DE92-040229] 04 p0870 N93-15424
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
Measuring pion beta decay with high-energy pion beams
[DE93-007347] 10 p3132 N93-27521

PIONEER F SPACE PROBE
U PIONEER 10 SPACE PROBE

PIONEER SPACE PROBES
NT PIONEER 10 SPACE PROBE

PIONEER VENUS ORBITER
U PIONEER VENUS 1 SPACECRAFT

PIONEER VENUS SPACECRAFT
NT PIONEER VENUS 1 SPACECRAFT
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis
06 p1454 N93-19414
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-192273] 08 p2554 N93-23096
Precise tracking of the Magellan and Pioneer Venus orbiters by Same-Beam Interferometry. Part 2: Orbit determination analysis
11 p3270 N93-29589

PIONEER VENUS 1 SPACECRAFT
Venus gravity: Summary and coming events
04 p1042 N93-14377
PIONEER 12 SPACE PROBE
U PIONEER VENUS SPACECRAFT
PIONEER 10 SPACE PROBE
Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers
06 p1506 N93-18912
PIONS
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606
Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Low energy theorems in pion production
[DE92-040071] 04 p0977 N93-15279
Theory working group: Summary of the results
[PREPRINT-803] 05 p1297 N93-16423
Mixing of vector and axial correlators at finite volume: Implications for lattice computations
[PREPRINT-804] 05 p1287 N93-16424
Evidence for the dominance of an I(sup G)J(sup PC) = 0(+)0(++) resonance in p(bar)n decay to 2 pi(+)
[PREPRINT-885] 05 p1290 N93-17021
Evidence of an I(sup G)J(sup PC) = O(+)O(++) resonance at 1.39 GeV/sq c and confutation of the zeta(1480) in a reanalysis of the p(bar)n decay to 2 pi(+)-3 pi(-) annihilation at rest
[PREPRINT-826] 05 p1291 N93-17222
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Pion discovery
[NOTA-INTERNA-983] 06 p1653 N93-17933
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
Partial-wave analyses of hadron scattering below 2 GeV
[DE93-004368] 06 p1657 N93-19502
Investigation of pion-nucleus interactions
[DE93-004375] 06 p1657 N93-19504
Nuclear studies with intermediate energy probes
[DE93-002785] 07 p2062 N93-21481
Meson form-factors and wave-functions with Wilson fermions
[DE93-003859] 08 p2479 N93-22542
Physics opportunities with higher energy pion beams
[DE93-006678] 08 p2480 N93-22585
Experimental studies of pion-nucleus interactions at intermediate energies
[DE93-005872] 08 p2482 N93-23308
Notes on radial drift for dalitz detection
[DE93-006971] 09 p2846 N93-24959
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Measuring pion beta decay with high-energy pion beams
[DE93-007347] 10 p3132 N93-27521
Medium energy measurements on N-N parameters
[DE93-007304] 10 p3137 N93-28358
Pion pair production in photon-photon collisions
[DE93-606114] 11 p3571 N93-30790
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Some outstanding issues in pion scattering at energies above the (delta) resonance
[DE93-012747] 12 p3822 N93-32300
PIPE FLOW
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Interfacial area and two-phase flow structure development measured by a double-sensor probe
[DE92-019459] 02 p0300 N93-11538
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Analysis of fluid/mechanical systems using EASY5
03 p0586 N93-13397
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
Similarity in laminar pipe flows with secondary flows
06 p1413 N93-19302
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe
06 p1413 N93-19306
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
On the evaluation of coherent structures using computer programs
07 p1937 N93-20688
Electrostatic enhancement of heat transfer in a gas-to-gas heat exchanger
[PB93-114338] 07 p1903 N93-21454
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
An investigation of particle turbulence quantities in a dense two-phase pipe flow, using laser Doppler velocimetry
08 p2295 N93-23496
Predictive modeling of particle-laden, turbulent flows
[DE93-008208] 09 p2698 N93-25309
Modeling of bubble and drop formation in flowing liquids in terrestrial and microgravity environments
09 p2664 N93-25390
Dynamics of turbulent slugging in transitional pipe flow
09 p2702 N93-25548
Flow conditioner location effects in orifice flowmeters
[PB93-159457] 09 p2708 N93-26535
The remarkable ability of turbulence model equations to describe transition
10 p2931 N93-27432
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154
Steady heat transfer in a tube with turbulent flow
[OEFZS-4642] 10 p3042 N93-28205
Prediction of gas-liquid two-phase flow regime in microgravity
[NASA-TM-106274] 11 p3352 N93-30939
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310
PIPELINES
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Diagnostic of material defects found in pipelines made of 13 HMF steel on the basis of acoustic emission
03 p0623 N93-12989
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663
GRI proceedings on the Workshop on Plastic Pipe Research Results
[PB93-190460] 12 p3708 N93-31211
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992
[PB93-188647] 12 p3700 N93-31334
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438
PIPELINING (COMPUTERS)
A fast pipelined inner product unit
[REPT-92-025] 02 p0411 N93-11594
A pipelined, high-precision FFT architecture
[AD-A257235] 05 p1263 N93-15969
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
PIPER AIRCRAFT
Special investigation report: Piper Aircraft Corporation PA-46 Malibu/Mirage Accidents/Incident, 31 May 1989 - 17 March 1991
[PB92-917007] 04 p0788 N93-15577
The consequence of joint failures
08 p2212 N93-23941
PIPES (TUBES)
NT GAS PIPES
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Methods of analysis for thick-section composite structures
02 p0237 N93-11262
Heat transfer enhancement by chaotic mixing
[PB92-190305] 02 p0470 N93-11469
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
On the prediction of turbulent secondary flows
[NASA-CR-189722] 03 p0575 N93-12717
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Acoustic modes in fluid networks
03 p0586 N93-13398
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Cyclic material properties at high strain ranges beyond the standard design codes
07 p1925 N93-20357
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22692
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Pyroelectric anemometers and kinetic calorimeters
[PB93-141919] 08 p2303 N93-23230
Chaotic vibrations of tubes with nonlinear supports in crossflow
[DE93-004247] 08 p2329 N93-23689
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438
Axial and torsional fatigue behavior of a cobalt-base alloy
12 p3697 N93-31582
The development of detection technique for fatigue crack due to thermal stratification phenomena in RCS piping
[DE93-605749] 12 p3740 N93-31823
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310
PIPETTES
Micropipet manipulation of lipid membranes: Direct measurement of the material properties of a cohesive structure that is only two molecules thick
11 p3291 N93-30953
PISTON ENGINES
NT DIESEL ENGINES
NT FREE-PISTON ENGINES
NT STIRLING ENGINES

Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
A preliminary sizing method for unmanned aircraft using multi-variate optimisation 09 p2587 N93-25408
Evaluation of the Migrating Combustion Chamber (MCC) engine
[AD-A260780] 09 p2718 N93-25682
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686

PISTONS
Three position power cylinder
[AD-D015393] 04 p0894 N93-15461
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives
06 p1507 N93-18917
A semiconductor bridge ignited hot gas piston ejector
07 p1864 N93-20137
In-line hydraulic dashpot
[AD-D015528] 07 p1914 N93-20776

PITCH (INCLINATION)
An experimental and a theoretical investigation of rotor pitch damping using a model rotor
01 p0008 N93-10322
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
LDEF yaw and pitch angle estimates
03 p0524 N93-12772
New adaptive controllers for aircraft
10 p2921 N93-27180
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106

PITCH (MATERIAL)
Asphalt mixtures modified with tall oil pitches and cellulose fibres
[VTT-PUBS-99] 06 p1494 N93-18699
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133

PITCH ANGLES
U PITCH (INCLINATION)

PITCH ATTITUDE CONTROL
U LONGITUDINAL CONTROL

PITCHING MOMENTS
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
New methods for predicting nonlinear lift, center of pressure, and pitching moment on missile configurations
[AD-A255078] 03 p0492 N93-12741
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow
04 p0790 N93-14462
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
Pitch control margin at high angle of attack-quantitative requirements (flight test correlation with simulation predictions)
[AD-A257418] 05 p1068 N93-16009
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
Analysis of wind-tunnel data for elliptic cross-sectioned forebodies at Mach numbers 0.4 to 5.0
10 p2927 N93-27221
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade
[NASA-TM-4264] 11 p3240 N93-29450
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model
11 p3243 N93-29778

PITOT TUBES
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221

PITTING
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
Laser initiated corrosion pits on aluminum
09 p2650 N93-25464
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074

PITUITARY GLAND
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415

PITUITARY HORMONES
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415

PIVOTED WING AIRCRAFT
U TILT WING AIRCRAFT

PIVOTS
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524

PIX
U PLASMA INTERACTION EXPERIMENT

PIXELS
Polarization effects and multipolarization SAR
03 p0564 N93-13054
Object space temporal coherence for ray tracing
04 p0955 N93-15554
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Displaying a color picture using a small number of colors
[ITN-93-85175] 05 p1242 N93-16739
The division of a circle or spherical surface into equal-area cells or pixels
[AD-A257770] 05 p1192 N93-17726
Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322
A comparative study of estimation of partial cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
High-performance compression of astronomical images 09 p2805 N93-25931
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932
Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
Design of a pixel cell optimized for a data push architecture readout
[DE93-011016] 11 p3616 N93-30122
Feature segmentation using a multiple-stack based chain coding algorithm 11 p3359 N93-30243

PLAGES (FACULAE)
U FACULAE

PLAINS
NT COASTAL PLAINS
NT FLOOD PLAINS
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales
04 p1034 N93-14343
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354

PLANAR STRUCTURES
Indentation of a precompressed penny-shaped crack
01 p0048 N93-10486
Numerical simulation of transient crack growth
01 p0048 N93-10488
A new deployable mast 01 p0014 N93-10511
Three-dimensional image structure in in-line Fraunhofer holography 02 p0311 N93-11723
Optical generation, control and sensing of millimeter waves
[AD-A254700] 02 p0285 N93-12230
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3
[NASA-TM-105890] 02 p0469 N93-12325
Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056
Multichip module high speed testing
[AD-A261391] 09 p2856 N93-26306
Finding k disjoint paths in a directed planar graph
[CWI-BS-R9206] 10 p3095 N93-27379
The 2x2 quasi-optical power combiner array at 20 GHz 10 p3011 N93-27730
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Planar microstrip YAGI antenna array
[NASA-CASE-NPO-17873-2-CU]
11 p3384 N93-29507
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991

PLANCKS CONSTANT
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793
Formulation of wave mechanics without the Planck constant h/2 pi
[DE93-604083] 11 p3608 N93-30987

PLANE STRAIN
On the development of a new fracture toughness procedure 01 p0059 N93-10541
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532
Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth
03 p0621 N93-12628
Large plastic deformations by sequential limit analysis: A finite element approach with applications in metal forming 04 p0899 N93-14471
Some aspects for the application of a hierarchic family of Herrmann mixed compressible and incompressible finite elements 05 p1077 N93-15723
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Peak stresses in adhesive step lap joints with voids
07 p1932 N93-20656
A higher-order direct boundary integral-displacement discontinuity method for fracture propagation in layered elastic media 08 p2330 N93-23988

Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

PLANE STRESS
Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363

PLANE WAVES
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Final Technical Report
[AD-A253529] 02 p0284 N93-12083
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids 02 p0340 N93-12199
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Spacetime singularities in string theory 02 p0472 N93-12530
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object 04 p0857 N93-14189
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
A modal analysis of lamellar diffraction gratings in conical mountings 04 p0986 N93-15519
Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
On colliding plane gravitational waves coupled with fluid motions
[MATHS-REPT-A-161] 08 p2398 N93-24060
The acoustical impedance at the junction of non-coaxial cylindrical ducts
[MATHS-REPT-A-157] 08 p2477 N93-24123
The single-gap hollow spherical dipole in non-conducting media
[AD-A260017] 08 p2273 N93-24460
Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340
The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Performance analysis of subspace methods
[AD-A263984] 11 p3530 N93-29865
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
Free Maxwell equations, Dirac equation, and non-dispersive De Broglie wave packets
[DE93-609848] 12 p3832 N93-31908

PLANET EPHEMERIDES
Integrated software package STAMP for minor planets 06 p1628 N93-19187

PLANET ORIGINS
U PLANETARY EVOLUTION

PLANETARIUMS
The role of planetariums in promoting space sciences 08 p2170 N93-23827

PLANETARY ATMOSPHERES
NT JUPITER ATMOSPHERE
NT MARS ATMOSPHERE
NT NEPTUNE ATMOSPHERE
NT PLANETARY IONOSPHERES
NT SATURN ATMOSPHERE
NT URANUS ATMOSPHERE
NT VENUS ATMOSPHERE
NT VENUS CLOUDS
Magnetospheres and atmospheres of planets 01 p0182 N93-10922
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects 04 p1040 N93-14365
Laboratory evaluation and application of microwave absorption properties under simulated conditions for planetary atmospheres
[NASA-CR-191298] 04 p1047 N93-15081
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
Solar extreme ultraviolet sensor and advanced langmuir probe
[NASA-CR-191972] 06 p1744 N93-18880
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074
Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres
[NASA-CR-192145] 07 p2099 N93-21642
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Thermal convection in rotating systems and the band structure of the major planets 08 p2164 N93-24393
Construction of an advanced software tool for planetary atmospheric modeling 09 p2815 N93-25799
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798

PLANETARY BASES
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Earth-based analogs of lunar and planetary facilities 05 p1396 N93-17441
Single-stage Mars mission 11 p3232 N93-29742
Mars habitat 11 p3233 N93-29747

PLANETARY BOUNDARY LAYER
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions 03 p0657 N93-13793
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380
Atmospheric reactive nitrogen oxides and their relationship with urban and rural ozone formation 09 p2760 N93-24908
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Boundary layer coupling between an explosive cyclone and the Gulf Stream during ERICA
[AD-A261577] 09 p2787 N93-26513
The structure of the dayside boundary layer between the Venus ionosphere and the shocked solar wind 12 p3853 N93-31678
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion? 12 p3855 N93-31693
Exploring the magnetospheric boundary layer 12 p3855 N93-31694

PLANETARY COMPOSITION
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Venusian hydrology: Steady state reconsidered 04 p1028 N93-14318
Mars: A reassessment of its interest to biology 06 p1591 N93-18550
Giant planets: Clues on current and past organic chemistry in the outer solar system 06 p1591 N93-18551
Cosmic dust 06 p1592 N93-18554
Lunar science measurements and instruments for resource characterization
[DE93-005436] 08 p2553 N93-22905
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-192273] 08 p2554 N93-23096
The Martian lower atmosphere 09 p2897 N93-26394
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
An integrated XRF/XRD instrument for Mars exobiology and geology experiments 11 p3645 N93-28792
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
Calculated mineral precipitation upon evaporation of a model Martian groundwater near 0 C 12 p3862 N93-31940
On the weathering of Martian igneous rocks 12 p3862 N93-31941
Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments 12 p3863 N93-31943
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947

PLANETARY CORES
NT EARTH CORE
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777

PLANETARY CRATERS
NT MARS CRATERS
Melt production in large-scale impact events: Planetary observations and implications 01 p0108 N93-10126
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana 01 p0122 N93-10191
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Monte Carlo modeling of the resurfacing of Venus 04 p1025 N93-14299
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305

Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Largest impact craters on Venus 04 p1030 N93-14326
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
A model for the formation of the extended paraboloidal halos around some impact craters on Venus 04 p1037 N93-14352
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Atmospheric effects on crater growth on Venus 04 p1041 N93-14370
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371

PLANETARY CRUSTS
NT EARTH CRUST
Venusian impact basins and cratered terrains 01 p0112 N93-10145
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Viscoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism 04 p1027 N93-14313
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Venus tectonic styles and crustal differentiation 04 p1031 N93-14332
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales 04 p1034 N93-14343
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Tectonic connections to interior processes on Venus 04 p1039 N93-14361
Cytherean crustal bending at Salme Dorsa 04 p1039 N93-14364
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation 04 p1042 N93-14381
Episodic plate tectonics on Venus 04 p1044 N93-14390
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits? 06 p1741 N93-19808
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Chemical transport during formation and alteration of Martian impact and volcanic deposits 12 p3865 N93-31953

PLANETARY ENTRY
U ATMOSPHERIC ENTRY

PLANETARY ENVIRONMENTS
NT JUPITER ATMOSPHERE
NT MARS ATMOSPHERE
NT MARS ENVIRONMENT
NT NEPTUNE ATMOSPHERE
NT PLANETARY ATMOSPHERES
NT PLANETARY IONOSPHERES
NT PLANETARY MAGNETOSPHERES
NT PLANETARY MAGNETOTAILS
NT SATURN ATMOSPHERE
NT URANUS ATMOSPHERE
NT VENUS ATMOSPHERE
NT VENUS CLOUDS
Giant planets: Clues on current and past organic chemistry in the outer solar system 06 p1591 N93-18551
Environmental interactions and the SP-100 power system [NASA-TM-105866] 06 p1474 N93-18877
NASA Space Engineering Research Center for utilization of local planetary resources [NASA-CR-192883] 10 p3206 N93-26674
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
Lightweight modular instrumentation for planetary applications 11 p3286 N93-28787

PLANETARY EVOLUTION
Workshop on the evolution of the Martian atmosphere [NASA-CR-190730] 01 p0189 N93-10064
International Conference on Large Meteorite Impacts and Planetary Evolution [NASA-CR-190677] 01 p0105 N93-10112
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments 01 p0110 N93-10140
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
The search for life's origins: Progress and future directions in planetary biology and chemical evolution [NASA-CR-190929] 02 p0487 N93-11603
Studies of extra-solar Oort Clouds and the Kuiper disk [NASA-CR-190958] 03 p0769 N93-12669
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Surface processes on Venus 04 p1024 N93-14294
Global deformation on the surface of Venus 04 p1024 N93-14297
Monte Carlo modeling of the resurfacing of Venus 04 p1025 N93-14299
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation 04 p1042 N93-14381
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene 05 p1209 N93-17093
Mars: A reassessment of its interest to biology 06 p1591 N93-18550
Giant planets: Clues on current and past organic chemistry in the outer solar system 06 p1591 N93-18551
Workshop on Geology of the Apollo 17 Landing Site [NASA-CR-191637] 06 p1735 N93-18786
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
3-D orbital evolution model of outer asteroid belt 06 p1718 N93-19245
Minor satellites and the Gaspra encounter 06 p1719 N93-19255
Rotation of split cometary nuclei 06 p1719 N93-19258
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data [INPE-5321-PRE/1718] 06 p1568 N93-19789
Glaciation in Elysium 06 p1740 N93-19802
Evolution of the Martian atmosphere: The role of the polar caps 06 p1741 N93-19809
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies 06 p1741 N93-19810
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain 06 p1741 N93-19811
Possible recent and ancient glacial ice flow in the south polar region of Mars 06 p1742 N93-19812
Numerical simulations of drainage flows on Mars 06 p1742 N93-19816
Studies of extra-solar OORT clouds and the Kuiper disk [NASA-CR-192759] 08 p2555 N93-22476
Regional tectonic analysis of Venus equatorial highlands and comparison with Earth-based Magellan radar images [NASA-CR-192996] 10 p3210 N93-27164
MSATT Workshop on Chemical Weathering on Mars [NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals 12 p3862 N93-31935
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939

PLANETARY EXPLORATION
U SPACE EXPLORATION

PLANETARY GEOLOGY
NT MARS VOLCANOES
Workshop on the evolution of the Martian atmosphere [NASA-CR-190730] 01 p0189 N93-10064
Structural aspects of the Araguainha impact structure (Brazil) 01 p0106 N93-10118
Melting and its relationship to impact crater morphology 01 p0119 N93-10170
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia 01 p0120 N93-10181
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome 01 p0122 N93-10189
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
The geology of the Venera/Vega landing sites 04 p1024 N93-14296
Global deformation on the surface of Venus 04 p1024 N93-14297
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits 04 p1025 N93-14300
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
Viscoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism 04 p1027 N93-14313
Flexural analysis of uplifted rift flanks on Venus 04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio 04 p1028 N93-14317
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Variations in lithospheric thickness on Venus 04 p1030 N93-14329
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Venus tectonic styles and crustal differentiation 04 p1031 N93-14332

Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Mantle plumes on Venus revisited 04 p1032 N93-14334
Venusian sinuous rilles 04 p1033 N93-14337
Large-volume lava flow fields on Venus: Dimensions and morphology 04 p1033 N93-14339
Derivation of surface properties from Magellan altimetry data 04 p1033 N93-14340
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales 04 p1034 N93-14343
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Pancakelike domes on Venus 04 p1035 N93-14345
Magellan stereo images and Venusian geology 04 p1035 N93-14347
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
A model for the formation of the extended paraboloidal halos around some impact craters on Venus 04 p1037 N93-14352
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Venus: Geology of Beta Regio rift system 04 p1037 N93-14355
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Venus steep-sided domes: Relationships between geological associations and possible petrogenetic models 04 p1038 N93-14359
Tectonic connections to interior processes on Venus 04 p1039 N93-14361
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping 04 p1040 N93-14368
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
Different types of small volcanos on Venus 04 p1042 N93-14378
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
The tectonics of Venus: An overview 04 p1042 N93-14382
The spatial distribution of coronae on Venus 04 p1043 N93-14383
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Directory of research projects: Planetary geology and geophysics program [NASA-TM-4428] 04 p0864 N93-15638
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium [AD-A256711] 05 p1206 N93-16138
The Prospector mission [DE93-000656] 05 p1385 N93-17194
The Sudbury-Serenitatis analogy and 'so-called' pristine nonmare rocks 06 p1739 N93-18815
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data [INPE-5321-PRE/1718] 06 p1568 N93-19789
Workshop on chemical weathering on Mars, part 2 [NASA-CR-192261] 08 p2554 N93-23192
Regional tectonic analysis of Venus equatorial highlands and comparison with Earth-based Magellan radar images [NASA-CR-192996] 10 p3210 N93-27164
Erosional and depositional history of central Chryse Planitia [NASA-CR-193068] 10 p3210 N93-27497
Mars aqueous chemistry experiment [NASA-CR-193134] 10 p3211 N93-27604
An integrated XRF/XRD instrument for Mars exobiology and geology experiments 11 p3645 N93-28792
Optimism experiment and development of space-qualified seismometers in France 11 p3646 N93-28796
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
Spacecraft studies of Phobos and Mars [NASA-CR-193298] 11 p3651 N93-30635
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop [NASA-CP-3222] 12 p3758 N93-31878
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
MSATT Workshop on Chemical Weathering on Mars [NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Martian weathering/alteration scenarios from spectral studies of ferric and ferrous minerals 12 p3862 N93-31935
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
On the weathering of Martian igneous rocks 12 p3862 N93-31941
An unusual spectral unit in West Candor Chasma: Evidence for hydrothermal or aqueous alteration? 12 p3863 N93-31942
Aqueous geochemistry on Mars: Possible clues from salts and clays in SNC meteorites 12 p3863 N93-31944
Effect of purity on adsorption capacities of a Mars-like clay mineral at different pressures 12 p3863 N93-31945
Low-temperature formation of magnetic iron oxides 12 p3863 N93-31946
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Chemical transport during formation and alteration of Martian impact and volcanic deposits 12 p3865 N93-31953
Using the Viking biology experimental results to obtain chemical information about Martian regolith 12 p3865 N93-31955
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
The Martian ocean: First acid, then alkaline 12 p3866 N93-31958
Experimental investigation of carbonate formation on Mars 12 p3866 N93-31959
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961
Attempts to comprehend Martian surface processes through interpretation of the oxygen isotopic compositions of carbonates in SNC meteorites 12 p3867 N93-31962

PLANETARY GRAVITATION
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Venus gravity: Summary and coming events 04 p1042 N93-14377
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera 04 p1044 N93-14389
Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216
V-GRAM: Magellan bulletin about Venus and the radar mapping mission [NASA-CR-192923] 09 p2898 N93-26424

PLANETARY IONOSPHERES
The Jovian ionosphere 03 p0758 N93-13337
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
The thermosphere and ionosphere of Venus 04 p1026 N93-14307
Venus internal magnetic field and its interaction with the interplanetary magnetic field 04 p1032 N93-14336
Evidence for lightning on Venus 04 p1043 N93-14386
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
Occultation of a compact radio source by Venus 09 p2676 N93-26107
The upper atmosphere and ionosphere of Mars 09 p2897 N93-26393
Space research in Germany 1990-1991 [ETN-93-93807] 11 p3654 N93-28477
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
The structure of the dayside boundary layer between the Venus ionosphere and the shocked solar wind 12 p3853 N93-31678

PLANETARY LANDING
Statistical modeling of software reliability [NASA-CR-192986] 10 p3092 N93-27087

PLANETARY MAGNETIC FIELDS
Venus internal magnetic field and its interaction with the interplanetary magnetic field 04 p1032 N93-14336
The solar wind interaction with Venus 04 p1034 N93-14341
Magnetic field waves at Uranus [NASA-CR-192113] 06 p1735 N93-18779
Numerical models of planetary dynamos [DE93-003848] 07 p2098 N93-21970
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403
Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809

PLANETARY MAGNETOSPHERES
NT PLANETARY MAGNETOTAILS
Magnetospheres and atmospheres of planets 01 p0182 N93-10922
Modeling the Jovian aurora [NASA-CR-190696] 02 p0486 N93-11164
Multispectral observations of the Jovian aurora 02 p0487 N93-11167
The solar wind interaction with Venus 04 p1034 N93-14341
Magnetic field waves at Uranus [NASA-CR-192113] 06 p1735 N93-18779
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Magnetospheric convection and current system in the dayside polar cap 12 p3856 N93-31700

PLANETARY MAGNETOTAILS
Report of the working group on magnetotail/plasma sheet structure [DE93-003857] 08 p2391 N93-22077
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle 12 p3855 N93-31691
Collisionless magnetotail reconnection and substorms 12 p3856 N93-31698
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft 12 p3856 N93-31699

PLANETARY MANTLES
NT EARTH MANTLE
Venus tectonic styles and crustal differentiation 04 p1031 N93-14332
Mantle plumes on Venus revisited 04 p1032 N93-14334
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Tectonic connections to interior processes on Venus 04 p1039 N93-14361
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387

Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819

PLANETARY MAPPING
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions 04 p1023 N93-14289
Global deformation on the surface of Venus 04 p1024 N93-14297
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Venus: Geology of Beta Regio rift system 04 p1037 N93-14355
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping 04 p1040 N93-14368
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
The geologic mapping of Venus using C-1 format: Sheets 75N254, 60N263 04 p1041 N93-14375
An investigation of extensional tectonics of southern California [NASA-CR-191359] 05 p1209 N93-17092
The Prospector mission [DE93-000656] 05 p1385 N93-17194
Cartography of asteroids and comet nuclei from low resolution data 06 p1718 N93-19249
Erosional and depositional history of central Chryse Planitia [NASA-CR-193068] 10 p3210 N93-27497
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
An unusual spectral unit in West Candor Chasma: Evidence for hydrothermal or aqueous alteration? 12 p3863 N93-31942

PLANETARY MASS
The mass of (1) Ceres from perturbations on (348) May 06 p1720 N93-19262
The Martian lower atmosphere 09 p2897 N93-26394
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787

PLANETARY METEOROLOGY
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean [NASA-CR-191376] 04 p0925 N93-14769

PLANETARY MOTION
U SOLAR ORBITS

PLANETARY NEBULAE
Alternative methods for determination of the temperature of central stars of planetary nebulae [INPE-5434-TDI/485] 03 p0750 N93-13279
A high-resolution radio survey of the galactic plane 03 p0744 N93-13480
The planetary nebula system and the dynamics of the galaxy Centaurus A 03 p0754 N93-13645
Density contrast shell models for planetary nebulae 03 p0756 N93-13850
Accretion rates of protoplanets 03 p0759 N93-13958
Electron density diagnostics for gaseous nebulae involving the O 4 intercombination lines near 1400 A 04 p1012 N93-14762
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4 [NASA-CR-191634] 05 p1377 N93-15829
Solar-terrestrial physics and astrophysics 06 p1733 N93-18501
Cosmic dust 06 p1592 N93-18554
The radiation gasdynamics of planetary nebulae 08 p2547 N93-23133
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9 [ETN-93-94203] 12 p3851 N93-31050

PLANETARY ORBITS
On the distribution of minor planet inclinations 06 p1454 N93-19242
3-D orbital evolution model of outer asteroid belt 06 p1718 N93-19245
1991 DA: An asteroid in a bizarre orbit 06 p1718 N93-19247
Determination of orbits of comets: P/Kearns-Kwee, P/Gunn, including nongravitational effects in the comets' motion 06 p1454 N93-19254
Formation of the Leonid meteor stream and storm 06 p1721 N93-19267
A candidate for the parent body of the Taurid complex and its search ephemeris 06 p1721 N93-19271
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
System study of tether technology with particular consideration of transport utilization possibilities in space transportation [ILR-MITT-270(1992)] 12 p3685 N93-31207

PLANETARY RADIATION
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
The time variability of Jupiter's synchrotron radiation 04 p0973 N93-14227
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics 09 p2896 N93-25285
Analysis of Uranian radio emissions, Uranus Data Analysis Program (UDAP) [NASA-CR-193524] 12 p3882 N93-32222

PLANETARY RINGS
Planetary astronomy research [NASA-CR-192134] 07 p2099 N93-21643
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000

PLANETARY ROTATION
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Modelling studies in support of open-ocean convection field programs [AD-A258324] 06 p1589 N93-18255
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803

PLANETARY SATELLITES
U NATURAL SATELLITES

PLANETARY SPACE FLIGHT
U INTERPLANETARY FLIGHT

PLANETARY SPACECRAFT
U INTERPLANETARY SPACECRAFT

PLANETARY STRUCTURE
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Drill/borescope system for the Mars Polar Pathfinder 11 p3647 N93-28805
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819
Design optimization of space structures 11 p3278 N93-29122

PLANETARY SURFACES
NT MARS SURFACE
NT VENUS SURFACE
Indexes of maps of the planets and satellites, 1992 [NASA-TM-4395] 01 p0189 N93-10832
The tectonics of Venus: An overview 04 p1042 N93-14382
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces [DE93-003865] 08 p2553 N93-22949
Neutron energy determination with a high-purity germanium detector [NASA-CR-192773] 09 p2900 N93-25890
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
Planetary rover developments at JPL 12 p3737 N93-32115

PLANETARY SYSTEMS
NT SOLAR SYSTEM
Orbital coplanarity in solar-type binary systems: Implications for planetary system formation and detection 04 p1020 N93-14867
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Studies of extra-solar OORT clouds and the Kuiper disk [NASA-CR-192759] 08 p2555 N93-22476
Detection of other planetary systems using photometry 11 p3632 N93-28791

PLANETARY TEMPERATURE
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres 03 p0768 N93-14072
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Flexural analysis of uplifted rift flanks on Venus 04 p1027 N93-14314
Possible power sources for the Jovian polar infrared hot spots 08 p2554 N93-23221

PLANETARY WAVES
Dynamics of planetary waves in the atmosphere 02 p0363 N93-11898
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Life cycles of transient planetary waves 07 p2004 N93-20077
An investigation of low-frequency planetary wave forcing and predictability in a simple global atmospheric circulation model 07 p1996 N93-20279
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Modeling of forced planetary waves in the Mars atmosphere 08 p2555 N93-24579
Interaction of an eddy with a continental slope [AD-A261550] 09 p2791 N93-26578

PLANETESIMALS
U PROTOPLANETS

PLANETOLOGY
Martian water frost: Control of global distribution by small-scale processes 04 p1047 N93-14868
Reports of planetary astronomy - 1991 [NASA-TM-4459] 08 p2542 N93-23055
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Workshop on Advanced Technologies for Planetary Instruments, part 1 [NASA-CR-193015] 11 p3639 N93-28764

PLANETS
NT EARTH (PLANET)
NT EXTRASOLAR PLANETS
NT GAS GIANT PLANETS
NT JUPITER (PLANET)
NT MARS (PLANET)
NT NEPTUNE (PLANET)
NT PLUTO (PLANET)
NT SATURN (PLANET)
NT TERRESTRIAL PLANETS
NT URANUS (PLANET)
NT VENUS (PLANET)
Indexes of maps of the planets and satellites, 1992 [NASA-TM-4395] 01 p0189 N93-10832
Melting, vaporization, and energy partitioning for impacts on asteroidal and planetary objects 06 p1718 N93-19244
Reports of planetary astronomy - 1991 [NASA-TM-4459] 08 p2542 N93-23055
The German space science programme 08 p2536 N93-23903
Carlsberg meridian catalogue La Palma (Spain). Number 6: Observations of positions of stars and planets 1990 [ISBN-84-7469-052-8] 08 p2543 N93-24059

PLANFORMS
NT DELTA WINGS
NT INFINITE SPAN WINGS
NT RECTANGULAR PANELS
NT RECTANGULAR PLATES
NT RECTANGULAR WINGS
NT SWEPT FORWARD WINGS
NT SWEPTBACK WINGS
NT WING PLANFORMS
Effect of planform and body on supersonic aerodynamics of multibody configurations [NASA-TP-3212] 01 p0004 N93-10824
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Flowfield study of a close-coupled canard configuration [AD-A256311] 04 p0782 N93-15245

PLANIGRAPHY
U TOMOGRAPHY

PLANKTON
NT PHYTOPLANKTON
NT ZOOPLANKTON
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series
09 p2736 N93-24937
PLANKTON BLOOM
U PLANKTON
PLANNING
NT AIRPORT PLANNING
NT MANAGEMENT PLANNING
NT MISSION PLANNING
NT PRODUCTION PLANNING
NT PROJECT PLANNING
NT REGIONAL PLANNING
NT TASK PLANNING (ROBOTICS)
NT TRAJECTORY PLANNING
NT URBAN PLANNING
Information systems planning leading to performance support systems
[DE92-018745] 02 p0475 N93-11441
Information for management, planning, and decision-making in nonprofit organizations: Toward a comprehensive model 04 p1000 N93-14209
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
An application of artificial intelligence to automatic telescopes
[NASA-TM-108115] 04 p0965 N93-15291
Knowledge and regularity in planning
[NASA-TM-108113] 04 p0965 N93-15293
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
Rescheduling with iterative repair
06 p1637 N93-18679
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems
06 p1638 N93-18684
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas
06 p1638 N93-18688
JIGSAW: Preference-directed, co-operative scheduling
06 p1639 N93-18689
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain
06 p1639 N93-18694
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
The complexity of the free space for a robot moving amidst fat obstacles
[RUU-CS-92-05] 07 p1915 N93-21171
An environmental rating for heat pump equipment
[DE93-004526] 08 p2379 N93-22983
A European radionavigation plan?
08 p2124 N93-23513
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Natural language generation
[AD-A262578] 11 p3524 N93-28579
Massively parallel support for a case-based planning system 12 p3797 N93-32135
PLANT DESIGN
Ultraviolet disinfection technology assessment
[PB92-222868] 03 p0678 N93-12983
A microgravity processing plant for the manufacturing of propellant and water from asteroid ore
03 p0515 N93-13558
MHD contractors' review conference
[DE93-009883] 10 p3149 N93-28332
PLANT DISEASES
Interdisciplinary research and training program in the plant sciences
[DE92-015919] 01 p0130 N93-10835
PLANT ROOTS
Gravity and root morphogenesis
08 p2166 N93-24403
PLANT STRESS
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
PLANTING
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
PLANTS (BOTANY)
NT ALGAE
NT AQUATIC PLANTS
NT CONIFERS
NT CORN
NT DECIDUOUS TREES
NT FUNGI
NT GUAYULE
NT LICHENS
NT OATS
NT PHYTOPLANKTON
NT POTATOES
NT RICE
NT SOYBEANS
NT SUNFLOWERS
NT TOBACCO
NT TRADESCANTIA
NT TREES (PLANTS)
NT YEAST
Resource capture by single leaves
[DE92-015847] 01 p0129 N93-10461
Techniques for optimal crop selection in a controlled ecological life support system
[NASA-TM-103950] 02 p0388 N93-12018
Scaling issues for biodiversity protection
[DE92-016689] 02 p0375 N93-12315
Comparison of the prevalence index and average wetland values for identification of wetland vegetation
[DE92-016701] 04 p0910 N93-15209
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Soil organic matter dynamics and the global carbon cycle
[DE93-001367] 05 p1203 N93-17197
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
Global models of ecosystem change
07 p1953 N93-21570
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456
PLANTS (INDUSTRIES)
U INDUSTRIAL PLANTS
PLASMA ACCELERATION
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source)
01 p0160 N93-10353
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
High resolution observations of solar ejecta
01 p0181 N93-10916
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434
Ion ring distribution produced by a magnetosonic wave
[DE93-754311] 11 p3590 N93-30533
Energetic particle analyser ERNE
12 p3869 N93-31354
A model for coronal streamer observations using the SOHO coronagraph instrumentation
12 p3870 N93-31361
Observations of the solar corona with a high resolution EUV imaging spectrograph 12 p3875 N93-31390
Energetic particle observations and the abundances of elements in the solar corona 12 p3878 N93-31410
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020
PLASMA ACCELERATORS
NT COAXIAL PLASMA ACCELERATORS
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc
04 p0988 N93-14138
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Experimental observations of anomalous potential drops over ion density cavities
[TRITA-EPP-91-04] 05 p1312 N93-17637
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
PLASMA ANTENNAS
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
PLASMA ARC SPRAYING
U ARC SPRAYING
PLASMA ARC WELDING
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
The variable polarity plasma arc welding process: Mathematical model of welding system
[NASA-CR-192435] 05 p1177 N93-16452
Heat flow in variable polarity plasma arc welds
05 p1181 N93-17280
Instruction manual for UTEP weld gas hydrogen detector
[NASA-CR-184477] 06 p1537 N93-18034
Robotic Variable Polarity Plasma Arc (VPPA) welding
09 p2720 N93-25605
Gas arc constriction for plasma arc welding
[NASA-CASE-MFS-28844-1] 12 p3734 N93-31292
PLASMA ARCS
U PLASMA JETS
PLASMA BUBBLES
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094
PLASMA CHEMISTRY
The evaluation of a concept for a Canadian-made automated multipurpose materials extraction facility
04 p0810 N93-14947
PLASMA CLOUDS
NT MAGNETIC CLOUDS
CRRES: The combined release and radiation effects satellite program directory
[NASA-CR-184504] 05 p1076 N93-15713
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
PLASMA COMPOSITION
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Plasma properties of solar coronal active regions
02 p0489 N93-12342
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
Abundance determination in the quiet corona
12 p3877 N93-31407
Solar wind abundances from Ulysses
12 p3878 N93-31409
Energetic particle observations and the abundances of elements in the solar corona 12 p3878 N93-31410
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere
12 p3878 N93-31413
Solar wind heavy ions and proton/alpha particle relations observed onboard the Prognoz 7 satellite
12 p3879 N93-31414
Coronal abundances in solar active regions measured by the Solar Maximum Mission flat crystal spectrometer
12 p3879 N93-31416
PLASMA COMPRESSION
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Plasma focus 08 p2496 N93-23264
PLASMA CONFINEMENT
U PLASMA CONTROL
PLASMA CONTROL
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617

Edge ion dynamics in H-mode discharges in D3-D
[DE92-016255] 01 p0162 N93-10619
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
High beta and confinement studies on TFTR
[DE92-018647] 02 p0452 N93-11568
Gain in a confined aluminum plasma
02 p0320 N93-12043
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535
A quantitative analysis of the effect of ELMs on H-mode thermal energy confinement in DIII-D
[DE92-017704] 03 p0712 N93-12687
Stimulated Brillouin processes in crystals and glasses
[DE92-019549] 03 p0721 N93-12887
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
Future development of the D3-D tokamak program
[DE92-040051] 03 p0715 N93-13044
Applications of group-invariant analytic solutions to inertial confinement fusion
[DE92-040347] 03 p0715 N93-13047
Fluctuation studies on CASTOR and ASDEX tokamaks at lower hybrid current drive
[IPPCZ-319] 03 p0715 N93-13093
Recent Nova experimental results
[DE92-019783] 03 p0715 N93-13105
Fusion: Magnetic confinement
[DE92-019876] 03 p0716 N93-13107
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-000600] 05 p1306 N93-15697
Physics of the L-mode to H-mode transition in tokamaks
[DE92-040697] 05 p1306 N93-15827
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
The 3D MHD study of helias and heliotron
[AD-A257116] 05 p1307 N93-16122
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator
[DE93-001204] 05 p1308 N93-16152
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
High beta and second stability region transport and stability analysis
[DE93-000886] 05 p1310 N93-16534
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
New D3-D tokamak plasma control system
[DE93-000877] 05 p1312 N93-17388
Phenomenological modelling of Polywell (tm) SCIF multi-cusp inertial-electrostatic confinement systems
[AD-A257944] 06 p1665 N93-18020
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Effective gyro hole loss radius and diamagnetic limit in Polywell (tm) systems
[AD-A257689] 06 p1665 N93-18245
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618
Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743
Roles of electric field on toroidal magnetic confinement
[NIFS-200] 06 p1669 N93-19884
Hamiltonian for the toroidal helical magnetic field lines in the vacuum
[NIFS-201] 06 p1669 N93-19885
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
Dimensionless scaling of confinement in ATF
[DE93-001705] 07 p2069 N93-20030
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264
The effects of externally imposed magnetic perturbations on plasmas in TEXT
07 p2071 N93-20282
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Model of the L-mode confinement in tokamaks
[NIFS-187] 07 p2072 N93-20545
Discriminant analysis of plasma fusion data
[NIFS-156] 07 p2073 N93-20761
A role of neutral hydrogen in CHS plasmas with reheat and collapse and comparison with JIPP T-IIU tokamak plasmas
[NIFS-186] 07 p2073 N93-20763
L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192
Formation of H-mode like transport barrier in the CHS heliotron/torsatron
[NIFS-198] 07 p2074 N93-21193
Current-drive and plasma-formation experiments on the Versator-2 tokamak using lower-hybrid and electron-cyclotron waves
[DE93-002333] 07 p2075 N93-21482
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
High beta effects and nonlinear evolution of the TAE instability
[DE93-004170] 08 p2492 N93-22522
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869
Applications of divertor biasing to the next generation tokamaks
[DE93-005848] 08 p2494 N93-23023
Selection of an appropriate tokamak operating regime using magnetohydrodynamic and current drive constraints 08 p2495 N93-23167
Recent D3-D results --- tokamak reactor
[DE93-004468] 08 p2496 N93-23690
Space charge layers in a double plasma machine
08 p2498 N93-24107
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
Theoretical studies on plasma heating and confinement
[DE93-007617] 08 p2499 N93-24452
Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Assessment of torsatrons as reactors
[DE93-006721] 09 p2858 N93-24969
Boundary plasma modelling for ITER
[DE93-007963] 09 p2859 N93-25302
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
Plasma confinement theory and transport simulation
[DE93-009755] 10 p3149 N93-26617
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910
Electron cyclotron heating and current drive in toroidal geometry
[DE93-010400] 11 p3586 N93-29049
Computing for magnetic fusion energy research: An updated vision
[DE93-010394] 11 p3587 N93-29190
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Fundamental studies of fusion plasmas
[DE93-013144] 11 p3589 N93-30189
Experimental MHD stability limit in the gas-dynamic trap
[DE93-606218] 11 p3591 N93-30780
Plasma diffusion through multidipole magnetic fields
[DE93-608548] 11 p3591 N93-31007

PLASMA COOLING

Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528

PLASMA CORE REACTORS

Plasma reactor waste management systems
03 p0680 N93-14000

PLASMA CURRENTS

A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere
02 p0360 N93-11270
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
On the bootstrap current calculations based on values of the radial electron transport
[IPPCZ-317] 03 p0715 N93-13091
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
Achieving high Q(sub DD) operation in high poloidal beta discharges in TFTR
[DE92-019494] 03 p0718 N93-13535

A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor
04 p0987 N93-14129
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154
Steady state tokamak sustained by bootstrap current without seed current
[NIFS-159] 07 p2070 N93-20155
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Effects of net toroidal current on Mercier criterion in the Large Helical Device
[NIFS-174] 07 p2072 N93-20543
Discriminant analysis of plasma fusion data
[NIFS-156] 07 p2073 N93-20761
Formation of H-mode like transport barrier in the CHS heliotron/torsatron
[NIFS-198] 07 p2074 N93-21193
Multiply charged ions from laser driven plasma sources
08 p2495 N93-23242
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
The fluctuation induced Hall effect
[DE93-010130] 11 p3585 N93-28912
Bootstrap current profiles and scaling in large aspect ratio tokamaks
[DE93-753158] 11 p3589 N93-30003

PLASMA DECAY

Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731

PLASMA DENSITY

Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Nonlinear behavior of resonant absorption in a plasma at microwave frequency
02 p0319 N93-12032
Helium transport studies on D3-D
[DE92-016251] 02 p0455 N93-12307
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Magnetic holes near the magnetopause
03 p0653 N93-13491
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Experimental evidence of off-diagonal transport term and the discrepancy between energy/particle balance and perturbation analyses
[DE92-556732] 05 p1309 N93-16237
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
On the consequences of bi-Maxwellian plasma distributions for parallel electric fields
05 p1152 N93-17317
The kappa distribution as a variational solution for an infinite plasma
05 p1313 N93-17319
Studies of the charging of a thin dust layer in a plasma
05 p1313 N93-17320
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Magnetohydrodynamic wave-associated plasma density fluctuations in the Earth's foreshock region
06 p1667 N93-19385
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Electron cyclotron thruster new modeling results preparation for initial experiments
10 p2983 N93-26982
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer
[DE93-606271] 11 p3590 N93-30768
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
Observational constraints on coronal hole density model
12 p3871 N93-31364
Viking observations of electric fields
12 p3858 N93-31712

PLASMA DIAGNOSTICS

Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
Langmuir probe and optical emission studies of Ar, O2, and N2 plasmas produced by an ECR microwave source
[AD-A253138] 01 p0162 N93-10615
Edge ion dynamics in H-mode discharges in D3-D
[DE92-016255] 01 p0162 N93-10619
Measurements and modeling of laser irradiance in the high-power third-harmonic Nova focus. Volume A: Report
[DE92-016746] 01 p0090 N93-10739
A five-channel, diamond photoconducting x ray detector array for z-pinch experiments
[DE92-017345] 01 p0164 N93-10839
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
A new pitch angle diagnostic for electron cyclotron resonance plasma
02 p0450 N93-11185
Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
Fusion programs in applied plasma physics
[DE92-019639] 02 p0452 N93-11660
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
Diagnostics of electron-heated solar flares
02 p0488 N93-11877
The 1989 Scientific Report of the Laboratory for the Use of High Power Lasers
[ETN-92-92175] 02 p0317 N93-12023
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141
DIII-D edge physics database
[DE92-019577] 03 p0714 N93-12971
Diagnostics systems for the TBR-E tokamak
[INPE-5428-RPQ/662] 03 p0716 N93-13257
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
Study of heliumlike neon using an electron beam ion trap
[DE92-019544] 03 p0753 N93-13536
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Electrical resistivity and equation of state measurements of a dense aluminum plasma
[DE92-040352] 04 p0989 N93-15436
Recent diagnostic development for the Los Alamos Inertial Fusion Program
[DE92-040362] 05 p1306 N93-15849
Measurement of impurity ion densities and energies in the divertor and edge regions of Alcator C-Mod tokamak
[DE92-040510] 05 p1307 N93-15922
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator
[DE93-001204] 05 p1308 N93-16152
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Fundamental processes in partially ionized plasmas
[AD-A259272] 07 p2072 N93-20600
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
Plasmas physics research in the MST toroidal confinement device
[DE93-006502] 08 p2493 N93-22711
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Electron cyclotron emission measurements on the Texas Experimental Tokamak
08 p2494 N93-23066
Activities report of the Institute of Plasma Research
[ETN-93-93527] 08 p2495 N93-23258
Laser diagnostics
08 p2311 N93-23260
Plasma edge diagnostics
08 p2495 N93-23261
X ray absorption spectroscopy of dense, shock compressed, laser plasma
08 p2496 N93-23497

Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
Poloidal magnetic field profile measurements on the microwave tokamak experiment using far-infrared polarimetry 08 p2498 N93-24294
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Further time-resolved electron-beam characterizations with optical transition radiation
[DE93-007891] 10 p3131 N93-26625
Overview of charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-007898] 10 p3131 N93-26626
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Progress in optical diagnostic development for the electro-thermal chemical program
[DE93-009452] 10 p2997 N93-28452
Plasma diagnostics by antenna impedance measurements 11 p3400 N93-28820
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
Operation of a 20-channel grating polychromator diagnostic system and its application to sawtooth observations in JT-60U
[DE93-764388] 11 p3590 N93-30398
UVCS: The ultraviolet coronograph spectrometer for SOHO 12 p3868 N93-31349
Streamer eclipse observations 12 p3869 N93-31357
Microinstabilities in high-power MPD systems: Preliminary diagnostics
[AD-A265415] 12 p3826 N93-32047
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307
Measurements and analysis of the equivalent circuit of the GEC RF Reference Cell
[DE93-013498] 12 p3718 N93-32425

PLASMA DIFFUSION
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator
[DE93-001204] 05 p1308 N93-16152
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Plasma diffusion through multidipole magnetic fields
[DE93-608548] 11 p3591 N93-31007
Kinetic nonlinear electron-ion two stream instability in field-free isothermal plasma
[DE93-608571] 12 p3826 N93-31668
Plasma transport through magnetic boundaries 12 p3827 N93-31692

PLASMA DISCHARGES
U PLASMA JETS

PLASMA DISPERSION
U PLASMA DIFFUSION

PLASMA DISPLAY DEVICES
Emerging large-screen display technology
[AD-A261066] 09 p2681 N93-26241
Space Station displays and controls technology evolution 10 p2964 N93-27712

PLASMA DRIFT
On the bootstrap current calculations based on values of the radial electron transport
[IPPCZ-317] 03 p0715 N93-13091
Comparison between irregularity motion and bulk plasma drifts at high latitudes
[PL-TR-91-2292] 04 p0914 N93-14727
Toroidal effects on drift wave turbulence
[DE93-000498] 05 p1306 N93-15672
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
Measurements of F-region drift velocities at the dusk sector mid-latitude trough
[AD-A257766] 06 p1575 N93-17907
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Viking observations of electric fields 12 p3858 N93-31712

PLASMA DYNAMICS
On the nature of the small-scale plasma structures in the solar active phenomena 01 p0183 N93-10925
Contributions to plasma focus physics since 1970 from the Institute of Plasma Research, Stuttgart (Fed. Republic of Germany)
[IPF-91-4] 02 p0450 N93-11201
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Transient phenomena in MHD experiments
[DE92-014496] 02 p0455 N93-12139
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Tokamak equilibria and transport based on Grad's thirteen moment description
[DE92-019960] 03 p0715 N93-13038
Observations of plasma dynamics in the coma of P/Halley by the Giotto Ion Mass Spectrometer 03 p0752 N93-13468
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
Correlation theory of a two-dimensional plasma turbulence with shear flow
[DE93-000880] 05 p1309 N93-16308
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
A DE-1/whistler study of the thermal plasma structure and dynamics in the dusk bulge sector of the magnetosphere
[NASA-CR-192088] 06 p1579 N93-18850
A postulational formulation of magnetohydrodynamics 06 p1667 N93-19030
On the Lagrangian of the linearized MHD equations
[NIFS-154] 06 p1670 N93-19933
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
Kinetic theory of toroidicity and ellipticity-induced Alfven eigenmodes
[DE93-003634] 07 p2077 N93-21995
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Plasma focus 08 p2496 N93-23264
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403
Motion of charged particles in pulsar magnetospheres 08 p2550 N93-24161
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Modelling of plasmaspheric flows 10 p3150 N93-28412
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
Studies of global ionospheric electrodynamics
[AD-A265033] 12 p3764 N93-31997
Microinstabilities in high-power MPD systems: Preliminary diagnostics
[AD-A265415] 12 p3826 N93-32047

PLASMA ELECTRODES
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289

PLASMA ENGINES
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Basic processes of plasma propulsion
[AD-A253929] 01 p0163 N93-10754
Scaling of 100 kW class applied-field MPD thrusters
[NASA-CR-190791] 03 p0525 N93-12638
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
The MPD thruster program at JPL 06 p1666 N93-18638
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Review of recent work on MPD thrusters at MIT 06 p1666 N93-18641
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Stationary plasma thruster evaluation in Russia
[NASA-CR-192823] 09 p2859 N93-25206
Anode power deposition in coaxial MPD thrusters 09 p2623 N93-25665
IR and FIR laser diagnostics for plasma thrusters using a CW CO2 radiation source
[AD-A261399] 09 p2862 N93-26520
Preliminary investigation of power flow and electrode phenomena in a multi-megawatt coaxial plasma thruster
[NASA-CR-191084] 09 p2633 N93-26555
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981

PLASMA EQUILIBRIUM
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Tokamak equilibria and transport based on Grad's thirteen moment description
[DE92-019960] 03 p0715 N93-13038
Fusion: Magnetic confinement
[DE92-019876] 03 p0716 N93-13107

Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419
The 3D MHD study of helias and heliotron
[AD-A257116] 05 p1307 N93-16123
High beta and second stability region transport and stability analysis
[DE93-000886] 05 p1310 N93-16534
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Equilibria and stability of non-adiabatic Vlasov-Maxwellian plasmas 08 p2497 N93-23998

PLASMA ETCHING
A new pitch angle diagnostic for electron cyclotron resonance plasma 02 p0450 N93-11185
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936

PLASMA FLOW
U MAGNETOHYDRODYNAMIC FLOW

PLASMA FLUX MEASUREMENT
Laser material interaction in confined medium 02 p0319 N93-12035
INDI 06 p1730 N93-19570

PLASMA FOCUS
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
Critical technology demonstration of plasma focus type MPD thrusters
[AD-A252428] 01 p0026 N93-10638
Current scaling of plasma focus devices
[IPF-90-1] 02 p0449 N93-11029
Instabilities in the rundown phase of the plasma focus
[IPF-90-3] 02 p0449 N93-11030
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
Contributions to plasma focus physics since 1970 from the Institute of Plasma Research, Stuttgart (Fed. Republic of Germany)
[IPF-91-4] 02 p0450 N93-11201
Collisional relaxation of non-Maxwellian plasma distribution in a Polywell (tm)
[AD-A257651] 06 p1665 N93-18244
Dense plasma focus powered by flux compression generators
[DE93-003781] 07 p2076 N93-21837
Activities report of the Institute of Plasma Research
[ETN-93-93527] 08 p2495 N93-23258
Plasma focus 08 p2496 N93-23264
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289
Computer simulation of energy profiles in a plasma focus device
[DE93-608560] 12 p3826 N93-31673

PLASMA FREQUENCIES
Phase mixing and surface wave decay in an inhomogeneous plasma
[IPPCZ-320] 03 p0715 N93-13006
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407

PLASMA GENERATION
U PLASMA GENERATORS

PLASMA GENERATORS
NT TOKAMAK DEVICES
Plasma technology 08 p2496 N93-23263
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606

PLASMA HEATING
NT ELECTRON CYCLOTRON HEATING
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
Small scale processes in solar and stellar plasmas 01 p0181 N93-10917
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988
Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
Nonlinear effects of ICRF power on drift wave stability and transport in tokamaks, task 1
[DE92-018488] 02 p0453 N93-11729
Diagnostics of electron-heated solar flares 02 p0488 N93-11877
A quantitative analysis of the effect of ELMs on H-mode thermal energy confinement in DIII-D
[DE92-017704] 03 p0712 N93-12687
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Dynamics of the ion-ion acoustic instability in the thermalization of ion beams
[DE92-019396] 03 p0714 N93-12914
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Future development of the D3-D tokamak program
[DE92-040051] 03 p0715 N93-13044
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
A thermal/nonthermal approach to solar flares 03 p0771 N93-13639
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
Enhancement of D3-D neutral beam system for higher performance
[DE93-000878] 05 p1309 N93-16307
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence 06 p1726 N93-19548
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
Formation of H-mode like transport barrier in the CHS heliotron/torsatron
[NIFS-198] 07 p2074 N93-21193
TFTR experimental data analysis collaboration
[DE93-002365] 07 p2075 N93-21483
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
Plasmas physics research in the MST toroidal confinement device
[DE93-006502] 08 p2493 N93-22711
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796
Recent D3-D results --- tokamak reactor
[DE93-004468] 08 p2496 N93-23690
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Theoretical studies on plasma heating and confinement
[DE93-007617] 08 p2499 N93-24452
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
Thermal and electric oscillation driven by orbit loss in helical systems
[NIFS-213] 09 p2860 N93-25346
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane 10 p3204 N93-26894
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980
Electron cyclotron heating and current drive in toroidal geometry
[DE93-010400] 11 p3586 N93-29049
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Fundamental studies of fusion plasmas
[DE93-013144] 11 p3589 N93-30189
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606
Origin of the solar wind and coronal mass ejections 12 p3856 N93-31702

PLASMA INSTABILITY
U MAGNETOHYDRODYNAMIC STABILITY

PLASMA INTERACTION EXPERIMENT
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734

PLASMA INTERACTIONS
NT LASER PLASMA INTERACTIONS
NT PLASMA-ELECTROMAGNETIC INTERACTION
NT PLASMA-PARTICLE INTERACTIONS
Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Interpretation of measurements from the suprathermal electron spectrometer on the NEED-2 rocket
[FFI-92/7009] 02 p0357 N93-11129
Flank solar wind interaction
[NASA-CR-189285] 02 p0489 N93-12303
The solar wind interaction with Venus 04 p1034 N93-14341
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites 04 p0819 N93-15597
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705

Cosmic ray decreases and magnetic clouds
06 p1564 N93-18071
Auroral energization and geomagnetic disturbances
06 p1584 N93-18499
Environmental interactions and the SP-100 power system
[NASA-TM-105866] 06 p1474 N93-18877
Plasma-beam instabilities in cometary ionospheres
06 p1704 N93-19141
INDI 06 p1730 N93-19570
The effect of different collision operators on the standard data analysis model 06 p1670 N93-19584
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
Evaluation of candidate working fluid formulations for the electrothermal - chemical wind tunnel
[NASA-CR-192196] 07 p1788 N93-20312
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
Design and characterization of the Pegasus 1 plasma flow switch
[DE93-003812] 08 p2276 N93-22322
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
Ionospheric plasma flow about a system of electrically biased flat plates
[NASA-CR-191119] 08 p2194 N93-23131
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
The interaction of high voltage systems with the environments of the Moon and Mars
[NASA-TM-106107] 09 p2618 N93-26148
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
The upper atmosphere and ionosphere of Mars
09 p2897 N93-26393
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 1
[AD-A262783] 10 p2974 N93-28401
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 2
[AD-A262784] 10 p2974 N93-28402
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure
12 p3688 N93-31157
Radiation from a dipole antenna into an inhomogeneous compressible and nonlinear space-plasma
[ESA-TT-1261] 12 p3716 N93-31341
Morphology of coronal loop interactions
12 p3873 N93-31379
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

PLASMA JETS
NT RADIO JETS (ASTRONOMY)
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Numerical simulation of alumina spraying in argon-helium plasma jet
[DE92-017859] 02 p0455 N93-12092
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
The electromagnetic calorimeter for the STAR experiment at RHIC
[DE93-002780] 07 p2062 N93-21480
Emission from relativistic jets in blazars
08 p2536 N93-23900
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Metal ion implantation for large scale surface modification
[DE93-007649] 09 p2859 N93-25324
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
Plasma/particle interaction in subsonic argon/helium thermal plasma jets
[DE93-010808] 11 p3589 N93-30181

PLASMA LAYERS
NT PLASMA SHEATHS
Transition region dynamics 01 p0180 N93-10907
Ultra-high observations of the prominence-corona transition region 01 p0180 N93-10908
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet
[AD-A255002] 03 p0712 N93-12705
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Inferences concerning the magnetospheric source region for auroral breakup
[NASA-CR-191674] 05 p1208 N93-16536
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154
Report of the working group on magnetotail/plasma sheet structure
[DE93-003857] 08 p2391 N93-22077
Space charge layers in a double plasma machine
08 p2498 N93-24107
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294
Multicomponent double layers
[TRITA-ALP-92-03] 12 p3825 N93-31542
The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626
Studies of global ionospheric electrodynamics
[AD-A265033] 12 p3764 N93-31997

PLASMA OSCILLATIONS
Theoretical reversed field pinch and tokamak studies
[DE93-002775] 05 p1312 N93-17085
Beta-limiting phenomena in high-aspect-ratio toroidal helical plasmas
[NIFS-188] 07 p2072 N93-20546
Cross field ion motion at sawtooth crash
[NIFS-189] 07 p2072 N93-20547
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Thermal and electric oscillation driven by orbit loss in helical systems
[NIFS-213] 09 p2860 N93-25346
The fluctuation induced Hall effect
[DE93-010130] 11 p3585 N93-28912
A new method for measuring the speed of the bow shock 12 p3854 N93-31687

PLASMA PERTURBATION
U PLASMA OSCILLATIONS

PLASMA PHYSICS
Experimental plasma research project summaries
[DE92-016274] 01 p0162 N93-10464
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
Contributions to plasma focus physics since 1970 from the Institute of Plasma Research, Stuttgart (Fed. Republic of Germany)
[IPF-91-4] 02 p0450 N93-11201
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
Fusion programs in applied plasma physics
[DE92-019639] 02 p0452 N93-11660
Activity of the technical groups (LULI Palaiseau, France) 02 p0322 N93-12052
Plasma properties
[DE92-018635] 02 p0455 N93-12188
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Plasma properties
[DE92-019982] 03 p0713 N93-12811
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Plasma Science Committee (PLSC) and study on new opportunities in plasma science and technology
[DE92-019507] 03 p0716 N93-13359
Establishment of an Institute for Fusion Studies
[DE92-040014] 03 p0717 N93-13502
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
Preliminary observations of electromagnetic radiation from plasma in presence of a double layer
[TRITA-EPP-91-02] 05 p1312 N93-17636
Experimental observations of anomalous potential drops over ion density cavities
[TRITA-EPP-91-04] 05 p1312 N93-17637
Physics of the aurora
[TRITA-EPP-91-06] 05 p1376 N93-17639
Stability of weak double layers
[TRITA-EPP-91-01] 05 p1313 N93-17649
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1665 N93-18100
Space plasma physics research
[NASA-CR-192158] 06 p1665 N93-18404
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Introduction to ionospheric heating at Tromsoe (Norway). Part 1: Experimental overview
06 p1724 N93-19531
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
A kinetic simulation of low-frequency electromagnetic phenomena in inhomogeneous plasmas of three-dimensions
[NIFS-199] 06 p1669 N93-19883
Roles of electric field on toroidal magnetic confinement
[NIFS-200] 06 p1669 N93-19884
Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942
A review on application of MHD theory to plasma boundary problems in tokamaks
[NIFS-163] 07 p2073 N93-20762
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936
On relation between Hamada and Boozer magnetic coordinate system
[NIFS-173] 07 p2075 N93-21568
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-006123] 08 p2491 N93-22052
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796
Applications of divertor biasing to the next generation tokamaks
[DE93-005848] 08 p2494 N93-23023

Activities report of the Institute of Plasma Research
[ETN-93-93527] 08 p2495 N93-23258
Plasma theory 08 p2496 N93-23262
Plasma technology 08 p2496 N93-23263
Equilibria and stability of non-adiabatic Vlasov-Maxwellian plasmas 08 p2497 N93-23998
Nonlinear dynamics research in the former Soviet Union
[PB93-146496] 08 p2333 N93-24571
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
A survey of problems in divertor and edge plasma theory
[DE93-007531] 11 p3586 N93-29056
Novel methods of acceleration
[AD-A264828] 11 p3590 N93-30600
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
The dynamics and stability of weak double layers
[TRITA-ALP-92-02] 12 p3825 N93-31626
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Magnetic field reconnection at the dayside magnetopause 12 p3855 N93-31696

PLASMA PINCH
NT ZETA PINCH
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869
Plasma focus 08 p2496 N93-23264

PLASMA POTENTIALS
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
Electrostatic potential in a collisionless plasma flow along open magnetic field lines
[NIFS-155] 06 p1666 N93-18421
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522

PLASMA POWER SOURCES
NT PLASMA ENGINES
Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686

PLASMA PRESSURE
Laser material interaction in confined medium 02 p0319 N93-12035
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Beta-limiting phenomena in high-aspect-ratio toroidal helical plasmas
[NIFS-188] 07 p2072 N93-20546
Temperature dependent morphology of untwisted coronal loops 12 p3875 N93-31393

PLASMA PROBES
NT ELECTROSTATIC PROBES
Preliminary observations of electromagnetic radiation from plasma in presence of a double layer
[TRITA-EPP-91-02] 05 p1312 N93-17636
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081

PLASMA PROPULSION
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Basic processes of plasma propulsion
[AD-A253929] 01 p0163 N93-10754
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Scaling of 100 kW class applied-field MPD thrusters
[NASA-CR-190791] 03 p0525 N93-12638
Anode power deposition in applied-field MPD thrusters
[NASA-CR-190790] 03 p0526 N93-13283
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
Electric propulsion 05 p1095 N93-16916
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
The MPD thruster program at JPL 06 p1666 N93-18638
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Development of a miniature mass analyzer and associated instrumentation for improved capabilities in the analysis of low energy plasmas from a rocket or satellite platform
[NASA-CR-192453] 08 p2202 N93-22014
Preliminary investigation of power flow and electrode phenomena in a multi-megawatt coaxial plasma thruster
[NASA-CR-191084] 09 p2633 N93-26555
NEP technology: FY 1992 milestones (NASA LeRC) 10 p2983 N93-26977
JPL nuclear electric propulsion task 10 p2983 N93-26980
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981
Engineering consideration for the self-energizing magnetoplasmadynamic (MPD): Type fusion plasma thruster
[AD-A262785] 11 p3288 N93-29289

PLASMA PUMPING
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276

PLASMA RADIATION
Analysis of the instrument operation of a focal circle spectrograph and numerical reconstitution of the spectrum emitted by a plasma column 02 p0321 N93-12051
Plasma properties of solar coronal active regions 02 p0489 N93-12342
High-energy laser-particle interaction 06 p1543 N93-18469
Method and apparatus for producing a thermal atomic oxygen beam
[NASA-CASE-LEW-15614-1] 06 p1656 N93-19026
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Plasma treatment of glass surfaces
[AD-D015619] 08 p2241 N93-24229
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099

PLASMA RENIN ACTIVITY
U IMMUNOASSAY

PLASMA RESONANCE
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
The possibilities of observing plasma and gyro lines with the EISCAT polar cap radar 06 p1724 N93-19534
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
Photoelectron enhanced plasma-line intensities at angles with the geomagnetic field as measured by EISCAT 06 p1724 N93-19536
Tristatic observations of natural plasma lines with the EISCAT UHF radar 06 p1725 N93-19537

PLASMA RINGS
U TOROIDAL PLASMAS

PLASMA SHEATHS
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
The lasing mechanism of the orbitron: A millimeter-wave maser based on a glow discharge
[AD-A258680] 06 p1543 N93-19950
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 1
[AD-A262783] 10 p2974 N93-28401
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
Computer simulation of energy profiles in a plasma focus device
[DE93-608560] 12 p3826 N93-31673

PLASMA SOUND WAVES
U MAGNETOHYDRODYNAMIC WAVES
U PLASMA WAVES

PLASMA SPECTRA
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690

PLASMA SPRAYING
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Diagnostic behavior of the Wire Arc Plasma spray process
[DE93-000717] 05 p1308 N93-16229
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
Characterization and durability testing of plasma-sprayed zirconia-yttria and hafnia-yttria thermal barrier coatings. Part 1: Effect of spray parameters on the performance of several lots of partially stabilized zirconia-yttria powder
[NASA-TP-3295] 08 p2227 N93-22556
Development of fire protective coatings for GRP composites using plasma deposition technology, phase 2
[DREA-CR-91-453] 08 p2239 N93-23121
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Plasma/particle interaction in subsonic argon/helium thermal plasma jets
[DE93-010808] 11 p3589 N93-30181
Method of fabricating a rocket engine combustion chamber
[NASA-CASE-MFS-28569-1] 11 p3338 N93-30565

Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294
Turntable mechanism
[NASA-CASE-MFS-28522-1] 12 p3734 N93-31313
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance
[ONERA-NT-1992-9] 12 p3709 N93-31597

PLASMA STABILITY
U MAGNETOHYDRODYNAMIC STABILITY

PLASMA TEMPERATURE
Effects of current driven instabilities on the ion and electron temperatures in the topside ionosphere 02 p0360 N93-11270
Comment on 'EISCAT Radar Observations of Enhanced Incoherent Scatter Spectra and Their Relation to Auroral Luminosity and Field-Aligned Currents' by P. N. Collis et al. 02 p0360 N93-11271
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Plasma properties of solar coronal active regions 02 p0489 N93-12342
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
Electron temperature of Gd plasma produced by laser resonance ionization
[DE91-017785] 03 p0718 N93-13732
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc 04 p0988 N93-14138
Toroidal effects on drift wave turbulence
[DE93-000498] 05 p1306 N93-15672
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Electron cyclotron emission measurements on the Texas Experimental Tokamak 08 p2494 N93-23066
Ion temperature measurements in the Maryland Spheromak 09 p2859 N93-25290
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Measuring electron temperature in the extended corona 12 p3880 N93-31422

PLASMA THEORY
U PLASMA PHYSICS

PLASMA TORCHES
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715

PLASMA TURBULENCE
Microwave propagation and attenuation in magnetoplasmas
[AD-A250197] 01 p0069 N93-10728
Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911
The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
Fluctuation studies on CASTOR and ASDEX tokamaks at lower hybrid current drive
[IPPCZ-319] 03 p0715 N93-13093
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc 04 p0988 N93-14138
Toroidal effects on drift wave turbulence
[DE93-000498] 05 p1306 N93-15672
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
Correlation theory of a two-dimensional plasma turbulence with shear flow
[DE93-000880] 05 p1309 N93-16308
Theoretical reversed field pinch and tokamak studies
[DE93-002775] 05 p1312 N93-17085
Poloidal flow generation by resistive pressure-gradient-driven turbulence
[DE93-001638] 06 p1667 N93-18707
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems 06 p1724 N93-19532
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
Physics of transport phenomena in magnetic confinement plasmas
[NIFS-202] 06 p1670 N93-19942
Cross field ion motion at sawtooth crash
[NIFS-189] 07 p2072 N93-20547
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567
Bibliography Group T-3, 1955 - 1991
[DE93-002851] 07 p1904 N93-21771
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
Source mechanisms and radio effects of ionospheric plasma
[AD-A259743] 08 p2395 N93-23480
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
Kinetic nonlinear electron-ion two stream instability in field-free isothermal plasma
[DE93-608571] 12 p3826 N93-31668
Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683
Plasma wave phenomena observed at interplanetary shocks by the Ulysses URAP experiment 12 p3826 N93-31684
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690

PLASMA WAVES
NT ELECTROSTATIC WAVES
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800
Topics in high-intensity laser plasma interaction 02 p0450 N93-11191
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora 02 p0359 N93-11266
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
Nonlinear effects of ICRF power on drift wave stability and transport in tokamaks, task 1
[DE92-018488] 02 p0453 N93-11729
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering 02 p0318 N93-12025
X pulse radiation around the critical surface 02 p0318 N93-12027
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Phase mixing and surface wave decay in an inhomogeneous plasma
[IPPCZ-320] 03 p0715 N93-13006
Experimental studies of high-power plasma-filled backward wave oscillators 03 p0717 N93-13495
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
An analysis of the SCEX 3 ionospheric electron beam injection experiment 04 p0912 N93-14177
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
The kappa distribution as a variational solution for an infinite plasma 05 p1313 N93-17319
Stability of weak double layers
[TRITA-EPP-91-01] 05 p1313 N93-17649
Space plasma physics research
[NASA-CR-192158] 06 p1665 N93-18404
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
Plasma flow bursts in the auroral zone 06 p1726 N93-19550
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT 06 p1729 N93-19569
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles 06 p1517 N93-19573
Real and spurious anticorrelations between V(parallel) and V(perpendiculars) in EISCAT data 06 p1517 N93-19578
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
High beta effects and nonlinear evolution of the TAE instability
[DE93-004170] 08 p2492 N93-22522
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere 08 p2394 N93-23388
Data compression for the Cassini radio and plasma wave instrument 08 p2432 N93-24555
The generation of Langmuir waves by thick target electron beams in solar flares 09 p2861 N93-25730
Analysis of magnetometer data/wave signals in the Earth's magnetosphere
[NASA-CR-193169] 10 p3072 N93-27154
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
A Fokker-Planck operator for the emission and absorption of electron plasma waves in a magnetized plasma
[DE93-009579] 11 p3584 N93-28598
A novel approach for new radiation sources based on solid state plasma instabilities
[AD-A263699] 11 p3588 N93-29382
Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434
Plasma wave phenomena observed at interplanetary shocks by the Ulysses URAP experiment 12 p3826 N93-31684
A new method for measuring the speed of the bow shock 12 p3854 N93-31687
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
The implementation of the digital wave processor for the ESA/NASA Cluster mission 12 p3858 N93-31708
An investigation of dayside FTE's observed by the AMPTE-UKS satellite 12 p3858 N93-31709
Auroral Cluster: Science objectives and measurement strategies 12 p3858 N93-31710
Plasma waves interferometry on Cluster 12 p3827 N93-31714

On the Bernstein modes generation in solar post-flare loops
12 p3859 N93-31718
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

PLASMA-ELECTROMAGNETIC INTERACTION
NT LASER PLASMA INTERACTIONS
Microwave propagation and attenuation in magnetoplasmas
[AD-A250197] 01 p0069 N93-10728
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
Nonlinear radiation of waves at combination frequencies due to radiation-surface wave interaction in plasmas
[DE93-608570] 12 p3825 N93-31667

PLASMA-PARTICLE INTERACTIONS
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Conditioning electron beams in the ion-focused regime
[AD-A255635] 04 p0978 N93-14127
Model of Venus ionopause formation
08 p2554 N93-23354
Alfven wave transport effects in the time evolution of parallel cosmic-ray modified shocks
[NASA-CR-192932] 09 p2899 N93-25161
Two-stream instability for a light ion beam-plasma system with external magnetic field
[NIFS-204] 09 p2859 N93-25248
Plasma/particle interaction in subsonic argon/helium thermal plasma jets
[DE93-010808] 11 p3589 N93-30181

PLASMAPAUSE
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985

PLASMAS (PHYSICS)
NT ARGON PLASMA
NT BETA PARTICLES
NT BOUNDARY LAYER PLASMAS
NT COLD PLASMAS
NT COLLISIONAL PLASMAS
NT COLLISIONLESS PLASMAS
NT COSMIC PLASMA
NT DENSE PLASMAS
NT DEUTERIUM PLASMA
NT ELECTRON PLASMA
NT ELECTRON-POSITRON PLASMAS
NT HELIUM PLASMA
NT HIGH TEMPERATURE PLASMAS
NT HYDROGEN PLASMA
NT LASER PLASMAS
NT METALLIC PLASMAS
NT MICROPLASMAS
NT NITROGEN PLASMA
NT NONEQUILIBRIUM PLASMAS
NT OXYGEN PLASMA
NT PLASMA FOCUS
NT RELATIVISTIC PLASMAS
NT ROTATING PLASMAS
NT SOLAR WIND
NT SPACE PLASMAS
NT STELLAR WINDS
NT STRONGLY COUPLED PLASMAS
NT THERMAL PLASMAS
NT TOROIDAL PLASMAS
Long conduction time plasma opening switch experiments at Sandia National Labs
[DE92-015003] 01 p0072 N93-10279
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Divertor heat flux reduction by D2 injection in DIII-D
[DE92-014232] 01 p0160 N93-10326
An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761
The basic equations for a four component magnetoplasma flow with non equilibrium ionization
[IPF-91-1] 02 p0449 N93-11102
Proceedings of the 14th International Conference on the Numerical Simulation of Plasmas
[AD-A249095] 02 p0451 N93-11275
Three dimensional and 2D simulation of an expanding plasma using a Darwin hybrid particle code
[DE92-019095] 02 p0451 N93-11516
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[AD-A257410] 02 p0268 N93-11861
Direct radiative recombination of atomic ions
02 p0321 N93-12048
The 44th Annual Gaseous Electronics Conference
[AD-A254872] 02 p0295 N93-12437
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Plasma properties
[DE92-019982] 03 p0713 N93-12811
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
Plasma Science Committee (PLSC) and study on new opportunities in plasma science and technology
[DE92-019507] 03 p0716 N93-13359
Experimental studies of ionospheric irregularities and related plasma processes
[NASA-CR-191271] 03 p0652 N93-13460
Low-frequency fluctuations of plasma magnetic fields
03 p0717 N93-13496
Theory of the ion-channel laser
03 p0607 N93-13777
Fluidlike studies of the sheath and presheath regions of a plasma
03 p0718 N93-13792
Multi-ion ambipolar diffusion
[AD-A256568] 05 p1283 N93-15659
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
JT-60 configuration parameters for feedback control determined by regression analysis
[DE92-556731] 05 p1310 N93-16650
The kappa distribution as a variational solution for an infinite plasma
05 p1313 N93-17319
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
Studies of metal-semiconductor clusters
06 p1678 N93-18493
Environmental interactions and the SP-100 power system
[NASA-TM-105866] 06 p1474 N93-18877
H2O(+) structures in the inner plasma tail of comet Austin
06 p1708 N93-19174
Doppler velocities in the ion tail of comet Levy 1990c
06 p1708 N93-19176
Inexpensive capillary discharge x ray laser driver, phase 1
[AD-A259032] 06 p1542 N93-19372
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Theory of radar scattering from dusty plasmas
06 p1516 N93-19540
Multi-fluid modeling of interpenetrating plasmas
[DE93-002893] 06 p1668 N93-19829
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
Fundamental processes in partially ionized plasmas
[AD-A259272] 07 p2072 N93-20600
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
PISCES Program: Plasma-materials interactions and edge-plasma physics research
[DE93-005089] 08 p2491 N93-22406
Experimental, theoretical and computational study of frequency upshift of electromagnetic radiation using plasma techniques
[DE93-005092] 08 p2260 N93-22407
Experimental studies of instabilities in radially imploding plasmas
[DE93-003831] 08 p2492 N93-22427
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
Plasmas physics research in the MST toroidal confinement device
[DE93-006502] 08 p2493 N93-22711
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715
Photon acceleration via laser-produced ionization fronts
[DE93-005205] 08 p2480 N93-22719
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
The collaborative program of research in engineering sciences
[DE93-005126] 08 p2257 N93-22768
Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907
Plasma technology 08 p2496 N93-23263
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Source mechanisms and radio effects of ionospheric plasma
[AD-A259743] 08 p2395 N93-23480
Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052
Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
A compact neutron counter telescope with thick radiator (Cotetra) for fusion experiment
[NIFS-205] 09 p2860 N93-25347
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
Moment approach to fast ion neoclassical transport and viscous forces
[DE93-753305] 11 p3585 N93-28979
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
Elemental compositions of high-energy ions produced by magnetosonic waves in quiescent plasmas
[DE93-753241] 11 p3588 N93-29434
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Measurement of work function of a plasma grid in a cesium seeded negative ion source
[DE93-764153] 11 p3589 N93-30190
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606

Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
Intuitive approach to modified gyrokinetic equation and numerical confirmation
[DE93-604671] 12 p3812 N93-31083
Are there missing convective currents?
[DE93-604672] 12 p3825 N93-31084
Tokamak plasma shape identification based on the boundary integral equations
[DE93-715383] 12 p3825 N93-31097
New edge magnetoplasmon for a two-dimensional electron gas in a ring geometry
[DE93-608737] 12 p3825 N93-31164
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft
12 p3856 N93-31699
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307
Measurements and analysis of the equivalent circuit of the GEC RF Reference Cell
[DE93-013498] 12 p3718 N93-32425

PLASMASPHERE
Evidence for lightning on Venus
04 p1043 N93-14386
On the consequences of bi-Maxwellian plasma distributions for parallel electric fields
05 p1152 N93-17317
The flow of plasma in the solar terrestrial environment
[NASA-CR-192106] 06 p1744 N93-18780
A DE-1/whistler study of the thermal plasma structure and dynamics in the dusk bulge sector of the magnetosphere
[NASA-CR-192088] 06 p1579 N93-18850
Magnetohydrodynamic wave-associated plasma density fluctuations in the Earth's foreshock region
06 p1667 N93-19385
A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945
Modelling of plasmaspheric flows
10 p3150 N93-28412

PLASMOIDS
U PLASMAS (PHYSICS)

PLASMONS
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
The surface plasmon spectroscopy applications in microgravity: The measurement theory and preliminary experimental layout 08 p2165 N93-24396
The interaction of swift electrons with surface excitations
[DE93-007245] 09 p2848 N93-25376
New edge magnetoplasmon for a two-dimensional electron gas in a ring geometry
[DE93-608737] 12 p3825 N93-31164

PLASTIC AIRCRAFT STRUCTURES
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus Industry
[LR-677] 05 p1061 N93-16283
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562

PLASTIC ANISOTROPY
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581

PLASTIC BODIES
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029

PLASTIC COATINGS
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561

PLASTIC DEFORMATION
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
Integrated finite element model of composite materials
01 p0046 N93-10477
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection
01 p0051 N93-10502
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Contribution to the study of the anisotropic viscoelasticity of large strains: The case of the monocrystal
[ECL-90-29] 02 p0460 N93-11573
Crushing behavior of tubular structures in multi-materials
[ECL-91-37] 02 p0336 N93-11579
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Nanophase ceramics
[AD-A254661] 02 p0272 N93-12246
Systems of evolution equations in thermochemical equations
[AD-A254891] 02 p0253 N93-12282
Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth
03 p0621 N93-12628
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Elastic and plastic strain measurement in high temperature environment using laser speckle
03 p0600 N93-13673
Large plastic deformations by sequential limit analysis: A finite element approach with applications in metal forming 04 p0899 N93-14471
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Determination of operable deformation mechanisms during ballistic impact in tungsten single crystals, utilizing transmission electron microscopy
[AD-A255351] 04 p0991 N93-14518
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
Application of the BEM to the crack growth problem by the coupling of damage-deformation
07 p1940 N93-20702
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
Finite element micromechanics modeling of inelastic deformation of unidirectionally fiber-reinforced composites 09 p2637 N93-25680
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
Plastic deformation of granular materials
[AD-A262449] 10 p3058 N93-27826
Deformation mechanisms in Be(sub 12)X compounds
[DE93-009080] 11 p3320 N93-28548
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Plastic deformation behaviour of oxide dispersion strengthened titanium alloys
[ONERA-NT-1990-6] 11 p3326 N93-30138
Computational analysis of slip in PETN
[DE92-040222] 11 p3598 N93-30445

PLASTIC FILMS
U POLYMERIC FILMS

PLASTIC FLOW
NT TRESCA FLOW
A variational approach for coupled creeping-flow problems 01 p0062 N93-10557
Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727

PLASTIC MEMORY
Theory of synaptic plasticity in visual cortex
[AD-A260052] 08 p2424 N93-23960

PLASTIC PLATES
Three-dimensional elastic-plastic finite-element analyses of constraint variations in cracked bodies
[NASA-TM-107704] 06 p1555 N93-18090
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798

PLASTIC PROPELLANTS
Program to tag military plastic/sheet explosives
07 p1775 N93-21926
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Detection of taggant in modified composition C-4 tagged with a taggant 07 p1776 N93-21929
Integration of the human, canine, machine interface for explosives detection 07 p1778 N93-21943
Regression rate mechanism in a solid fuel ramjet
10 p2922 N93-27185
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251

PLASTIC PROPERTIES
NT ELASTOPLASTICITY
NT PHOTOPLASTICITY
NT SUPERPLASTICITY
NT THERMOPLASTICITY
NT VISCOPLASTICITY
NT YIELD POINT
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
Unified viscoplastic behavior of metal matrix composites
[NASA-TM-105819] 01 p0096 N93-10777
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
The application of the finite element method and the boundary element method to fatigue and fracture, volumes 1 and 2 03 p0624 N93-13016
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Bifurcation and localization instabilities in plastic bending of cylindrical shells 03 p0630 N93-13923
Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472
Dissipation in adiabatic shear bands
[DE93-002280] 07 p1856 N93-20025
Experimental and theoretical study of the elastic and microplastic properties of particles reinforced metal matrix composites
[ISAL-92-0014] 07 p1833 N93-20942
Theoretical analysis of plastic moment capacity of an inclined yield line under axial force
[PB93-118784] 07 p1951 N93-21689
La Recherche Aerospatiale Bimonthly Bulletin, no. 248, January - February
[ONERA-1989-1] 07 p1878 N93-21748
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Inelastic behavior of thermoplastic composites
09 p2636 N93-25674
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites
09 p2638 N93-25760
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997

An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Backward can extrusion and materials behaviour
[ISBN-9-03-860032-1] 10 p2998 N93-27374
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013
Some aspects of invariant theory in plasticity. Part 2: Constitutive relations for perfectly locking materials. Comments on perfectly plastic solids
12 p3742 N93-32321

PLASTIC TAPES
Experimental investigation of consolidation of thermoplastic tape using laser energy
08 p2212 N93-23944

PLASTIC YIELDING
U PLASTIC DEFORMATION

PLASTICITY
U PLASTIC PROPERTIES

PLASTICIZERS
GAP benefits 01 p0019 N93-10025
Energetic composites of cyclodextrin nitrate esters and nitrate ester plasticizers
[AD-D015364] 02 p0274 N93-11665
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755

PLASTICS
NT ACRYLIC RESINS
NT CARBON FIBER REINFORCED PLASTICS
NT CARBON-PHENOLIC COMPOSITES
NT EPOXY RESINS
NT GLASS FIBER REINFORCED PLASTICS
NT KEVLAR (TRADEMARK)
NT NYLON (TRADEMARK)
NT PEEK
NT PHENOLIC RESINS
NT POLYAMIDE RESINS
NT POLYETHER RESINS
NT POLYETHYLENES
NT POLYMETHYL METHACRYLATE
NT POLYPROPYLENE
NT POLYSTYRENE
NT POLYTETRAFLUOROETHYLENE
NT POLYVINYL ALCOHOL
NT POLYVINYL CHLORIDE
NT REINFORCED PLASTICS
NT STYROFOAM (TRADEMARK)
NT SYNTHETIC RESINS
NT TEFLON (TRADEMARK)
NT THERMOPLASTIC RESINS
NT THERMOSETTING RESINS
Research and development of two marine-degradable biopolymers
[AD-A254051] 01 p0041 N93-10783
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-000541] 05 p1128 N93-17807
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341
Processing effects on the mechanical behavior of polyarylacetylene-derived carbon-carbon composites
[AD-A262102] 10 p2991 N93-27672
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 1
[AD-A263813] 11 p3335 N93-29886
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567

PLASTISOLS
NT SMOKE

PLATE (METAL)
U METAL PLATES

PLATE THEORY
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Linear and nonlinear analyses of thick composite circular plates using the finite element method
01 p0096 N93-10873
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Acoustic radiation from a point excited infinite bilaminar plate 03 p0531 N93-13144
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
P-adaptivity applied to plate in bending problems
06 p1557 N93-18756
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Material nonlinear analysis of composites
07 p1929 N93-20641
Edge delamination of composite laminates
07 p1842 N93-21519
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
On existence of solutions and duality for a model of non-linear elastic plates with transverse shear deformations 09 p2726 N93-25437
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory
09 p2636 N93-25661
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868

PLATEAUS
NT COLORADO PLATEAU (US)
NT GREAT BASIN (US)
Noril'sk/Siberian plateau basalts and Bahama hot spot: Impact triggered? 01 p0109 N93-10132

PLATELETS
A new approach to cooled combustion chambers: The 40K formed platelet chamber 09 p2626 N93-26018
Evaluation of dried storage of platelets for transfusion: Physiologic integrity and hemostatic functionality
[AD-A263240] 11 p3494 N93-29620

PLATES
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760

PLATES (STRUCTURAL MEMBERS)
NT ANISOTROPIC PLATES
NT ANNULAR PLATES
NT CIRCULAR PLATES
NT ELASTIC PLATES
NT METAL PLATES
NT ORTHOTROPIC PLATES
NT PERFORATED PLATES
NT PLASTIC PLATES
NT RECTANGULAR PLATES
NT REINFORCED PLATES
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Hierarchic models for laminated plates
03 p0528 N93-12629
Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301
Non-linear analysis of wave progagation using transform methods and plates and shells using integral equations
04 p0896 N93-14186
Modal interactions in the dynamic response of isotropic and composite plates 04 p0829 N93-14221
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
Beam, plate, and shell finite elements for CSI design code 05 p1189 N93-16782
A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
Stratified plate model for composite plate analysis
[AD-A259001] 06 p1481 N93-19359
Impact response of laminated plates subjected to transverse loading
[NIAR-92-5] 06 p1560 N93-19360
Nondestructive evaluation of composites using infrared imaging
[AD-A259412] 07 p1831 N93-20123
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Material nonlinear analysis of composites
07 p1929 N93-20641
Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879
Edge delamination of composite laminates
07 p1842 N93-21519
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
A three-dimensional model for the residual stresses in a unidirectional composite plate
09 p2728 N93-25825
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873
Mixed-mode fracture of concrete: An experimental approach
[ISBN-90-9005-047-7] 10 p3058 N93-27879
Comparison of impact results for several polymeric composites over a wide range of low impact velocities
11 p3304 N93-30848
Delaminations in composite plates under impact loads
11 p3304 N93-30849
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645

PLATES (TECTONICS)
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation
04 p1042 N93-14381
Episodic plate tectonics on Venus
04 p1044 N93-14390
Plate tectonics from VLBI and SLR global data
[NASA-CR-191319] 04 p0916 N93-14913
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938

Evolution of attached and detached slabs and their associated mantle dynamics
[NASA-CR-191920] 06 p1576 N93-18320

PLATFORMS
Mobile work platform for initial lunar base construction
03 p0559 N93-14009

PLATING
NT ELECTROPLATING
NT ION PLATING
NT NICKEL PLATE
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Development of nickel/metal hydride secondary battery
[DE93-781330] 11 p3406 N93-28669

PLATINUM
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Selective carbon oxygen bond scission during reactions of oxygenates on single crystal catalysts
[DE92-018687] 02 p0247 N93-11439
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Phase behavior of Au and Pt surfaces
[DE92-041021] 05 p1112 N93-16203
Crystallography of Co/Pt multilayers and nanostructures
[DE92-041212] 05 p1320 N93-16449
Au(111) and Pt(111) surface phase behavior
[DE92-040881] 05 p1321 N93-16598
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Dioxygen reduction in various acid electrolytes
[AD-A263564] 11 p3317 N93-30664
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115

PLATINUM ALLOYS
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316

PLATINUM COMPOUNDS
Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces
[AD-A252544] 02 p0250 N93-11808
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997

PLENUM CHAMBERS
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
Gas arc constriction for plasma arc welding
[NASA-CASE-MFS-28844-1] 12 p3734 N93-31292

PLEXIGLASS (TRADEMARK)
U POLYMETHYL METHACRYLATE

PLIES
U LAYERS

PLOTTERS
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

PLOTTING
Plotting the magnitude and direction of waveguide surface currents in three dimensions
[AD-A258872] 06 p1509 N93-19077
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
PLTPWR: A versatile tool for greyscale and power spectral display
[DREA-TC-92-306] 08 p2435 N93-22473
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

PLOTTING INSTRUMENTS
U PLOTTERS

PLOWED FIELDS
U FARMLANDS

PLOWING
Registration of the use of agricultural fields and soil erosion using satellite remote sensing
09 p2751 N93-24856

PLSS
U PORTABLE LIFE SUPPORT SYSTEMS

PLUG NOZZLES
Plug nozzle propulsion system
01 p0017 N93-10013
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
Nuclear thermal rocket nozzle testing and evaluation program
[NASA-TM-105962] 04 p0827 N93-15571
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068

PLUGS
Thruster sealing system and apparatus
[NASA-CASE-MSC-21898-1] 04 p0890 N93-14702

PLUMBANE
U LEAD COMPOUNDS
U METAL HYDRIDES

PLUMES
NT ROCKET EXHAUST
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
Modeling the dispersion of tracer plumes in the Colorado front range boundary layer during night- and day-time conditions
[DE92-019384] 02 p0354 N93-11676
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Mantle plumes on Venus revisited
04 p1032 N93-14334
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
The AlCl absorption feature in solid rocket plume radiation
[AD-A256645] 05 p1089 N93-15700
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702
Turbulence modeling and experiments
05 p1153 N93-15796
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts
05 p1095 N93-17297
Neural network architectures to analyze OPAD data
05 p1262 N93-17336
Semi-propellants for ducted rockets
05 p1092 N93-17612
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Spacecraft interaction with ambient and self-generated plasma/neutral environment
[AD-A258647] 07 p1823 N93-20364
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Automating an orbiter approach to Space Station Freedom to minimize plume impingement
08 p2149 N93-22305
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
The AFTAC model integration project
[DE93-003334] 09 p2761 N93-25122
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913
SRB environment evaluation and analysis. Volume 3: ASRB plume induced environments
[NASA-CR-192519] 09 p2631 N93-26054
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
NTR plume modeling 10 p2978 N93-26929
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Return flux experiment 11 p3266 N93-28727
The Ultraviolet Plume Instrument (UVPI)
11 p3285 N93-28784
The +vbar breakout during approach to Space Station Freedom
[NASA-TM-104772] 11 p3269 N93-30135
Observations of stationary radio sources: Coronal polar plumes? 12 p3871 N93-31365
OPAD 1991 12 p3693 N93-31559
Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

PLUTO (PLANET)
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
Visible imaging on the Pluto fast flyby mission
11 p3646 N93-28799
Pluto fast flyby mission and science overview
11 p3649 N93-28818

PLUTONIUM
NT PLUTONIUM 239
Plutonium pyrophoricity
[RFP-4517] 04 p0845 N93-14723

Processes for metal extraction
05 p1382 N93-16893
Application of surrogate materials in process study of actinides
[DE93-002257] 07 p1856 N93-20024
Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600

PLUTONIUM ISOTOPES
NT PLUTONIUM 239

PLUTONIUM 239
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

PLUVIOGRAPHS
U RAIN GAGES
U RECORDING INSTRUMENTS

PLY ORIENTATION
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model
03 p0629 N93-13811
Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823
The role of the fiber/matrix interphase in the static and fatigue behavior of polymeric matrix composite laminates
03 p0535 N93-13968
Behavior of a centrally notched cross-ply and unidirectional ceramic matrix composite in tension-compression fatigue
[AD-A258907] 06 p1480 N93-19336
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839
The behavior of elastic anisotropic laminated composite flat structures subjected to deterministic and random loadings
[NASA-CR-192197] 07 p1950 N93-21366
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650

PNEUMATIC CONTROL
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles
01 p0017 N93-10015
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157

PNEUMATIC EQUIPMENT
NT GAS VALVES
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles
01 p0017 N93-10015
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
Pneumatic actuator with hydraulic control
[AD-D015652] 09 p2719 N93-26244
Advanced coordinate measuring machine at Sandia National Laboratories
[DE93-010618] 11 p3432 N93-29842

PNEUMATIC RESET
U PNEUMATIC CONTROL

PNEUMATICS
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
Electropneumatic actuator, phase 1
[PB93-174951] 12 p3720 N93-31876

POCKELS EFFECT
U BIREFRINGENCE

POINCARE PROBLEM
From the rotation group to the Poincare group
[DE93-000864] 05 p1279 N93-17386
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
Regular and chaotic motion of two dimensional electrons in a strong magnetic field
[DE93-604091] 11 p3607 N93-30933

POINT DEFECTS
NT FRENKEL DEFECTS
NT VACANCIES (CRYSTAL DEFECTS)
Slow crack growth in vacuum
02 p0338 N93-11909
Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Gordon Conference on Point Defects, Line Defects and Interfaces in Semiconductors
[AD-A261485] 09 p2868 N93-26357
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
The onset of vortex turbulence
10 p2938 N93-28251

POINT MATCHING METHOD (MATHEMATICS)
U BOUNDARY VALUE PROBLEMS

POINT SOURCES
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
A search for point sources of cosmic ray muons using the MACRO detector 03 p0773 N93-13738
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources
04 p1050 N93-14639
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment
[ONERA-RT-18/3641-PY] 04 p0975 N93-15130
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
An experimental study of the possible association of deep underground muons with astronomical point sources 08 p2549 N93-23596
IRAS galaxies in the ROSAT survey
08 p2536 N93-23897
Shells, outflows and star formation in the giant molecular cloud Monoceros R2 09 p2893 N93-25555
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932

POINT SPREAD FUNCTIONS
Semi-blind restoration of images distorted by random time varying point spread functions
11 p3375 N93-30344

POINTING CONTROL SYSTEMS
NT ANNULAR SUSPENSION AND POINTING SYSTEM
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
A systematic approach for the DRSS IOL APM design
05 p1081 N93-15753
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Structural control sensors for the CASES GTF
06 p1464 N93-18837
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Office of Spaceflight Standard Spaceborne Global Positioning System (GPS) user equipment project
07 p1780 N93-21417
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode
09 p2605 N93-24724
Applications of inertial-sensor high-inheritance instruments to DSN precision antenna pointing
09 p2621 N93-26112
A magnetic isolation and pointing system for the astrometric telescope facility 10 p2960 N93-27563
An electromagnetically levitated two-axis gimbaless pointing mechanism 10 p2961 N93-27565
Superconducting linear actuator
10 p2962 N93-27577

POINTS (MATHEMATICS)
An interior point approach to postoptimal and parametric analysis in linear programming
[REPT-92-21] 06 p1615 N93-17834
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
Integrated approaches to parallelism in optimization and the solution of inverse problems
[AD-A261490] 09 p2829 N93-26344
Point interactions on bounded domains
[REPT-92-97] 12 p3807 N93-31654

POISEUILLE FLOW
U LAMINAR FLOW

POISONS
NT INSECTICIDES
NT PESTICIDES
NT URETHANES

POISSON DENSITY FUNCTIONS
Hierarchical Poisson disk sampling distributions
04 p0954 N93-15545
Queueing systems on a circle
[MEMO-1038] 05 p1276 N93-16670
An M/G/1 queue with dependence between interarrival and service times
[CWI-BS-R9125] 05 p1276 N93-16849
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
A central limit theorem for autoregressive integrated moving average processes
[AD-A258923] 06 p1650 N93-19445
Blocking probabilities in a loss system with arrivals in geometrically distributed batches and heterogeneous service requirements
[MEMO-1074] 12 p3812 N93-32392

POISSON EQUATION
An approximate solution of the fixed gravimetric boundary value problem in the interior and the exterior of the Earth's body
[SER-C-379] 02 p0361 N93-11331
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803

POISSON PROCESS
U POISSON DENSITY FUNCTIONS
U STOCHASTIC PROCESSES

POISSON RATIO
Tensile properties of textile composites
04 p0834 N93-14754
Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Enhanced noncontacting laser extensometer for biaxial strain measurements
[AD-A263170] 11 p3430 N93-28989

POLAND
Poland civil aviation master plan and investment program: Executive summary
[PB92-213685] 07 p1759 N93-21342
Poland civil aviation master plan and investment program
[PB92-213693] 07 p1759 N93-21343
Definitional mission for civil aviation master plan for Poland
[PB92-213974] 07 p1760 N93-21713
Application of remote sensing to environmental monitoring in Poland 09 p2739 N93-24786

POLAR AURORAS
U AURORAS

POLAR CAP ABSORPTION
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556

EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
Initial results from the low altitude experiments CP-6 and UP-1
06 p1728 N93-19558
D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event
06 p1728 N93-19560
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344
ELF/VLF radio noise measurements at high latitudes during solar particle events
11 p3397 N93-30744
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757

POLAR CAPS
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
EISCAT Svalbard radar
06 p1516 N93-18744
EISCAT educational programs
06 p1579 N93-18745
Workshop on the Polar Regions of Mars: Geology, Glaciology, and Climate History, part 1
[NASA-CR-191225] 06 p1740 N93-19801
Condensation phase of the Martian south polar cap
06 p1740 N93-19804
Water on Mars: Inventory, distribution, and possible sources of polar ice
06 p1740 N93-19805
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits?
06 p1741 N93-19808
Evolution of the Martian atmosphere: The role of the polar caps
06 p1741 N93-19809
The polar layered deposits on Mars: Inference from thermal inertia modeling and geologic studies
06 p1741 N93-19810
The Mars water cycle at other epochs: Recent history of the polar caps and layered terrain
06 p1741 N93-19811
Possible recent and ancient glacial ice flow in the south polar region of Mars
06 p1742 N93-19812
Is CO2 ice permanent?
06 p1742 N93-19813
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission
06 p1742 N93-19814
Dust transport into Martian polar latitudes
06 p1742 N93-19815
Numerical simulations of drainage flows on Mars
06 p1742 N93-19816
Modeling interannual variability in the Martian seasonal CO2 cycle
06 p1743 N93-19820
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps
08 p2265 N93-23599
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380
Drill/borescope system for the Mars Polar Pathfinder
11 p3647 N93-28805
Electrodynamics of the dayside cleft region based on ground observations at Svalbard
[AD-A263571] 11 p3477 N93-29831
Magnetospheric convection and current system in the dayside polar cap
12 p3856 N93-31700

POLAR COORDINATES
Polar decomposition for attitude determination from vector observations
09 p2602 N93-24711

POLAR CUSPS
Studies of interactive plasma processes in the polar cusp
[NASA-CR-190892] 02 p0357 N93-10964
Studies of interactive plasma processes in the polar cusp
[NASA-CR-192137] 07 p1999 N93-21364
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations
[NASA-CR-193152] 11 p3476 N93-28842
Distinct ion population in the polar cusp: Possible signature of transient reconnection
12 p3766 N93-31680

POLAR IONOSPHERE BEACON
U BEACON SATELLITES

POLAR METEOROLOGY
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19687

POLAR NAVIGATION
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111

POLAR ORBITS
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit
08 p2361 N93-23775

POLAR PLATFORMS (SPACE STATIONS)
U SPACE STATION POLAR PLATFORMS

POLAR RADIO BLACKOUT
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344

POLAR REGIONS
NT ANTARCTIC REGIONS
NT ARCTIC REGIONS
NT MCMURDO SOUND
NT ROSS ICE SHELF
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
The Jovian ionosphere
03 p0758 N93-13337
Magellan project
04 p1041 N93-14373
Faint high-latitude carbon stars
04 p1019 N93-14638
Martian water frost: Control of global distribution by small-scale processes
04 p1047 N93-14868
Scientific development of a massively parallel ocean climate model
[DE92-040508] 05 p1213 N93-16409
Biomedical Polar Research Workshop Minutes
[NASA-TM-108026] 05 p1221 N93-16799
A lunar polar expedition
05 p1395 N93-17433
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
The possibilities of observing plasma and gyro lines with the EISCAT polar cap radar
06 p1724 N93-19534
PACE and EISCAT radar observations of short-lived flow bursts on the nightside
06 p1726 N93-19549
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes
06 p1728 N93-19561
HF radar observations of temporal variations in the high latitude convection
06 p1730 N93-19571
Martian volatiles determined using the Mars observer gamma ray spectrometer
06 p1741 N93-19807
Mars observer radio science (MORS) observations in polar regions
06 p1743 N93-19818
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion
06 p1743 N93-19819
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Detection of polar stratospheric clouds from satellite
07 p1957 N93-21591
Possible power sources for the Jovian polar infrared hot spots
08 p2554 N93-23221
ERS-1: The first European Earth observation system
08 p2358 N93-23757
A study of high-latitude auroral arcs using radar, optical, and in situ techniques
08 p2399 N93-24183
A climatology of polar low occurrences in the Nordic Seas and an examination of katabatic winds as a triggering mechanism
[AD-A261719] 09 p2786 N93-26245
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377
NOAA satellite programs and technology requirements
11 p3627 N93-30710
ELF/VLF radio noise measurements at high latitudes during solar particle events
11 p3397 N93-30744
High-latitude electric field studies using DMSP data
[AD-A265032] 12 p3763 N93-31996
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A264908] 12 p3764 N93-32094

POLARIMETERS
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Polarization effects and multipolarization SAR
03 p0564 N93-13054
A submillimetre polarimeter for the continuum receiver UKT14 on the James Clerk Maxwell Telescope
03 p0748 N93-13852
Solar maximum mission/ultraviolet spectrometer and polarimeter studies
[NASA-CR-192463] 08 p2555 N93-23011
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126

POLARIMETRY
NT ASTRONOMICAL POLARIMETRY
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
Polarimetry with an imaging FTS
01 p0014 N93-10934
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101
Polarization effects and multipolarization SAR
03 p0564 N93-13054
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Radiative transfer theory for polarimetric remote sensing of pine forest
03 p0633 N93-13085
Application of theoretical models to active and passive remote sensing of saline ice
03 p0633 N93-13086
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory
03 p0569 N93-13088
Pioneer Venus polarimetry and haze optical thickness
04 p1032 N93-14335
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Polarimetric observations of comet Levy 1990c and of other comets: Some clues to the evolution of cometary dust
06 p1711 N93-19196
Remote sensing of earth terrain
[NASA-CR-192139] 07 p1966 N93-19979
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
Third Stokes parameter emission from a periodic water surface
[NASA-CR-192334] 08 p2342 N93-22454
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
Magnetic field structure and collective effects in supernova remnants
08 p2548 N93-23218
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR
08 p2365 N93-23797

Active and passive remote sensing of ice
[AD-A259765] 08 p2415 N93-24026
Poloidal magnetic field profile measurements on the microwave tokamak experiment using far-infrared polarimetry 08 p2498 N93-24294
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
The scope of DLR's SAR calibration program 09 p2738 N93-24778
The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845
Selected results from LLNL-Hughes RAR for West Coast Scotland Experiment 1991
[DE93-006972] 09 p2788 N93-24960
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Polarimetric multispectral imaging technology 11 p3434 N93-28774
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agriculturai fields and forests
[BCRS-92-06] 11 p3460 N93-29320
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173

POLARITONS
NT PLASMONS
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099

POLARITY
Method and apparatus for determining return stroke polarity of distant lightning
[NASA-CASE-MFS-26102-2-CU] 01 p0125 N93-10108
The variable polarity plasma arc welding process: Mathematical model of welding system
[NASA-CR-192435] 05 p1177 N93-16452
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Composition dependence of fluid thermophysical properties: Theory and modeling
[DE93-011119] 10 p2996 N93-28352
Transient tests on an MHD thruster
[DE93-008656] 11 p3587 N93-29299

POLARIZATION
Near-infrared imaging polarimetry of bipolar nebulae 02 p0481 N93-11248
Effects of physical properties and geometry on shapes and stability of polarizable drops in external fields
[DE92-018865] 02 p0301 N93-11638
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Interpreting asteroid photometry and polarimetry using a model of shadowing and coherent backscattering 06 p1699 N93-19241
Non-perturbative calculation of equilibrium polarization of stored electron beams
[DE93-764500] 11 p3577 N93-30607

POLARIZATION (CHARGE SEPARATION)
Ultrafast photoinduced electron transfer reactions in supramolecular arrays: From charge separation and storage to molecular switches
[DE92-016186] 02 p0465 N93-12090
The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
Evidence for lightning on Venus 04 p1043 N93-14386
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Calorimetric examination of the polarization cluster of the beginning ferroelectric material KTaO3
[ETN-93-93418] 07 p2084 N93-21067
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Charge separation in bipolar transistors
[DE93-009624] 11 p3413 N93-30650

POLARIZATION (SPIN ALIGNMENT)
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Overview of spin physics
[DE93-006412] 08 p2483 N93-24029
A high field optical-pumping spin-exchange polarized deuterium source
[DE93-009208] 11 p3574 N93-28970

POLARIZATION (WAVES)
NT CIRCULAR POLARIZATION
NT CROSS POLARIZATION
NT LINEAR POLARIZATION
CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4528] 02 p0315 N93-11388
Conceptualization of a GaAs field effect transistor frequency tripler (2.5-7.5 GHz) for load use in communication satellites 04 p0807 N93-14934
Integrated device with diffractive polarization components for a magneto-optical disk head 04 p0986 N93-15517
Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
Study of narrow-band dichroic plates with circular, rectangular, or Pyleguide apertures 06 p1504 N93-18901
Birefringent polarization ray tracing: Theory and applications 07 p2067 N93-20285
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126

POLARIZATION CHARACTERISTICS
Connected triple excitations in coupled-cluster calculations of hyperpolarizabilities: Neon 02 p0439 N93-11854
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
Polarization effects and multipolarization SAR 03 p0564 N93-13054
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era 04 p1026 N93-14304
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
The b quark polarization at LEP
[PREPRINT-886] 05 p1290 N93-17022
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Theory of grain alignment in molecular clouds
[NASA-CR-192307] 07 p2077 N93-20037
Capacities of the DLR polarization diversity radar for determining icing relevant cloudphysical parameters
[DLR-MITT-91-14] 07 p2014 N93-21367
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731

POLARIZATION CHARTS
U GRAPHS (CHARTS)
U POLARIZATION (WAVES)

POLARIZED ELASTIC WAVES
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-192141] 07 p1997 N93-20295

POLARIZED ELECTROMAGNETIC RADIATION
NT POLARIZED LIGHT
NT SYNCHROTRON RADIATION
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Lightning precursor signatures from dual-polarization radar measurements of storms 09 p2777 N93-24877
Recent experiments on spin physics in high energy hadron interactions
[DE93-007900] 09 p2851 N93-25301
Nonlinear radiation of waves at combination frequencies due to radiation-surface wave interaction in plasmas
[DE93-608570] 12 p3825 N93-31667

POLARIZED LIGHT
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems
[AD-A253186] 01 p0158 N93-10445
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182
Polarization analysis of a balloon-borne solar magnetograph
[NASA-CR-191270] 05 p1167 N93-16458
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372
The solar corona structures as inferred from July 11, 1991 total solar eclipse observation 12 p3872 N93-31372
Development of a large field-of-view KD potassium di-deuterium phosphate modulator: Center Director's Discretionary Fund
[NASA-TM-108410] 12 p3824 N93-32378

POLARIZED RADIATION
NT POLARIZED ELASTIC WAVES
NT POLARIZED ELECTROMAGNETIC RADIATION
NT POLARIZED LIGHT
NT SYNCHROTRON RADIATION
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Weak-electromagnetic interference in polarized eD scattering
[DE93-001763] 04 p0978 N93-15486
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
Theoretical-experimental study of the non-thermal effects of the polarized laser radiation in living tissues
[DE93-607212] 11 p3441 N93-30775
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165
The July 11, 1991 solar corona observed in polarized white light: Preliminary results 12 p3879 N93-31417

POLARIZERS
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
High power millimetre-wave polarizers
[AD-A256558] 04 p0867 N93-14803
Rib arrow integrated optic polarizer 11 p3357 N93-30231

POLAROGRAPHS
U POLAROGRAPHY

POLAROGRAPHY
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Analytical applications of electrified interfaces between two immiscible solutions
[AD-A263085] 11 p3311 N93-29132

POLARONS
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
Bipolaronic charge density waves, polaronic spin density waves and high T(c) superconductivity
[DE92-017403] 03 p0720 N93-12853
The local structure of high-temperature superconductors
[DE93-000653] 05 p1324 N93-17177
Doping induced insulator-metal transition in the platinum based MX complexes
[DE93-003690] 07 p2083 N93-21996
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997

Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Squeezing phenomena in interacting electron-phonon systems
[SSCL-PREPRINT-727] 10 p3134 N93-28100
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Nonlinear response function for two-phonon polaritons
[DE93-608692] 12 p3817 N93-31099

POLICIES
NT ENERGY POLICY
NT PATENT POLICY
NT PROCUREMENT POLICY
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Raster graphics validation
[PB92-196070] 01 p0137 N93-10441
Aerospace Industries Association of Canada
[CTN-92-60345] 01 p0192 N93-10640
Aerospace Industries Association of Canada
[CTN-92-60590] 01 p0001 N93-10644
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
Recommended agency procedures for implementing federal metric policy
[PB92-205467] 02 p0277 N93-11901
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Coordinating Council. Third Meeting: STI Strategic Plans
[NASA-TM-108016] 03 p0733 N93-12670
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
The National Space Science Data Center: An operational perspective 04 p1002 N93-14775
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
A post cold war assessment of US space policy 05 p1073 N93-17218
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Space is a different place
[AD-A258336] 06 p1453 N93-18219
Metrication report to the Congress
[NASA-TM-108601] 06 p1499 N93-18355
Metrication report to the Congress
[NASA-TM-108602] 06 p1499 N93-18356
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Publications of the Executive Office of the President
[PB92-233204] 07 p2091 N93-21226
By the year 2000: First in the world. FY 1993 budget summary
[PB93-108512] 07 p2086 N93-21231
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Science and technology in US international affairs
[ISBN-1-881054-00-4] 07 p2094 N93-21758
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Science, technology, and the states in America's third century
[ISBN-1-881054-03-9] 08 p2519 N93-23074
Use of fellowships 08 p2517 N93-23154
NASA metric transition plan
[NASA-TM-108606] 08 p2258 N93-23209
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Total quality implementation guide
[PB93-154524] 08 p2520 N93-23447
Insurance cover for space ventures 08 p2344 N93-23510
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
US data policy for Earth observation from space 08 p2373 N93-23852
Ocean governance: A new vision
[PB93-136299] 08 p2416 N93-24144
Political and institutional factors affecting systems engineering 09 p2666 N93-24690
Science, technology, and national security 09 p2886 N93-25232
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
Functional Economic Analysis Guidebook, version 1.1
[AD-A261390] 09 p2886 N93-26305
Guidelines for evaluating and expressing the uncertainty of NIST measurements results
[PB93-159465] 09 p2830 N93-26318
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013
White paper on science operations 10 p3165 N93-27047
The 9th FLICC Forum on Federal Information Policies
[PB93-184687] 11 p3624 N93-29668
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657
White House/OSTP perspective 11 p3625 N93-30696
Filling the gaps: An overview of data on education in grades K through 12
[PB93-176550] 11 p3608 N93-30821
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834
RCRA implementation plan, FY 1993
[PB93-176956] 12 p3752 N93-31877

POLIOMYELITIS
Immunization of personnel traveling to a destination in tropical countries: French position 02 p0380 N93-11304

POLISHING
NT ELECTROPOLISHING
Fiber optic polishing system
[AD-D015353] 02 p0446 N93-11052
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Ultrasonic polishing 09 p2670 N93-25580

POLITICS
The informed citizen: Technology and responsibility in the information age 03 p0742 N93-14049
A post cold war assessment of US space policy 05 p1073 N93-17218
Strategic factors in the development of the National Technology Transfer Network
[NASA-TM-108594] 06 p1694 N93-18169
Options of air traffic distribution in the Berlin region (Germany)
[DLR-FB-91-37] 08 p2117 N93-22660
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Political and institutional factors affecting systems engineering 09 p2666 N93-24690
Organizational politics, participation in decision-making, and job satisfaction
[DOT/FAA/AM-92/17] 09 p2796 N93-25203

POLLEN
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008

POLLUTANTS
U CONTAMINANTS

POLLUTION
NT AIR POLLUTION
NT ENVIRONMENT POLLUTION
NT GLOBAL AIR POLLUTION
NT INDOOR AIR POLLUTION
NT NOISE POLLUTION
NT OIL POLLUTION
NT WATER POLLUTION
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Planning and progress of EPA's pollution prevention research program
[PB93-185767] 11 p3475 N93-30831

POLLUTION CONTROL
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Activities report of Lufthansa
[ETN-92-92100] 02 p0203 N93-11319
Direct catalytic decomposition of nitric oxide
[DE92-018759] 02 p0247 N93-11444
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
The evaluation of a concept for a Canadian-made automated multipurpose materials extraction facility 04 p0810 N93-14947
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
Modelling global methane emissions from livestock: Biological and nutritional controls
[NASA-CR-191354] 04 p0911 N93-15480
Environmental Quality Information Analysis Center (EQIAC) operating procedures handbook
[DE92-041391] 05 p1201 N93-16271
A low emission vehicle procurement approach for Washington state
[DE92-040561] 05 p1176 N93-16406
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367

Global environmental security: Research and policy strategies for the 1990s
[DE92-040095] 05 p1204 N93-17474
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
NATO Advanced Research Workshop on Non-Thermal Plasma Techniques for Pollution Control
[AD-A258477] 06 p1665 N93-18323
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
State air pollution control programs: A profile report
[PB93-122364] 07 p1990 N93-21216
Preserving our future today: Your guide to the United States Environmental Protection Agency
[PB92-226190] 07 p1990 N93-21345
Enforcement in the 1990's project: Recommendations of the analytical workgroups
[PB92-224286] 07 p1991 N93-21466
Technologies options for acid rain control
[PB93-106854] 07 p1991 N93-21473
Human exposure assessment for airborne pollutants: Advances and opportunities
[PB92-223247] 07 p1991 N93-21496
Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683
Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731
The Natural Gas Vehicle Challenge 1992: Exhaust emissions testing and results
[DE93-002997] 07 p1917 N93-21974
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901
Use of new oxygenates as gasoline components
[DE93-752864] 08 p2244 N93-22968
The Mavale project: Evaluation of potential pollution sources to superficial and subterranean water resources in the Paraiba do Sul Valley, Brazil
[INPE-5318-PRE/1715] 08 p2385 N93-23105
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines
[PB93-141042] 08 p2314 N93-23275
Innovative treatment technologies
[PB93-133387] 08 p2386 N93-23277
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Taguchi methods applied to oxygen-enriched diesel engine experiments
[DE93-004873] 08 p2317 N93-23976
Guidelines for estimating and applying rule effectiveness for ozone CO state implementation plan base year inventories
[PB93-131498] 08 p2389 N93-24163
Direct catalytic decomposition of nitric oxide
[DE93-008107] 08 p2389 N93-24515
Enabling document for regulations governing compliance extensions for early reductions of hazardous air pollutants
[PB93-147007] 08 p2390 N93-24584
Evaluation of an EMITEC resistively heated metal monolith catalytic converter on two M100 neat methanol-fueled vehicles
[PB93-141059] 08 p2320 N93-24628
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Pollution prevention 1991: Progress on reducing industrial pollutants
[PB93-157725] 09 p2766 N93-25875
Development and demonstration of a new filter system to control emissions during jet engine testing
[AD-A261203] 09 p2766 N93-26243
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192988] 10 p3068 N93-27163
Sustainable agriculture and the environment in the humid tropics
[PB93-173920] 10 p3068 N93-27402
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
MHD can clean up the environment
[DE93-008015] 10 p3070 N93-27617
Using a neural network to estimate solvent consumption
[PB93-173110] 11 p3467 N93-28873
Global warming issue and global economic model
[DE93-781334] 11 p3468 N93-28881
Fugitive hydrocarbon emissions from Pacific OCS facilities, volume 1
[PB93-173797] 11 p3468 N93-28899
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Pollution prevention: A regulatory update
[DE93-009727] 11 p3472 N93-30180
Planning and progress of EPA's pollution prevention research program
[PB93-185767] 11 p3475 N93-30831
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168

POLLUTION MONITORING

The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Portable tandem mass spectrometer analyzer
[AD-A254065] 01 p0125 N93-10784
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
Documentation for developing the initial source category list
[PB92-218429] 03 p0646 N93-13647
Infrared spectroscopy of size resolved fine aerosol
03 p0647 N93-13758
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Detection of greenhouse-gas-induced climatic change
[DE93-003149] 05 p1205 N93-17532
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
State air pollution control programs: A profile report
[PB93-122364] 07 p1990 N93-21216
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Efficient inspection of network pollution data
[DE93-003810] 09 p2761 N93-25126
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423
Summer 1990 Atlanta ozone precursor study (January 1993)
[PB93-167203] 11 p3470 N93-29200
Air quality studies in Albuquerque, New Mexico
[PB93-190817] 12 p3751 N93-31212
Two new gas standards programs at the National Institute of Standards and Technology
[PB93-191427] 12 p3751 N93-31816
Investigation of atmospheric aerosols and gases at an east China station
[PB93-184539] 12 p3752 N93-31831
Methodology to apportion ambient air measurements to investigate potential effects on air quality near waste incinerators
[PB93-191393] 12 p3754 N93-32088

POLLUTION TRANSPORT

Modeling the dispersion of tracer plumes in the Colorado front range boundary layer during night- and day-time conditions
[DE92-019384] 02 p0354 N93-11676
Interagency Workgroup on Air Quality Modeling (IWAQM) work plan rationale
[PB92-213248] 03 p0643 N93-12940
Multiscale modeling of the long-range transport and fate of pollutants emitted from urban areas
04 p0909 N93-14118
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Hydroiogical aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Numerical simulations of the transport and diffusion during the 1991 Winter Validation Study along the front range in Colorado
[DE93-002684] 08 p2396 N93-23674
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456
Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830
Non-local description of pollution transport in random medium 09 p2763 N93-25329

Model for transport of floating debris in the ocean
[PB93-172997] 09 p2768 N93-26559
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual
[PB93-161628] 10 p3068 N93-27055
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Study to determine the nature and extent of ozone and ozone precursor transport in selected areas of California
[PB93-184828] 11 p3470 N93-29669
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
Three-dimensional modeling of pollutant transport in surface waters
[PB93-190627] 12 p3751 N93-31203
Preferential flow effects on chemical transport and retardation in soils
[PB93-190668] 12 p3723 N93-31204
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295
Tests on semi-Lagrangian transport and interpolation
[CWI-NM-R921M] 12 p3756 N93-32393

POLOIDAL FLUX
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606

POLONIUM
NT POLONIUM 210

POLONIUM ISOTOPES
NT POLONIUM 210

POLONIUM 210
Radon as a tracer for lunar volatiles
05 p1388 N93-17248

POLYACETYLENE
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
The polyanilines: A novel class of conducting polymers
[AD-A259386] 07 p1860 N93-21266
Structure and dynamics in low dimensional guest-host solids
[DE93-006498] 08 p2504 N93-22887
Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524

POLYACRYLATES
U ACRYLIC RESINS

POLYACRYLONITRILE
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024

POLYAMIDE RESINS
NT KEVLAR (TRADEMARK)
NT NYLON (TRADEMARK)
Synthesis and conductivity of copolymer of 4,4'-diaminodiphenylamine and terephthaloyl chloride
[AD-A254880] 02 p0273 N93-12440
Aramids in high performance protective clothing
07 p1837 N93-21155
The use of 2D NMR spectroscopy in the analysis of isomeric polyamides 07 p1839 N93-21166
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU] 11 p3312 N93-29506

POLYATOMIC GASES
NT DIATOMIC GASES
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168

POLYATOMIC MOLECULES
NT DIATOMIC MOLECULES
NT TRIATOMIC MOLECULES
Photoionization dynamics and cation spectroscopy with coherent VUV radiation
[DE92-015841] 01 p0154 N93-10730
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Prediction of nonlinear optical properties of large organic molecules 05 p1128 N93-17288
Spectroscopic and dynamical studies of highly energized small polyatomic molecules
[DE93-006504] 08 p2480 N93-22712
Chemical dynamics studies of high energy species
[AD-A260743] 09 p2852 N93-25676
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446

POLYBLENDS
U POLYMER BLENDS

POLYCARBONATES
Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983
The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate
02 p0269 N93-11984
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region
02 p0269 N93-11985
The measurement and calculation of birefringence in quenched polycarbonate specimens
02 p0269 N93-11986
Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching
02 p0269 N93-11987
Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
Analysis of the birefringence distributions in compact discs of polycarbonate 02 p0270 N93-11991
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133

POLYCARBOSILANES
Syntheses, structures and properties of polycarbosilanes formed directly by polymerization of Alkenylsilanes
[NASA-CR-191927] 07 p1860 N93-21189
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541

POLYCHLORINATED BIPHENYLS
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Chemical dehalogenation treatment: Base-Catalyzed Decomposition Process (BCDP)
[PB93-182939] 12 p3751 N93-31432

POLYCRYSTALS
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
Grain boundary transport and related processes in natural fine grained aggregates
[DE92-018239] 02 p0461 N93-11682
Superplastic forming of ceramic insulation
02 p0228 N93-12452
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
Polycrystalline tetragonal zirconia in the system CeO2-ZrO2 (Ce-TZP)
[INPE-5285-TAE/007] 06 p1676 N93-19643
Geometry of energy minimizing surfaces
[AD-A258694] 06 p1678 N93-19863
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
Ir-Zr alloys as diffusion barriers between Cu and Si(100)
[AD-A261919] 09 p2652 N93-26197
Low cycle fatigue behavior of polycrystalline NiAl at 300 and 1000 K
[NASA-TM-105987] 10 p2998 N93-26898
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Transformation toughening
[DE93-011805] 11 p3321 N93-28631
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
Measurement of magnetic field penetration depth in niobium polycrystalline films by polarized neutron reflection method
[DE93-606390] 11 p3600 N93-30771
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891

Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938
Computer simulation of 3D material microstructure and its application in the determination of mechanical behavior of polycrystalline materials and engineering structures
12 p3708 N93-31134

POLYESTERS
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40
03 p0509 N93-13163
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
NMR studies of ion mobility and association in polyether-based polymer electrolytes
[AD-A260662] 09 p2655 N93-25642

POLYETHER RESINS
NT PEEK
NT POLYMETHYL METHACRYLATE
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708

POLYETHERETHERKETONES
U PEEK

POLYETHYLENES
Use of the program ANISN to calculate response functions for a Bonner sphere set with a He-3 detector
[NPL-RSA(EXT)-31] 02 p0316 N93-11411
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
Solid polymer electrolytes for rechargeable batteries
[DE93-001603] 04 p0871 N93-15485
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
Applications of fibrous substrates containing insolubilized phase change polymers
08 p2320 N93-22181
Fractography applied to polymeric materials. Part 9: Creep and rupture analysis
[DREA-CR-91-470] 08 p2238 N93-23119
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Thermodynamic, kinetic, and structural properties of linear polyethylene crystallized from polymer-diluent mixture 09 p2864 N93-25528
Kinetics and microscopic processes of long term fracture in polyethylene piping materials
[PB93-167146] 10 p3057 N93-27418
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964

POLYGONIZATION
Physically-based methods for polygonization of implicit surfaces 04 p0956 N93-15562

POLYGONS
NT HEXAGONS
NT PARALLELOGRAMS
NT RECTANGLES
NT TRAPEZOIDS
NT TRIANGLES
Hexagonal and octagonal finite elements
01 p0050 N93-10500
Interactive solid geometry via partitioning trees
04 p0952 N93-15535
Ray tracing polygons using spatial subdivision
04 p0955 N93-15555
An interval refinement technique for surface intersection 04 p0956 N93-15561
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Polygonal approximation overviews and perspectives
[INRIA-RR-1621] 11 p3547 N93-28513

POLYHEDRONS
NT CUBES (MATHEMATICS)
NT PARALLELEPIPEDS
NT RHOMBOHEDRONS
NT TETRAHEDRONS
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Interactive solid geometry via partitioning trees
04 p0952 N93-15535
An extended cuberille model for identification and display of 3D objects from 3D gray value data
04 p0953 N93-15542
Projection with a minimal system of inequalities
[AD-A257237] 05 p1263 N93-15961
Numerical modeling and optimization for the reconstruction of a polyhedron from its generalized gaussian image
[ETN-93-92683] 07 p2039 N93-21060
Sparse arrangements and the number of views of polyhedral scenes
[RUU-CS-92-24] 10 p3120 N93-28065
Extracting projective information from single views of 3D point sets
[OUEL-1927/92] 12 p3785 N93-31151

POLYIMIDE RESINS
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Oxygen plasma resistant phosphine oxide containing imide/arylene copolymers
[NASA-TM-107712] 07 p1859 N93-20300

POLYIMIDES
NT BISMALEIMIDE
NT KAPTON (TRADEMARK)
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
High temperature polymer from maleimide-acetylene terminated monomers
[NASA-CASE-LAR-14475-1] 06 p1495 N93-19327
Crosslinked polyimides prepared from N-(3-ethynylphenyl)maleimide
[NASA-CASE-LAR-14774-1] 06 p1495 N93-19388
Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU]
08 p2235 N93-22033
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Polyimides containing the cyclobutene-3,4-dione moiety
[NASA-CASE-LAR-14753-1] 09 p2656 N93-25999
Polyimides prepared from 3,5-diamino benzo trifluoride
[NASA-CASE-LAR-14206-1] 11 p3331 N93-29083
Diphenylmethane-containing dianhydride and polyimides prepared therefrom
[NASA-CASE-LAR-14487-1] 11 p3331 N93-29085
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU]
11 p3312 N93-29506
Advanced fiber/matrix material systems
11 p3305 N93-30854

POLYMER ALLOYS
U POLYMER BLENDS

POLYMER BLENDS
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Application of grazing incidence x ray diffraction to polymer blends
[DE93-000709] 05 p1122 N93-16228
Morphology, properties, and stability of thermoplastic polymer blends
[ETN-92-92791] 05 p1124 N93-16491
The production of fibres from polypropylene and liquid crystal polymer blends 07 p1837 N93-21149
Use of block copolymer as polymer blend compatibilizer
[AD-A260435] 08 p2242 N93-24417
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323

POLYMER CHEMISTRY
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029
Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401
Mechanical properties of structural polymers. Computer simulations and key experiments
[AD-A257439] 05 p1119 N93-15866
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Understanding crystallinity in aromatic polyimides
05 p1128 N93-16764
Polymer-based separations: Synthesis and application of polymers for ionic and molecular recognition
[DE93-001835] 05 p1127 N93-17529
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
Mesophase formation by specific interactions in low molecular and polymer systems
[ETN-93-93311] 06 p1491 N93-17949
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Development of an electrochemical method for field testing of protective coatings
[AD-A258754] 06 p1496 N93-19866
Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Characterization of the synthesis of M-61, a random equilibrium silicone terpolymer, using dry starting materials
[KCP-613-4985] 09 p2657 N93-26213
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Diphenylmethane-containing dianhydride and polyimides prepared therefrom
[NASA-CASE-LAR-14487-1] 11 p3331 N93-29085
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497
Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

POLYMER MATRIX COMPOSITES
NT BORON-EPOXY COMPOSITES
NT CARBON FIBER REINFORCED PLASTICS
NT CARBON-PHENOLIC COMPOSITES

NT EPOXY MATRIX COMPOSITES
NT GLASS FIBER REINFORCED PLASTICS
NT GRAPHITE-POLYIMIDE COMPOSITES
NT REINFORCED PLASTICS
Polymer matrix composites on LDEF experiments M0003-9 and M0003-10 01 p0038 N93-10584
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585
Additional results on space environmental effects on polymer matrix composites: Experiment A0180 01 p0038 N93-10586
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Application of polyimides to aeroengine components [PNR-90907] 02 p0334 N93-11013
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers [NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures [DLR-MITT-92-02] 02 p0237 N93-11143
Molecular mobility of the interface in a model composite: A NMR study [AD-A253311] 02 p0265 N93-11194
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading [NPL-DMM(A)-47] 02 p0266 N93-11397
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual [NASA-TP-3292] 02 p0241 N93-12015
Advanced modeling and optimization of piezoelectric composites [AD-A253800] 02 p0242 N93-12296
Fracture toughness testing of polymer matrix composites [NASA-TP-3199] 02 p0243 N93-12302
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures [NASA-CR-4472] 03 p0623 N93-12911
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy [AD-A253616] 03 p0552 N93-13325
The role of the fiber/matrix interphase in the static and fatigue behavior of polymeric matrix composite laminates 03 p0535 N93-13968
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites 04 p0829 N93-14193
NMR imaging of elastomeric materials [AD-A256034] 04 p0841 N93-14658
Flow behavior in liquid molding 04 p0833 N93-14747
Tensile properties of textile composites 04 p0834 N93-14754
Proceedings of the First Annual Advanced Polymer Components Symposium [AD-A256679] 05 p1121 N93-16095
A laser spectroscopy technique for evaluating in-situ degradation of composite materials [AD-A256983] 05 p1097 N93-16255
The Airbus floor beam: Towards a cost-effective composite design and manufacture research project sponsored by Airbus industry [LR-677] 05 p1061 N93-16283
Nonlinear optical composites of metal cluster laden polymers [AD-D015396] 05 p1123 N93-16398
The thermoviscoelastic behavior of composite materials [ITN-93-85185] 05 p1098 N93-16856
Space environmental effects on polymers and composites 05 p1128 N93-17302
Non-fickian moisture diffusion in polymeric composites [AD-A257919] 06 p1492 N93-18003
Imide/arylene ether copolymers containing phosphine oxide groups [NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Advanced industrial materials. An overview 07 p1845 N93-20623
Thermoplastic composites 07 p1845 N93-20625
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
Protection of composite materials in space. The LDEF experience 07 p1847 N93-20812
Fabrication of uniaxially oriented composites from as-spun and heat-treated thermotropic liquid crystalline polymer fibers 07 p1834 N93-21132
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133
Continuous fiber reinforced thermoplastic composites 07 p1835 N93-21138
New special chemical fibres 07 p1836 N93-21147
Twaron in composites and protective clothing 07 p1837 N93-21153
Free edge delamination prevention in composite laminates 07 p1840 N93-21508
Delamination and fatigue of composite materials: A review 07 p1840 N93-21509
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Electronic and ionic transport in processable conducting polymers [AD-A260223] 08 p2238 N93-22918
Characterization of mechanical damage mechanisms in ceramic and polymeric matrix composite materials [AD-A260129] 08 p2210 N93-23703
Dielectric and dynamic mechanical properties of ATBN-containing thermosets [DREA-CR-91-444] 08 p2239 N93-23725
Damage and failure analysis on continuous fiber-reinforced polymer composites 09 p2637 N93-25716
Thermal expansion measurements of polymer matrix composites and syntactics [MTL-TR-92-27] 09 p2640 N93-25954
Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan [PB93-165249] 09 p2641 N93-26589
Dynamic characteristics of specialty composite structures with embedded damping layers [NASA-TM-106165] 10 p2989 N93-26705
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
LDEF fiber-composite materials characterization 10 p2992 N93-28264
Probabilistic simulation of multi-scale composite behavior [NASA-TM-106196] 11 p3451 N93-28633
Aligned, short-fiber composites by novel flow processing methods [DE93-008701] 11 p3296 N93-28904
Effects of freeze/thaw cycles on hydrostatically conditioned E-glass/J-2 composite [AD-A262980] 11 p3298 N93-29425
SESAME equation of state number 8010: Boron loaded silicone potting material [DE93-012083] 11 p3300 N93-30395
Wetting and dispersion in ceramic/polymer melt injection molding systems [DE93-013240] 11 p3338 N93-30601
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846

POLYMER PHYSICS
Comparative effects of drag-reducing polymers. An experimental report [AD-A254001] 02 p0268 N93-11793
Applications of neural networks in polymer simulations [DE93-004110] 07 p1862 N93-21843
Surface degradation of polymeric materials [NPL-DMM(A)-75] 12 p3709 N93-31323
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains [ETN-93-94041] 12 p3709 N93-31520

POLYMERIC FILMS
NT KAPTON (TRADEMARK)
NT MYLAR (TRADEMARK)
Development of electrosupercapacitors [AD-A252208] 01 p0071 N93-10250
Research and development of two marine-degradable biopolymers [AD-A254051] 01 p0041 N93-10783
Dynamics and response of polymer-coated acoustic devices [DE92-014289] 02 p0433 N93-11523
Low cost humidity sensor [PB92-205772] 02 p0312 N93-11757
Two-fluid measurements on thin films [PB92-205350] 02 p0308 N93-12475
Proton transport on modified sulfonated polyaniline electrodes [AD-A254917] 03 p0570 N93-12650
Multichip module high speed testing [AD-A254825] 03 p0570 N93-12731
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Soft x ray window encapsulant for HgI2 detectors [NASA-CR-190850] 03 p0710 N93-13705
Symposium on Polymeric Materials for Photonic and Optical Applications [AD-A255820] 03 p0554 N93-14029
High temperature polymer dielectric film insulation [AD-A255243] 04 p0849 N93-14527
Waterborne polyurethane binder resins for compliant aircraft coatings [AD-A256246] 04 p0849 N93-14573
New nonlinear optical film processing [AD-A256011] 04 p0983 N93-15255
Polyurethane self-priming topcoats [AD-D015477] 05 p1124 N93-16484
High energy and high power density ultracapacitors and supercapacitors [NASA-CASE-NPO-18568-1-CU] 05 p1149 N93-17274
Spin dependent recombination in conjugated polymers: An optically detected magnetic resonance study [DE93-001221] 05 p1126 N93-17349
Positron lifetime spectroscopy for investigation of thin polymer coatings [NASA-TM-4421] 06 p1491 N93-17945
Metallo-organic solution deposition of ferroelectric PZT films [AD-A258345] 06 p1476 N93-17990
New special chemical fibres 07 p1836 N93-21147
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications 07 p1838 N93-21158
Measurement of the dielectric constant of polymeric films at high fields [PB92-238625] 07 p1860 N93-21471
Electronic control of pH at sulfonated polyaniline electrodes [AD-A260074] 08 p2222 N93-23963
Electron diffusion coefficients in hydrogels formed of cross-linked redox polymers [AD-A260163] 08 p2240 N93-24073
Novel approaches to the construction of miniaturized analytical instrumentation [NASA-CR-191988] 09 p2709 N93-25345
INEL spray-forming research 09 p2658 N93-25562
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation. [AD-A261250] 09 p2657 N93-26278
Extruded films from modified polypropylene resin: Dielectric and breakdown studies [AD-A261382] 09 p2657 N93-26341
LDEF polymeric materials: 10 months versus 5.8 years of exposure 10 p3007 N93-28259
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF 10 p3008 N93-28282
Extremely high rate deposition of polymer multilayer optical thin film materials [DE93-009127] 10 p3053 N93-28433
A simple model for explosives formulation [DE93-010703] 11 p3341 N93-29251
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte [AD-A263557] 11 p3334 N93-29825
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method [ONERA-P-1990-4] 11 p3335 N93-30024
Surface degradation of polymeric materials [NPL-DMM(A)-75] 12 p3709 N93-31323
Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides [AD-A265787] 12 p3710 N93-31801
Functionalized polymeric materials for electronics and optics [AD-A265788] 12 p3710 N93-31802
Photoconductivity and photovoltage generation in novel photocrosslinkable nonlinear optical polymers [AD-A265780] 12 p3750 N93-32417

POLYMERIZATION
NT COPOLYMERIZATION
NT DIMERIZATION
Synthesis and characterization of energetic polymers 01 p0015 N93-10005
Synthesis of side chain liquid crystal polymerization by living ring opening metathesis polymerization. Report 1: Influence of molecular weight, polydispersity, and flexible spacer length (n=2-8) on the thermotropic behavior of the resulting polymers [AD-A248699] 01 p0040 N93-10727
Application of polyimides to aeroengine components [PNR-90907] 02 p0334 N93-11013
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers [AD-A253568] 02 p0264 N93-11150

Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens
[AD-A248698] 02 p0265 N93-11187

Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188

Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862

Controlled synthesis of polyenes by catalytic methods
[DE92-015286] 02 p0271 N93-12165

Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337

Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931

Oriented electro/optical polymers through in-situ chemistry during gel processing: A research opportunity
[AD-A255968] 04 p0848 N93-14401

Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709

Spirobislactone acrylate polymers
[AD-D015443] 04 p0850 N93-14802

Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486

Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623

Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990

Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283

Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368

Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076

The role of organic polymers in the structure of cometary dust 06 p1719 N93-19256

High temperature polymer from maleimide-acetylene terminated monomers
[NASA-CASE-LAR-14475-1] 06 p1495 N93-19327

Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398

Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567

Features in PO fibre applications 07 p1837 N93-21148

Applications of Visil fibres in functional textiles 07 p1837 N93-21154

Syntheses, structures and properties of polycarbosilanes formed directly by polymerization of Alkenylsilanes
[NASA-CR-191927] 07 p1860 N93-21189

Cationically polymerizable monomers derived from renewable sources
[DE93-005926] 07 p1861 N93-21731

Polyreactions in microgravity environment 08 p2251 N93-22859

Voltammetric characterization of soluble polyacetylene derivatives obtained from the Ring-Opening Metathesis Polymerization (ROMP) of substituted cyclooctatetraenes
[AD-A260071] 08 p2224 N93-24314

Polymers by non-redox processes: Synthesis, physical studies, and application
[AD-A261064] 09 p2657 N93-26240

Lareg area solar cells from lunar materials 10 p3066 N93-26688

Silazine to silica 10 p2997 N93-28257

Polyimides prepared from 3,5-diamino benzo trifluoride
[NASA-CASE-LAR-14206-1] 11 p3331 N93-29083

Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290

Synthesis of chiral molybdenum ROMP initiators and all-cis highly tactic Poly-2,3-R2Norbornadiene (R = CF3 or CO2Me)
[AD-A264133] 11 p3336 N93-30169

Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497

Optically switchable conductive polymers
[AD-A264751] 11 p3337 N93-30557

Carborane-(siloxane or silane)-unsaturated hydrocarbon based polymers
[AD-D015717] 11 p3338 N93-30586

Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900

Water-soluble polyphosphazenes and their hydrogels
[AD-A264883] 11 p3340 N93-30909

POLYMERS

Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770

Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993

Erosion rates for polymers measured on LDEF 02 p0270 N93-11994

Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers 02 p0304 N93-12003

Electronic phenomena in polyanilines
[AD-A254803] 03 p0545 N93-12749

Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897

Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222

Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435

Combined small-angle neutron and x ray scattering studies of polymers
[DE93-000440] 05 p1118 N93-15671

Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919

Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283

Teaching polymers to fold
[DE93-002670] 06 p1494 N93-18437

Molecular-scale hybrid polymer ceramics 06 p1496 N93-18487

Polymers of bis(ethynylstyryl)benzene and related monomers
[AD-D015612] 07 p1859 N93-20398

Atomic oxygen protective coating with resistance to undercutting at defect sites
[NASA-CASE-LEW-15306-1] 07 p1859 N93-20566

Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU] 08 p2235 N93-22033

Photoinduced electron transfer in ordered polymers
[DE93-006784] 08 p2237 N93-22889

Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132

Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142

Performance study of the rheometrics melt flow monitor for real-time rheological characterization
[NRC-34372] 08 p2241 N93-24290

First European tri-service advanced materials workshop: Compressive strength in rigid-rod polymers
[AD-A259997] 08 p2242 N93-24300

Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443

Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444

Thermodynamic, kinetic, and structural properties of linear polyethylene crystallized from polymer-diluent mixture 09 p2864 N93-25528

Models of crack growth along polymer interfaces 09 p2728 N93-25750

Characterization of the synthesis of M-61, a random equilibrium silicone terpolymer, using dry starting materials
[KCP-613-4985] 09 p2657 N93-26213

European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576

Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers
[AD-A262013] 10 p3004 N93-27669

Enhanced chromophore polymeric NLO materials
[AD-A262258] 10 p3147 N93-28111

Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334

Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489

In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581

Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600

Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201

Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344

An extension of a kinetic theory of polymer crystallization through the exclusion of negative barriers
[AD-A264810] 11 p3334 N93-29660

Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856

The swollen polymer technique and its use for heat transfer investigations on film cooled surfaces 11 p3255 N93-29944

Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007

Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497

A 69 cent look at thermoplastic softening 11 p3292 N93-30963

Experiments in materials science from household items 11 p3293 N93-30971

Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179

Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

Commissioning and operating instructions of one pint (US) mixer
[MRL-TN-634] 12 p3713 N93-31639

Infinite volume extrapolations of finite cluster calculations. How correct are these?
[AD-A265648] 12 p3809 N93-32170

POLYMETHYL METHACRYLATE

The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984

Gapwise density distributions in injection-moulded polymethylmethacrylate 02 p0270 N93-11990

Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836

Fractography applied to polymeric materials. Part 9: Creep and rupture analysis
[DREA-CR-91-470] 08 p2238 N93-23119

Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062

Orientational pair correlation, polar order parameter and temporal stability in the second harmonic generation of amorphous polymers
[AD-A262013] 10 p3004 N93-27669

Selectivity and permeability of microporous block copolymer membranes
[AD-A263189] 10 p3006 N93-28382

Polar order and relaxation of second order nonlinear optical susceptibility in an electric field polarized amorphous polymer
[AD-A262189] 11 p3329 N93-28489

Isothermal annealing and relaxation of the second harmonic generation signal from a nonlinear optical polymer
[AD-A262007] 11 p3333 N93-29442

Characterization of slow chromophore reorientation in nonlinear optical polymers by two-dimensional MAS NMR
[AD-A264809] 11 p3338 N93-30596

POLYMORPHISM

Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa 01 p0123 N93-10192

Explicit polymorphism and CPS conversion
[AD-A258635] 07 p2029 N93-20033

Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100

NTO polymorphs
[DE93-005451] 12 p3712 N93-31186

POLYNOMIALS

NT BINOMIALS

NT HERMITIAN POLYNOMIAL

Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349

Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389

Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials 01 p0045 N93-10470

Algebra-geometric and differential geometric methods in solid geometric modeling
[AD-A253669] 01 p0145 N93-10870

Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
Equivalence transformations of rational matrices
[MATHS-REPT-A-163] 02 p0423 N93-11121
Equivalence transformations of rational matrices and applications
[MATHS-REPT-A-169] 02 p0424 N93-11124
A primer on polynomial resultants
[AD-A246883] 02 p0426 N93-11463
Some numerical results on best uniform polynomial approximation of chi(sup alpha) on interval (0,1)
[DE92-014859] 02 p0426 N93-11520
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Solutions without phase-slip for the Ginsburg-Landau equation
[PB92-115575] 03 p0696 N93-12889
Implicit application of polynomial filters in a k-step Arnoldi method
[NASA-CR-191237] 03 p0686 N93-13408
Dexterous grasp and manipulation 03 p0618 N93-14075
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Introduction to real orthogonal polynomials
[AD-A256448] 04 p0968 N93-14609
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Algorithms for intersecting parametric and algebraic curves 04 p0956 N93-15560
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
A rewrite approach to polynomial ideal theory
[CWI-CS-R9160] 05 p1271 N93-17536
Sub-groups of Z(sup n), standard basis, and linear diophantine systems
[INRIA-RR-1510] 06 p1615 N93-17836
Polynomial approximation of Poincare maps for Hamiltonian system 06 p1651 N93-19160
Performances of finite element solution for crack problem 07 p1936 N93-20682
Polynomial solution of the direct geometric problem of a parallel spherical manipulator 07 p1918 N93-20718
Plane multiflows with a fixed number of demands
[RR-885-M] 07 p2034 N93-20788
The search for differential equations for orthogonal polynomials by using computers
[REPT-91-55] 07 p2052 N93-20865
The Weyl method for simultaneous calculation of polynomial roots (first part)
[RR-881-M] 07 p2055 N93-21169
Improved deterministic calculational methods for irregularly shaped shields
[DE93-004955] 08 p2467 N93-22795
The p and h-p versions of the finite element method: Basic principles and properties
[AD-A260237] 08 p2468 N93-22930
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
The analysis of convolutional codes via the extended Smith algorithm 09 p2671 N93-24664
Stability margins for multilinear interval systems by way of phase conditions: A unified approach
[NASA-CR-192893] 09 p2819 N93-25226
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
Termination of term writing by interpretation
[RUU-CS-92-14] 10 p3114 N93-27381
Efficient model-based diagnosis of dynamic systems with state
[MEMO-INF-92-53] 10 p3096 N93-27488
Verification of parallel systems via decomposition
[CWI-CS-R9203] 10 p3107 N93-27539
On the fermionic Heisenberg group and its Q-representations
[NIKHEF-H/92-11] 10 p3117 N93-27542
Polynomial systems with centers and limit cycles
[REPT-92-38] 10 p3118 N93-27869
An algorithm for determining the approximation orders of multivariate periodic spline spaces
[MEMO-1061] 10 p3101 N93-28012
Three-D crater analysis of LDEF impact features from stereo imagery 11 p3283 N93-29359
Polynomial space polynomial delay algorithms for listing families of graphs
[DE93-010677] 11 p3530 N93-29808
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781
Least squares orthogonal polynomial approximation in several independent variables
[DE93-609832] 12 p3802 N93-31180
The generic dimension of a minimal realization of an AR-system
[REPT-92-82] 12 p3805 N93-31492
Uniqueness of limit cycles in polynomial systems with algebraic invariants
[REPT-92-72] 12 p3805 N93-31505
Some new results for chain-sequence polynomials
[MEMO-1081] 12 p3806 N93-31515
Sobolev-type orthogonal polynomials with a small number of real zeros
[REPT-92-64] 12 p3806 N93-31549
Existence and uniqueness of limit cycles for a special system of differential equations on the plane
[REPT-92-63] 12 p3806 N93-31550

POLYORGANOSILOXANES
U POLYSILOXANES

POLYPEPTIDES
Photochemical observation of ion flows in membrane channels
[AD-A259869] 08 p2219 N93-22731

POLYPHENYLS
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains
[ETN-93-94041] 12 p3709 N93-31520

POLYPROPYLENE
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Laser welding of plastics under low and high gravity conditions 07 p1811 N93-21125
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
The production of fibres from polypropylene and liquid crystal polymer blends 07 p1837 N93-21149
Performance study of the rheometrics melt flow monitor for real-time rheological characterization
[NRC-34372] 08 p2241 N93-24290
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341

POLYSACCHARIDES
NT CELLULOSE
NT GLYCOGENS
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942

POLYSILANES
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Thermal isomerization and decomposition of ethynyldisilanes
[DE92-040578] 05 p1102 N93-16012
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524

POLYSILOXANES
NT METHYL POLYSILOXANES
Water soluble polysiloxanes with pendant 1-oxypyridin-3-yl groups
[AD-A250637] 01 p0036 N93-10246

POLYSTATION DOPPLER TRACKING SYSTEM
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998

POLYSTYRENE
NT STYROFOAM (TRADEMARK)
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Fracture behavior of polymers at cryogenic temperatures
[KFK-4969] 02 p0265 N93-11203
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry
[DE92-019575] 03 p0550 N93-12931
Determination of the weight average molecular weight of SRM 1480
[PB92-222934] 03 p0553 N93-13785
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
Study of the alpha and beta mechanical relaxations of PMMA, PS and their copolymers
[ISAL-92-0042] 08 p2240 N93-24062

POLYSULFIDES
The electrical conductivity of sodium polysulfide melts
[DE92-041217] 05 p1100 N93-15677

POLYTETRAFLUOROETHYLENE
NT TEFLON (TRADEMARK)
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367

POLYTOPES
From totally unimodular to balanced O, +/- 1 matrices: A family of integer polytopes
[AD-A254552] 03 p0696 N93-12640
Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677
One-third-integrality in the metric polytope
[CWI-BS-R9209] 10 p3112 N93-27293
Packing odd paths
[CWI-BS-R9207] 11 p3549 N93-29849

POLYTROPIC PROCESSES
A Polytropic solar model 02 p0487 N93-11264

POLYURETHANE FOAM
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Hydrostatic and uniaxial behavior of a high density polyurethane foam (FR-3720) at various temperatures
[DE93-011486] 11 p3330 N93-28838
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419

POLYURETHANE RESINS
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Hermetic sealing and EMI shielding gasket
[AD-D015359] 03 p0552 N93-13414
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Polyurethane self-priming topcoats
[AD-D015477] 05 p1124 N93-16484
Positron lifetime spectroscopy for investigation of thin polymer coatings
[NASA-TM-4421] 06 p1491 N93-17945
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221
Hydrostatic and uniaxial behavior of a high density polyurethane foam (FR-3720) at various temperatures
[DE93-011486] 11 p3330 N93-28838

POLYVINYL ALCOHOL
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316

POLYVINYL CHLORIDE
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Fractography applied to polymeric materials. Part 9: Creep and rupture analysis
[DREA-CR-91-470] 08 p2238 N93-23119
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

POMERANCHUK THEOREM
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242
Odderon dominance in dipole model of hadron elastic scattering
[DE93-608329] 12 p3819 N93-31243
POMERONS
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241
Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242
Odderon dominance in dipole model of hadron elastic scattering
[DE93-608329] 12 p3819 N93-31243
PONDEROMOTIVE FORCES
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019
PONTRYAGIN PRINCIPLE
Time optimal paths for high speed maneuvering
[DE93-006251] 08 p2458 N93-23338
Vertical landing on an asteroid 10 p2924 N93-27202
Optimal control problems for parabolic boundary control systems 12 p3800 N93-32216
POPULATION INVERSION
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A 02 p0321 N93-12046
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
Visible chemical lasers: Reactions of metastable oxygen and the study of the red yoshida reaction
[AD-A260181] 08 p2308 N93-23315
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Effects of atomic coherence on multi-level lasing systems 12 p3731 N93-31133
POPULATION THEORY
An invitation to structured (meta)population models
[CWI-AM-R9113] 10 p3124 N93-27294
A singular perturbation theorem for evolution equations and time-scale arguments for structured population models
[CWI-AM-R9201] 10 p3112 N93-27295
The saturating contact rate in marriage- and epidemic models
[CWI-AM-R9203] 10 p3124 N93-27297
The cumulative formulation of (physiologically) structured population models
[CWI-AM-R9205] 10 p3124 N93-27298
POPULATIONS
Noise of combat aircraft in proximity to air bases: Review of the possibilities of noise reduction at the source 01 p0148 N93-10671
Density equalizing map projections: A new algorithm
[DE92-017088] 02 p0413 N93-12110
Human perceptual deficits as factors in computer interface test and evaluation
[DE92-019124] 03 p0677 N93-12712
Forest declines: Some perspectives on linking processes and patterns
[DE92-019946] 03 p0642 N93-12828
Bias correction factors for near-Earth asteroids 06 p1701 N93-19127
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Biodiversity indication by Earth observation data 09 p2751 N93-24858
Spacewatch discovery of near-Earth asteroids 10 p3205 N93-26691
Near-Earth asteroids: Observer alert network and physical observations 10 p3168 N93-26699
The Lyman alpha emission of starburst galaxies 10 p3184 N93-26784
The galactic center stellar population in the near infrared 10 p3204 N93-28080
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
Further analysis of LDEF FRECOPA micrometeoroid remnants 11 p3638 N93-29360
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
PORES
U POROSITY
POROSITY
NT MICROPOROSITY
Development of physical and mathematical models for the Porous Ceramic Tube Plant Nutrification System (PCTPNS)
[NASA-TM-107551] 01 p0129 N93-10065
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Template-synthesis of infrared-transparent metal microcylinders: Comparison of optical properties with the predictions of effective medium theory
[AD-A253267] 01 p0158 N93-10694
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
Nondestructive evaluation of ceramic and metal matrix composites for NASA's HITEMP and enabling propulsion materials programs
[NASA-TM-105807] 02 p0331 N93-10963
Modelling the behaviour of gas bubbles in epoxy resin
[PNR-90961] 02 p0264 N93-11084
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599
Dislocation and pores in mullite from diphasic gels
[DE92-040384] 03 p0550 N93-12999
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
NMR imaging of elastomeric materials
[AD-A256034] 04 p0841 N93-14658
Propagation of dissolution/precipitation waves in porous media
[DE92-017348] 05 p1154 N93-15851
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
Non-proprietary stack research
[DE93-007523] 08 p2376 N93-22535
Relating porosity and mechanical properties in spray formed alloy 625
[AD-A260341] 08 p2234 N93-24269
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Synthesis and processing of nanostructured materials
[DE93-006413] 10 p3155 N93-28354
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174
POROUS AIRFOILS
U POROUS BOUNDARY LAYER CONTROL
POROUS BOUNDARY LAYER CONTROL
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
POROUS MATERIALS
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Sound propagation over rigid porous layers 02 p0432 N93-11179
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Modelling combustion zones in porous media 03 p0540 N93-13802
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
Propagation of dissolution/precipitation waves in porous media
[DE92-017348] 05 p1154 N93-15851
Fundamental studies of fluid mechanics and stability in porous media
[DE93-002519] 05 p1163 N93-17046
Computing brine transport in porous media with an adaptive-grid method
[CWI-NM-R9201] 05 p1163 N93-17534
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Effects of capillarity on microscopic flow in porous media
[DE93-007626] 08 p2299 N93-24505
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Visible light emission from porous silicon examined by photoluminescence and Raman spectroscopy
[DE93-006780] 09 p2646 N93-26502
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Selectivity and permeability of microporous block copolymer membranes
[AD-A263189] 10 p3006 N93-28382
Method for preparation of a microporous structure with layered interstitial surface treatment
[NASA-CASE-MSC-21487-2] 11 p3296 N93-29023
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
Hydrodynamic interactions among fibers in high efficiency filters
[DE93-007117] 11 p3424 N93-30035
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526

Ordered molecular arrays as templates: A new approach to synthesis of mesoporous materials
[AD-A264631] 11 p3570 N93-30540
Novel strategies for the synthesis of methane adsorbents with controlled porosity and high surface area
[PB93-189967] 12 p3702 N93-31209

POROUS WALLS
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111

PORPHYRINS
NT CHLOROPHYLLS
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
Supramolecular structures modeling photosynthetic reaction center function
[DE92-041123] 05 p1106 N93-17356
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Computer-aided design of molecular catalysts for alkane oxidation using dodeca-substituted iron porphyrins
[DE93-004046] 08 p2218 N93-22520
Nonlinear optical properties of porphyrin and chlorophyll dimers studied by degenerated four wave mixing
[DE93-006411] 08 p2419 N93-24028

PORTABLE EQUIPMENT
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Portable tandem mass spectrometer analyzer
[AD-A254065] 01 p0125 N93-10784
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
A portable multiprocessor interface for standard ML of New Jersey
[AD-A255639] 04 p0958 N93-14151
An agile frequency synthesizer/RF generator for the SCAMP terminal
[AD-A256777] 05 p1137 N93-16052
Portable radar simulator
[AD-D015453] 05 p1139 N93-16459
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
An improved vapor taggant detector
07 p1775 N93-21927
The flow immunosensor: An antibody-based system for explosives detection 07 p1776 N93-21932
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510
An overview of PCTE: A basis for a Portable Commo n Tool Environment
[AD-A265202] 12 p3791 N93-32000
Portable equipment developed to estimate energy expenditure by simultaneous recording of heart rate and body position 12 p3778 N93-32243

PORTABLE LIFE SUPPORT SYSTEMS
The properties of and analytical methods for detection of LiOH and Li2CO3
[NASA-CR-192771] 09 p2643 N93-25240
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Comparison of portable crewmember protective breathing equipment (CPBE) designs
[DOT/FAA/AM-93/6] 10 p3086 N93-27121
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790

PORTS (OPENINGS)
Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911

PORTUGAL
NT AZORES
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779

POSEIDON SATELLITE
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres
04 p0926 N93-14966
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
North-Australian tropical seas circulation study
04 p0926 N93-14968
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data
04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Ocean circulation using altimetry
04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream
04 p0929 N93-14985
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Present-day plate motions: Retrieval from the TOPEX/Poseidon orbitography network (DORIS system)
04 p0918 N93-14993
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data
04 p0931 N93-14997
Analysis of altimeter data jointly with seafloor electric data (vertically integrated velocity) and VCTD-yoyo data (detailed profiles of VCTD) 04 p0931 N93-14998
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior
04 p0918 N93-14999
Precise orbit computation and sea surface modeling
04 p0813 N93-15000
Marine research using data from TOPEX/Poseidon
04 p0932 N93-15001
Global ocean circulation by altimetry
04 p0932 N93-15002
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
TOPEX/Poseidon battery performance
07 p1984 N93-20507
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704

POSITION (LOCATION)
NT SOLAR POSITION
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Global positioning systems technology and its application in environmental programs
[PB92-169358] 01 p0007 N93-10442
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
The locator system for wandering individuals
[NASA-TM-104754] 02 p0388 N93-11649
A single beam laser tracker as an alignment tool
[DE92-017746] 02 p0316 N93-11691
ILS mathematical modeling study of the effects of an ASR-9 structure at the Long Island MacArthur Airport, Islip, NY
[DOT/FAA/CT-TN92/25] 03 p0506 N93-12668
Dexterous grasp and manipulation
03 p0618 N93-14075
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Workshop on noninvasive geophysical site characterization
[LA-12311-C] 04 p0914 N93-14724
Acoustic location of leaks in pressurized underground petroleum pipelines
[PB92-207687] 04 p0975 N93-15647
Feature extraction and classification of FLIR imagery using relative locations of non-homogeneous regions with feedforward neural networks
[AD-A256468] 05 p1301 N93-15846
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
Design optimization of the JPL Phase B testbed
06 p1466 N93-18845
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
Hydrogen leak detection in the Space Shuttle
06 p1457 N93-19392
Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB]
06 p1538 N93-19492
Theory and performance of the WPL Crosswind Profiler Model 2
[PB93-116606] 07 p2014 N93-21452
Improving the detection of near-Earth asteroids
[AD-A259383] 07 p2095 N93-21670
Geographic index of environmental articles 1990
[PB93-116184] 07 p1994 N93-21806
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079
AR/D image processing system
08 p2152 N93-22321
GTAW penetration based on electrode tip location versus weld joint center line
[DE93-004910] 08 p2311 N93-22494
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Fifth fundamental catalogue. Part 2: The FK5 extension - new fundamental stars
[REPT-33(1991)] 08 p2542 N93-23346
Design and in orbit performance of the ROSAT PSPC
08 p2539 N93-23923
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056
Carlsberg meridian catalogue La Palma (Spain). Number 6: Observations of positions of stars and planets 1990
[ISBN-84-7469-052-8] 08 p2543 N93-24059
Eye movements and visual information processing
[AD-A259955] 08 p2425 N93-24297
DORIS precise orbit determination and location system performances of ultra stable oscillators
09 p2608 N93-24997
Analytical techniques for improved time transfer using common view of direct broadcasting satellites
09 p2835 N93-25008

An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Firmware development improves system efficiency 09 p2807 N93-25606
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF) 09 p2598 N93-26006
Flow conditioner location effects in orifice flowmeters [PB93-159457] 09 p2708 N93-26535
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658
A transfer matrix approach to vibration localization in mistuned blade assemblies [NASA-TM-106112] 10 p3056 N93-27088
Implicit point location in arrangements of line segments, with an application to motion planning [RUU-CS-92-15] 10 p3116 N93-27505
Smart skin structures for identifying and locating laser irradiation [DE93-005464] 11 p3436 N93-28887
Experimental evaluation of an arrival time difference lightning positioning system [KNMI-WR-92-01] 12 p3767 N93-31600

POSITION ERRORS

NT BORESIGHT ERROR
Construction of a geodesic strapdown inertial navigation system for point determination [SER-C-367] 02 p0205 N93-11344
Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system [NASA-CR-185689] 02 p0389 N93-12211
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
DME-derived positions compared with MLS- and ILS-derived positions [NLR-TP-90119-U] 05 p1058 N93-16343
Automatic tuning for a teleoperated arm controller [DE93-001647] 05 p1179 N93-17481
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
An analysis of USSPACECOM's space surveillance network sensor tasking methodology [AD-A258971] 06 p1509 N93-19010
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites 06 p1454 N93-19419
Modeling the global positioning system signal propagation through the ionosphere 06 p1434 N93-19420
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Large bearing errors observed at a high latitude DF site 08 p2268 N93-23615
Star tracker operation in a high density proton field 09 p2600 N93-24699
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
First experience with the ASN-16 GLONASS receiver 09 p2693 N93-25033
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction [NASA-CR-188249] 11 p3634 N93-29042
Adaptive motion control of mobile robots 11 p3545 N93-30903
Experiences with two GPS receivers in northern Europe [NLR-TP-91168-U] 12 p3675 N93-31120
Mass balance assessment using GPS 12 p3761 N93-31892

POSITION INDICATORS

NT RADIO DIRECTION FINDERS
Dynamic positioning systems photogrammetric [AD-A254250] 01 p0008 N93-10898
Construction of a geodesic strapdown inertial navigation system for point determination [SER-C-367] 02 p0205 N93-11344
Photogrammetric point determination using digital imagery of three-line scanner systems [SER-C-372] 02 p0309 N93-11346
Office of Space Flight standard spaceborne Global Positioning System user equipment project 08 p2148 N93-22301
A current assessment of single site locating technology 08 p2267 N93-23608
A new passive SSL technique for HF radiolocation 08 p2267 N93-23609
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
Test results of the advanced translator processing system 08 p2269 N93-23620
Communication interference/jamming and propagation analysis system and its application to radio location 08 p2269 N93-23621
Location of emissions by evasion of frequency and gusts by sequential analysis sensor in fast scanning 08 p2270 N93-23625
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24888
Log-ratio signal-processing technique for beam position monitors [DE93-007356] 09 p2851 N93-25314
System for calibrating a gyro navigator [AD-D015668] 09 p2586 N93-26093
Robot arm with positional absolute encoded joints 11 p3370 N93-30312
Experimental evaluation of an arrival time difference lightning positioning system [KNMI-WR-92-01] 12 p3767 N93-31600

POSITION SENSING

Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar [DE92-017053] 02 p0204 N93-11152
A comparison of feed-forward networks and maximum likelihood on a point-source location problem [RSRE-MEMO-4567] 02 p0281 N93-11391
Accuracy improvement of linear estimated motion using differential type sensors [NAL-TR-1135] 02 p0314 N93-12365
Cooperative control of multiple space manipulators 04 p0805 N93-14923
An active tactile perception system 04 p0805 N93-14926
Sample positioning in microgravity [NASA-CASE-NPO-18448-1-CU] 08 p2253 N93-24600
Method and apparatus for deflection measurements using eddy current effects [NASA-CASE-GSC-13506-1] 09 p2710 N93-26103
An auto-guiding system for mid-sized telescopes 11 p3375 N93-30340

POSITIONING

Mathematical analysis of multi-sensor cross-correlation processing for source localization [DREA-CR-89-433] 01 p0068 N93-10366
GPS Army research and applications [AD-A254262] 01 p0007 N93-10424
Dredging research program: Feasibility of a kinematic differential Global Positioning System [AD-A248953] 02 p0205 N93-11419
Numerical analysis of right-half plane zeros for a single-link manipulator [NASA-CR-190966] 02 p0426 N93-11547
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks 02 p0330 N93-11967
A vision-based end-point control for a two-link flexible manipulator [NASA-CR-190967] 02 p0330 N93-12521
Soft X Ray Telescope (SXT) focus error analysis [NASA-CR-184443] 03 p0742 N93-12657
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
GPS azimuth determination [AD-A254687] 03 p0499 N93-13348
Tether deployment monitoring system, phase 2 [NASA-CR-184098] 03 p0522 N93-13425
Establishment of a test course for high accuracy dynamic positioning systems [AD-A255407] 04 p0789 N93-14501
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis [LR-668] 05 p1058 N93-16209
Recognition of fiducial marks applied to robotic systems [NASA-CR-191857] 05 p1168 N93-16659
Calibration of the Aronson 6-DOF robotic platform [NASA-CR-191856] 05 p1087 N93-16661
Application of a laser scanner to three dimensional visual sensing tasks [NASA-CR-191834] 05 p1174 N93-16664
Positioning a camera from a photograph and a scene model [TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
GPS Interferometry [NASA-CR-192301] 06 p1432 N93-18873
Research on GPS utilization in space 07 p1780 N93-20453
Optimizing positioning of mechanical parts [PAPER-C-1-5] 07 p2035 N93-20828
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines [PAPER-C-1-6] 07 p2035 N93-20829
Problems of quality inspection and diagnosing in modern manufacturing systems [PAPER-C-3-2] 07 p2036 N93-20836
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation [NASA-CR-192619] 07 p1892 N93-20910
SSG 1.77: Utilization of inertial techniques for geodesy and surveying 07 p1969 N93-20964
SSG 4.117: Optimization of modern positioning techniques 07 p1972 N93-20983
Investigation of the real-time accuracy of the DGPS method [AD-A257692] 07 p1780 N93-21222
Reliable fusion of control and sensing in intelligent machines [NASA-CR-192780] 07 p2048 N93-21371
GPS multipath errors in the precision landing environment 08 p2106 N93-22569
Integrated precision navigation system 08 p2120 N93-22789
Mapping the Universe: Statistical measures of the galaxy distribution [ETN-93-93456] 08 p2542 N93-23116
Localization and positioning using combinations of model views [AD-A259734] 08 p2460 N93-23472
EUTELTRACS: The European land mobile satellite service 08 p2276 N93-23526
Digital processing for positioning with one satellite 08 p2270 N93-23629
Firmware development improves system efficiency 09 p2807 N93-25606
Lunar crane system 11 p3277 N93-29118
Lunar rovers and local positioning system 11 p3277 N93-29119
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
System analysis for a kinematic positioning system based on the global positioning system [AD-A262830] 11 p3245 N93-29468

POSITIONING DEVICES (MACHINERY)

NT BOOMS (EQUIPMENT)
NT CAMS
NT JIGS
Vacuum chamber translation/positioning mechanism and welding power supply controller [NASA-CR-184465] 02 p0328 N93-12196
Design philosophy for wind tunnel model positioning systems [AD-A254958] 03 p0506 N93-12552
Sample positioning in microgravity [NASA-CASE-NPO-18448-1-CU] 08 p2253 N93-24600
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source [DE93-007893] 09 p2848 N93-25368
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
Turntable mechanism [NASA-CASE-MFS-28522-1] 12 p3734 N93-31313

POSITIVE FEEDBACK

Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds [DE93-000690] 08 p2405 N93-23305

POSITIVE IONS

NT CATIONS
Positive ion chemistry of acetylene and methylacetylene clusters. Formation of benzene and C(sub 2n)H(sub 2n)(+) ions via intracluster polymerization reactions [AD-A250931] 02 p0236 N93-12177
Design and evaluation of ion source for satellite charge control [AD-A255172] 02 p0227 N93-12408
Laser spectroscopy of rare earth ions 03 p0608 N93-13846
Theoretical investigation of electron-positive ion/atom interactions [DE93-012933] 12 p3822 N93-32162

POSITRON ANNIHILATION

Mass energy-transfer and mass energy-absorption coefficients, including in-flight positron annihilation for photon energies 1 keV to 100 MeV, 1992 [PB92-181106] 02 p0438 N93-11715

Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Status of QCD
[PREPRINT-842] 05 p1298 N93-16996
Investigation of neutrino properties in the process e(+)e(-) decay to nu-nu(bar)-gamma
[PREPRINT-887] 05 p1290 N93-17023
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
Defect characterization by means of positron annihilation 07 p1804 N93-21081
Anomalous WWZ couplings at future e(+)e(-) colliders
[PREPRINT-814] 07 p2066 N93-21177
Study of electroweak interactions
[DE93-007261] 08 p2484 N93-24510
Defect studies in low-temperature-grown GaAs
[DE93-010405] 11 p3595 N93-29417
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053
Towards the results of global analysis of data on nucleon electromagnetic structure
[DE93-606125] 11 p3571 N93-30792

POSITRONIUM
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335

POSITRONS
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
Recent developments in stored polarized electron positron beams
[DE92-016965] 01 p0157 N93-10862
High resolution tomographic instrument development
[DE92-017314] 02 p0313 N93-11828
New techniques for positron emission tomography in the study of human neurological disorders
[DE92-015353] 02 p0384 N93-11873
A simple model for SLC positron stability issues
[DE92-019644] 03 p0706 N93-12992
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity
[DE92-018153] 03 p0707 N93-13090
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings
[DE92-556477] 05 p1298 N93-16646
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Positron lifetime spectroscopy for investigation of thin polymer coatings
[NASA-TM-4421] 06 p1491 N93-17945
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
Monte Carlo studies of positron implantation in elemental metallic and multilayer systems
[DE93-003474] 07 p2065 N93-21991
Positron studies of defected metals, metallic surfaces
[DE93-006089] 08 p2499 N93-22051
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335
Molecular dynamics of physical aging processes in polymer glasses
[AD-A263737] 11 p3334 N93-29856
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Non-perturbative calculation of equilibrium polarization of stored electron beams
[DE93-764500] 11 p3577 N93-30607
Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670

POSTFLIGHT ANALYSIS
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
Effects of long-term exposure on LDEF fastener assemblies 01 p0039 N93-10590
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
LDEF materials: An overview of the interim findings 03 p0546 N93-12770
Surface contamination on LDEF exposed materials 03 p0547 N93-12776
Sources and transport of silicone NVR 03 p0547 N93-12777
Thermal control surfaces on the MSFC LDEF experiments 03 p0547 N93-12778
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum 03 p0544 N93-12779
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment 03 p0548 N93-12782
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Post flight operation of a high peak power neodymium YAG laser aboard the G-449 payload flown on Space Shuttle Columbia mission 61-C 03 p0508 N93-13161
LDEF thermal control coatings post-flight analysis 10 p3008 N93-28278
SPREE Interactive Data Analysis Tool (SIDAT)
[AD-A262782] 11 p3273 N93-29306
Overview of the Systems Special Investigation Group investigation 11 p3318 N93-29683
The effect of the low Earth orbit environment on space solar cells: Results of the Advanced Photovoltaic Experiment (S0014) 11 p3467 N93-29686
New results from FRECOPA analysis 11 p3448 N93-29688
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
In orbit degradation of EUV optical components in the wavelength range 10-40 nm AO 138-3 11 p3582 N93-29691
Ruled and holographic experiment (AO 138-5) 11 p3434 N93-29696
Radiation and temperature effects on LDEF fiber optic samples 11 p3583 N93-29700
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results 11 p3429 N93-29701
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
Postflight hardware evaluation 360T025 (RSRM-25, STS-46)
[NASA-CR-192562] 11 p3272 N93-30617
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix A: Insulation PFORs
[NASA-CR-192563] 11 p3272 N93-30618
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix B: Case, seals, and joints PFORs
[NASA-CR-192564] 11 p3272 N93-30619
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix C: Nozzle PFORs
[NASA-CR-192565] 11 p3272 N93-30620
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix E: Insulation postfire data
[NASA-CR-192566] 11 p3272 N93-30621
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix D: Nozzle postfire data
[NASA-CR-192580] 11 p3289 N93-30648

POSTLAUNCH REPORTS
ROSAT: The German x ray satellite nearly two years in orbit 08 p2538 N93-23916

POSTMISSION ANALYSIS (SPACECRAFT)
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136

POSTULATES
U AXIOMS

POSTURE
Adaptation to transient postural perturbations
[NASA-CR-190959] 05 p1227 N93-16699
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

POTABLE LIQUIDS
NT BEVERAGES
NT POTABLE WATER

POTABLE WATER
Methods development for total organic carbon accountability
[NASA-CR-184438] 03 p0672 N93-12949
Regenerable biocide delivery unit
[NASA-CASE-MSC-21763-1-SB] 06 p1590 N93-18351
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

POTASSIUM
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985

POTASSIUM ALLOYS
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093

POTASSIUM COMPOUNDS
NT POTASSIUM HYDRIDES
NT POTASSIUM HYDROXIDES
NT POTASSIUM PERCHLORATES
NT POTASSIUM PHOSPHATES
MHD seed recovery/regeneration
[DE93-000904] 05 p1312 N93-17347
MHD seed recovery/regeneration, phase 2
[DE93-006008] 08 p2493 N93-22769
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425

POTASSIUM HYDRIDES
High bandwidth second-harmonic generation in partially deuterated KDP
[DE92-019505] 02 p0452 N93-11645
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594

POTASSIUM HYDROXIDES
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359

POTASSIUM PERCHLORATES
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145

POTASSIUM PHOSPHATES
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
Laser damage to production- and research-grade KDP crystals
[DE93-007517] 09 p2870 N93-26594

POTATOES
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997

POTENTIAL
Do galactic potential wells depend on their environment? 10 p3177 N93-26739

POTENTIAL ENERGY
NT BIOELECTRIC POTENTIAL
NT COULOMB POTENTIAL
NT ELECTRIC POTENTIAL

NT GEOPOTENTIAL HEIGHT
NT IONIZATION POTENTIALS
NT LOW VOLTAGE
NT NUCLEAR POTENTIAL
NT OPEN CIRCUIT VOLTAGE
NT PHOTOEXCITATION
NT PHOTOVOLTAGES
NT PLASMA POTENTIALS
NT QUANTUM WELLS
NT THRESHOLD VOLTAGE

Simulation of liquid drop breakup behavior in a flow field using discrete element techniques
[DE92-019435] 02 p0300 N93-11537

Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804

Studies of transition states and radicals by negative ion photodetachment
[DE92-017011] 02 p0440 N93-11875

Intermolecular potential functions from spectroscopic properties of weakly bound complexes
[DE92-018643] 03 p0701 N93-12745

Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102

Computed potential energy surfaces for chemical reactions
[NASA-CR-190741] 04 p0843 N93-15356

Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357

A global potential energy surface for ArH2 04 p0843 N93-15358

Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175

Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184

Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372

Computed Potential Energy Surfaces for Chemical Reactions
[NASA-CR-191804] 05 p1107 N93-17407

Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels 05 p1107 N93-17408

Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409

Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862

Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927

Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599

Energy and chemical change
[AD-A262359] 10 p3133 N93-27648

A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298

The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837

Molecular dynamics of detonation in crystals with defects 11 p3350 N93-30097

Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100

Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613

POTENTIAL FIELDS

Ionospheric plasma flow about a system of electrically biased flat plates
[NASA-CR-191119] 08 p2194 N93-23131

Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223

Do galactic potential wells depend on their environment? 10 p3177 N93-26739

POTENTIAL FLOW

NT EQUIPOTENTIALS

Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056

Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226

Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414

Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930

A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441

Streamwise computation of a circular-to-rectangular transition duct potential flow field
[NIAR-92-17] 05 p1159 N93-16628

Application of the program profile for the design of low-speed, low-observable configuration airfoils
[AD-A258842] 06 p1417 N93-19364

Interfacial tension studies of electrified liquid/liquid interfaces: Classical techniques for new data
[AD-A259213] 07 p1846 N93-20554

A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations 10 p2937 N93-27465

Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

A continuation method for computing non-linear 3-D free surface flows
[DE93-008704] 12 p3727 N93-32175

POTENTIAL THEORY

Current European rotorcraft research activities on development of advanced CFD methods for the design of rotor blades (BRITE/EURAM DACRO project)
[MBB-UD-0601-91-PUB] 05 p1057 N93-17568

Full wave characterization of microstrip open end discontinuities patterned on anisotropic substrates using potential theory
[NASA-TM-106037] 07 p1889 N93-20259

Phase of the quantum harmonic oscillator with applications to optical polarization 10 p3142 N93-27322

Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556

POTENTIOMETERS

An automated data collection system for a Charpy impact tester 11 p3293 N93-30972

POTENTIOMETRIC ANALYSIS

Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545

The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232

Analytical applications of electrified interfaces between two immiscible solutions
[AD-A263085] 11 p3311 N93-29132

POTENTIOMETRY

U POTENTIOMETRIC ANALYSIS

POWDER (PARTICLES)

NT METAL POWDER
NT POWDERED ALUMINUM

Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287

Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861

A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168

Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568

Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603

Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757

Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895

Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896

An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945

Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949

Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743

An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745

Polymer infiltration studies
[NASA-CR-191652] 04 p0852 N93-15431

Dynamic fabrication of diamond thermal management substrates
[AD-A257213] 05 p1118 N93-15814

Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957

Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966

Strengthening of NiAl matrix composites
[AD-A256970] 05 p1097 N93-16252

Device for applying powder coatings
[AD-A256917] 05 p1124 N93-16501

The hydrothermal synthesis of ceramic powders
[ETN-92-92785] 05 p1125 N93-16607

Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925

Device for applying powder coatings
[AD-A258229] 06 p1492 N93-18218

Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051

Polycrystalline tetragonal zirconia in the system CeO2-ZrO2 (Ce-TZP)
[INPE-5285-TAE/007] 06 p1676 N93-19643

X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954

Ignition of nitrocellulose in various atmospheres
[AD-A257987] 07 p1849 N93-21223

A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400

Characterization and durability testing of plasma-sprayed zirconia-yttria and hafnia-yttria thermal barrier coatings. Part 1: Effect of spray parameters on the performance of several lots of partially stabilized zirconia-yttria powder
[NASA-TP-3295] 08 p2227 N93-22556

Continuous production of granular or powder Ti, Zr, and Hf or their alloy products
[PB93-135051] 08 p2227 N93-22592

Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718

Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880

Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925

Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321

Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149

Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill 09 p2659 N93-25585

Ceramic fiber reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15262-1] 09 p2640 N93-26100

Vacuum powder injector and method of impregnating fiber with powder
[NASA-CASE-LAR-14179-1] 09 p2668 N93-26101

Template synthesis of electronically conductive polymers: A new route for achieving higher electronic conductivities
[AD-A261616] 09 p2658 N93-26437

Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125

Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236

Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515

Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564

Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568

Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552

Powder towpreg process development 11 p3303 N93-30844

Advanced fiber/matrix material systems 11 p3305 N93-30854

Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885

Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089

POWDER METALLURGY
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
Characterization and defect analysis of high temperature aluminum-based metal matrix composites 06 p1480 N93-19060
A geometrical description of microstructure with application to Al powder metallurgy processing 06 p1489 N93-19061
Pressure-reaction synthesis of titanium composite materials
[PB93-135036] 08 p2208 N93-22591
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009 08 p2231 N93-23588
Results on powder injection molding of Ni3Al and application to other intermetallic compositions
[DE93-005681] 08 p2213 N93-24016
Relating porosity and mechanical properties in spray formed alloy 625
[AD-A260341] 08 p2234 N93-24269
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Mechanical alloying processing and application to development of structural materials
[AD-A261251] 09 p2652 N93-26264
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Near net shape processing: A necessity for advanced materials applications 11 p3290 N93-30949
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976

POWDERED ALUMINUM
A new route for fibre management in metal matrix composites 03 p0534 N93-13779
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
Microgravity combustion of dust clouds 07 p1806 N93-21094

POWDERED METALS
U METAL POWDER

POWER AMPLIFIERS
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
NPR and intermodulation in mobile satellite systems 04 p0806 N93-14931
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU] 06 p1519 N93-18278
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Space power amplification with active linearly tapered slot antenna array
[NASA-TM-106036] 08 p2277 N93-22485
Adaptive predistortion linearization of nonlinear power amplifiers
[ISBN-0-315-60483-2] 08 p2286 N93-24611
A compact and versatile pulse generation and shaping subsystem for high energy laser systems
[DE93-007114] 09 p2711 N93-24961
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097

POWER BEAMING
NT LASER POWER BEAMING
NT MICROWAVE POWER BEAMING
NT SATELLITE POWER TRANSMISSION
Beamed energy propulsion 05 p1095 N93-16917
An analysis of power beaming for the Moon and Mars
[NASA-CR-191072] 08 p2182 N93-22554

POWER CONDITIONING
A 26 kW arcjet system for on-orbit demonstration 01 p0021 N93-10031
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Lunar PMAD technology assessment
[NASA-CR-189225] 02 p0347 N93-12017
MHD integrated topping cycle project
[DE92-018087] 02 p0458 N93-12504
New power-conditioning systems for superconducting magnetic energy storage 03 p0640 N93-13934
Ion thruster development at NASA Lewis Research Center
[NASA-TM-105983] 04 p0827 N93-15429
EMTP based stability analysis of space station electric power system in a test bed environment
[NASA-TM-105845] 04 p0871 N93-15503
Power requirements for the first lunar outpost (FLO)
[NASA-TM-105925] 04 p0909 N93-15523
Explosive pulse power for fusion applications
[DE93-003828] 08 p2491 N93-22076
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
Evaluation of a nickel/metal hydride battery for a load conditioner
[DE93-761824] 08 p2283 N93-24010
Advanced power conditioning for maglev systems
[PB93-150274] 08 p2320 N93-24586
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658

POWER CONVERTERS
Semiconductor measurement technology: INSTANT (IGBT network simulation and transient Analysis tool)
[PB92-213529] 03 p0725 N93-13783
Internal grounding arrangement in a switching power converter
[AD-D015435] 04 p0868 N93-14826
Power conversion system modification to permit use of DC power source
[AD-D015409] 04 p0868 N93-14887
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters
[NASA-CR-189135] 04 p0891 N93-14916
Summary of the NASA Lewis component technology program for Stirling power converters
[NASA-TM-105640] 04 p0827 N93-15526
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU] 06 p1519 N93-18278
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
DC-DC power converter research for Orbiter/Station power exchange
[NASA-CR-192939] 09 p2633 N93-26425
Advanced modular power supplies for Space Station Freedom 10 p2969 N93-27811

POWER DENSITY (ELECTROMAGNETIC)
U RADIANT FLUX DENSITY

POWER EFFICIENCY
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Cooperative control of multiple space manipulators 04 p0805 N93-14923
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
The impact of electric vehicles on CO2 emissions
[DE93-003719] 07 p1995 N93-21965
Preliminary investigation of power flow and electrode phenomena in a multi-megawatt coaxial plasma thruster
[NASA-CR-191084] 09 p2633 N93-26555
Preliminary investigation of high power microwave plasmas for electrothermal thruster use
[NASA-TM-106207] 11 p3288 N93-29158
Energy efficient drivepower, volume 2
[DE93-012437] 11 p3410 N93-29814
Combinatorial pulse position modulation for power-efficient free-space laser communications
[NASA-TM-106241] 12 p3717 N93-31856

POWER GAIN
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
Parameter studies of helium-neon lasers at 543 nm 03 p0606 N93-13747
Experimental and theoretical study of CW HF chemical laser residual fundamental gain 09 p2714 N93-25721

POWER GENERATORS
U ELECTRIC GENERATORS

POWER LIMITED SPACECRAFT
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904

POWER LINES
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
Power coupler and cold window for seven-cell superconducting cavity vertical tests
[DE93-000791] 05 p1150 N93-17380
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system 06 p1496 N93-19402
Solar-powered light emitting diode power line avoidance marker design
[AD-A259886] 08 p2381 N93-23983
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Detecting damaged cables using a preionized gas technique
[DE93-007588] 09 p2689 N93-25429
PROAV Cable Warning System (CWS) - U.S. Army aircraft Integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

POWER LOSS
Nickel hydrogen capacity loss 07 p1983 N93-20498
Capacity fade in nickel cadmium and nickel hydrogen cells 07 p1984 N93-20499
NiH2 capacity fade during early cycling 07 p1984 N93-20500
Characteristics of storage related capacity loss in Ni/H2 cells
[STD/92-118] 07 p1984 N93-20501
Nickel hydrogen battery cell storage matrix test 07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503

POWER PROCESSING SYSTEMS
U POWER CONDITIONING

POWER REACTORS
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
Bootstrap current profiles and scaling in large aspect ratio tokamaks
[DE93-753158] 11 p3589 N93-30003
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

POWER SERIES
NT TAYLOR SERIES

Finite group actions and elliptic genera
[DE92-630207] 01 p0170 N93-10388
Introduction to real orthogonal polynomials
[AD-A256448] 04 p0968 N93-14609

POWER SPECTRA
Power spectrum of the extragalactic background light 01 p0177 N93-10364
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
Non-self-similar clustering of galaxies
[MPE-PREPRINT-212] 02 p0484 N93-11338
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
Low-frequency fluctuations of plasma magnetic fields 03 p0717 N93-13496
Passive scalar fluctuations in intermittent turbulence
[PREPRINT-779] 05 p1159 N93-16575
Power spectrum modelling of the x ray variability of NGC4051 05 p1367 N93-17108
The x ray variability of NGC6814: Power spectra 06 p1562 N93-18712
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
EISCAT observations of spectral components of atmospheric gravity waves in the F region 06 p1578 N93-18743
PLTPWR: A versatile tool for greyscale and power spectral display
[DREA-TC-92-306] 08 p2435 N93-22473
Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088
DSN observations of Titan 09 p2680 N93-26129
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Mixed spectra and rotational symmetry
[W-9212] 10 p3121 N93-28139
Wavelet transform techniques and signal analysis
[DE93-007919] 11 p3382 N93-29244
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171
Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173

POWER SUPPLIES
Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184465] 02 p0328 N93-12196
Power requirements for the first lunar outpost (FLO)
[NASA-TM-105925] 04 p0909 N93-15523
Enabling lunar and space missions by laser power transmission 05 p1393 N93-17423
Interagency Advanced Power Group Steering Group meeting minutes
[DE93-005641] 08 p2382 N93-24324
Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435
Energy efficient drivepower, volume 2
[DE93-012437] 11 p3410 N93-29814
High reliability, maintenance-free INS battery development
[AD-A264521] 11 p3412 N93-30406

POWER SUPPLY CIRCUITS
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288
Evaluation of a nickel/metal hydride battery for a load conditioner
[DE93-761824] 08 p2283 N93-24010
AC/DC converter
[CA-PATENT-1-306-005] 08 p2205 N93-24205

POWER TRANSMISSION
Multimegawatt dynamic NEP PMAD study
[NASA-CR-190764] 05 p1091 N93-16626
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
Analysis of electromagnetic interference from power system processing and transmission components for Space Station Freedom
[NASA-CR-192281] 06 p1470 N93-19890
Choice of antenna geometry for microwave power transmission from solar power satellites 10 p2988 N93-27987

POWER TRANSMISSION (LASERS)
U LASER POWER BEAMING

POWER TRANSMISSION (MICROWAVE)
U MICROWAVE POWER BEAMING

POWERED LIFT AIRCRAFT
Application of eigenstructure assignment to the control of powered lift combat aircraft 02 p0215 N93-11871
Design of a portable powered seat lift 08 p2429 N93-22190
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065

POWERED MODELS
Tests of models equipped with TPS in low speed ONERA F1 pressurized wind tunnel 03 p0577 N93-13201
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532

POYNTING-ROBERTSON EFFECT
Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165
Line formation and the Poynting-Robertson effect in accretion discs 09 p2847 N93-25355

PPM (MODULATION)
U PULSE POSITION MODULATION

PRACTICES
U PROCEDURES

PRAIRIES
U GRASSLANDS

PRANDTL NUMBER
The influence of the Prandtl number on the thermal performance of tubes with the separation and reattachment enhancement mechanism
[DE92-016601] 02 p0306 N93-12313
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604

PRASEODYMIUM COMPOUNDS
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218

PRE-MAIN SEQUENCE STARS
NT T TAURI STARS
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects
[NASA-RP-1285] 03 p0744 N93-13461
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766

PREAMPLIFIERS
A novel charge sensitive preamplifier without the feedback resistor
[DE92-015842] 01 p0074 N93-10731
Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473
Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics
[NASA-CR-191781] 04 p1013 N93-15589
Electronic still camera
[NASA-CASE-MSC-21797-1] 05 p1169 N93-17076
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577

PREBURNERS
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583

PRECAMBRIAN PERIOD
Mobilization of the platinum group elements by low-temperature fluids: Implications for mineralization and the iridium controversy 01 p0109 N93-10133
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments 01 p0110 N93-10140
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692

PRECAUTIONS
U ACCIDENT PREVENTION

PRECESSION
NT QUENCHING (ATOMIC PHYSICS)
Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367
Precessional quantities for the Earth over 10 Myr 06 p1579 N93-18964
Numerical investigation of the Earth's rotation during a complete precession cycle 06 p1580 N93-18965
Modeling orbital changes on tectonic time scales 06 p1581 N93-18971
Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada 06 p1582 N93-18975
The cyclic carbonates of the Latemar Massif: Evidence for the orbital forcing of a carbonate platform during the Middle Triassic 06 p1582 N93-18976
On LAM's and SAM's for Halley's rotation 06 p1714 N93-19221
Forced precession of the cometary nucleus with randomly placed active regions 06 p1719 N93-19251
Rotation of split cometary nuclei 06 p1719 N93-19258
Orbital, rotational, and climatic interactions: Lessons from Earth and Mars 06 p1740 N93-19803
Corrections to the luni-solar precession derived from a compilation catalogue of extragalactic radio sources
[MITT-SER-A-233] 07 p2095 N93-21052
Analysis and synthesis of catalogues of extragalactic radio sources
[MITT-SER-A-231] 07 p2102 N93-21053
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
SCATHA mission termination report 09 p2605 N93-24725
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777

PRECIOUS METALS
U NOBLE METALS

PRECIPITATES
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
Growth of precipitates in Bi2Sr2CaCu2O8
[DE93-004443] 08 p2502 N93-22725
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998

PRECIPITATION
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
Microwave radiative transfer studies of precipitation 07 p2008 N93-20095

PRECIPITATION (CHEMISTRY)
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model
[ESA-TT-1238] 08 p2342 N93-22461
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation
[ETN-93-93604] 10 p2999 N93-27877
PRECIPITATION (METEOROLOGY)
NT ACID RAIN
NT GRAUPEL
NT HAIL
NT RAIN
NT SNOW
NT SNOW COVER
Analysis of air pollution and greenhouse gases
[DE92-014955] 01 p0104 N93-10384
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
Interannual variabilities of the East Asian summer monsoon and tropical sea surface temperatures
02 p0372 N93-12534
Microwave remote sensing of a precipitating atmosphere 03 p0634 N93-13371
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
The global historical climatology network: Long-term monthly temperature, precipitation, and pressure data
[DE92-041261] 05 p1205 N93-17496
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
Global temperature variations
07 p2003 N93-20068
Global water cycle 07 p2004 N93-20078
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Comparison of monthly precipitation analyses derived from conventional measurements, satellite estimates and model results 07 p1958 N93-21599
Monthly precipitation and runoff data for validation of climate models 07 p1959 N93-21605
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366]
08 p2389 N93-24089
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain)
09 p2738 N93-24780
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A260779] 09 p2756 N93-25679
Vector radiative transfer model: Application to rainfall retrieval with microwave radiometric data
09 p2784 N93-25743
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
Large scale rainfall diversity and satellite propagation
09 p2683 N93-26466
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Case study of Frontal Boundary Study Mission 03
[DE93-007176] 11 p3473 N93-30183
Chemistry and acidity of cloud water at Mount Washington, NH
[PB93-190684] 12 p3767 N93-31206
The 3rd national heavy precipitation workshop
[PB93-186625] 12 p3767 N93-31329
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008
PRECIPITATION HARDENING
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Characterization of Al 2219 material for the application of the spin-forming-process 05 p1081 N93-15755
Continuous measurement by eddy current methods of age hardening in an aluminum alloy
[AD-A257569] 06 p1486 N93-18176
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Characterization of doped NiAl by atom probe field ion microscopy
[DE93-005932] 08 p2228 N93-22692
A study into the effects of electric fields and currents on the aging and quench hardening of steels
[AD-A260228] 08 p2233 N93-24098
Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993
PRECIPITATORS
NT ELECTROSTATIC PRECIPITATORS
PRECISION
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
The effects of acceleration on precision frequency sources
[AD-A255465] 04 p0972 N93-14496
Precision tests of gravitation: Liquid-supported torsion balance experiments and a tower experiment
04 p0914 N93-14589
Parameterization in finite precision
04 p0953 N93-15537
Adaptive structures for precision controlled large space systems 05 p1078 N93-15730
High precision navigation for flight testing (AERONAV)
06 p1434 N93-19920
Six-Degree-of-Freedom Test Facility
07 p1817 N93-21443
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
Integrated precision navigation system
08 p2120 N93-22789
Precision of the calibration of the AXAF engineering test article (VETA) mirrors 09 p2855 N93-26189
PRECISION GUIDED PROJECTILES
Initial trials results for image stabilisation using a rugged low noise gyroscope 08 p2255 N93-22021
PRECONDITIONING
Preconditioned low-order Newton methods
[MATHS-REPT-A-159] 02 p0425 N93-11211
Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
Preconditioned time-difference methods for solving advective-diffusive systems
[DE92-014790] 05 p1262 N93-15879
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications
07 p1838 N93-21158
A comparative study of preconditioned Lanczos methods for nonsymmetric linear system
[DE93-006453] 08 p2436 N93-22979
PRECOOLING
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
PREDATORS
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series
09 p2736 N93-24937
PREDICTION ANALYSIS TECHNIQUES
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
Misclassification rates of likelihood and predictive discriminant functions for small samples
[AD-A253640] 01 p0146 N93-10208
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Nonlinear dynamics underlying atmospheric predictability
[AD-A254042] 01 p0126 N93-10363
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
Improve SSME power balance model
[NASA-CR-184464] 01 p0026 N93-10756
Micromechanics of metal matrix composites using the Generalized Method of Cells model (GMC) user's guide
[NASA-CR-190756] 02 p0335 N93-11175
Fracture mechanics of model fiber composites
02 p0237 N93-11247
LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
The effect of temperature dependent thermal properties on parametric weld size predictions
[DE92-018816] 02 p0260 N93-12232
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
LDEF atomic oxygen fluence update
03 p0546 N93-12771
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue
[NASA-CR-190794] 03 p0626 N93-13290
A PDF closure model for compressible turbulent chemically reacting flows
[NASA-CR-191209] 03 p0587 N93-13453
Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
Evaluation of three models used for predicting noise propagated long distances overground
[AD-A255963] 04 p0973 N93-14406
Intelligent path prediction for vehicular travel
04 p0961 N93-14445
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Predicting database requirements for geographic information systems in the year 2000: Long-term design issues for GRASS
[AD-A256862] 04 p1009 N93-15627
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736

Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Damage mechanics modelisation of composite structures: A physical approach of failure 05 p1079 N93-15741
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
An empirical approach to predicting long term behavior of metal particle based recording media 05 p1170 N93-16330
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds
[ESDU-92039] 05 p1055 N93-16634
Computer models used by AFGWC and NMC for weather analysis and forecasting
[AD-A257985] 05 p1218 N93-17744
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
The unique contribution of selected personality tests to the prediction of success in naval pilot training
[AD-A258144] 06 p1602 N93-18291
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Model determination using predictive distributions with implementation via sampling-based methods
[AD-A258777] 06 p1650 N93-18947
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
A numerical field experiment approach for determining probabilities of microburst intensity 06 p1419 N93-19599
Toward model-based discovery: A case study in ecosystem prediction 06 p1689 N93-19721
Three-dimensional Navier-Stokes heat transfer predictions for turbine blade rows
[NASA-TM-105800] 07 p1897 N93-19969
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
SSG 4.118: Inverse geodetic problems 07 p1973 N93-20984
Ultimate strength of geometrically imperfect angle columns
[PB93-111771] 07 p1947 N93-21235
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
The least and most damaging histories which can be constructed from a specific from-to matrix 07 p1948 N93-21321
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method
[DE93-006095] 08 p2479 N93-22525
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-004119] 08 p2468 N93-22938
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
Multiple emitter direction finding from a circular array by single snapshot processing 08 p2270 N93-23627
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
Nonlinear techniques for forecasting solar activity directly from its time series 09 p2603 N93-24716
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991 09 p2753 N93-24873
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
A computational approach to predicting the extent of arc root damage in CFC panels 09 p2642 N93-24890
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
Operational seasonal and interannual predictions of ocean conditions 09 p2733 N93-24921
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Considerations concerning fatigue life of metal matrix composites
[NASA-TM-106144] 10 p3056 N93-27009
An analysis of gear fault detection methods as applied to pitting fatigue failure data
[NASA-TM-105950] 10 p3049 N93-27074
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
Three-dimensional water droplet trajectory code validation using an ECS inlet geometry
[NASA-CR-191097] 10 p2940 N93-27267
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
An analysis of possible applications of fuzzy set theory to the actuarial credibility theory 11 p3510 N93-29517
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Combustion/explosion chemistry of bulk materials 11 p3343 N93-30062
Mathematical model of frost heave and thaw settlement in pavements
[CRREL-REPT-93-2] 11 p3262 N93-30103
Analytical predictions of the intermodulation noise of semiconductor laser diode 11 p3361 N93-30256
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
An efficient constrained predictive control algorithm for 2-input systems
[OUEL-1946/92] 12 p3785 N93-31152
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center 12 p3696 N93-31574
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335
Development of a method to predict transonic limit cycle oscillation characteristics of fighter aircraft
[NLR-TP-91359-U] 12 p3679 N93-32338

PREDICTIONS

NT IMPACT PREDICTION
NT LINEAR PREDICTION
NT NOISE PREDICTION
NT NOISE PREDICTION (AIRCRAFT)
NT PERFORMANCE PREDICTION

Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
Study of improved methods for predicting chemical equilibria
[DE92-016974] 01 p0031 N93-10436
LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082
Aviation accidents, incidents, and violations: Psychological predictors among US pilots 04 p0783 N93-14693
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
In-service evaluation of wind shear systems 04 p0785 N93-14857
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Predicting polymer properties by computational methods 2: A comparison of semi-empirical methods
[AD-A256856] 04 p0854 N93-15640
Role of combined numerical and experimental investigations in the justification of the structural integrity and damage tolerance of space structures 05 p1080 N93-15744
Acoustic tests structural predictions 05 p1081 N93-15750

Testing and characterisation of metallic materials for structural analysis of high temperature components
05 p1082 N93-15757
Residual stresses in welds and effect on crack growth prediction 05 p1082 N93-15758
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638
The use of cross-section warping functions in composite rotor blade analysis
[NASA-CR-191772] 05 p1186 N93-16946
Prediction of nonlinear optical properties of large organic molecules 05 p1128 N93-17288
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
Prediction of success from training
06 p1430 N93-19702
A technique for predicting aircraft flow-field effects upon an unguided bomb ballistic trajectory and comparison with flight test results 06 p1417 N93-19922
Prediction of the random load fatigue life distribution
07 p1922 N93-20337
Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366
Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen
[AD-A259249] 07 p1779 N93-20582
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
Predicting structure in nonsymmetric sparse matrix factorizations
[DE93-003365] 07 p2057 N93-21963
Methods for predicting properties and tailoring salt solutions for industrial processes
08 p2226 N93-22183
Microcomputer based software for biodynamic simulation 08 p2429 N93-22191
Predictive sensor method and apparatus
08 p2305 N93-22202
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace 08 p2251 N93-22863
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412
Natural disasters and their mitigation using space technology 09 p2742 N93-24804
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
International organisation of ocean programs: Making a virtue of necessity 09 p2732 N93-24917
World Ocean Circulation Experiment
09 p2733 N93-24922
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
Composition dependence of fluid thermophysical properties: Theory and modeling
[DE93-011119] 10 p2996 N93-28352
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
Developments in impact damage modeling for laminated composite structures 11 p3305 N93-30857
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323

PREDICTOR-CORRECTOR METHODS
An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Parallel step-by-step methods
[CWI-NM-R9116] 05 p1256 N93-17545
Note on the performance of direct and indirect Runge-Kutta-Nystroem methods
[CWI-NM-R9214] 10 p3120 N93-28082
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084
Parallel Jacobi iteration in implicit step-by-step methods
[CWI-NM-R9218] 12 p3810 N93-32394
Explicit, high-order Runge-Kutta-Nystroem methods for parallel computers
[CWI-NM-R9219] 12 p3796 N93-32395
Parallel block predictor-corrector methods of Runge-Kutta type
[CWI-NM-R9220] 12 p3797 N93-32396

PREDICTORS
U PREDICTIONS

PREFLIGHT ANALYSIS
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature
03 p0671 N93-13842
Ground test validation for precision structures
05 p1085 N93-15785
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050

PREFLIGHT OPERATIONS
NT COUNTDOWN
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Rescheduling with iterative repair
06 p1637 N93-18679
Candidate technologies for the Integrated Health Management Program
[NASA-CR-192520] 08 p2420 N93-22655

PREFORMS
Aerospatiale processes for three dimensional preforms
[REPT-921-430-147] 02 p0239 N93-11590
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Method and apparatus for weaving a woven angle ply fabric
[NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
Consolidation of graphite thermoplastic textile preforms for primary aircraft structure 11 p3302 N93-30439
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Powder towpreg process development
11 p3303 N93-30844
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850

PREHEATERS
U HEATING EQUIPMENT

PREHEATING
U HEATING

PRELAUNCH TESTS
Service module structure of ISO spacecraft testing and design qualification 05 p1080 N93-15747
Sunshade support structure: Structure and testing
05 p1080 N93-15748
TELECOM 2 deployable reflectors
05 p1082 N93-15761
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Candidate technologies for the Integrated Health Management Program
[NASA-CR-192520] 08 p2420 N93-22655
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136

PRELOADING
U PRESTRESSING

PREMIXED FLAMES
Freely propagating open premixed turbulent flames stabilized by swirl
[DE92-017116] 02 p0251 N93-12112
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
Fundamentals of combustion of premixed gases
04 p0840 N93-14618
Direct simulation of turbulent combustion
04 p0840 N93-14622
Calculation of chemical reaction rates in turbulent combustion 04 p0841 N93-14625
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199
The effects of gravity on wrinkled laminar flames
07 p1853 N93-20200
The structure of particle cloud premixed flames
07 p1853 N93-20202
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Space Station Freedom combustion research
08 p2190 N93-22643
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
Action of an acceleration field on premixed methane/air flames 08 p2226 N93-22838
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching
09 p2642 N93-24771
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Flame-turbulence interactions
[AD-A260957] 09 p2645 N93-26220
Solution of nonlinear boundary value problem on successively refined grids
[AD-A261395] 09 p2829 N93-26519
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Studies in premixed combustion
[DE93-007955] 11 p3310 N93-29051
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405
Studies of curvature, strain, and unsteady effects on premixed flames 11 p3316 N93-30646

PREMIXING
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser
02 p0245 N93-11135

PREPARATION
NT PRECONDITIONING
NT PRESTRESSING
NT PRETREATMENT
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography
[ETN-92-92818] 05 p1104 N93-16473
Phases of the project development and examination methodologies 12 p3775 N93-31231
The PARAT tests as examination system
12 p3776 N93-31238

PREPOLYMERS
NT DIMERS
NT TRIMERS
Processable precursors to high performance liquid crystalline polymers
[AD-A260466] 08 p2240 N93-24116
PREPREGS
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
Thermoplastic tape winding parameters 07 p1835 N93-21135
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry
[AD-A260794] 09 p2639 N93-25918
Vacuum powder injector and method of impregnating fiber with powder
[NASA-CASE-LAR-14179-1] 09 p2668 N93-26101
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433
Comparison of impact results for several polymeric composites over a wide range of low impact velocities 11 p3304 N93-30848
Development of resins for composites by resin transfer molding 11 p3305 N93-30853
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
PREPROCESSING
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
PDDP: A Parallel Data Distribution Preprocessor
[DE92-040400] 05 p1256 N93-17207
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
Navigation of AVHRR/NOAA images: Operational procedure for SUN workstation
[INPE-5354-RPQ/654] 06 p1686 N93-18231
Enhancement of audio localization cue synthesis by adding environmental and visual cues
[AD-A259041] 06 p1652 N93-19001
Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160
Preprocessing and probing techniques for mixed integer programming problems
[MEMO-COSOR-92-26] 10 p3093 N93-27253
Preprocessing remotely-sensed data for efficient analysis and classification
[DE93-007367] 11 p3611 N93-28580
Pre- and postprocessing techniques for determining goodness of computational meshes
[NASA-CR-192553] 11 p3538 N93-29030
PRESELECTORS
U PREAMPLIFIERS
PRESENTATION
Performing a successful audience analysis: How to improve your proposal-writing skills
[DE92-018978] 02 p0479 N93-12068
PRESERVING
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
PRESIDENTIAL REPORTS
Report to the President on the US space program
[ISBN-0-16-041608-6] 05 p1073 N93-16950
Implementation of the recommendations of the Presidential Commission on the Space Shuttle Challenger Accident
[NASA-TM-108646] 07 p1820 N93-19990
Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident 07 p1820 N93-20036
Publications of the Executive Office of the President
[PB92-233204] 07 p2091 N93-21226
By the year 2000: First in the world. FY 1993 budget summary
[PB93-108512] 07 p2086 N93-21231
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
State of Small Business: A report of the President transmitted to the Congress
[PB93-137073] 08 p2519 N93-23437
Points of Light movement: The President's report to the Nation
[PB93-139780] 08 p2532 N93-23679
Publications of the Executive Office of the President, 20 Jan. 1989 - 20 Jan. 1993: Report to the Congress
[PB93-139764] 08 p2529 N93-24307
Science, technology, and national security 09 p2886 N93-25232
High performance computing and communications panel report 09 p2807 N93-26131
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
PRESINTERING
U SINTERING
PRESSING (FORMING)
NT STAMPING
Method of joining diamond structures
[AD-D015671] 09 p2867 N93-26140
PRESSURE
NT ATMOSPHERIC PRESSURE
NT BASE PRESSURE
NT BLOOD PRESSURE
NT CRITICAL PRESSURE
NT DENSIFICATION
NT DIFFERENTIAL PRESSURE
NT DYNAMIC PRESSURE
NT ELECTRON PRESSURE
NT FLUID PRESSURE
NT GAS PRESSURE
NT HIGH PRESSURE
NT HIGH VACUUM
NT HYDROSTATIC PRESSURE
NT HYPERTENSION
NT INLET PRESSURE
NT INTERNAL PRESSURE
NT LOW PRESSURE
NT LOWER BODY NEGATIVE PRESSURE
NT LUMINANCE
NT LUMINOUS INTENSITY
NT OVERPRESSURE
NT PARTIAL PRESSURE
NT PLASMA PRESSURE
NT RADIATION PRESSURE
NT SOUND PRESSURE
NT STAGNATION PRESSURE
NT STATIC PRESSURE
NT SUPERCRITICAL PRESSURES
NT TRANSIENT PRESSURES
NT ULTRAHIGH VACUUM
NT VACUUM
NT VAPOR PRESSURE
NT WALL PRESSURE
NT WATER PRESSURE
NT WIND PRESSURE
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
An experimental study of the aerodynamics of a NACA0012 airfoil with a simulated glaze ice accretion, volume 2
[NASA-CR-191007] 08 p2109 N93-22823
PRESSURE BROADENING
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
PRESSURE CABINS
U PRESSURIZED CABINS
PRESSURE CHAMBERS
NT HYPERBARIC CHAMBERS
NT VACUUM CHAMBERS
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556
PRESSURE DEPENDENCE
Piezoelectric response of precisely poled PVDF to shock compression greater than 10 GPa
[DE93-002469] 06 p1539 N93-19636
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Pressure dependence of conductivity
[DE93-008466] 09 p2687 N93-25113
Pressure dependence of the reaction propagation rate of TATB to 40 GPa 11 p3319 N93-30082
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603
PRESSURE DISTRIBUTION
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
A combined experimental and theoretical study of laminar flow control with particular relevance to aero engine nacelles
[PNR-90991] 02 p0195 N93-11070
Pressure and noise induced by a cavitating marine screw propeller
[VTT-PUBS-87] 02 p0299 N93-11360
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners 02 p0434 N93-11884
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
An approach to constrained aerodynamic design with application to airfoils
[NASA-TP-3260] 02 p0201 N93-12321
DIII-D edge physics database
[DE92-019577] 03 p0714 N93-12971
A numerical study of hypersonic flow with strong surface blowing 03 p0492 N93-13128
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers 03 p0590 N93-13826
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Acoustic tests structural predictions 05 p1081 N93-15750
Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
High speed laminar flow over cavities
[AERO-REPT-9110] 06 p1526 N93-18130
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628

Experimental investigation of rotating stall in a mismatched three stage axial flow compressor
06 p1531 N93-18727
Performance of controlled diffusion blades
06 p1532 N93-18735
Numerical investigation of performance degradation of wings and rotors due to icing
[NASA-CR-192233] 06 p1440 N93-18783
Numerical computations using multi-domain technique
06 p1409 N93-19277
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325
The aerodynamic performance of laser drilled sheets
[AERO-REPT-9204] 07 p1761 N93-20806
HSCT mission analysis of waverider designs
[NASA-CR-192193] 07 p1783 N93-21646
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534
An experimental investigation of subsonic flow in a two-dimensional U-duct
[NASA-TM-103931] 08 p2128 N93-24535
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
The transient development of vortices over delta wings 09 p2576 N93-25269
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence
10 p2927 N93-27220
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements
10 p2934 N93-27448
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450
Towards industrial-strength Navier-Stokes codes
10 p2938 N93-27468
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Transonic flows on an oscillating airfoil and their effect on the flutter-boundary
[DLR-FB-92-08] 11 p3238 N93-29006
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160
High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade
11 p3258 N93-29958
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157

PRESSURE DRAG
NT WAVE DRAG
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383
Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724

PRESSURE DROP
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128

PRESSURE EFFECTS
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Gapwise density distributions in injection-moulded polymethylmethacrylate 02 p0270 N93-11990
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows
[ISAS-RN-646] 03 p0491 N93-12716
C60 transformations at high pressures
[DE92-019546] 03 p0701 N93-12606
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Atmospheric effects on crater growth on Venus
04 p1041 N93-14370
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
Pressure-reaction synthesis of titanium composite materials
[PB93-135036] 08 p2208 N93-22591
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
Burning characteristics of n-heptane droplets with negligible buoyancy effects 08 p2226 N93-22854
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
Testing the pressure-confined Ly alpha cloud model
10 p3181 N93-26764
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-28360
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Hydrogen-rated system for in vitro studies at pressure: Operating procedures and emergency procedures
[AD-A264179] 11 p3497 N93-30882
On the magnetoresistance of heavy fermion compounds
[DE93-608691] 12 p3827 N93-31098
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

PRESSURE FIELDS
U PRESSURE DISTRIBUTION

PRESSURE GAGES
NT KNUDSEN GAGES
NT PIEZOELECTRIC GAGES
NT VACUUM GAGES
Independent verification of tank volume measurements by pressure-volume authentication
[DE92-040680] 05 p1166 N93-15665
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779

PRESSURE GRADIENTS
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers
02 p0304 N93-12003
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution
02 p0309 N93-12039
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows
[ISAS-RN-646] 03 p0491 N93-12716
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Cosmic ray NM-64 neutron monitor data-18
[NOTA-INTERNA-972] 05 p1400 N93-17627
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements
10 p2934 N93-27448
Heat transfer with moderate free stream turbulence
11 p3254 N93-29936

PRESSURE MEASUREMENT
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
The hemisphere-cylinder at an angle of attack
02 p0196 N93-11250
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer
02 p0302 N93-11698
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
Acoustic device and method for measuring gas densities
[NASA-CASE-NPO-18155-1-CU]
03 p0700 N93-13421
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
Technology trends in high temperature pressure transducers: The impact of micromachining
03 p0601 N93-13676
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Very high temperature silicon on silicon pressure transducers 03 p0601 N93-13679
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801

Optical probes for laser induced shocks
[AD-A256092] 04 p0884 N93-14284
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Experimental investigations of radial loads induced by partial cavitation with the LH2 Vulcain inducer
[ETN-93-93023] 06 p1525 N93-18094
Development and flight testing of a surface pressure measurement installation on the EAP demonstrator aircraft 06 p1446 N93-19927
Reliability study of the NiH2 strain gage 07 p1908 N93-20515
Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept 07 p1803 N93-21078
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532
Fiber optic microphone having a pressure sensing reflective membrane and a voltage source for calibration purpose
[NASA-CASE-LAR-14402-2-CU] 08 p2478 N93-24602
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
The transient development of vortices over delta wings 09 p2576 N93-25269
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder 09 p2773 N93-25739
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099
Measurement and analysis of a small nozzle plume in vacuum
[NASA-TM-106066] 09 p2633 N93-26561
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Analysis of fluctuating static pressure measurements in a large high Reynolds number transonic cryogenic wind tunnel
[NASA-TM-108722] 10 p2947 N93-27142
Selection and static calibration of the Marsh J1678 pressure gauge 11 p3249 N93-29779
Feasibility of piezoresistive pressure sensors with polycrystalline silicon gauges
[LAAS-92324] 12 p3728 N93-31127
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587
Dynamic response of a transducer mounted at one end of an acoustical cavity
[DE93-012837] 12 p3816 N93-32301

PRESSURE OSCILLATIONS
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Acoustic modes in fluid networks 03 p0586 N93-13398
Organized turbulent structures and their induced wall pressure fluctuations 03 p0592 N93-13952
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Calculations of combustion response profiles and oscillations
[NASA-TM-106135] 09 p2623 N93-25236
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
Correlations between organized turbulent structures and wall pressure fluctuations
[PB93-156479] 09 p2706 N93-25885
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679
Strong parallel blade-vortex interaction and noise propagation in helicopter flight 11 p3563 N93-30980

PRESSURE PROBES
U PRESSURE SENSORS

PRESSURE PULSES
Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942

PRESSURE RATIO
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160

PRESSURE RECOVERY
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Comparison of performances of different circular intakes 05 p1067 N93-17616
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968

PRESSURE REDUCTION
NT EXPLOSIVE DECOMPRESSION
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Complement proteins and decompression sickness susceptibility
[AD-A254448] 03 p0674 N93-12905
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968
Statistically based decompression tables. 7: Selection and treatment of primary air and N2O2 data
[AD-A259090] 07 p2023 N93-20587
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions 08 p2165 N93-24398
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar 09 p2789 N93-25558
Mixing and transient interface condensation of a liquid hydrogen tank
[NASA-TM-106201] 10 p3042 N93-28252
Hyperbaric treatment 12 p3689 N93-31454

PRESSURE REGULATORS
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713

PRESSURE SENSORS
Wind tunnel operator aimed comparison between two electronic pressure scanner systems
[DLAS-EST-TR-040] 02 p0217 N93-11225
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Technology trends in high temperature pressure transducers: The impact of micromachining 03 p0601 N93-13676
SiC device development for high temperature sensor applications 03 p0601 N93-13677
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Very high temperature silicon on silicon pressure transducers 03 p0601 N93-13679
Development of advanced seal verification
[NASA-CR-184502] 04 p0892 N93-15117
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Independent verification of tank volume measurements by pressure-volume authentication
[DE92-040680] 05 p1166 N93-15665
An interferometer having fused optical fibers, and apparatus and method using the interferometer
[NASA-CASE-LAR-14640-1-CU] 05 p1304 N93-17052
Cosmic ray NM-64 neutron monitor data-18
[NOTA-INTERNA-972] 05 p1400 N93-17627
GEODE 2: Manufacturing large area format cadmium-mercury-telluride crystals in a microgravity environment. Pressure sensor proof of concept 07 p1803 N93-21078
Smart microsensors for high temperature applications
[AD-A260747] 09 p2710 N93-25677
SiC microsensor with piezoresistive diamond sensing elements
[AD-A261346] 09 p2868 N93-26312
Power assist EVA glove development 10 p3086 N93-27850
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
A calibration procedure for the SBE 19 Conductivity, Temperature, and Depth (CTD) profiler
[AD-A264435] 11 p3489 N93-30420
Feasibility of piezoresistive pressure sensors with polycrystalline silicon gauges
[LAAS-92324] 12 p3728 N93-31127
Dynamic response of a transducer mounted at one end of an acoustical cavity
[DE93-012837] 12 p3816 N93-32301

PRESSURE SUITS
NT EXTRAVEHICULAR MOBILITY UNITS
NT SPACE SUITS

PRESSURE SWITCHES
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503

PRESSURE TRANSDUCERS
U PRESSURE SENSORS

PRESSURE VESSEL DESIGN
Structural integrity of a confinement vessel for testing nuclear fuels for space propulsion
[DE92-016796] 02 p0232 N93-11824
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
PRESSURE VESSELS
NT PREBURNERS
Strength-toughness requirements for thick-walled high pressure vessels
[AD-A253756] 01 p0095 N93-10750
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Acoustic emission monitoring of HFIR vessel during hydrostatic testing
[DE92-019316] 02 p0332 N93-11601
Structural integrity of a confinement vessel for testing nuclear fuels for space propulsion
[DE92-016796] 02 p0232 N93-11824
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Validation test of 125 Ah advanced design IPV nickel-hydrogen flight cells
[NASA-TM-105912] 03 p0527 N93-14079
Static-stress analysis of dual-axis safety vessel
[DE93-001860] 05 p1187 N93-17366
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
Defect tolerance of hybrid pressure vessels: The total reliability versus total failure as an interpretation criterion
[ILR-MITT-272(1992)] 06 p1552 N93-18097
Lewis Research Center battery overview
07 p1983 N93-20493
An overview of eight years of activity developing French nickel-hydrogen technology 07 p1985 N93-20514
Reliability study of the NiH2 strain gage
07 p1908 N93-20515
Eagle-Picher SPV development
07 p1986 N93-20517
Nickel-hydrogen CPV battery update
07 p1986 N93-20518
The holographic interferometry: An industrial tool
[REPT-921-430-110] 07 p1906 N93-20932
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
Guide for certifying pressure vessels and systems
[NASA-TM-107549] 11 p3449 N93-29220
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
Steps required in the pursuit of quantitative risk management processes for high pressure systems
[DE93-007586] 11 p3378 N93-30508
Structural design, analysis, and code evaluation of an odd-shaped pressure vessel
[DE93-008182] 11 p3447 N93-30632
PRESSURE WAVES
U ELASTIC WAVES
PRESSURE WELDING
NT DIFFUSION WELDING
NT FRICTION WELDING
NT ULTRASONIC WELDING
PRESSURIZED CABINS
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015
Design of a pressurized lunar rover
[NASA-CR-192033] 06 p1545 N93-18016
PRESSURIZED WATER REACTORS
Fuzzy logic: Artificial neural networks integration for transient identification
[DE93-002232] 06 p1632 N93-18389
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213
PRESSURIZING
NT FUEL TANK PRESSURIZATION
PRESTON TUBES
U PITOT TUBES
U SPEED INDICATORS
PRESTRAINING
U PRESTRESSING
PRESTRESSING
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
The effects of compressive preloads on the compression-after-impact strength of carbon/epoxy
[NASA-TP-3303] 03 p0529 N93-12678
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Investigation of azimuthal stresses due to welding and cooldown
[DE93-005530] 08 p2324 N93-22708
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Axisymmetric deformations and stresses of unsymmetrically laminated composite cylinders in axial compression with thermally-induced preloading effects
[NASA-CR-192788] 09 p2723 N93-24912
PRETESTS
U TESTS
PRETREATMENT
NT PRESTRESSING
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Microbiological and corrosion analysis of three urine pretreatment regimes with titanium 6A1-4V
[NASA-CR-192575] 12 p3783 N93-32356
PRETWISTING
U PRESTRESSING
U TWISTING
PREVENTION
NT ACCIDENT PREVENTION
NT CORROSION PREVENTION
NT FIRE PREVENTION
NT ICE PREVENTION
The US Navy Healthy Back Program: Effect on back knowledge among recruits
[AD-A258368] 06 p1596 N93-18210
The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811
Planning and progress of EPA's pollution prevention research program
[PB93-185767] 11 p3475 N93-30831
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138
PRIMARY BATTERIES
NT ALKALINE BATTERIES
NT METAL AIR BATTERIES
NT NICKEL ZINC BATTERIES
NT SODIUM SULFUR BATTERIES
NT THERMAL BATTERIES
First year testing of prototype magnesium/manganese dioxide BA-4590/U battery
[AD-A255503] 03 p0574 N93-13839
PRIMARY COSMIC RAYS
NT SOLAR COSMIC RAYS
PRIMATES
NT BABOONS
NT HUMAN BEINGS
NT MONKEYS
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates, part 2
[DE92-040153] 03 p0673 N93-13503
Investigation of effects of 60-Hz electric and magnetic fields on operant and social behavior and on the neuroendocrine system of nonhuman primates
[DE93-007678] 08 p2419 N93-24455
PRIMERS
Modified epoxy adhesives and primers
[AD-A253857] 02 p0272 N93-12297
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
PRIMERS (COATINGS)
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
PRIMERS (EXPLOSIVES)
Mechanical shielding for electric primer
[AD-D015417] 04 p0860 N93-14889
PRIMITIVE EARTH ATMOSPHERE
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships
08 p2411 N93-24578
PRIMITIVE EQUATIONS
User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
PRINCIPAL COMPONENTS ANALYSIS
The efficacy of biographical inventory data in predicting early attrition in naval aviation officer candidate training
[AD-A258025] 06 p1601 N93-17919
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
The five-factor personality model and naval aviation candidates
[AD-A260227] 08 p2425 N93-24319
PRINTED CIRCUITS
A four channel 250 MHz visual counter
[DE92-016920] 01 p0086 N93-10444
High speed parallel backplane
[AD-D015372] 02 p0288 N93-11053
A robotic planning system 04 p0810 N93-14949
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
PCB tester selection for future systems, volume 1
[AD-A256256] 05 p1065 N93-16088
PCB tester selection for future systems, volume 2
[AD-A256252] 05 p1065 N93-16595
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
Development of high heat radiation printed boards
07 p1796 N93-20456
Vacuum multilayer lamination of printed wiring boards
[DE93-004912] 07 p1894 N93-21727
Printed wiring assembly cleanliness
[DE93-006040] 08 p2277 N93-22524
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Prototype and short-run printed circuit board creation
[AD-A263245] 11 p3409 N93-29655
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370
An application protocol for CAD to CAD transfer of electronic information
[AD-A264554] 11 p3533 N93-30383
PRINTERS
NT PRINTERS (DATA PROCESSING)
PRINTERS (DATA PROCESSING)
A Unix print filter for controlling an HP Laserjet printer
[DE92-041350] 04 p0946 N93-14902
PRINTING
NT LITHOGRAPHY
NT PHOTOLITHOGRAPHY
PRIORITIES
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
Public Congressional forum on space
08 p2154 N93-23165
Priority inheritance in real-time micro kernels
[MEMO-INF-92-52] 10 p3095 N93-27387
Approximate analysis of an M/G/1 priority queue with priority changes due to impatience
[CWI-BS-R9202] 10 p3127 N93-27606
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044

PRISMS
Characterization of deflagrating munitions by rotating prism high speed photography
[MRL-TR-91-43] 02 p0311 N93-11648
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels 11 p3255 N93-29942

PRIVATE AIRCRAFT
U GENERAL AVIATION AIRCRAFT

PROBABILITY
U PROBABILITY THEORY

PROBABILITY DENSITY FUNCTIONS
NT NORMAL DENSITY FUNCTIONS
NT WEIBULL DENSITY FUNCTIONS
A new non-Gausssian approximation technique for random vibration of general hysteresis 01 p0050 N93-10496
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
Probability density functions in turbulent channel flow
[NASA-CR-4454] 02 p0202 N93-12399
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
Effects of non-crystallographic symmetry on structure factor statistics
[ITN-93-85182] 05 p1321 N93-16734
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Nonlinearization of nonlinear systems under external and parametric random excitations 07 p1945 N93-20730
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Elicitation of expert knowledge and assessment of imprecise prior densities for lifetime distributions
[MEMO-COSOR-92-12] 10 p3123 N93-27231
On Bernoulli experiments with imprecise prior probabilities
[MEMO-COSOR-92-19] 10 p3123 N93-27236
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
Using harmonic oscillators to determine the spot size of Hermite-Gaussian laser beams 10 p3049 N93-27328
An analysis of the Generalized Lambda Distribution
[AD-A262485] 11 p3555 N93-29447
Estimation of density functionals
[REPT-92-98] 12 p3807 N93-31655
Wavefront reconstruction from three dimensional intensity measurements
[DE93-609881] 12 p3832 N93-31909

PROBABILITY DISTRIBUTION FUNCTIONS
Change analysis
[AD-A253567] 01 p0146 N93-10795
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
PDF transport modelling 04 p0840 N93-14623
Applications of PDF turbulent combustion models to real non premixed flame calculations 04 p0841 N93-14624
Clustering properties of x ray sources from the analysis of the Ginga P(D) distribution 05 p1374 N93-17150
Measurement of the hit distribution in resistive plate chambers equipped with a digital read out of the charge induced on strips
[NOTA-INTERNA-990] 06 p1659 N93-17940
MOCAL: A Monte Carlo albedo code
[DE93-002049] 06 p1654 N93-18388
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
Probabilistic data dependencies 06 p1688 N93-19713
Equilibrium constrained assumed natural coordinate strain finite elements for shell analysis 09 p2724 N93-25273
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites 09 p2679 N93-26127
Statistical inference procedures for probability selection functions in long-term monitoring programs
[PB93-163012] 10 p3123 N93-26631
The best variety or an almost best one? A comparison of subset selection procedures
[MEMO-COSOR-92-22] 10 p3123 N93-27237
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857

PROBABILITY THEORY
Probability forecasting: A guide for forecasters and staff weather officers
[AD-A254216] 01 p0126 N93-10264
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Change analysis
[AD-A253567] 01 p0146 N93-10795
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
Resistive Grid Kernel Estimator (RGKE)
[AD-A253520] 01 p0147 N93-10869
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980
A probabilistic approach to information retrieval in heterogeneous databases
[DE92-016993] 02 p0473 N93-11151
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
Static assignment of complex stochastic tasks using stochastic majorization
[NASA-CR-189716] 02 p0416 N93-12403
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
Mathematical methods in operations research and computer science
[AD-A254782] 02 p0428 N93-12465
Design for reliability: Current density
[AD-A254770] 03 p0570 N93-12866
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
A PDF closure model for compressible turbulent chemically reacting flows
[NASA-CR-191209] 03 p0587 N93-13453
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
A probabilistic approach to anytime algorithm for intelligent real-time problem solving
[AD-A255709] 04 p0945 N93-14654
Probabilistic inference
[AD-A255471] 04 p0963 N93-14786
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
PDF turbulence modeling and DNS 05 p1153 N93-15794
Sojourns, extremes, and self-intersections of stochastic processes
[AD-A257251] 05 p1274 N93-15820
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Queueing systems on a circle
[MEMO-1038] 05 p1276 N93-16670
An introduction to the statistical analysis of engineering data
[ESDU-92040] 06 p1648 N93-17950
An information theoretic approach to distributed inference and learning
[AD-A257935] 06 p1685 N93-18099
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Possibilistic clustering for shape recognition 06 p1618 N93-18228
Location and distribution of local optima
[AD-A257791] 06 p1645 N93-18237
Discrete time system piecewise linear filtering with small observation noise
[INRIA-RR-1451] 06 p1633 N93-18611
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem
[INRIA-RR-1495] 06 p1647 N93-18653
Probabilistic methods in nuclear power plant component ageing analysis
[VTT-PUBS-94] 06 p1660 N93-18696
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
Network problem threshold 06 p1516 N93-19397
Maximal codeword lengths in Huffman codes 06 p1513 N93-19427
Comparisons of theoretical limits for source coding with practical compression algorithms 06 p1513 N93-19428
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Detecting change as it occurs
[NASA-CR-191939] 06 p1574 N93-19484
A numerical field experiment approach for determining probabilities of microburst intensity 06 p1419 N93-19599
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus 06 p1431 N93-19707
Probabilistic data dependencies 06 p1688 N93-19713
Extracting knowledge from data: SYS8688 approach 06 p1688 N93-19715
CYRANO-3: An experiment in representational invention 06 p1629 N93-19733
Probabilistic aspects of growth of the fatigue cracks in the railroad axles 07 p1924 N93-20348
Statistically based decompression tables. 7: Selection and treatment of primary air and N2O2 data
[AD-A259090] 07 p2023 N93-20587
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728
Explicit probabilities for the symmetric coupled processor
[REPT-91-43] 07 p2058 N93-20809
Long range percolation in stationary point processes
[REPT-91-54] 07 p2058 N93-20864
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Possibilistic clustering for shape recognition 08 p2450 N93-22208
On the prior probabilities for two-stage Bayesian estimates
[DE93-006389] 08 p2472 N93-22593
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191098] 08 p2326 N93-23053
Change PP plot and continuous sample quantile function
[AD-A259833] 08 p2472 N93-23460
The meaning and utility of confidence
[AD-A259646] 08 p2472 N93-23655
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711

Mapping methods for computationally efficient and accurate structural reliability
[NASA-TM-105892] 08 p2330 N93-23745
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Constant false probability data fusion system
[AD-D015624] 08 p2304 N93-24219
Probability and statistics applied to the theory of algorithms
[AD-A259956] 08 p2473 N93-24248
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
How to combine probabilistic and fuzzy uncertainties in fuzzy control
[NASA-TM-108746] 09 p2818 N93-25136
How far we are from the complete knowledge: Complexity of knowledge acquisition in Dempster-Shafer approach
[NASA-CR-192944] 09 p2874 N93-25139
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
Probability and statistics applied to the theory of algorithms
[AD-A261019] 09 p2830 N93-25863
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites 09 p2679 N93-26127
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281
Penning detachment: A new frontier
[AD-A261447] 09 p2850 N93-26346
Probabilistic structural analysis for nuclear thermal propulsion 10 p2979 N93-26931
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
On Bernoulli experiments with imprecise prior probabilities
[MEMO-COSOR-92-19] 10 p3123 N93-27236
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling
[MEMO-COSOR-92-08] 10 p3124 N93-27277
An invitation to structured (meta)population models
[CWI-AM-R9113] 10 p3124 N93-27294
The saturating contact rate in marriage- and epidemic models
[CWI-AM-R9203] 10 p3124 N93-27297
A recurrence type characterization of mu-exponential ergodicity for Markov processes
[TW-92-03] 10 p3125 N93-27905
Measurability of operators
[W-9203] 10 p3125 N93-27930
Some limit theorems in log density
[W-9108] 10 p3126 N93-28120
On modeling of if-then rules for probabilistic inference
[AD-A262789] 10 p3126 N93-28404
Probabilistic simulation of multi-scale composite behavior
[NASA-TM-106196] 11 p3451 N93-28633
Risk-based spacecraft fire safety experiments 11 p3267 N93-28738
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Estimations of expectedness and potential surprise in possibility theory 11 p3510 N93-29518
Comparison of specificity and information for fuzzy domains 11 p3510 N93-29519
Decision analysis with approximate probabilities 11 p3513 N93-29542
Information compression in the context model 11 p3514 N93-29549
Fuzzy learning under and about an unfamiliar fuzzy teacher 11 p3516 N93-29558
Quantification of human responses 11 p3500 N93-29564
Possibilistic measurement and set statistics 11 p3517 N93-29567
Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577
On probability-possibility transformations 11 p3519 N93-29582
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Planetary protection issues for the MESUR mission: Probability of growth (Pg)
[NASA-CP-3167] 11 p3651 N93-30214
Quantum field theory in spaces with closed time-like curves
[DE93-010564] 11 p3605 N93-30481
Steps required in the pursuit of quantitative risk management processes for high pressure systems
[DE93-007586] 11 p3378 N93-30508
On the impossibility of creating the quantum correlations with computers
[DE93-606039] 11 p3606 N93-30806
Probabilistic composite analysis 11 p3307 N93-30868
Modeling users' behavior and threats for security
[REPT-92-071] 12 p3811 N93-31476
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562
Structural reliability methods: Code development status 12 p3694 N93-31563
Probabilistic load simulation: Code development status 12 p3694 N93-31564
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Rocketdyne PSAM: In-house enhancement/application 12 p3694 N93-31566
Commercialization of NESSUS: Status 12 p3695 N93-31567
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569
Expert system development for probabilistic load simulation 12 p3695 N93-31570
Probabilistic fracture finite elements 12 p3695 N93-31571
Mapping methods for computationally efficient and accurate structural reliability 12 p3695 N93-31572
Probabilistic simulation of the human factor in structural reliability 12 p3696 N93-31573
Decision theory for computing variable and value ordering decisions for scheduling problems 12 p3835 N93-32137

PROBES
Applications of TEM to interface in materials
[DE93-004776] 08 p2501 N93-22492
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560

PROBLEM SOLVING
NT ALTERNATING DIRECTION IMPLICIT METHODS
NT ASYMPTOTIC METHODS
NT ITERATIVE SOLUTION
NT THEOREM PROVING
PRODIGY4.0: The manual and tutorial
[AD-A253970] 01 p0137 N93-10422
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
TAQL: A problem space tool for expert system development
[AD-A253820] 01 p0175 N93-10826
Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122
Ontology of mind, subjective ontology, and the example of temporal expressions
[REPT-92-018] 02 p0386 N93-11212
The network destruction problem (extended abstract)
[DE92-016171] 02 p0419 N93-11860
Fast approximation algorithms for multicommodity flow problems
[AD-A254335] 03 p0685 N93-12961
Knowledge and processes in design
[AD-A255663] 04 p0999 N93-14130
The effect of a hierarchical task-specific external conceptual model on the learnability and usability of microcomputer applications by novices 04 p1000 N93-14205
A probabilistic approach to anytime algorithm for intelligent real-time problem solving
[AD-A255709] 04 p0945 N93-14654
Undetermined coefficient problems for quasi-linear parabolic equations
[AD-A256012] 04 p0969 N93-15256
Minimizing conflicts: A heuristic repair method for constraint-satisfaction and scheduling problems
[NASA-TM-108121] 04 p0964 N93-15286
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
A beginner's guide to belief revision and truth maintenance systems
[NASA-TM-108117] 04 p0965 N93-15290
MATE: The multi-agent test environment
[NASA-TM-108114] 04 p0965 N93-15292
Knowledge and regularity in planning
[NASA-TM-108113] 04 p0965 N93-15293
Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419
Telepresence: Integrating shared task and person spaces 04 p0954 N93-15548
CSCW - WCSC: Computer-supported cooperative work. What changes for the science of computing 04 p0954 N93-15549
Increasingly automated procedure acquisition in dynamic systems
[NASA-TM-108112] 05 p1241 N93-16684
The KASE approach to domain-specific software systems 05 p1247 N93-17502
A rewrite approach to polynomial ideal theory
[CWI-CS-R9160] 05 p1271 N93-17536
On solving the Diophantine equation (x cubed) + (y cubed) + (z cubed) = k on a vector computer
[CWI-NM-R9121] 05 p1271 N93-17556
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Preconditioned conjugate gradient techniques for the solution of time-dependent differential equations
[REPT-92-19] 06 p1643 N93-17844
Range scheduling automation for the Air Force satellite control network: A case study in computer system development
[AD-A258142] 06 p1454 N93-18084
An algorithm for the solution of a traveling salesman problem to minimize the average time to demand satisfaction
[AD-A258301] 06 p1645 N93-18302
Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
CABINS: Case-based interactive scheduler 06 p1635 N93-18670
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems 06 p1638 N93-18684
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
Higher order crossings
[AD-A258727] 07 p2050 N93-20327
Correlates of creative problem solving
[AD-A258720] 07 p2085 N93-20369
Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391
Problem solving for long term, global scenarios of space traffic
[ILR-MITT-265(1991)] 07 p1821 N93-20906
SSG 4.118: Inverse geodetic problems 07 p1973 N93-20984
Trajectory optimization based on differential inclusion
[NASA-CR-4501] 08 p2181 N93-22459
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Towards computer-supported creative design based on Altshuller's theory of inventive problem solving
[MEMO-INF-92-49] 08 p2438 N93-23358
Computational modeling of the environment with applications to lake eutrophication
[TKK-1991/1] 08 p2386 N93-23425
The impact of computer instruction on the near transfer and far transfer of a general problem-solving strategy 08 p2527 N93-24094
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Design concepts for the development of cooperative problem-solving systems
[NASA-CR-192708] 09 p2585 N93-25261
Improving performance through concept formation and conceptual clustering
[NASA-CR-192726] 09 p2828 N93-25262
Design of a cooperative problem-solving system for enroute flight planning: An empirical study of its use by airline dispatchers
[NASA-CR-192709] 09 p2585 N93-25330
An experimental examination of the effects of expertise and problem-solving cues on the identification of ideas for strategic information systems 09 p2875 N93-25395
Linear-programming tools in integer programming: The traveling salesman
[AD-A261398] 09 p2812 N93-26290

Intelligent, real-time problem solving, phase 3
[AD-A261441] 09 p2829 N93-26345
Power iterations and the dominant eigenvalue problem
[AD-A261695] 09 p2829 N93-26370
Computation and theory in large-scale optimization
[AD-A261419] 09 p2813 N93-26450
How expert pilots think: Cognitive processes in expert decision making
[DOT/FAA/RD-93/9] 10 p3085 N93-27103
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
A-stable diagonally implicit Runge-Kutta-Nystrom methods for parallel computers
[CWI-NM-R9208] 10 p3107 N93-27375
The LAZYRMS: Avoiding work in the ATMS
[RUU-CS-92-20] 10 p3101 N93-28062
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Research in mathematics and computer science, March 1, 1991 - September 30, 1992
[DE93-011492] 11 p3509 N93-28573
Parametric likelihood inference for record breaking problems
[AD-A262546] 11 p3549 N93-29413
Information technology: A force for organizational change
[AD-A261986] 11 p3615 N93-29439
Neural networks: A simulation technique under uncertainty conditions 11 p3519 N93-29577
Managing operational intelligence overload: Guidelines for avoiding decision paralysis
[AD-A264184] 11 p3610 N93-30158
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964
Integration and implementation of the automated natural deduction in demonstrators using resolution
[ETN-93-94239] 12 p3803 N93-31208
Job shop scheduling by local search
[MEMO-COSOR-92-29] 12 p3834 N93-31510
Temporal and spatial analysis in knowledge-based physics problem-solving 12 p3814 N93-31651
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
The MICRO-BOSS scheduling system: Current status and future efforts 12 p3835 N93-32133
Massively parallel support for a case-based planning system 12 p3797 N93-32135
Integration of domain and resource-based reasoning for real-time control in dynamic environments 12 p3794 N93-32141

PROCEDURES
NT BOUNDARY INTEGRAL METHOD
NT CREW PROCEDURES (INFLIGHT)
NT CREW PROCEDURES (PREFLIGHT)
NT FINITE ELEMENT METHOD
NT FINITE VOLUME METHOD
NT OPTICAL CORRECTION PROCEDURE
NT PANEL METHOD (FLUID DYNAMICS)
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
NASA systems engineering handbook. Draft
[NASA-TM-108702] 07 p2086 N93-21188
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
CATS EYES adjustment procedures
[AD-A264069] 11 p3508 N93-29924

PROCEEDINGS
U CONFERENCES
U CONGRESSIONAL REPORTS

PROCESS CONTROL (INDUSTRY)
Introduction to software process improvement
[AD-A253326] 01 p0137 N93-10447
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Statistical process management: An essential element of quality improvement
[DE92-019934] 03 p0619 N93-13036
Robot welding process control
[NASA-CR-184428] 03 p0614 N93-13436
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Flow behavior in liquid molding 04 p0833 N93-14747
PEX: A reactive procedure based decision maker
[REPT-921-440-105] 04 p0999 N93-15118
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217
The IEEE-488 interface to Paragon 500 process control software
[DE92-001289] 05 p1235 N93-16109
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001231] 05 p1195 N93-16135
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
Device for applying powder coatings
[AD-A256917] 05 p1124 N93-16501
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Modeling process redesign
[AD-A257561] 06 p1617 N93-17983
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
The total quality approach in the development of technical textiles 07 p1838 N93-21156
Synthesis of nonlinear control strategies from fuzzy logic control algorithms 08 p2452 N93-22222
Adaptive process control using fuzzy logic and genetic algorithms 08 p2457 N93-22376
Statistical process control program at a ceramics vendor facility
[DE93-006043] 08 p2238 N93-23025
Process management: The quality way to improvement
[PB93-154532] 08 p2321 N93-23445
High reliability residual compressive stress processes. State-of-the-art assessment
[PB93-127751] 08 p2331 N93-24207
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Adaptive process control with fuzzy logic and genetic algorithms 09 p2827 N93-25612
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Identification for the control of MIMO industrial processes
[EUT-91-E-256] 10 p3010 N93-27229
Welding process modelling and control
[NASA-CR-192549] 10 p3051 N93-27593
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control 11 p3512 N93-29533
Fuzzy simulation in concurrent engineering 11 p3516 N93-29562
Powder towpreg process development 11 p3303 N93-30844
Selection by simulation: A work sample approach to the selection of process algebras
[ISBN-9-09-005483-9] 12 p3811 N93-31618

PROCESS HEAT
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
A review of the experience gained in 10 years operation of Gould's solar industrial process heat system
[DE93-003991] 08 p2381 N93-23970

PROCESSING
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Methods for predicting properties and tailoring salt solutions for industrial processes 08 p2226 N93-22183

PROCESSORS (COMPUTERS)
U CENTRAL PROCESSING UNITS

PROCUREMENT
NT GOVERNMENT PROCUREMENT
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
The use of life cycle costing for the acquisition of non-major systems at the Naval Regional Contracting Center Detachment
[AD-A255170] 02 p0480 N93-12473
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
Productivity measurement in science and technology contracting
[AD-A262077] 11 p3609 N93-28985
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499

PROCUREMENT MANAGEMENT
Coordinating Council. Second Meeting: International Acquisitions
[NASA-TM-108015] 03 p0733 N93-12634
Coordinating Council. Seventh Meeting: Acquisitions
[NASA-TM-108020] 03 p0733 N93-12636
Window on waste: Atrophy in NASA management
[GPO-57-273] 03 p0732 N93-13693
Streamlined acquisition handbook
[NASA-TM-108133] 04 p1002 N93-14719
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
NASA contract management
[GAO/HR-93-11] 08 p2519 N93-23376
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142

PROCUREMENT POLICY
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263

PRODUCT DEVELOPMENT
NT WEAPONS DEVELOPMENT
Aerospace industry profile, 1990-1991
[CTN-92-60513] 01 p0001 N93-10651
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
The Trent family of engines
[PNR-90974] 02 p0211 N93-11063
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
The development of the Rolls-Royce Trent aero gas turbine
[PNR-90949] 02 p0212 N93-11108
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Simultaneous engineering in aero gas turbine design and manufacture
[PNR-90890] 02 p0212 N93-11208
The changing nature of design
[PNR-91011] 02 p0206 N93-11334

Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Economical development of complex computer systems
[AD-A254752] 03 p0689 N93-12848
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
ATL Products Division's entries into the computer mass storage marketplace 04 p1005 N93-15038
Regional satellites: The European experience with Eutelsat for TV, voice, data and mobile transmissions
[REPT-921-440-106] 04 p0818 N93-15071
The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264
Integrated support for real-time control systems
[PNR-90994] 04 p0952 N93-15476
The railplug: Development of a new ignitor for internal combustion engines
[DE93-003068] 05 p1176 N93-16178
Automated support for experience-based software management 05 p1244 N93-17164
Toward full life cycle control: Adding maintenance measurement to the SEL 05 p1245 N93-17170
Software Engineering Laboratory Ada performance study: Results and implications
05 p1245 N93-17172
Bipolar current sources for the correction magnets of AmPS
[DIGEL-1992-2-REV] 05 p1150 N93-17393
SNECMA M88 engine development status
[ASME-90-GT-118] 06 p1448 N93-17849
The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
The product and services design and development software aided tool RELIASEP
[ETN-93-93015] 06 p1617 N93-18076
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083
Process engineering with the evolutionary spiral process model, version 01.00.01
[AD-A258966] 06 p1625 N93-19085
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
DARPA initiative in concurrent engineering (DICE). Phase 4: Electronics pilot project
[AD-A258927] 06 p1522 N93-19446
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview
06 p1443 N93-19906
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Product development of a user interface for Geographic Information Systems (GIS) and remote sensing for training purposes
[BCRS-90-32] 07 p2091 N93-20952
User areas in aircraft cockpit, using methods of rapid prototype development
[MBB-FE-315-S-PUB-0493] 08 p2426 N93-22389
Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Utility Battery Storage Systems Program Report for FY 1992
[DE93-006459] 08 p2278 N93-22594
NASA's commercial research plans and opportunities
08 p2183 N93-22612
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Insurance cover for space ventures
08 p2344 N93-23510
Image maps 08 p2348 N93-23537
The production of satellite image maps: Experiments at the Technical University of Berlin
08 p2348 N93-23538
JEM program status 08 p2155 N93-24339
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Engineering: Research development and technology
[UCRL-53868-91] 09 p2917 N93-26326
NASA SBIR product catalog, 1990
[NASA-TM-105103] 10 p3163 N93-27028
Strategic planning for molten carbonate fuel cell development and commercialization
[DE93-009156] 10 p3064 N93-27107
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2
[NASA-CP-10112-VOL-2] 11 p3515 N93-29556
Data probe user's guide
[PB93-178655] 11 p3530 N93-29678
The NCAT process 11 p3626 N93-30697
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870

PRODUCTION COSTS
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF)
[NASA-TM-108382] 03 p0526 N93-13429
Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
An improved classification tree analysis of high cost modules based upon an axiomatic definition of complexity 05 p1244 N93-17167
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Emerging technologies in ethanol production
[PB93-157014] 09 p2661 N93-25818
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

PRODUCTION ENGINEERING
NT PRODUCTION PLANNING
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Simultaneous engineering in the design of aero engines
[PNR-90973] 02 p0211 N93-11062
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Innovation in engineering
[PNR-90889] 02 p0212 N93-11207
Advances in 3-dimensional braiding
04 p0833 N93-14748
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Ultrastructure processing of advanced materials
[AD-A258805] 06 p1479 N93-18984
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Tolerance, chains and setting of machines: Three dimensional statistical model of machined dimensions
[PAPER-C-2-5] 07 p2036 N93-20833
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
Predesign of the tubular braiding process using a mathematical process description
07 p1836 N93-21143
Manufacturing innovations and small business: How flexible manufacturing systems affect tooling and machining enterprises
[PB92-216258] 07 p2086 N93-21743
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Aviation production engineering: Selected articles
[AD-A261231] 10 p2919 N93-27056
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Coordination of production and sales
[ETN-93-94039] 12 p3834 N93-31518
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867
The technology base for agile manufacturing
12 p3715 N93-32104

PRODUCTION MANAGEMENT
Introduction to software process improvement
[AD-A253326] 01 p0137 N93-10447
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Software Management Environment (SME) installation guide
[NASA-TM-108578] 04 p0957 N93-15578
TQM in a test environment 04 p0823 N93-15620
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Managing real-time software projects: Problems and issues
[AD-A261428] 09 p2813 N93-26453
A general model for maintenance of complex systems
[CWI-BS-R9201] 10 p3124 N93-27393
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
Coordination of production and sales
[ETN-93-94039] 12 p3834 N93-31518
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867

PRODUCTION METHODS
U PRODUCTION ENGINEERING

PRODUCTION PLANNING
Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
CAD/CAM for assembly planning
[ISBN-90-370-0057-6] 05 p1246 N93-17490
Alternative optimization strategies for large-scale production-allocation problems
[REPT-92-13] 06 p1615 N93-17833
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Global planning of several plants
06 p1635 N93-18667
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
Uncertainty management by relaxation of conflicting constraints in production process scheduling
06 p1636 N93-18673
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
Constraint monitoring in TOSCA
06 p1639 N93-18693
Report to the Chairman, Legislation, and National Security Subcommittee, Committee on Goverment Operations, House of Representatives. Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A259473] 07 p1780 N93-20245
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
Special tooling disposition for aircraft entering post production support
[AD-A261614] 09 p2573 N93-26168
Coordination of production and sales
[ETN-93-94039] 12 p3834 N93-31518

PRODUCTIVITY
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Increasing the end user's productivity through seamless integration of applications with the database
[DE92-019599] 03 p0735 N93-12824
Scenarios for optimizing potato productivity in a lunar CELSS 03 p0680 N93-13997
Total quality management: Strengths and barriers to implementation and cultural adaptation 05 p1182 N93-16788
Some effects of time usage patterns on the productivity of engineers 05 p1343 N93-17301
Late quaternary time series of Arabian Sea productivity: Global and regional signals 06 p1580 N93-18969
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578
Advanced display object selection methods for enhancing user-computer productivity 08 p2444 N93-22151
Automated fiber placement composite manufacturing: The mission at MSFC's Productivity Enhancement Complex 08 p2260 N93-22175
Space Station Freedom automation and robotics: An assessment of the potential for increased productivity
[NASA-TM-108714] 08 p2195 N93-24149
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Factors associated with perceptions of productivity and usage of information technology in a service organization 09 p2875 N93-25421
Implementation of quality improvement techniques for management and technical processes in the ACRV project 09 p2723 N93-26074
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
Productivity measurement in science and technology contracting
[AD-A262077] 11 p3609 N93-28985

PRODUCTS
NT ASPHALT
NT DIESEL FUELS
NT GASOLINE
NT GREASES
NT PETROLEUM PRODUCTS
NT REACTION PRODUCTS
NT TARS
Geocoded products of future radar sensors 08 p2340 N93-22441
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
NASA SBIR product catalog, 1991
[NASA-TM-106080] 10 p3163 N93-27591
The NASA SBIR product catalog
[NASA-TM-108242] 11 p3609 N93-29322
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679

PROFICIENCY
U ABILITIES

PROFILES
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579

PROFILOMETERS
Laser surface profilometer with sub-Angstrom resolution
[DE92-018926] 02 p0317 N93-12011
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681

PROGNOSIS
Incorporating prior probabilities and misclassification costs into network training: An example from medical prognosis
[RSRE-MEMO-4343] 02 p0428 N93-10980

PROGRAM MANAGEMENT
U PROJECT MANAGEMENT

PROGRAM RELIABILITY (COMPUTERS)
U SOFTWARE RELIABILITY

PROGRAM VERIFICATION (COMPUTERS)
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields 01 p0016 N93-10010
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
An advanced combustion research facility for validating computational fluid dynamics codes
[PNR-90913] 02 p0296 N93-11017
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
System diagnostic builder 02 p0396 N93-11944
Knowledge-based system V and V in the Space Station Freedom program 02 p0396 N93-11945
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
The Second NASA Formal Methods Workshop 1992
[NASA-CP-10110] 03 p0684 N93-12957
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
Iterative software testing
[AD-A255953] 04 p0943 N93-14420
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502
Software reliability, measurement, and testing software reliability and test integration, volume 1
[AD-A256242] 04 p0944 N93-14572
Software reliability, measurement, and testing. Volume 2: Guidebook for software reliability measurement and testing
[AD-A256164] 04 p0944 N93-14581
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
Research in programming languages and software engineering
[AD-A256341] 04 p0947 N93-15199
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
Software measures and the capability maturity model
[AD-A257238] 05 p1234 N93-15962
Aspect: A formal specification language for detecting bugs
[AD-A256797] 05 p1234 N93-16056
Verification of the computer programs SLAAP and DATA
[DE93-002597] 05 p1243 N93-16987
SEDS1 mission software verification using a signal simulator 05 p1254 N93-17321
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
Unit analysis and testing
[AD-A258435] 06 p1616 N93-17867
Software size measurement: A framework for counting source statements
[AD-A258304] 06 p1620 N93-18303
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
A unified model of program behavior
[AD-A259142] 07 p2030 N93-20128
Software quality measurement: A framework for counting problems and defects
[AD-A258556] 07 p2032 N93-20387
Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
Expert system verification and validation study
[NASA-CR-192175] 07 p2034 N93-20779
Verification methods of the behavioral specifications: Study and implementation
[ETN-93-92687] 07 p2044 N93-21064
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Expert system verification and validation study: Workshop and presentation material
[NASA-CR-192176] 07 p2041 N93-21661
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Investigation of proof techniques within the EVES verification technology
[DREO-FR-92-5451-02] 08 p2440 N93-23730
Soar-mode v5.0 user's manual for Soar release 5.2 and 6.0
[AD-A259914] 08 p2441 N93-23997
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
Putting time into proof outlines
[NASA-CR-192978] 09 p2809 N93-25152
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
High level design for distributed application instrumentation
[AD-A260812] 09 p2710 N93-25696
Set based program analysis
[AD-A260979] 09 p2806 N93-25841
Analysis of symbolic parameter models
[AD-A261930] 09 p2811 N93-26253
Software testing initiative for strategic defense systems
[AD-A261350] 09 p2831 N93-26330
Research directions in software analysis, synthesis and certification
[AD-A261367] 09 p2812 N93-26336
AEGIS measures definition
[AD-A261494] 09 p2812 N93-26375
Source-level debugging of automatically parallelized programs
[AD-A261520] 09 p2813 N93-26378
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
Software quality and testing: What DOD can learn from commercial practices
[AD-A262332] 10 p3099 N93-27652
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994
An integrated environment for the development of scientific and engineering applications
[AD-A262277] 10 p3103 N93-28239
An assessment of space shuttle flight software development processes
[NASA-CR-193179] 11 p3525 N93-28934
A temporal proof methodology for reactive systems
[NASA-CR-193145] 11 p3528 N93-29469
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
Communications systems design for testability: Grey-box testing 11 p3368 N93-30302
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
High-energy electron-positron interactions
[DE93-011611] 11 p3576 N93-30488
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
COBOL Compiler Validation System (CCVS 85), user guide, version 4.2
[PB93-163178] 12 p3785 N93-31112
Building Hadamard matrices in steps of 4 to order 200
[PB93-189835] 12 p3786 N93-31200
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850
Validation of survivability validation protocols
[AD-A264402] 12 p3791 N93-32034
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361

PROGRAMMABLE LOGIC DEVICES
Output data formatter for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4432] 04 p0871 N93-15529
Application of programmable logic controllers to space simulation 04 p0821 N93-15608
From diffusion pumps to cryopumps: The conversion of GSFC's space environment simulator 04 p0814 N93-15611
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
PROGRAMMED INSTRUCTION
NT COMPUTER ASSISTED INSTRUCTION
Study and development of a multiprocessor interface circuit (thesis annex), volume 2
[ECL-91-11-VOL-2] 08 p2446 N93-22676
PROGRAMMERS
Graphics-based parallel programming tools
[AD-A254406] 03 p0683 N93-12763
PROGRAMMING
Human performance assessment methods
[AGARD-AG-308-ADD] 06 p1603 N93-18868
Numerical Wind Tunnel: Requirements and the outline 06 p1411 N93-19288
PROGRAMMING (SCHEDULING)
NT THRUST PROGRAMMING
Estimating test range capacity
[AD-A262493] 11 p3270 N93-28938
PROGRAMMING ENVIRONMENTS
User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
Flight dynamics system software development environment (FDS/SDE) tutorial
[NASA-TM-108580] 04 p0952 N93-15502
Program auralization: Sound enhancements to the programming environment 04 p0953 N93-15539
A minimalist global user interface 04 p0957 N93-15566
Software Management Environment (SME) installation guide
[NASA-TM-108578] 04 p0957 N93-15578
Data collection procedures for the Software Engineering Laboratory (SEL) database
[NASA-TM-108579] 04 p0957 N93-15579
Software engineering laboratory series: Annotated bibliography of software engineering laboratory literature
[NASA-TM-108100] 05 p1237 N93-16380
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Creating an open environment software infrastructure 05 p1254 N93-16774
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
The Software Engineering Laboratory: An operational software experience factory 05 p1243 N93-17162
Automated support for experience-based software management 05 p1244 N93-17164
A classification procedure for the effective management of changes during the maintenance process 05 p1245 N93-17169
Toward full life cycle control: Adding maintenance measurement to the SEL 05 p1245 N93-17170
Object-oriented programming with mixins in Ada 05 p1245 N93-17171
Software Engineering Laboratory Ada performance study: Results and implications 05 p1245 N93-17172
Working Notes from the 1992 AAAI Workshop on Automating Software Design. Theme: Domain Specific Software Design
[NASA-TM-108123] 05 p1246 N93-17499
Formalization and visualization of domain-specific software architectures 05 p1247 N93-17501
The KASE approach to domain-specific software systems 05 p1247 N93-17502
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
Description of research interests and current work related to automating software design 05 p1249 N93-17515
Automating software design system DESTA 05 p1250 N93-17519
Generic domain models in software engineering 05 p1250 N93-17520
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818
Wrapping mathematical tools 06 p1648 N93-18504
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system
[AD-A259018] 06 p1624 N93-19016
Introduction to graphical user interfaces and their use by CITIS
[PB92-213404] 07 p2040 N93-21348
Advanced software development workstation. Comparison of two object-oriented development methodologies
[NASA-CR-192819] 08 p2434 N93-22042
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
A methodology and software environment for testing process model's sequential predictions with protocols
[AD-A260980] 09 p2882 N93-25844
The second Garnet compendium: Collected papers 1990-1992
[AD-A262696] 10 p3102 N93-28118
Parallel software tools at Langley Research Center
[NASA-TM-108995] 11 p3520 N93-29070
An annotated bibliography on integration in software engineering environments
[AD-A264798] 11 p3535 N93-30602
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850
An overview of PCTE: A basis for a Portable Commo n Tool Environment
[AD-A265202] 12 p3791 N93-32000
An iconic programming language for sensor-based robots 12 p3793 N93-32098
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147
Software engineering 12 p3794 N93-32154
The Knowledge-Based Software Assistant: Beyond CASE 12 p3794 N93-32156
The enhanced Software Life Cyle Support Environment (ProSLCSE): Automation for enterprise and process modeling 12 p3794 N93-32158
PROGRAMMING LANGUAGES
NT ADA (PROGRAMMING LANGUAGE)
NT ASSEMBLY LANGUAGE
NT C (PROGRAMMING LANGUAGE)
NT C++ (PROGRAMMING LANGUAGE)
NT COBOL
NT CONTEXT FREE LANGUAGES
NT FORTRAN
NT HIGH LEVEL LANGUAGES
NT LISP (PROGRAMMING LANGUAGE)
NT MACHINE ORIENTED LANGUAGES
NT NATURAL LANGUAGE (COMPUTERS)
NT PASCAL (PROGRAMMING LANGUAGE)
NT PROLOG (PROGRAMMING LANGUAGE)
The VISTA structured assembler
[RSRE-91034] 02 p0407 N93-11341
Using ELLA for high level design: Modelling the Motorola 6800 microprocessor
[RSRE-MEMO-4515] 02 p0408 N93-11386
The evolution of Ten15
[RSRE-MEMO-4543] 02 p0409 N93-11405
Ten15 developments to support parallelism
[RSRE-MEMO-4545] 02 p0409 N93-11406
The WEB approach to ELLA
[RSRE-MEMO-4549] 02 p0409 N93-11407
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
Syntax and lexis of the specification language Z
[RSRE-MEMO-4367] 02 p0414 N93-12326
Requirements Specification Language (RSL) and supporting tools
[NASA-CR-189700] 02 p0405 N93-12345
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
Inheritance for software reuse: The good, the bad, and the ugly 02 p0415 N93-12389
Blackboard architectures for multi-agent planning
[AD-A255035] 03 p0688 N93-12710
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets
[NASA-CR-191260] 03 p0685 N93-13261
Proof of theorems in Z
[AD-A255711] 04 p0968 N93-14431
Information system constraint language (iSyCL)
[AD-A256268] 04 p0976 N93-14438
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
Research in programming languages and software engineering
[AD-A256341] 04 p0947 N93-15199
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment
[VH-1] 04 p0947 N93-15262
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
Integrating VHDL (VHSIC hardware description language) with existing EDA tools
[VH-8] 04 p0948 N93-15268
Proceedings of the REXX Symposium for Developers and Users
[DE92-041359] 04 p0951 N93-15451
An axiomatic treatment of partial correctness and deadlock in a shared variable parallel language
[AD-A256234] 04 p0960 N93-15494
Escape-time visualization method for language-restricted iterated function systems 04 p0956 N93-15558
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
The design of the AIE: An object-oriented application development system
[DE92-041098] 05 p1234 N93-15929
Aspect: A formal specification language for detecting bugs
[AD-A256797] 05 p1234 N93-16056
Report on the FX-91 programming language
[AD-A256798] 05 p1234 N93-16057
A module system for a programming language based on the LF logical framework
[AD-A256731] 05 p1235 N93-16069
An overview of MANIFOLD and its implementation
[CWI-CS-R9142] 05 p1236 N93-16365
Advanced parallel systems
[AD-A256958] 05 p1255 N93-16434
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
Dynamic parsers, evolving grammars and incremental languages
[PREPRINT-863] 05 p1243 N93-16998
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Model-based software design 05 p1249 N93-17514
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
On the borderline between grammars and programs
[TR-91-17] 05 p1252 N93-17594
Modeling process redesign
[AD-A257561] 06 p1617 N93-17983
The dynamic semantics of Kernel ELLA
[AD-A258221] 06 p1617 N93-18024
G-LOG: A graph based query language
[REPT-92-013] 06 p1618 N93-18198
Integration of deductive and object oriented data bases: Theoretical and implementation aspects
[REPT-92-039] 06 p1618 N93-18199
Implementation of inheritance by means of relations
[INRIA-RR-1417] 06 p1621 N93-18513
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651
Creating and manipulating a domain-specific formal object base to support a domain-oriented application composition system
[AD-A259018] 06 p1624 N93-19016
Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335

Unified approach for computer vision problems: Mathematical morphology
[INPE-5391-TAE/012] 06 p1641 N93-19640
Explicit polymorphism and CPS conversion
[AD-A258635] 07 p2029 N93-20033
Tomita's algorithm: Extensions and applications
[MEMO-INF-91-68] 07 p2030 N93-20220
Substring parsing for arbitrary context-free grammars 07 p2031 N93-20225
MODULA-2* and its compilation
[INRIA-RR-1421] 07 p2037 N93-20859
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
Efficient compilation of a synchronous declarative language: LUSTRE-V3 code generator
[ETN-93-92679] 07 p2038 N93-20899
Design and implementation of LOGRES
[REPT-92-040] 07 p2039 N93-21184
Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041
Prototype PC user interface
[DE93-008008] 09 p2809 N93-25303
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
Towards a formalism for program generation
[AD-A261689] 09 p2812 N93-26368
Formal specification of MANIFOLD: A preliminary study
[CWI-CS-R9215] 10 p3093 N93-27254
A comparison of OBJ3 and ASF+SDF
[CWI-CS-R9223] 10 p3094 N93-27363
Using cached functions and constructors for incremental attribute evaluation
[RUU-CS-92-11] 10 p3094 N93-27369
Associative matching for linear terms
[CWI-CS-R9224] 10 p3094 N93-27377
A design and realization exercise of a mini message transfer system
[MEMO-INF-92-51] 10 p3095 N93-27386
Specification of MANIFOLD, version 1.0
[CWI-CS-R9220] 10 p3095 N93-27388
Comparative transition system semantics
[CWI-CS-R9222] 10 p3095 N93-27389
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
Abstraction in real time process algebra
[CWI-CS-R9144] 10 p3096 N93-27492
An executable semantics for a subset of COLD
[CWI-CS-R9145] 10 p3097 N93-27493
Towards a design theory for database triggers
[CWI-CS-R9201] 10 p3166 N93-27494
Bisimulation semantics for concurrency with atomicity and action refinement
[CWI-CS-R9210] 10 p3116 N93-27498
Processes as terms: Non-well-founded models for bisimulation
[CWI-CS-R9211] 10 p3097 N93-27499
A primitive recursive set theory and AFA: On the logical complexity of the largest bisimulation
[CWI-CS-R9213] 10 p3097 N93-27501
More examples in MANIFOLD
[CWI-CS-R9214] 10 p3097 N93-27502
A simple specification language combining processes, time, and data
[CWI-CS-R9209] 10 p3097 N93-27525
Computable processes and bisimulation equivalence
[CWI-CS-R9207] 10 p3098 N93-27552
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994
Regular processes with relative time and silent steps
[CWI-CS-R9231] 10 p3101 N93-27995
Specification and generation of a lambda-calculus environment
[CWI-CS-R9233] 10 p3101 N93-27997
Concurrent clean language manual, version 0.8
[TR-92-18] 11 p3522 N93-28482
The concurrent clean system user's manual and PABCstat user's manual, version 0.8
[TR-92-19] 11 p3523 N93-28484
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
Implementing error-valued semantics for dataflow languages on imperative machines
[DE93-009319] 11 p3615 N93-29310
Automated reasoning with function evaluation for COCOLOG
[INRIA-RR-1713] 11 p3529 N93-29488
Full abstraction for a shared variable parallel language
[AD-A263547] 11 p3530 N93-29821
Class notes: Programming parallel algorithms CS 15-840B (Fall 1992)
[AD-A263549] 11 p3530 N93-29823
Turning SOS rules into equations
[CWI-CS-R9218] 11 p3532 N93-30017
On the integration of algebraic and logic languages
[ETN-93-94238] 12 p3786 N93-31205
A new definition of the subtype relation
[AD-A265548] 12 p3791 N93-32066
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Intelligent assistance in scientific data preparation 12 p3843 N93-32144

PROGRAMS

NT APOLLO PROJECT
NT APOLLO SOYUZ TEST PROJECT
NT AUSTRALIAN SPACE PROGRAM
NT AUSTRIAN SPACE PROGRAM
NT BRAZILIAN SPACE PROGRAM
NT CANADIAN SPACE PROGRAM
NT CHINESE SPACE PROGRAM
NT DEFENDER PROJECT
NT DEFENSE PROGRAM
NT EARTH RESOURCES PROGRAM
NT EUROPEAN SPACE PROGRAMS
NT FRENCH SPACE PROGRAM
NT GALILEO PROJECT
NT GERMAN SPACE PROGRAM
NT GLOBAL ATMOSPHERIC RESEARCH PROGRAM
NT INDONESIAN SPACE PROGRAM
NT INTERNATIONAL GEOSPHERE-BIOSPHERE PROGRAM
NT ISCCP PROJECT
NT ISRAELI SPACE PROGRAM
NT ITALIAN SPACE PROGRAM
NT JAPANESE SPACE PROGRAM
NT LUNAR PROGRAMS
NT MAGELLAN PROJECT (NASA)
NT NASA PROGRAMS
NT NASA SPACE PROGRAMS
NT NATIONAL AEROSPACE PLANE PROGRAM
NT NATIONAL LAUNCH VEHICLE PROGRAM
NT NETHERLANDS SPACE PROGRAM
NT NORWEGIAN SPACE PROGRAM
NT PAKISTAN SPACE PROGRAM
NT PANT PROGRAM
NT PROJECT SETI
NT PROJECTS
NT ROVER PROJECT
NT SKYLAB PROGRAM
NT SPACE PROGRAMS
NT SUCCESS PROJECT
NT SUPERSONIC CRUISE AIRCRAFT RESEARCH
NT SWEDISH SPACE PROGRAM
NT U.S.S.R. SPACE PROGRAM
NT UK SPACE PROGRAM
NT UNIVERSITY PROGRAM
NT VIKING MARS PROGRAM
Fusion programs in applied plasma physics
[DE92-019639] 02 p0452 N93-11660
Electric and hybrid vehicle program, site operator program
[DE92-018055] 02 p0328 N93-12114
The collaborative program of research in engineering sciences
[DE92-016838] 02 p0490 N93-12477
ROMPS critical design review. Volume 3: Furnace module design documentation
[NASA-CR-191615] 05 p1237 N93-16440
EISCAT educational programs 06 p1579 N93-18745

PROGRESS

US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954

PROJECT MANAGEMENT

Total Quality Management (TQM) concepts applied to instruction
[DE92-013399] 01 p0171 N93-10270
Establishing a scientific and technical information program: Planning and resource management 01 p0173 N93-10597
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
DOE guideline: Guide to good practices for incorporating operating experiences
[DE92-017684] 02 p0472 N93-12223
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
Report to Congress: State Block Grant Program
[AD-A254569] 03 p0507 N93-13882
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Creating a foundation for a synergistic approach to program management 03 p0732 N93-14017
The V-22 Osprey: A case analysis
[AD-A256445] 04 p0791 N93-14601
EDI planning and implementation guide
[AD-A255737] 04 p1007 N93-15050
Center for Advanced Propulsion Systems (Research)
[AD-A256628] 04 p0893 N93-15410
Space transfer vehicle concepts and requirements. Volume 3: Program cost estimates
[NASA-CR-184491] 05 p1076 N93-16688
The future of management: The NASA paradigm 05 p1350 N93-16859
Strategies for broadening public involvement in space developments 05 p1349 N93-16861
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Systems engineering process and organization assessment 05 p1340 N93-17281
Evaluation and recommendations for work group integration within the Materials and Processes Lab 05 p1341 N93-17293
Some effects of time usage patterns on the productivity of engineers 05 p1343 N93-17301
Directions for future Earth-to-orbit vehicles 05 p1076 N93-17309
Modeling closure of army materiel command installations: A bi-criteria mixed integer programming approach
[AD-A257755] 05 p1252 N93-17672
An analysis of contract cost overruns and their impacts
[AD-A258422] 06 p1683 N93-17862
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
National Airspace System flight planning operational concept NAS-SR-131
[PB93-124659] 06 p1418 N93-18031
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Metric transition
[NASA-TM-108599] 06 p1499 N93-18354
Metrication report to the Congress
[NASA-TM-108601] 06 p1499 N93-18355
Tech transfer outreach
[DE93-001553] 06 p1694 N93-18533
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
The future of the US space launch capability 06 p1456 N93-18865
A model of Global Positioning System (GPS) Master Control Station (MCS) operations
[AD-A258846] 06 p1433 N93-19067
Process engineering with the evolutionary spiral process model, version 01.00.01
[AD-A258966] 06 p1625 N93-19085
Process definition and modeling guidebook, version 01.00.02
[AD-A258967] 06 p1625 N93-19086
Corporate information management and business process improvement under the unit cost program: An analysis of a system for the Air Force Institute of Technology
[AD-A258984] 06 p1687 N93-19098
Advanced cockpit-mission and image management 06 p1607 N93-19760
The MOD (UK) integrated helmet technical demonstrator programme 06 p1609 N93-19769
Program manager: Journal of the Defense Systems Management College, volume 21, number 6, November-December 1992
[AD-A258766] 06 p1553 N93-19870
HOPE information system review 07 p1791 N93-20425
Continuous improvement on a research and development environment
[DE93-001561] 07 p2086 N93-21304
GPHS-RTGs in support of the Cassini mission
[DE93-002035] 07 p1825 N93-21702

Advanced software development workstation. Comparison of two object-oriented development methodologies
[NASA-CR-192819] 08 p2434 N93-22042
Entry Systems Panel deliberations 08 p2176 N93-22105
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Overview of activities of ISY PIE Committee 08 p2335 N93-22129
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2
[NASA-CR-192474] 08 p2302 N93-22347
Introduction to Space Station Freedom 08 p2182 N93-22608
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
The collaborative program of research in engineering sciences
[DE93-005126] 08 p2257 N93-22768
Summary document of tasks performed on the Shuttle-C/NLS contract
[NASA-CR-192483] 08 p2179 N93-22995
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Organization and management of space grant programs 08 p2517 N93-23152
NASA reports 08 p2154 N93-23163
Architecture for human-computer design, management and coordination in a collaborative AEC environment 08 p2528 N93-24186
Megaprojects in the sciences
[PB93-140002] 08 p2475 N93-24308
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
Management issues in systems engineering 09 p2665 N93-24682
The importance of cost considerations in the systems engineering process 09 p2666 N93-24686
Systems engineering and integration processes involved with manned mission operations 09 p2666 N93-24688
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Wrap-up session 09 p2737 N93-24940
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
Tree classification software 09 p2814 N93-25591
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting
[NASA-CR-192515] 09 p2614 N93-26152
Systems overview 10 p2977 N93-26915
Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257
Lotosphere, an attempt towards a design culture
[MEMO-INF-92-56] 10 p3163 N93-27490
Repository-Based Software Engineering Program: Working Program Management Plan
[NASA-CR-193113] 10 p3104 N93-28319
Applied research in America
[DE93-011725] 11 p3625 N93-28646
The program manager's notebook
[AD-A263074] 11 p3609 N93-29142
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Air Force CALS business practices
[AD-A264789] 11 p3610 N93-30177
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
The NCAT process 11 p3626 N93-30697

PROJECT PLANNING
Establishing a scientific and technical information program: Planning and resource management 01 p0173 N93-10597
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
DOE guideline: Guide to good practices for incorporating operating experiences
[DE92-017684] 02 p0472 N93-12223
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
Development of a model for predicting NASA/MSFC program success
[NASA-CR-184423] 02 p0473 N93-12542
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
Solar System Exploration Division Strategic Plan, volume 1. Executive summary and overview
[NASA-TM-107843] 03 p0513 N93-13265
Small planetary mission plan: Report to Congress
[NASA-TM-107809] 03 p0513 N93-13266
Hydrogen Program Plan, FY 1993 - 1997
[DE92-010556] 03 p0538 N93-13316
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
The program plan: An overview of the development and implementation of the International Asteroid Mission 03 p0514 N93-13553
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
Earth environment space initiative 04 p0811 N93-14953
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Query optimization and planning in object-oriented knowledge bases
[AD-A256006] 04 p1008 N93-15254
Space Station Freedom user's guide
[NASA-TM-108105] 04 p0825 N93-15650
DOE Headquarters MHD/fuel cell support contract
[DE92-040257] 05 p1194 N93-15935
Tradeoffs in the utility of learned knowledge
[NASA-TM-108111] 05 p1242 N93-16750
Baseline program 05 p1379 N93-16871
Environmental restoration program control management system
[DE93-000469] 05 p1203 N93-17011
Operational considerations for lunar transportation 05 p1392 N93-17418
Exodus: Prime Mover
[NASA-CR-192051] 05 p1064 N93-17803
SNECMA M88 engine development status
[ASME-90-GT-118] 06 p1448 N93-17849
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan
[NASA-CR-192037] 06 p1733 N93-17999
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
Materials development program, ceramic technology project addendum to program plan: Cost effective ceramics for heat engines
[DE93-003663] 06 p1494 N93-18537
Space physics strategy: Implementation study. Volume 2: Program plan
[NASA-TM-108143] 06 p1453 N93-18544
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648
Neuroscience discipline science plan
[NASA-TM-108041] 06 p1600 N93-19882
Regulatory physiology discipline science plan
[NASA-TM-108038] 06 p1594 N93-19891
Musculoskeletal discipline science plan
[NASA-TM-108039] 06 p1600 N93-19892
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 1: Plenary Session
[NASA-TM-108651] 07 p2085 N93-20329
Study on environment control and life support technology 07 p1789 N93-20413
Research on HOPE 07 p1791 N93-20423
HOPE information system review 07 p1791 N93-20425
Orbit re-entry experiment vehicle development 07 p1792 N93-20432
Conceptual study of ETS-7 07 p1793 N93-20437
Canada's longterm space plan and ISY activities 07 p1819 N93-21284
Predicting our weather: A strategic plan for the US Weather Research Program
[PB93-101277] 07 p2013 N93-21293
Federal plan for meteorological services and supporting research, FY 1993
[PB92-233188] 07 p2014 N93-21502
Integrated cost accounting system
[AD-A258587] 07 p2093 N93-21755
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Overview of activities of ISY PIE Committee 08 p2335 N93-22129
Development of CPG dish-Stirling systems for remote power applications
[DE93-003251] 08 p2376 N93-22414
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Summary document of tasks performed on the Shuttle-C/NLS contract
[NASA-CR-192483] 08 p2179 N93-22995
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
Public Congressional forum on space 08 p2154 N93-23165
NASA's strategic plan for education. A strategy for change, 1993-1998
[NASA-EP-289] 08 p2517 N93-23174
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Nuclear electric propulsion for planetary science missions: NASA technology program planning
[NASA-TM-106139] 09 p2632 N93-26210
Strategic plan for scientific computing
[DE93-006875] 10 p3090 N93-27614
Program plan for an experimenter's laboratory for visualized interactive science 11 p3613 N93-29224
High performance computing: Advanced Research Projects Agency should do more to foster program goals. Report to the Chairman, Committee on Armed Services, House of Representatives
[GAO/IMTEC-93-24] 11 p3533 N93-30202
Rotorcraft master plan 11 p3236 N93-30677
Technology coordination 11 p3626 N93-30706
NASA aerospace pyrotechnically actuated systems: Program plan
[NASA-TM-109226] 12 p3712 N93-31308
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194

PROJECT SETI
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191807] 05 p1230 N93-16709
The Telecommunications and Data Acquisition Report
[NASA-CR-191228] 06 p1511 N93-19413
SETI low-frequency feed design study for DSS 24 06 p1514 N93-19433
SETI in Europe 08 p2429 N93-23908
Space biology research development
[NASA-CR-192830] 09 p2792 N93-25242
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-193137] 11 p3509 N93-28895

PROJECTILE CRATERING
Atmospheric effects on crater growth on Venus 04 p1041 N93-14370
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
Damage areas on selected LDEF aluminum surfaces 11 p3283 N93-29374
LDEF data: Comparisons with existing models 11 p3283 N93-29375

PROJECTILE PENETRATION
U TERMINAL BALLISTICS

PROJECTILES
NT HYPERVELOCITY PROJECTILES
NT PRECISION GUIDED PROJECTILES
NT SABOT PROJECTILES
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106

Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Experimental observations of the plasma properties of a high-density, low-temperature accelerated arc
04 p0988 N93-14138
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Numerical and experimental studies of high-velocity impact fragmentation
[DE92-041145] 05 p1183 N93-15972
Impact on ceramic faced armour
[ETN-92-92797] 05 p1124 N93-16569
Interactive hyperbolic grid generation for projectile CFD
[BRL-MR-3971] 05 p1240 N93-16620
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils
[DE93-000792] 05 p1293 N93-17381
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Ramjet propulsion for advanced projectiles
05 p1067 N93-17615
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Safety and arming system for tube launched projectile
[AD-D015557] 07 p1889 N93-20307
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
A multiple armature railgun launcher
[AD-A259768] 08 p2171 N93-23486
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Studies of relativistic heavy ion collisions at the AGS (E814/E877)
[DE93-008541] 11 p3564 N93-28678
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment
11 p3638 N93-29370
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
Measurement of projectile surface temperature by means of its infrared radiation: A preliminary study
[AD-A264053] 11 p3432 N93-30032
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping
[AD-A264111] 12 p3726 N93-32028
Technique for measuring the spin rate of kinetic energy projectiles
[AD-A264114] 12 p3717 N93-32031
Single crystal tungsten kinetic energy penetrators
[DE93-012570] 12 p3706 N93-32296
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

PROJECTION
Stabilization and projection methods for multibody dynamics
[PB92-133883] 03 p0698 N93-12890
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU]
03 p0711 N93-13711

PROJECTIVE GEOMETRY
NT MERCATOR PROJECTION
Projection with a minimal system of inequalities
[AD-A257237] 05 p1263 N93-15961
3D pose from 3 corresponding points under weak-perspective projection
[AD-A259737] 08 p2460 N93-23473
Precision geocoding demonstrator system
08 p2348 N93-23539
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056
The power of parallel projection
[RUU-CS-92-17] 10 p3100 N93-27908

PROJECTORS
Infrared image projector utilizing a deformable mirror device spatial light modulator
[AD-D015373] 03 p0710 N93-13500
Advantages of using a projected head-up display in a flight simulator
[AD-A255332] 04 p0804 N93-14559
Multiple projector small dome display
[AD-A258621] 07 p2077 N93-19996

PROJECTS
NT APOLLO PROJECT
NT APOLLO SOYUZ TEST PROJECT
NT DEFENDER PROJECT
NT GALILEO PROJECT
NT ISCCP PROJECT
NT MAGELLAN PROJECT (NASA)
NT PROJECT SETI
NT ROVER PROJECT
NT SUCCESS PROJECT
Ongoing research projects at VTT in 1991
[ISBN-951-38-3771-8] 08 p2570 N93-23423
The world wide launching campaign for student rockets experimental payloads 08 p2368 N93-23820

PROKARYOTES
Regulation of alternative CO2 fixation pathways in procaryotic and eucaryotic photosynthetic organisms
[DE93-012109] 11 p3491 N93-29181

PROLATE SPHEROIDS
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124

PROLATENESS
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249

PROLOG (PROGRAMMING LANGUAGE)
Blackboard architectures for multi-agent planning
[AD-A255035] 03 p0688 N93-12710
Design and implementation of practical constraint logic programming systems
[AD-A256191] 04 p0943 N93-14558
Multiple robot programming using concurrent logic language
[F-3-3] 04 p0950 N93-15304
Compiling Prolog to standard ML: Some optimizations
[AD-A256193] 05 p1232 N93-15841
Implementing higher-order algebraic specifications
[CWI-CS-R9150] 05 p1265 N93-16368
A contribution to the study of OR-parallel in PROLOG over distributed memory machines
[ETN-93-92681] 07 p2044 N93-20886
Analysis of symbolic parameter models
[AD-A261930] 09 p2811 N93-26253
A theory of first-order built-in's of PROLOG
[CWI-CS-R9216] 10 p3093 N93-27255
MLog: A language for prototyping concurrent systems
11 p3368 N93-30301
Reasoning about termination of PROLOG programs
[CT-91-12] 12 p3787 N93-31479

PROMINENCES
NT SOLAR PROMINENCES
Spatial distribution of line-of-sight velocities in a quiescent prominence 01 p0183 N93-10928

PROMOTION
Definition of a European promotion concept
08 p2162 N93-24381

PRONY SERIES
The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041

PROOFS
U PROVING

PROP-FAN TECHNOLOGY
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234] 06 p1407 N93-18585
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis computer program user's manual
[NASA-CR-187127] 06 p1449 N93-18702
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects
[NASA-CR-191087] 08 p2111 N93-23431
Evaluation of MARC for the analysis of rotating composite blades
[NASA-TM-4423] 09 p2723 N93-24909
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148

PROPAGATION
Conditioning electron beams in the ion-focused regime
[AD-A255635] 04 p0978 N93-14127
The universal propagator 10 p3141 N93-27313
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential
10 p3141 N93-27314

PROPAGATION (EXTENSION)
NT CRACK PROPAGATION
NT FLAME PROPAGATION
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830

PROPAGATION MODES
NT WHISPERING GALLERY MODES
Status of dynamic fracture in brittle solids
01 p0049 N93-10493
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation
[AD-A257634] 05 p1141 N93-17721
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
The influence of propagation on high frequency radiogoniometry and single station location
08 p2266 N93-23607

A comparison of ionospheric propagation mode delay predictions from ADVANCED PROPHET 4.3 with measured data
[AD-A261782] 09 p2686 N93-26604
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Studies of the propagation of Low Frequency (LF) radio waves 11 p3396 N93-30738

PROPAGATION VELOCITY
Diagnostic of shock wave processes
[DE92-018059] 03 p0565 N93-13357
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure 04 p0913 N93-14225
A numerical study of dynamic crack propagation in composites
[AD-A257544] 06 p1476 N93-17961
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Observations of an intrathermocline vortex 09 p2788 N93-24769
Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082

PROPAGATORS
U PROPAGATION

PROPANE
Physical property data on fluorinated propanes and butanes as CFC and HCFC alternatives
[PB92-206507] 03 p0555 N93-12939
Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Documentation for propane fleet conversion cost-effectiveness model
[PB93-165611] 09 p2720 N93-26590
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 1
[PB93-186492] 12 p3712 N93-31326
Cost-effectiveness analysis of txDOT LPG fleet conversion, volume 2
[PB93-186500] 12 p3713 N93-31327

PROPELLANT ADDITIVES
NT PROPELLANT BINDERS
NT SOLID ROCKET BINDERS
Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique 09 p2631 N93-26043

PROPELLANT BINDERS
NT SOLID ROCKET BINDERS
High energy cast explosives based on dinitropropylacrylate
[AD-D015340] 02 p0273 N93-11045
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251

PROPELLANT CASTING
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825

PROPELLANT CHEMISTRY
Synthesis and characterization of energetic polymers 01 p0015 N93-10005
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Marking of German plastic explosive for the enhancement of vapor detection 07 p1775 N93-21925
Program to tag military plastic/sheet explosives 07 p1775 N93-21926
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-26675
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098

PROPELLANT COMBUSTION
NT SOLID PROPELLANT COMBUSTION
NT SOLID PROPELLANT IGNITION
Combustion-wave ignition for rocket engines 01 p0017 N93-10016
Theory of combustion of liquid propellants based on hydroxylammonium nitrate
[AD-A248445] 01 p0042 N93-10267
The 28th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-573-VOL-1] 02 p0244 N93-11132
Metal slurry droplet and spray combustion 02 p0245 N93-11138
The 28th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-573-VOL-2] 02 p0247 N93-11448
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Bipropellant spray combustion modeling in small rocket engines 03 p0556 N93-13924
Introduction to spray combustion modelling 04 p0841 N93-14626
Combustion in supersonic flows 04 p0841 N93-14627
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
Liquid oxygen/metal gelled monopropellants
[NASA-CR-187193] 05 p1130 N93-17795
Performance and heat transfer characteristics of a carbon monoxide/oxygen rocket engine
[NASA-TM-105897] 06 p1474 N93-18878
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Dynamic burning rate measurements of metalized composite propellants using the laser-recoil technique 09 p2631 N93-26043
The 29th JANNAF Combustion Subcommittee Meeting, volume 1
[CPIA-PUBL-593-VOL-1] 10 p2985 N93-27134
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215
Progress in optical diagnostic development for the electro-thermal chemical program
[DE93-009452] 10 p2997 N93-28452
The equivalent flat nose diameter of hemispherical nose cylindrical projectiles for impact induced detonation of energetic materials
[AD-A263244] 11 p3342 N93-29494
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials 11 p3343 N93-30063
Numerical modeling of multidimensional flames with application to energetic materials 11 p3319 N93-30079
Flame structure studies of propellant like low pressure flames using optical and mass spectrometric means 11 p3319 N93-30081
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102

PROPELLANT DECOMPOSITION
Regression rate mechanism in a solid fuel ramjet 10 p2922 N93-27185
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402

PROPELLANT EXPLOSIONS
Impact ignition of liquid propellants
[AD-A252299] 02 p0249 N93-11490
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083

PROPELLANT GRAINS
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Propellant grain assembly for a gas generator
[AD-D015439] 04 p0854 N93-14801
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913

PROPELLANT OXIDIZERS
U ROCKET OXIDIZERS

PROPELLANT PROPERTIES
NT PROPELLANT SENSITIVITY
Synthesis and characterization of energetic polymers 01 p0015 N93-10005
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a taggant 07 p1775 N93-21928
Prediction of propellant behavior in spinning flow of a space motor 10 p2923 N93-27193
Benefits of in situ propellant utilization for a Mars sample return mission
[NASA-TM-106243] 11 p3341 N93-28695

PROPELLANT SENSITIVITY
Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
Molecular composition, structure, and sensitivity of explosives
[DE93-003850] 09 p2662 N93-26493
The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive
[LA-UR-92-1427] 11 p3345 N93-30074

PROPELLANT SPRAYS
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Physical processes involved in injection and atomization of liquid propellants 02 p0248 N93-11453
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
An experimental study of droplet dispersion in turbulent flows 02 p0248 N93-11455
Bipropellant spray combustion modeling in small rocket engines 03 p0556 N93-13924
Introduction to spray combustion modelling 04 p0841 N93-14626

PROPELLANT STORAGE
Developing a safe on-orbit cryogenic depot 05 p1393 N93-17426
Optimizing liquid hydrogen storage systems 07 p1879 N93-20692
Development of an all-composite NGV high pressure storage cylinder
[PB93-114429] 07 p1878 N93-21789
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025

PROPELLANT TANKS
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682

Fluid mechanics applications for the design and test of the surface tension tank OST-2
08 p2248 N93-22841
The study of surface tension tanks from the neutral buoyancy to the space flight 08 p2248 N93-22842
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems
[NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715
Investigation of separation in a strap-on Space Shuttle system
[AD-A262372] 10 p2956 N93-27693
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
Reusable cryogenic liquid rocket propellant tank
[NASA-CASE-LAR-14172-1] 12 p3692 N93-31295

PROPELLANT TESTS
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
A summary of the JANNAF workshop on diagnostics 02 p0248 N93-11451
Program to tag military plastic/sheet explosives 07 p1775 N93-21926
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
The burning rate behavior of pure nitrocellulose propellant samples
[AD-A261009] 09 p2661 N93-25857
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094

PROPELLANT TRANSFER
Generic Propellant Transfer Unit 01 p0011 N93-10046
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Propellant removal from rocket motors containing double-base compositions
[DE92-013567] 02 p0275 N93-12265
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
Fluid mechanics applications for the design and test of the surface tension tank OST-2 08 p2248 N93-22841
The study of surface tension tanks from the neutral buoyancy to the space flight 08 p2248 N93-22842
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025

PROPELLANTS
NT CASE BONDED PROPELLANTS
NT COMPOSITE PROPELLANTS
NT CRYOGENIC ROCKET PROPELLANTS
NT DOUBLE BASE PROPELLANTS
NT DOUBLE BASE ROCKET PROPELLANTS
NT GASEOUS ROCKET PROPELLANTS
NT GELLED PROPELLANTS
NT GUN PROPELLANTS
NT HIGH ENERGY PROPELLANTS
NT HIGH TEMPERATURE PROPELLANTS
NT HMX
NT HTPB PROPELLANTS
NT HYPERGOLIC ROCKET PROPELLANTS
NT LIQUID ROCKET PROPELLANTS
NT METAL PROPELLANTS
NT MONOPROPELLANTS
NT NITRAMINE PROPELLANTS
NT PLASTIC PROPELLANTS
NT RDX
NT ROCKET PROPELLANTS
NT RP-1 ROCKET PROPELLANTS
NT SLURRY PROPELLANTS
NT SOLID PROPELLANTS
NT SOLID ROCKET PROPELLANTS
NT STORABLE PROPELLANTS
NT TATB
Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
Limited toxicity and mutagenicity testing of five unicharge propellant compounds
[AD-A252339] 01 p0043 N93-10636
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Potential missile flight performance gains from improvements to the propulsion system 05 p1092 N93-17609
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
An experimental and analytical study of the unsteady combustion of homogeneous energetic solids using the laser-recoil method 09 p2630 N93-26042
Selective nitrations. Volume 2: The laser-induced nitration of three cycloalkanes
[AD-A263250] 11 p3438 N93-29800
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy 11 p3318 N93-30073
Strategies for understanding the deflagration-to-detonation transition 11 p3319 N93-30077

PROPELLER BLADES
Pressure and noise induced by a cavitating marine screw propeller
[VTT-PUBS-87] 02 p0299 N93-11360
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Evaluation of MARC for the analysis of rotating composite blades
[NASA-TM-4423] 09 p2723 N93-24909
A review of civil aviation propeller-to-person accidents: 1980-1989
[AD-A260695] 09 p2583 N93-25896
Interaction between ice and propeller
[VTT-TIED-1281] 10 p3051 N93-27832
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Project ARES 2: High-altitude battery-powered aircraft 11 p3227 N93-29715
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891

PROPELLER DRIVE
NT HELICOPTER PROPELLER DRIVE

PROPELLER EFFICIENCY
On the verification of a theory for sculling propulsion
[ETN-93-94040] 12 p3725 N93-31519

PROPELLER FANS
Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022
Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects
[NASA-CR-191087] 08 p2111 N93-23431
Evaluation of MARC for the analysis of rotating composite blades
[NASA-TM-4423] 09 p2723 N93-24909
Theory for noise of propellers in angular inflow with parametric studies and experimental verification
[NASA-CR-4499] 09 p2844 N93-25094
A numerical and experimental studies of flow characteristics in centrifugal fans 09 p2577 N93-25339
Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148

PROPELLER NOISE
Reduction of propeller noise by active noise control 01 p0152 N93-10692
The design and commissioning of an acoustic liner for propeller noise testing in the ARA transonic wind tunnel
[PNR-90880] 02 p0433 N93-11204
Pressure and noise induced by a cavitating marine screw propeller
[VTT-PUBS-87] 02 p0299 N93-11360
Propfan noise propagation
[NASA-CR-192221] 06 p1652 N93-19888
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
Theory for noise of propellers in angular inflow with parametric studies and experimental verification
[NASA-CR-4499] 09 p2844 N93-25094
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
Modal measurements and propeller field excitation on acoustic full scale mockup of SAAB 340 aircraft
[FFA-TN-1992-08] 12 p3815 N93-31051

PROPELLER SLIPSTREAMS
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205

PROPELLERS
NT CONTRAROTATING PROPELLERS
NT PROPELLER FANS
NT SHROUDED PROPELLERS
Aircraft accident report: Atlantic Southeast Airlines, Inc. Flight 2311, uncontrolled collision with terrain, an Embraer EMB-120, N270AS, Brunswick, Georgia, 5 April 1991
[PB92-910403] 02 p0203 N93-11471
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
Professor Wittenberg: His speciality and versatility
[ISBN-90-6275-670-0] 06 p1403 N93-19002
Propelling force and resistance 06 p1403 N93-19003
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
On the verification of a theory for sculling propulsion
[ETN-93-94040] 12 p3725 N93-31519

PROPFAN TECHNOLOGY
U PROP-FAN TECHNOLOGY

PROPHYLAXIS
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population 02 p0381 N93-11307

PROPORTIONAL CONTROL
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067
A fuzzy controller with nonlinear control rules is the sum of a global nonlinear controller and a local nonlinear PI-like controller 08 p2453 N93-22356
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
Three-parameter tunable Tilt-Integral-Derivative (TID) controller
[NASA-CASE-NPO-18492-1-CU] 11 p3542 N93-29176

PROPORTIONAL COUNTERS
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
Rosat deep surveys 02 p0482 N93-11474

Quasar x-ray spectra revisited
04 p1012 N93-14760
Explaining cloud chamber tracks
[DE92-040502] 04 p0972 N93-15057
Observing AGN and DXRB with Xspect/Sodart
05 p1360 N93-17103
A deep ROSAT observation of the highly variable AGN 1E1403+5439 or ROSAT non-detection of the weak AGN 1E1403+5439 05 p1361 N93-17122
Where have all the sources gone?
05 p1373 N93-17144
ROSAT deep surveys 05 p1362 N93-17145
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
The GALLEX solar neutrino experiment
[DE93-003357] 07 p2102 N93-21962
Observation of the extragalactic x ray background
08 p2535 N93-23892
Design and in orbit performance of the ROSAT PSPC
08 p2539 N93-23923
VETA-1 x ray detection system
09 p2854 N93-26185
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
AXAF VETA-I mirror encircled energy measurements and data reduction 09 p2855 N93-26188
Results on Monte-Carlo simulations of a microstrip gas counter
[NIKHEF-H/92-10] 10 p3040 N93-27541

PROPOSALS
Performing a successful audience analysis: How to improve your proposal-writing skills
[DE92-018978] 02 p0479 N93-12068
Directory of research projects: Planetary geology and geophysics program
[NASA-TM-4428] 04 p0864 N93-15638
Air Force Office of Scientific Research
[AD-A260675] 09 p2911 N93-25893
NASA SBIR abstracts of 1991 phase 1 projects
[NASA-TM-108240] 11 p3609 N93-29323
AFOSR Status Report
[AD-A264720] 11 p3670 N93-30513

PROPRIOCEPTION
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Cooperative control of multiple space manipulators
04 p0805 N93-14923

PROPRIOCEPTORS
An active tactile perception system
04 p0805 N93-14926

PROPULSION
NT ASCENT PROPULSION SYSTEMS
NT CHEMICAL PROPULSION
NT ELECTRIC PROPULSION
NT ELECTROMAGNETIC PROPULSION
NT ELECTROSTATIC PROPULSION
NT HYBRID PROPULSION
NT ION PROPULSION
NT JET PROPULSION
NT LASER PROPULSION
NT LOW THRUST PROPULSION
NT MARINE PROPULSION
NT NUCLEAR ELECTRIC PROPULSION
NT NUCLEAR PROPULSION
NT PLASMA PROPULSION
NT SOLAR ELECTRIC PROPULSION
NT SOLAR THERMAL PROPULSION
NT SPACE STATION PROPULSION
NT SPACECRAFT PROPULSION
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
Tethers 05 p1089 N93-16915
Cargo vehicle architecture options
08 p2172 N93-22082
Propulsion Systems Panel deliberations
08 p2175 N93-22101
Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
Propulsion and detonics research in France
11 p3344 N93-30070

PROPULSION SYSTEM CONFIGURATIONS
NT ASCENT PROPULSION SYSTEMS
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Plug nozzle propulsion system
01 p0017 N93-10013
Electric propulsion applications
01 p0020 N93-10029
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
10 kW power electronics for hydrogen arcjets
01 p0021 N93-10033
Selection of rocket propulsion systems
01 p0022 N93-10034
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
NLS cargo transfer vehicle propulsion system
01 p0023 N93-10041
DSP propulsion system launch configuration and related testing 01 p0024 N93-10048
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
A personal viewpoint on the development of China's liquid propellant rocket engines
[AD-A254104] 01 p0027 N93-10813
Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
AFOSR Contractors Meeting in Propulsion
[AD-A254484] 03 p0525 N93-12575
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
Aerodynamic Engine/Airframe Integration for High Performance Aircraft and Missiles
[AGARD-CP-498] 03 p0577 N93-13199
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
Integration of turbo-ramjet engines for hypersonic aircraft 03 p0503 N93-13230
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
Center for Advanced Propulsion Systems (Research)
[AD-A256628] 04 p0893 N93-15410
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Development of NASA/DOE NTP system performance models
[NASA-TM-105982] 04 p0827 N93-15428
Nuclear thermal rocket nozzle testing and evaluation program
[NASA-TM-105962] 04 p0827 N93-15571
Combined high and low thrust propulsion for fast piloted Mars missions
[NASA-CR-190788] 04 p0828 N93-15584
Advanced hybrid nuclear propulsion Mars mission performance enhancement
[DE93-001309] 05 p1090 N93-16177
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
Reusable Reentry Satellite (RRS): Propulsion system trade study
[NASA-CR-186527] 05 p1087 N93-16720
Electric propulsion 05 p1095 N93-16916
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems
05 p1074 N93-17290
Hybrid rocket performance 05 p1095 N93-17295
Modeling for health monitoring and control with applications to the Space Transportation Main Engine
05 p1095 N93-17298
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
Development testing of throttleable ducted rockets
05 p1092 N93-17610
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
Ramjet propulsion for advanced projectiles
05 p1067 N93-17615
Smaller expendable turbojets
05 p1067 N93-17621
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
Identification of propulsion systems
[NASA-TM-106007] 07 p1784 N93-20109
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
An electromagnetically-controlled Precision Orbital Tracking Vehicle (POTV)
[AD-A259143] 07 p1823 N93-20129
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
Lunar transfer vehicle studies
08 p2173 N93-22087
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Advanced rocket propulsion 08 p2174 N93-22091
Space propulsion 08 p2174 N93-22092
Nuclear concepts/propulsion
08 p2174 N93-22093
Solid rocket motors 08 p2174 N93-22094
Propulsion Systems Panel 08 p2174 N93-22096
Vehicle Systems Panel deliberations
08 p2175 N93-22098
Propulsion Systems Panel deliberations
08 p2175 N93-22101
Hybrid rocket propulsion 08 p2175 N93-22102
Solid Propulsion Integrity Program (SPIP) for verifiable enhanced solid rocket motor reliability
08 p2176 N93-22104
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management
08 p2452 N93-22221
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411

Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 2: Draft final
[NASA-CR-192489] 08 p2178 N93-22959
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Survey of foreign maglev systems
[DE93-008495] 10 p3049 N93-26665
Clustered engine study 10 p2978 N93-26925
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Next generation system modeling of NTR systems 10 p2981 N93-26961
Nuclear electric propulsion systems overview 10 p2955 N93-26970
The 20 kWe NEP system studies 10 p2982 N93-26971
Scoping calculations of power sources for NEP 10 p2982 N93-26973
NEP processing, operations, and disposal 10 p2982 N93-26975
The 20 kWe NEP flight system 10 p2983 N93-26983
NEP systems model 10 p2984 N93-26987
Innovative electric propulsion thruster modeling 10 p2984 N93-26989
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
Space Station propulsion system 10 p2969 N93-27817
Advanced transportation system studies. Alternate propulsion subsystem concepts: Propulsion database
[NASA-CR-192545] 10 p2987 N93-28325
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
Clustered Lance Booster (CLB) feasibility study
[AD-A262746] 11 p3286 N93-28593
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
NASA's progress in nuclear electric propulsion technology
[NASA-TM-106272] 12 p3698 N93-31858

PROPULSION SYSTEM PERFORMANCE

The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Supersonic confined jet nozzles 01 p0016 N93-10009
Plug nozzle propulsion system 01 p0017 N93-10013
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
A simplified model for hybrid rocket performance prediction 01 p0019 N93-10022
Electric propulsion applications 01 p0020 N93-10029
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
Selection of rocket propulsion systems 01 p0022 N93-10034
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application 01 p0023 N93-10042
DSP propulsion system launch configuration and related testing 01 p0024 N93-10048
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
A personal viewpoint on the development of China's liquid propellant rocket engines
[AD-A254104] 01 p0027 N93-10813
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Concurrent optimization of airframe and engine design parameters
[NASA-TM-105908] 02 p0213 N93-12402
Extended-testing of xenon ion thruster hollow cathodes
[NASA-CR-189227] 02 p0234 N93-12409
Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Some aspects of intake design, performance and integration with the airframe 03 p0502 N93-13219
Hypersonic propulsion system force accounting 03 p0503 N93-13229
Air inlet with variable intake section: Application to air breathing launch vehicles 03 p0582 N93-13231
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Scientific predictability of solid rocket performance: Analyses of the processing parameters 03 p0526 N93-13824
Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
Center for Advanced Propulsion Systems (Research)
[AD-A256628] 04 p0893 N93-15410
Dual-Shaft Electric Propulsion (DSEP) Technology Development Program
[DE92-040189] 04 p0894 N93-15416
Development of NASA/DOE NTP system performance models
[NASA-TM-105982] 04 p0827 N93-15428
Ion thruster development at NASA Lewis Research Center
[NASA-TM-105983] 04 p0827 N93-15429
Propulsion system performance resulting from an integrated flight/propulsion control design
[NASA-TM-105874] 04 p0801 N93-15525
Nuclear thermal rocket nozzle testing and evaluation program
[NASA-TM-105962] 04 p0827 N93-15571
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
Advanced hybrid nuclear propulsion Mars mission performance enhancement
[DE93-001309] 05 p1090 N93-16177
System model development for nuclear thermal propulsion
[NASA-TM-108157] 05 p1298 N93-16531
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Electric propulsion 05 p1095 N93-16916
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems 05 p1074 N93-17290
Hybrid rocket performance 05 p1095 N93-17295
Modeling for health monitoring and control with applications to the Space Transportation Main Engine 05 p1095 N93-17298
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance 05 p1393 N93-17420
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Potential missile flight performance gains from improvements to the propulsion system 05 p1092 N93-17609
Development testing of throttleable ducted rockets 05 p1092 N93-17610
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
Ramjet propulsion for advanced projectiles 05 p1067 N93-17615
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
Smaller expendable turbojets 05 p1067 N93-17621
Preliminary analysis of the J-52 aircraft engine component improvement program
[AD-A257640] 05 p1067 N93-17686
Near term NEP missions and systems 06 p1661 N93-18637
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Stall and surge in axial flow compressors 06 p1530 N93-18724
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor 06 p1531 N93-18727
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
Identification of propulsion systems
[NASA-TM-106007] 07 p1784 N93-20109
Propulsion/weapon system interaction model
[AD-A259291] 07 p1785 N93-20610
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
National Launch System: Structures and materials 08 p2172 N93-22083
Nuclear concepts/propulsion 08 p2174 N93-22093
Propulsion Systems Panel 08 p2174 N93-22096
Vehicle Systems Panel deliberations 08 p2175 N93-22098
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501

Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting
[NASA-CR-192515] 09 p2614 N93-26152
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Survey of foreign maglev systems
[DE93-008495] 10 p3049 N93-26665
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
Nuclear electric propulsion systems overview 10 p2955 N93-26970
Scoping calculations of power sources for NEP 10 p2982 N93-26973
NEP processing, operations, and disposal 10 p2982 N93-26975
The 20 kWe NEP flight system 10 p2983 N93-26983
NEP systems model 10 p2984 N93-26987
Thruster models for NEP system analysis 10 p2984 N93-26988
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
A modified approach to controller partitioning
[NASA-TM-106167] 10 p3110 N93-28051
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
Inertial electrostatic confinement as a power source for electric propulsion
[NASA-TM-109228] 12 p3692 N93-31310
Examination of the effect of propulsion system performance variables on the life prediction for the SSME Lox Post 12 p3697 N93-31580
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795

PROPULSIVE EFFICIENCY
NT PROPELLER EFFICIENCY
Hypersonic inlet efficiency revisited 01 p0005 N93-10012
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064

PROPYLENE
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Recession of FEP specimens from trays D11 and B7 03 p0549 N93-12786
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387

PROSPECTING
U EXPLORATION

PROSTAGLANDINS
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102

PROSTATE GLAND
Diagnostic and therapeutic applications of diode lasers and solid state lasers in medicine
[DE92-040338] 05 p1172 N93-16098

PROSTHETIC DEVICES
Bar-holding prosthetic limb
[NASA-CASE-MFS-28481-1] 04 p0939 N93-14870
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
Finite element analysis of a composite artificial ankle 08 p2423 N93-22189
The design of mechanically compatible fasteners for human mandible reconstruction 09 p2796 N93-25569
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
Prosthetic elbow joint
[NASA-CASE-MFS-28707-1] 11 p3508 N93-30566

PROTACTINIUM
Spectroscopic and magnetic studies of tetravalent Pa and trivalent Th compounds
[DE92-041214] 05 p1100 N93-15676

PROTECTION
NT CIRCUIT PROTECTION
NT CORROSION PREVENTION
NT ENVIRONMENT PROTECTION
NT EYE PROTECTION
NT METEOROID PROTECTION
NT RADIATION PROTECTION
NT RADIATION SHIELDING
NT SOLAR RADIATION SHIELDING
NT THERMAL PROTECTION
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21)
[AD-A253395] 01 p0091 N93-10290
Combat aircraft noise 01 p0149 N93-10676
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Rocket-triggered lightning test of an earth-covered munitions storage bunker
[DE92-016790] 02 p0369 N93-11678
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents 06 p1428 N93-19693
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
Upper interior head protection. Volume 2: Fleet characterization and countermeasure evaluation
[PB93-113777] 07 p2027 N93-21795
Eumetsat practice for protection of its satellite data 08 p2373 N93-23850
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data 08 p2374 N93-23855
Method for providing EMI/EMP hardening and breakdown protection in composite materials
[AD-D015638] 09 p2634 N93-25283
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Dust protection for environmental control and life support systems in the lunar environment 10 p3089 N93-27979
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660

PROTECTIVE CLOTHING
NT EXTRAVEHICULAR MOBILITY UNITS
NT HELMETS
NT SPACE SUITS
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21)
[AD-A253393] 01 p0133 N93-10217
Evaluation of multilayer mask concept for RESPO 21
[AD-A253392] 02 p0389 N93-12079
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
Effectiveness of NASA 1032 and 1035 and Air Force 1030 and 1034 units in protection against cold water hypothermia
[AD-A255120] 02 p0389 N93-12291
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491
A novel diesel-fueled engine for microclimate cooling for the individual soldier
[AD-A254510] 03 p0609 N93-12724
Effect of protective clothing ensembles on artillery battery crew performance
[AD-A254327] 03 p0677 N93-12960
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 369)
[NASA-SP-7011(369)] 04 p0935 N93-14731
Protective helmet assembly
[NASA-CASE-MSC-21842-1] 05 p1228 N93-17088
Activated carbon fibers in composites, chemically protective clothing and air purification 07 p1837 N93-21152
Twaron in composites and protective clothing 07 p1837 N93-21153
Aramids in high performance protective clothing 07 p1837 N93-21155
Developments in heat and flame resistant textiles for protective clothing and barrier fabrics 07 p1838 N93-21157
Correlation of results of radiant heat test and convective heat test for three layered protective clothing 07 p1838 N93-21161
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
An innovative method for hand protection from extreme cold using heat pipe
[AD-A259720] 08 p2428 N93-24128
Lightweight passive microclimate cooling device
[AD-A262262] 10 p3087 N93-28112
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757
Evaluation and optimization of a flexible filtration system for respiratory protection system 21
[AD-A262467] 11 p3493 N93-28758
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 377)
[NASA-SP-7011(377)] 12 p3773 N93-31924

PROTECTIVE COATINGS
NT ANODIC COATINGS
NT CERAMIC COATINGS
NT PRIMERS (COATINGS)
NT REFRACTORY COATINGS
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
Protective coatings for niobium alloys and their properties
[AD-A254252] 01 p0033 N93-10706
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Surface protection in the aircraft industry
[MBB-Z-0432-92-PUB] 02 p0255 N93-11027
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Small particle impact damage in carbon-carbon composites
[PNR-90948] 02 p0236 N93-11107
Corrosion resistant chromate conversion coatings for heat-treated aluminum alloys
[AD-D015366] 02 p0266 N93-11425

Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Studies of a laser/nuclear thermal hardened body armor
[AD-A255128] 02 p0390 N93-12423
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center 02 p0229 N93-12456
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
An evaluation of corrosion protection by two epoxy primers on 2219-T87 and 7075-T73 aluminum
[NASA-TM-108376] 03 p0553 N93-13716
Heat resistant diffusion coating for niobium alloy
[AD-A255542] 03 p0554 N93-13873
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
Biofilm ecology of bioluminescent bacteria
[AD-A255282] 04 p0932 N93-14532
Waterborne polyurethane binder resins for compliant aircraft coatings
[AD-A256246] 04 p0849 N93-14573
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Impact of protective oxides on cathode-side resistances in MCFCs
[DE92-019973] 04 p0994 N93-15221
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
[NASA-TM-105732] 04 p0852 N93-15344
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites 04 p0819 N93-15597
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
Polyurethane self-priming topcoats
[AD-D015477] 05 p1124 N93-16484
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
Study of high energy particles and protective layers for materials
[CTN-93-60613] 05 p1124 N93-16545
Study of an orbital accelerator for ion implantation and of protective coatings for materials
[CTN-93-60614] 05 p1298 N93-16546
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-1] 06 p1495 N93-19332
Development of an electrochemical method for field testing of protective coatings
[AD-A258754] 06 p1496 N93-19866
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
Atomic oxygen protective coating with resistance to undercutting at defect sites
[NASA-CASE-LEW-15306-1] 07 p1859 N93-20566
Protection of Materials and Surface Finishes from the Low Earth Orbit Space Environment
[CTN-93-60605] 07 p1847 N93-20810
The LDEF experience. Materials 07 p1847 N93-20811
Issues/considerations and performance prediction of LEO protective coatings 07 p1847 N93-20813
Space station protective coating development 07 p1848 N93-20816
Materials Exposure in Low Earth Orbit (MELEO) experiment 07 p1848 N93-20817
LEO resistant thermal control materials and dry lubricants for the mobile servicing system 07 p1848 N93-20818
Protection of Radarsat SAR antenna graphite/epoxy support structure 07 p1848 N93-20819
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings 07 p1849 N93-20821
Multipurpose protective coatings for spacecraft applications 07 p1849 N93-20822
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe 07 p1838 N93-21160
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316
Coatings on composites: New developments and applications in the aerospace industry
[MBB-Z-0443-92-PUB] 07 p1840 N93-21404
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Spacecraft materials and coatings experiments 08 p2189 N93-22637
Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909
Pilot demonstration of cerium oxide coated anodes
[DE93-002507] 08 p2231 N93-23316
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Method for bonding a polyurethane molding composition to a cable jacket of an olefin/ester interpolymer
[AD-D015627] 08 p2241 N93-24221
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Duct protection coating concept development and test. Appendix D, volume 1: Test specimen fabrication, conditioning, and testing documentation
[AD-A261005] 09 p2656 N93-25940
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Alternating current (AC) impedance testing of coated traycans
[AD-A261256] 10 p3030 N93-27099
Exploration of multilayer concepts for oxidation protection of carbon-carbon composites
[AD-A262380] 10 p2991 N93-27653
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Monte Carlo modeling of atomic oxygen attack of polymers with protective coatings on LDEF 10 p3008 N93-28282
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Diamond composite films for protective coatings on metals and method of formation
[NASA-CASE-NPO-18501-1-CU] 10 p3006 N93-28426
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Operational results of pilot cell test with cermet inert anodes
[DE93-009338] 11 p3322 N93-29061
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Post-flight analyses of the crystals from the M0003-14 quartz crystal microbalance experiment 11 p3602 N93-29684
Platinum-modified diffusion aluminide coatings on nickel-base superalloys
[AD-A263597] 11 p3325 N93-29981
Chromate-free corrosion resistant conversion coatings for aluminum
[DE93-009835] 11 p3336 N93-30051
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Flexible storage medium for write-once optical tape 11 p3621 N93-30473
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548
Oxidation and hot corrosion of superalloys Rene 100 and X-40 at temperatures of 1475 F to 2000 F
[AD-A263747] 11 p3327 N93-30812
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-2] 12 p3708 N93-31300
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance
[ONERA-NT-1992-9] 12 p3709 N93-31597
Epoxy self-priming topcoats
[AD-D015737] 12 p3711 N93-32209
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

PROTECTORS
NT EAR PROTECTORS
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288

PROTEIN CRYSTAL GROWTH
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Method and apparatus for controlling protein crystallization
[NASA-CASE-MFS-28688-1] 05 p1323 N93-17043
Protein crystal growth in low gravity
[NASA-CR-191770] 06 p1498 N93-17886
Recent results and new hardware developments for protein crystal growth in microactivity
[NASA-CR-191994] 07 p1875 N93-21356
Commercial researcher perspective 08 p2184 N93-22615
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Protein crystal growth in microgravity 08 p2191 N93-22646
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change 08 p2191 N93-22648
An investigation of protein crystal growth by laser light scattering 08 p2507 N93-23393

PROTEIN DENATURATION
U BIOPOLYMER DENATURATION

PROTEIN METABOLISM
NT LIPID METABOLISM

PROTEIN SYNTHESIS
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763

Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102

PROTEINS
NT ALBUMINS
NT CARBONIC ANHYDRASE
NT CARBOXYHEMOGLOBIN
NT CYTOCHROMES
NT ENZYMES
NT HEMOGLOBIN
NT LIPOPROTEINS
NT LYSOZYME
NT MELANIN
NT MYOGLOBIN
NT OXIDASE

Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Hierarchical structure in polymeric solid and its influence on properties
[AD-A253818] 01 p0041 N93-10825
Capillary electrophoresis: Electrospray ionization mass spectrometry in small diameter capillaries
[DE92-019123] 03 p0575 N93-12711
Eureca: A first for Europe
[ESA-BR-85] 03 p0516 N93-13691
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
Fluorescence detection for gel and capillary electrophoresis
[DE92-040585] 05 p1102 N93-16020
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Instrumental and theoretical development of capillary electrophoresis and its application to biological systems
[DE93-001220] 05 p1106 N93-17348
Multilayer monochromators and supermirrors for neutron protein crystallography using a quasi Laue technique
[DE93-001654] 05 p1326 N93-17391
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Area detectors for neutron protein crystallography
[DE93-001973] 06 p1673 N93-18514
The effects of prolonged growth in elevated CO2 concentrations in the field on the amounts of different leaf proteins
[DE93-002940] 06 p1594 N93-19751
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Crystallization of a protein aboard the US Space Shuttle flight STS-31 07 p1804 N93-21086
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB] 08 p2216 N93-22036
Commercial researcher perspective 08 p2184 N93-22615
New methods and instrumentation for the characterization of biopolymers using electrospray ionization-mass spectrometry
[DE93-005100] 08 p2239 N93-23323
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
Primary events in olfactory reception
[AD-A260562] 09 p2795 N93-25944
Pseudomonas screening assay
[NASA-CASE-NPO-17653-1-CU] 09 p2793 N93-25994
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989
Plasmid encoded virulence of Yersinia
[FOA-B-40419-4.4] 10 p3082 N93-28199
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
Center of Excellence in Biotechnology (Research)
[AD-A263598] 11 p3491 N93-29915
Defining protein electrostatic recognition processes
[AD-A264838] 11 p3571 N93-30901
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

PROTOBIOLOGY
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480

PROTOCOL (COMPUTERS)
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter
[CTN-92-60593] 01 p0135 N93-10088
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
Photonics and other approaches to high speed communications
[NASA-CR-190362] 02 p0279 N93-11116
Scalable parallel communications 02 p0279 N93-11117
A simple, effective media access protocol system for integrated, high data rate networks 02 p0279 N93-11119
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
Higher-order generic functions for CLOS
[DE92-013447] 02 p0413 N93-12137
Tradeoffs in implementing primary-backup protocols
[NASA-CR-190970] 02 p0472 N93-12212
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
DNET: A communications facility for distributed heterogeneous computing
[NASA-CR-190863] 03 p0682 N93-13759
Wait-free consensus
[AD-A255978] 04 p0943 N93-14423
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
Requirements for a network storage service 04 p1003 N93-14781
Nonblocking and orphan free message logging protocols
[NASA-CR-191631] 04 p0862 N93-15339
Parallel simulation today
[NASA-CR-189733] 04 p0951 N93-15432
An investigation of requirements traceability to support systems development
[AD-A257444] 05 p1351 N93-15868
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
A tool for automated validation of network protocols
[AD-A256726] 05 p1255 N93-16066
TMN: Introduction and interpretation
[MEMO-INF-92-40] 05 p1140 N93-16592
RT-Syn: A real-time software system generator 05 p1250 N93-17523
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
Improving security in the Fiber Distributed Data Interface (FDDI) protocol
[AD-A257546] 06 p1501 N93-17963
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
Development of a protocol usage guideline for conservative parallel simulations
[AD-A258851] 06 p1630 N93-19070
PDES Application Protocol Suite for Composite (PAS-C) scoping and benefits criteria. Volume 1: Executive summary and overview
[AD-A258833] 06 p1687 N93-19074
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
PDES application protocol suite for composite (PAS-C). Functional needs/state/of-the-art comparison for the PAS-C program
[AD-A258613] 07 p1831 N93-19986
PDES application protocol suite for composites (PAS-C) 1992 annual report for the PAS-C program
[AD-A258625] 07 p1831 N93-19998
Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161
Analysis of timed-token ring protocols
[INRIA-RR-1570] 07 p2044 N93-20894
Redesigning the window protocol: The block acknowledgement revisited
[RUU-CS-92-04] 07 p2039 N93-21170
An application protocol for CAD to CAD transfer of electronic information 08 p2530 N93-22154
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
Evaluation of distributed computing tools
[DE93-007408] 08 p2446 N93-22531
Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134
LOTOS specification style for OSI
[MEMO-INF-92-46] 08 p2448 N93-23357
Bipartitioning of LOTOS specifications
[MEMO-INF-92-50] 08 p2439 N93-23359
Protocol design and implementation using formal methods
[MEMO-INF-92-43] 08 p2440 N93-23867
TP protocol from specification to implementation
[MEMO-INF-92-42] 08 p2443 N93-24582
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
A methodology and software environment for testing process model's sequential predictions with protocols
[AD-A260980] 09 p2882 N93-25844
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support 09 p2815 N93-26075
An OSI architecture for the Deep Space Network 09 p2679 N93-26121
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
Signed vector timestamps: A secure protocol for partial order time
[AD-A261371] 09 p2817 N93-26338
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
A design and realization exercise of a mini message transfer system
[MEMO-INF-92-51] 10 p3095 N93-27386
Priority inheritance in real-time micro kernels
[MEMO-INF-92-52] 10 p3095 N93-27387
Abstraction in real time process algebra
[CWI-CS-R9144] 10 p3096 N93-27492
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
Linear-time snapshot protocols for unbalanced systems
[CWI-CS-R9236] 10 p3091 N93-28000
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
A survey of network interface designs
[MEMO-INF-92-59] 11 p3379 N93-28502
Initial graphics exchange specification hybrid microcircuit application protocol
[PB93-175404] 11 p3407 N93-29203
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
FDDI installation and performance analysis
[AD-A263263] 11 p3529 N93-29497
Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3387 N93-29890
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
Using the Mach communication primitives in X11
[AD-A264049] 11 p3533 N93-30125
Performance analysis of communication protocols using D-timed Petri net 11 p3356 N93-30227
Automatic synthesis of protocol specifications 11 p3356 N93-30228
An application protocol for CAD to CAD transfer of electronic information
[AD-A264554] 11 p3533 N93-30383
Design and implementation strategies
[MEMO-INF-92-57] 12 p3788 N93-31511
Current state of the mass storage system reference model 12 p3840 N93-31965
New architectures to reduce I/O bottlenecks in high-performance systems
[DE93-009059] 12 p3795 N93-31985
Validation of survivability validation protocols
[AD-A264402] 12 p3791 N93-32034

Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

PROTON BEAMS
Future directions in pulsed power driven ICF
[DE92-016233] 01 p0161 N93-10443
Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838
Analysis of the prebuncher for the KEK 40-MeV proton linac
[DE92-514988] 02 p0444 N93-11525
RF voltage modulation at discrete frequencies with applications to crystal channeling extraction
[DE92-015567] 03 p0707 N93-13235
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
Design of a high current proton accelerator 07 p1766 N93-21873
Overview of spin physics
[DE93-006412] 08 p2483 N93-24029
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-26314
Design of a particle beam satellite system for lunar prospecting 11 p3434 N93-28768

PROTON FLUX DENSITY
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989 06 p1728 N93-19557
Induced activation study of LDEF 11 p3572 N93-29632

PROTON IMPACT
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743

PROTON IRRADIATION
Experimental studies of the far-infrared spectra of cosmic-type ices
[NASA-CR-191300] 03 p0748 N93-13660
Far infrared spectra of amorphous and crystalline water ice and changes in these phases as the result of proton irradiation
[NASA-CR-192849] 09 p2892 N93-25230
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661

PROTON PRECIPITATION
The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
Kinetic studies of ionospheric transport in the polar cap and auroral zone
[AD-A262805] 10 p3074 N93-28380

PROTON SCATTERING
Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549

PROTON TELESCOPES
U PARTICLE TELESCOPES

PROTON-PROTON REACTIONS
The gamma ray spectrum resulting from pp interactions in quasars 04 p1051 N93-14917
QCD corrections to Z pair hadronic production
[PREPRINT-832] 05 p1288 N93-16954
The electromagnetic calorimeter for the STAR experiment at RHIC
[DE93-002780] 07 p2062 N93-21480
Multidimensional intermittency in hadronic collisions
[DE93-010562] 11 p3577 N93-30532

PROTONS
NT RECOIL PROTONS
NT SOLAR PROTONS
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Interpretation of the ion mass spectra in the mass range 25-35 obtained in the inner coma of Halley's comet by the HIS-sensor of the Giotto IMS Experiment 03 p0752 N93-13469
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves 03 p0718 N93-13750
Excitation of nuclei by antiproton annihilation at rest
[AD-A255447] 04 p0976 N93-14513
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Global zones of particle precipitation as observed by EXOS-C
[AD-A256397] 04 p0917 N93-15466
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243
Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605
Novel methods of acceleration
[AD-A258045] 05 p1300 N93-17706
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
Design of a high current proton accelerator 07 p1766 N93-21873
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
Electronic control of pH at sulfonated polyaniline electrodes
[AD-A260074] 08 p2222 N93-23963
Star tracker operation in a high density proton field 09 p2600 N93-24699
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-26314
Hadronic production of J/psi at large chi(sub F) in 800 GeV p+Cu and p+Be collisions
[DE93-007706] 10 p3131 N93-26610
Production of ultra cold protons and negative hydrogen ions
[DE93-008328] 10 p3132 N93-27618
Theoretical studies in nuclear physics
[DE93-010142] 10 p3139 N93-28215
Two-proton correlations from heavy-ion collisions: Determining the reaction zone of Ni + Ni by the Hanbury-Brown-Twiss effect
[DE93-008971] 10 p3137 N93-28331
Medium energy measurements on N-N parameters
[DE93-007304] 10 p3137 N93-28358
Electron transfer, proton transfer and photoaddition reactions in isolated clusters
[AD-A262719] 10 p3137 N93-28398
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Revised prediction of LDEF exposure to trapped protons 11 p3572 N93-29633
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification 12 p3854 N93-31686

PROTOPLANETS
Accretion rates of protoplanets 03 p0759 N93-13958
Comets: Role and importance to exobiology 06 p1592 N93-18556

PROTOPLASTS
The USO-concept applied to a biological model experiment 08 p2162 N93-24379

PROTOSTARS
NT PRE-MAIN SEQUENCE STARS
NT T TAURI STARS
Encounters with protostellar disks 03 p0754 N93-13727
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars 03 p0755 N93-13828
The stability of thick, self-gravitating disks in protostellar systems 08 p2551 N93-24185
Structure, evolution, and stability of rotating protostars 12 p3852 N93-31153
Submillimetre line observations of molecular clouds 12 p3848 N93-31772

PROTOTYPES
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Prototype superconducting planar transformers using high-Tc thin and thick films
[AD-A254230] 01 p0077 N93-10897
The changing nature of design
[PNR-91011] 02 p0206 N93-11334
First year testing of prototype magnesium/manganese dioxide BA-4590/U battery
[AD-A255503] 03 p0574 N93-13839
Life systems for a lunar base 03 p0680 N93-13992
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Systems modeling
[AD-A255215] 04 p0944 N93-14575
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
A TEOM (tm) particulate monitor for comet dust, near Earth space, and planetary atmospheres
[NASA-CR-190868] 05 p1363 N93-15690
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
High-speed repetitive pellet injector prototype for magnetic confinement fusion devices
[DE93-001361] 05 p1310 N93-16602
Development of a prototype interactive learning system using multi-media technology for mission independent training program 05 p1227 N93-17310
A process for prototyping onboard payload displays for Space Station Freedom 05 p1073 N93-17315
Development of vendor evaluation criteria and post-implementation considerations for MSFC center-wide executive information system 05 p1345 N93-17316
Neural network architectures to analyze OPAD data 05 p1262 N93-17336
Towards automation of user interface design 05 p1248 N93-17510
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
Static scheduler for hard real-time tasks on multiprocessor systems
[AD-A257663] 05 p1257 N93-17724
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
Turtle graphics implementation using a graphical dataflow programming approach
[AD-A257606] 05 p1253 N93-17766
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
Range scheduling automation for the Air Force satellite control network: A case study in computer system development
[AD-A258142] 06 p1454 N93-18084
A classification and bibliography of software prototyping
[AD-A258466] 06 p1619 N93-18268
An investigation of a prototype OASYS effectiveness in maneuvering flight
[AD-A257901] 06 p1439 N93-18339
Data management plan for the Oak Ridge Environmental Information System, Version 1.1
[DE92-041219] 06 p1687 N93-18526
Time management situation assessment (TMSA) 06 p1639 N93-18692
Integrated modeling of advanced optical systems 06 p1463 N93-18832
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948

Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Examining a layered approach to function and design representation for reusable software components
[AD-A258920] 06 p1626 N93-19343
Development of a task analysis tool to facilitate user interface design 06 p1628 N93-19404
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 06 p1443 N93-19906
CASE/simulation systems 07 p2088 N93-20165
Improvement of LC feedthrough filters 07 p1797 N93-20458
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
A high-speed auto-tuning PID regulator based on programmable logic devices
[REPT-92-042] 07 p2047 N93-21186
Results of prototype software development for automation of shuttle proximity operations 07 p1815 N93-21425
An autonomous rendezvous and docking system using cruise missile technology 07 p1816 N93-21432
Initial trials results for image stabilisation using a rugged low noise gyroscope 08 p2255 N93-22021
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
Transportable Applications Environment (TAE) Plus: A NASA tool for building and managing graphical user interfaces 08 p2444 N93-22150
An integrated information retrieval and document management system 08 p2530 N93-22156
Video conferencing made easy 08 p2275 N93-22173
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping 08 p2259 N93-22174
Design of a portable powered seat lift 08 p2429 N93-22190
Microcomputer based software for biodynamic simulation 08 p2429 N93-22191
Results of prototype software development for automation of shuttle proximity operations 08 p2142 N93-22264
User areas in aircraft cockpit, using methods of rapid prototype development
[MBB-FE-315-S-PUB-0493] 08 p2426 N93-22389
Plan for the evaluation of the prototype Terminal Doppler Weather Radar (TDWR) system
[DOT/FAA/CT-TN92/44] 08 p2404 N93-23045
Space biology initiative program definition review. Trade study 2: Prototype utilization in the development of space biology hardware 08 p2418 N93-23082
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
The actor model
[AD-A260196] 08 p2442 N93-24469
Prototype PC user interface
[DE93-008008] 09 p2809 N93-25303
Data systems dynamic simulator 09 p2814 N93-25602
Knowledge-based assistance for science visualization and analysis using large distributed databases 09 p2879 N93-25801
Development of an expert data reduction assistant 09 p2880 N93-25808
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
A distributed analysis and visualization system for model and observational data 09 p2881 N93-25814
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis
[AD-A262151] 10 p2946 N93-27546
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover
[DE93-008340] 10 p3052 N93-28152
Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
The lightcraft project 11 p3233 N93-29749
Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
A prototype of a faculty and staff executive information system
[AD-A264852] 11 p3623 N93-30907
Integrated access to distributed databases through intelligent interfaces 12 p3837 N93-31218
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
RATLER: Robotic All-Terrain Lunar Exploration Rover 12 p3737 N93-32117
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147

PROTOZOA
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
Process for selectively recovering algae and protozoa
[NASA-CASE-MFS-26124-1-NPO] 11 p3491 N93-29174

PROVING
NT THEOREM PROVING
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Predicted and tested performance of durable TPS 02 p0228 N93-12454
Summary of 1992 Atlantic tropical cyclone activity and verification of author's forecast (a year of no hurricane activity in the tropics but exceptional South Florida destruction from an unusual higher latitude intense hurricane) 03 p0662 N93-13028
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Formal verification of an oral messages algorithm for interactive consistency
[NASA-CR-189704] 04 p0958 N93-14808
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Independent validation testing of the FLAME computer code, version 1.0
[DE92-019691] 04 p0948 N93-15274
An axiomatic treatment of partial correctness and deadlock in a shared variable parallel language
[AD-A256234] 04 p0960 N93-15494
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
Residual stresses in welds and effect on crack growth prediction 05 p1082 N93-15758
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
Analysis of large system black box verification test data
[NASA-CR-192685] 09 p2815 N93-24748
Verification of a climate convention: Role and limitations of a space based remote sensing system 09 p2738 N93-24781
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
A temporal proof methodology for reactive systems
[NASA-CR-193145] 11 p3528 N93-29469
The NCAT process 11 p3626 N93-30697
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010

PROXIMITY
Interactive collision detection 02 p0400 N93-11963
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method 06 p1410 N93-19282
Fundamentals of adaptive anticipation techniques for the detection of threatening air traffic conflicts: Investigation of the horizontal proximity situation in the case of expected heading changes
[DLR-MITT-91-21] 07 p1779 N93-21004
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations 07 p1817 N93-21439
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Proximity operations in space station environment 12 p3689 N93-31449
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409

PRUSSIC ACID
U HYDROCYANIC ACID

PSEUDOMONAS
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors
[AD-A258020] 06 p1496 N93-17917
Pseudomonas screening assay
[NASA-CASE-NPO-17653-1-CU] 09 p2793 N93-25994

PSEUDOPOTENTIALS
Electronic and structural properties of metallic microclusters
[DE92-016917] 01 p0033 N93-10411

PSEUDORANDOM SEQUENCES
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Robot arm with positional absolute encoded joints 11 p3370 N93-30312

PSYCHOLOGICAL EFFECTS
NT ILLUSIONS
NT JET LAG
NT OPTICAL ILLUSION
Human factors in aircraft accident investigation 06 p1422 N93-19654
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929

PSYCHOLOGICAL FACTORS
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
Effectiveness of birthdate biorhythm theory on flight accidents 06 p1431 N93-19710
Instructions and advance training measures for the improvement of human reliability
[MBB-FE-313-S-PUB-0500] 07 p2025 N93-21402
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757
Sound attenuation characteristics of the standard DH-132A and SPH-4 helmets worn in combination with standard issue earplugs
[AD-A263011] 11 p3506 N93-29406
Nutritional and lifestyle status of 50 pilots of the Portugese Air Force 12 p3780 N93-32255

PSYCHOLOGICAL INDEXES
U PSYCHOLOGICAL TESTS
PSYCHOLOGICAL TESTS
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
Meta-analysis of integrity tests: A critical examination of validity generalization and moderator variables
[AD-A254681] 02 p0386 N93-12225
Simultaneous DIF amplification and cancellation: Shealy-Stout test for DIF
[AD-A256284] 04 p0970 N93-14455
Comparing performance on implicit memory tests
[AD-A258168] 06 p1602 N93-17921
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Using constraint satisfaction networks to study aircrew selection for advanced cockpits
[AD-A258151] 06 p1606 N93-18293
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698
Effects on physiology and performance of wearing the aviator NBC ensemble while flying the UH-60 helicopter flight simulator in a controlled heat environment
[AD-A259909] 08 p2427 N93-23995
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933
Spontaneous discovery and use of categorical structure
[AD-A261658] 09 p2798 N93-26364
Neuromagnetic investigation of cortical regions underlying short-term memory
[AD-A261445] 09 p2799 N93-26521
Pilot Candidate Selection Method (PCSM): What makes it work?
[AD-A262871] 11 p3498 N93-29481
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
Background and objectives of the PARAT program
12 p3775 N93-31230
Phases of the project development and examination methodologies 12 p3775 N93-31231
The position test: A computer generated process for acquisition of inductive logic thinking
12 p3775 N93-31232
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability
12 p3776 N93-31237
The PARAT tests as examination system
12 p3776 N93-31238
PSYCHOLOGY
NT AVIATION PSYCHOLOGY
NT COGNITIVE PSYCHOLOGY
NT MILITARY PSYCHOLOGY
NT PSYCHOPHYSICS
Performing a successful audience analysis: How to improve your proposal-writing skills
[DE92-018978] 02 p0479 N93-12068
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
European Science Notes Information Bulletin: Reports on current European and Middle Eastern science
[AD-A257228] 05 p1402 N93-15964
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)?
06 p1430 N93-19704
Gremlins: A dozen hazardous thought and behavior patterns as risk factors 06 p1431 N93-19709
The central executive component of working memory
[AD-A258724] 07 p2025 N93-20326
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Geoscience center research
[AD-A263465] 11 p3462 N93-29834
The dynamics of visual representation, attention, encoding, and retrieval processes
[AD-A264674] 11 p3500 N93-30543
PSYCHOMETRICS
A psychometrically sound cognitive diagnostic model: Effect of remediation as empirical validity
[AD-A255926] 04 p0933 N93-14109
A computer-based visual analog scale
[AD-A258152] 06 p1597 N93-18280
Human performance assessment methods
[AGARD-AG-308-ADD] 06 p1603 N93-18868
International application of the DLR test-system: Continuation of the cooperation with Iberia in pilot selection
[DLR-FB-92-12] 08 p2425 N93-24104
CogiMir: A study of cognitive functions in microgravity
08 p2159 N93-24364
Predicting aircrew training performance with psychometric g
[AD-A264021] 11 p3498 N93-30026
Field test of a computer-driven tool to measure psychological characteristics of aircrew
[AD-A264484] 11 p3499 N93-30425
Computer-generated parallel tests for aptitude measurement in the selection of aviation operators
[DLR-FB-92-29] 12 p3775 N93-31229
The position test: A computer generated process for acquisition of inductive logic thinking
12 p3775 N93-31232
The test memorization of symbols and numbers: A computer generated test for visual sensitivity
12 p3775 N93-31233
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234
The concentration loading test system: A computer generated process for acquisition of attentiveness control 12 p3776 N93-31235
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability
12 p3776 N93-31237
PSYCHOMOTOR PERFORMANCE
Publications of the Space Physiology and Countermeasures Program, Neuroscience Discipline: 1980-1990
[NASA-CR-4476] 04 p0936 N93-15583
Proceedings of Workshop 1: The Human Brainmap Database
[AD-A260720] 09 p2796 N93-25654
PSYCHOPHARMACOLOGY
Analysis of neural systems involved in modulation of memory storage
[AD-A262418] 10 p3084 N93-27654
PSYCHOPHYSICS
Visual psychophysics of egomotion
[AD-A248349] 02 p0386 N93-11488
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510
Higher order mechanisms of color vision
[AD-A256369] 04 p0938 N93-15329
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400
Spatio-temporal masking: Hyperacuity and local adaptation
[AD-A257934] 06 p1595 N93-18006
Decision paths in complex tasks
[NASA-CR-192121] 06 p1603 N93-18359
PSYCHOPHYSIOLOGY
Perception of lightness and brightness in complex patterns
[AD-A254093] 01 p0133 N93-10658
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function
02 p0379 N93-11299
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness
[AD-A255485] 04 p0935 N93-14789
Study of the spectrum of power of cardiac rhythm during tasks relating to the safety of the control of an apparatus 06 p1431 N93-19707
On the neural substrates leading to the emergence of mental operational structures 08 p2453 N93-22355
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
Comparative analytical study of evoked and event related potentials as correlates of cognitive processes
[AD-A261388] 09 p2799 N93-26446
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011
PUBLIC HEALTH
Format and structure of a database on health and environmental impacts of different energy systems for electricity generation
[DE92-634160] 01 p0130 N93-10222
Vaccination against Hepatitis B: The Italian strategy
02 p0377 N93-11289
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
Procedures for the diagnostic dose resistance test kits for mosquitoes, body lice, and beetle pests of stored products
[AD-A255224] 03 p0675 N93-13941
Prologue to Action. Life Sciences Education and Science Literacy
[PB93-107514] 07 p2021 N93-21230
Human exposure assessment for airborne pollutants: Advances and opportunities
[PB92-223247] 07 p1991 N93-21496
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
SNTP environmental, safety, and health
10 p2980 N93-26939
Air Traffic and Environment
[GSF-BAND-8] 12 p3752 N93-31925
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929
Effects of commercial flight pollution on human health
12 p3753 N93-31931
PUBLIC LAW
NT LEGAL LIABILITY
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
PUBLIC RELATIONS
Index to NASA news releases and speeches, 1991
[NASA-TM-108004] 01 p0175 N93-10815
Index to NASA news releases and speeches, 1990
[NASA-TM-108003] 01 p0176 N93-10872
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
Laser disc for Earth environment data set
08 p2338 N93-22142
Publicity and public relations
08 p2516 N93-23145
Outreach and public service 08 p2517 N93-23147
Communications 08 p2517 N93-23153
Nuclear systems in space? Does/will the public accept them? 10 p2977 N93-26917
PUBLIC SPEAKING
Performing a successful audience analysis: How to improve your proposal-writing skills
[DE92-018978] 02 p0479 N93-12068
PUBLICATIONS
U DOCUMENTS
PULLEYS
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
PULLING
Test equipment data package for the KC-135 fiber pulling apparatus
[NASA-CR-184446] 03 p0506 N93-13013
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Fiber pulling apparatus modification
[NASA-CR-184498] 04 p0891 N93-14763

PULMONARY CIRCULATION
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

PULMONARY FUNCTIONS
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
Publications of the Space Physiology and Countermeasures Program, Cardiopulmonary Discipline: 1980-1990
[NASA-CR-4475] 06 p1598 N93-18376
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153

PULSAR MAGNETOSPHERES
Motion of charged particles in pulsar magnetospheres 08 p2550 N93-24161

PULSARS
Periodicities in pulsar microstructure 02 p0484 N93-11230
Hydrodynamical calculations of stellar interactions 03 p0755 N93-13764
Dynamics in neutron stars and the early universe 04 p1014 N93-14112
Compact objects in the disk and globular clusters 04 p1018 N93-14594
Search for pulsed gamma ray emission from SN1987A and the Vela pulsar 04 p1050 N93-14634
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
Convection in RR Lyrae stars
[DE93-000851] 05 p1376 N93-17382
Imaging the Nearby Seyfert 2 Galaxy NGC 1068, and Spectrum and Variability of Geminga
[NASA-CR-191905] 05 p1360 N93-17401
Soft x ray properties of the Geminga pulsar 05 p1360 N93-17403
Two high-sensitivity pulsar searches 06 p1696 N93-19047
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
HST imaging of the binary pulsar PSR1913+16 08 p2536 N93-23902
Cosmic string cosmology 09 p2891 N93-24907
How can millisecond pulsars improve the long term stability of atomic time scales? 09 p2832 N93-24985
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053

PULSATING FLOW
U UNSTEADY FLOW

PULSE (CARDIOVASCULAR)
U HEART RATE

PULSE AMPLITUDE
Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126] 01 p0083 N93-10859
Observations of thin auroral ionization layers by EISCAT in connection with pulsating aurora 02 p0359 N93-11266
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178
QUASAR: An interactive program for spectrum anaiysis in personal computers
[DE93-609814] 12 p3786 N93-31248

PULSE CODE MODULATION
NT DELTA MODULATION
NT DIFFERENTIAL PULSE CODE MODULATION
Design of a PCM data compressor --- pulse code modulation
[DE92-019469] 02 p0404 N93-11539
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
The use of subcarriers in future DSN missions 06 p1507 N93-18915
Digital audio and video broadcasting by satellite 10 p3023 N93-26645
Influence of optical feedback on the pulse behavior of semiconductor lasers
[ETN-93-93798] 11 p3436 N93-28614

PULSE COMMUNICATION
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Strategies for synchronisation in an evolving telecommunications network 09 p2687 N93-25063
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
A proposed study of multiple scattering through clouds up to 1 THz 09 p2684 N93-26474
Digital telecommunications are a key development factor: Integration of satellite into overall telecommunication networks as a way to harmonize social and economic implications 10 p3025 N93-26660
Advanced HF digital networks 11 p3375 N93-30343
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061

PULSE COMPRESSION
A study of small solid-state switched TEA CO2 lasers 03 p0607 N93-13814
ACTA Aeronautica et Astronautica Sinica (selected articles)
[AD-A255070] 03 p0491 N93-13946
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1
[AD-A258462] 06 p1502 N93-18262
Magnetic switching techniques for high power pulse generation
[ISBN-90-9004705-0] 07 p1892 N93-20935
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Application of Costas codes and quadratic congruential codes to digital pulse compression
[DREO-TN-91-31] 08 p2271 N93-23726
High-resolution free-electron laser spectroscopy 08 p2309 N93-24191
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
Accelerator research studies
[DE93-009353] 11 p3573 N93-28522

PULSE DOPPLER RADAR
NT MONOPULSE RADAR
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Rendezvous radar for the orbital maneuvering vehicle 08 p2145 N93-22283
The use of data turning in airborne radars 11 p3358 N93-30241

PULSE DURATION
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory
[DE93-007274] 10 p3048 N93-28355
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847

PULSE DURATION MODULATION
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
A PWM current-source inverter for interconnection between a photovoltaic array and the utility line
[EUT-91-E-253] 10 p3065 N93-27227
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462
Protection and regulation on direct-direct chopping converters
[CNES-NT-129] 12 p3719 N93-31475

PULSE GENERATORS
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
The development of a one microsecond pulse length, repetitively pulsed, high power modulator, and a long-pulse electron beam diode for the production of intense microwaves
[DE92-015974] 02 p0293 N93-12089
Ultra-wideband generators
[DE92-018026] 02 p0293 N93-12113
Advanced high-explosive flux compression generator development: The CN-3 series
[DE92-019962] 03 p0713 N93-12809
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
High performance pulse generator
[AD-D015378] 04 p0869 N93-15269
Fundamentals of high energy electron beam generation
[DE93-000745] 05 p1299 N93-17064
Variable phase sine wave generator for active phased arrays
[AD-D015558] 07 p1888 N93-20028
Magnetic switching techniques for high power pulse generation
[ISBN-90-9004705-0] 07 p1892 N93-20935
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
A compact and versatile pulse generation and shaping subsystem for high energy laser systems
[DE93-007114] 09 p2711 N93-24961
Variable pulse rate circuit
[AD-D015675] 09 p2691 N93-26233
High-voltage pulse generator capable of 200 J at 5 kV
[AD-A262111] 10 p3031 N93-27673
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
NIKHEF-K contributions to the 3rd European Particle Accelerator Conference
[NIKHEF-AMPS-92-02] 10 p3139 N93-28337
Mechanical design philosophy and construction of the Amsterdam Pulse Stretcher ring AmPS 10 p3139 N93-28339
Optically controlled solid state opening switches
[AD-A262404] 11 p3591 N93-28496
High-voltage pulse generator capable of 2000 J at 10 kV
[AD-A262034] 11 p3407 N93-28999
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780

Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812
Pulse control in an accelerator for heavy-ion fusion
[DE93-009527] 11 p3576 N93-30390

PULSE HEIGHT
U PULSE AMPLITUDE

PULSE MODULATION
NT DELTA MODULATION
NT DIFFERENTIAL PULSE CODE MODULATION
NT PULSE CODE MODULATION
NT PULSE DURATION MODULATION
NT PULSE POSITION MODULATION
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327

PULSE POSITION MODULATION
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
Combinatorial pulse position modulation for power-efficient free-space laser communications
[NASA-TM-106241] 12 p3717 N93-31856

PULSE RADAR
NT MONOPULSE RADAR
NT PULSE DOPPLER RADAR
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744
Structure and utility of blind speed intervals associated with Doppler measurements of range rate
[DOT/FAA/CT-TN92/27] 08 p2122 N93-23063
Frequency diversity sidelobe canceller
[AD-D015647] 09 p2674 N93-25332

PULSE RATE
NT PULSE REPETITION RATE
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
Optimization of flow-injection analysis for on-line in-process control
[ETN-92-92826] 06 p1499 N93-18444
Theoretical and experimental investigations of coincidences in Poisson distributed pulse trains and spectral distortion caused by pulse pileup
[ISBN-0-315-60449-2] 08 p2286 N93-24614
Variable pulse rate circuit
[AD-D015675] 09 p2691 N93-26233

PULSE RECORDERS
U COUNTERS

PULSE REPETITION RATE
High performance pulse generator
[AD-D015378] 04 p0869 N93-15269
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
All solid-state high power visible laser
[NASA-CR-193163] 11 p3436 N93-28623
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
High-repetition rate x ray lasers and applications
[DE93-011882] 11 p3440 N93-30394

PULSE TIME MODULATION
NT PULSE DURATION MODULATION
NT PULSE POSITION MODULATION

PULSE WIDTH
U PULSE DURATION

PULSE WIDTH MODULATION
U PULSE DURATION MODULATION

PULSED LASER DEPOSITION
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser
[AD-A257551] 06 p1491 N93-17966
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508

PULSED LASERS
NT Q SWITCHED LASERS
NT ULTRAVIOLET LASERS
Long wavelength multiple quantum well lasers for high-speed modulation applications
[AD-A253348] 01 p0087 N93-10211
Fellowship in physics/modern optics and quantum electronics
[AD-A253666] 01 p0087 N93-10228
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
In-plane strain measurement on high speed rotating components using pulsed laser ESPI
[PNR-90975] 02 p0315 N93-11064
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser
02 p0319 N93-12037
Shock waves induced by pulsed laser in confined interaction: Numerical simulation
02 p0319 N93-12038
Observation of pulses propagating at supraluminous speed in an optical fiber 02 p0320 N93-12040
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
Development summary of a sympathetic discharge CO2 laser for lidar use
[NASA-CR-184433] 02 p0323 N93-12516
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691
Development of a laser ignited all secondary explosive DDT detonator
[DE92-019340] 03 p0555 N93-13081
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
A study of small solid-state switched TEA CO2 lasers
03 p0607 N93-13814
Optical probes for laser induced shocks
[AD-A256092] 04 p0884 N93-14284
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
Ultrashort-pulse laser system: Theory of operation and operating procedures
[AD-A257023] 04 p0887 N93-15472
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
Growth of epitaxial thin films by pulsed laser ablation
[DE92-040515] 05 p1319 N93-16296
Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
Adaptive optics for laser power beaming
05 p1305 N93-17307
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
High-temperature superconducting electronics
06 p1523 N93-18464
Novel short-wavelength lasers
06 p1543 N93-18472
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Laser beam diagnostics for kilowatt power pulsed YAG laser
[DE93-002928] 06 p1542 N93-19515
Computer modeling of pulsed CO2 lasers for lidar applications 07 p1913 N93-20106
Pulse discharge laser with passive arc protection
[AD-D015601] 07 p1909 N93-20262
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298
Discussion of the optical effects created by a laser source on particles under microgravity
07 p1811 N93-21126
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Excimer laser processing of backside-illuminated CCDS 08 p2310 N93-22180
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces
[DE93-003865] 08 p2553 N93-22949
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Studies of tunable, high power excimer lasers
08 p2309 N93-23597
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
High-resolution free-electron laser spectroscopy
08 p2309 N93-24191
Sample positioning in microgravity
[NASA-CASE-NPO-18448-1-CU]
08 p2253 N93-24600
Surface discharge photoinitiation of pulsed chemical lasers
[DE93-006337] 09 p2712 N93-24967
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering
[AD-D015642] 09 p2852 N93-25358
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
Structure and properties of a-C: N films prepared by pulsed excimer laser deposition
[DE93-007908] 09 p2654 N93-25372
Laser field assisted photoemission using femtosecond laser pulses
[DE93-007277] 09 p2712 N93-25378
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging
09 p2713 N93-25389
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Summary of progress in laser fusion; advanced technology developments: National Laser Users Facility news; and a laser system report --- laser fusion and laser energetics
[DE93-009054] 10 p3047 N93-27120
Quasiclassical approach to ionization of atoms by strong laser pulses: The comparison with the simpleman's models and Newtonian dynamics
[DE93-008738] 10 p3137 N93-28463
Discharge of electrically charged clouds
[AD-A263212] 11 p3480 N93-28518
All solid-state high power visible laser
[NASA-CR-193163] 11 p3436 N93-28623
Polarization dependence of the ionization of helium and neon by 120 femtosecond pulses at 614 nm
[DE93-010514] 11 p3564 N93-28762
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
Low-pump-rate multi-millisecond atomic xenon laser
[DE93-011484] 11 p3437 N93-29180
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
Fusion laser oscillator and pulse-forming system using integrated optics
[DE93-009286] 11 p3588 N93-29780
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
High-repetition rate x ray lasers and applications
[DE93-011882] 11 p3440 N93-30394

Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Optically guided laser wakefield acceleration
[AD-A265441] 12 p3732 N93-32019

PULSED RADIATION
NT ELECTROMAGNETIC PULSES
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
The dependence of pulsating auroral events on energetic electrons and cold plasma near the equatorial plane
[DE93-000856] 05 p1376 N93-17384
Ultrafast laser generation of hard x rays
07 p1912 N93-21952
Theoretical and experimental investigations of coincidences in Poisson distributed pulse trains and spectral distortion caused by pulse pileup
[ISBN-0-315-60449-2] 08 p2286 N93-24614

PULSEJET ENGINES
Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase
10 p2922 N93-27186

PULSES
NT ELECTRIC PULSES
NT ELECTROMAGNETIC PULSES
NT GEOMAGNETIC MICROPULSATIONS
NT GEOMAGNETIC PULSATIONS
NT MICROPULSATIONS
NT PICOSECOND PULSES
NT PRESSURE PULSES
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-192141] 07 p1997 N93-20295
Axial response and pulse behavior of a cylindrical liquid column. Part 2
[LRT-WE-9-FB-2-1991-PT-2] 07 p1903 N93-21296

PULTRUSION
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF)
[NASA-TM-108382] 03 p0526 N93-13429
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Automated manufacturing of continuous fibre composite structures for aerospace applications
08 p2212 N93-23942
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597
Asymptotic studies of gravity-driven reacting coating flows and pultrusion processes
09 p2704 N93-25683

PULVERIZING
U GRINDING (COMMINUTION)

PUMP IMPELLERS
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753

PUMP SEALS
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275

PUMPING
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842
Fluidic sampling
[DE92-017266] 03 p0575 N93-12761

PUMPS
NT CENTRIFUGAL PUMPS
NT DIFFUSION PUMPS
NT ELECTROMAGNETIC PUMPS
NT FUEL PUMPS
NT JET PUMPS
NT TURBINE PUMPS
NT VACUUM PUMPS
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Positive displacement rotary pump
[AD-D015678] 09 p2719 N93-26144
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053

PUNCHES
Method of local shaping of thermoplastics
[AD-A255913] 04 p0856 N93-15105

PUPILS
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400

PURIFICATION
NT AIR PURIFICATION
Evaluation of flotation for purification of pyrite for use in thermal batteries
[DE92-019330] 02 p0290 N93-11553
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Application of molten salts in pyrochemical processing of reactive metals
[DE92-018618] 06 p1489 N93-19437
Gas source molecular beam epitaxial growth of GaN
[AD-A260524] 08 p2512 N93-24199

PURIFIERS
U PURIFICATION

PURINES
NT ADENINES
NT CAFFEINE

PURSUIT TRACKING
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
Implementation of the pure pursuit path tracking algorithm
[AD-A255524] 04 p0944 N93-14569
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208

PUSHBROOM SENSOR MODES
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2
08 p2365 N93-23801
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data
08 p2365 N93-23802

PWM (MODULATION)
U PULSE DURATION MODULATION

PYLON MOUNTING
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070

PYLONS
Investigation of interference phenomena of modern wing-mounted high-bypass-ratio engines by the solution of the Euler-equations 03 p0578 N93-13204
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070

PYRANOMETERS
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304

PYREX (TRADEMARK)
U BOROSILICATE GLASS

PYRIDINES
Design of a high activity and selectivity alcohol catalyst
[DE93-008100] 08 p2225 N93-24575
Conjugated substituted ionic polyacetylenes
[AD-A264702] 11 p3337 N93-30497
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

PYRIDOXINE
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068

PYRITES
Evaluation of flotation for purification of pyrite for use in thermal batteries
[DE92-019330] 02 p0290 N93-11553
Pyrite cathode material for a thermal battery
[AD-D015600] 07 p1891 N93-20792

PYROELECTRICITY
Effect of space exposure on pyroelectric infrared detectors 01 p0038 N93-10582
Pyroelectric anemometers and kinetic calorimeters
[PB93-141919] 08 p2303 N93-23230
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337

PYROGRAPHALLOY
U COMPOSITE MATERIALS
U PYROLYTIC GRAPHITE
U REFRACTORY MATERIALS

PYROHELIOMETERS
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304

PYROLYSIS
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
Growth of 2-6 thin-films from single-source precursors based on sterically encumbered sitel ligands
[DE92-017077] 02 p0466 N93-12099
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Thermal decomposition of HNIW and HNIW-Based formulations
[AD-A255613] 04 p0854 N93-15011
Flammability characteristics of fiber-reinforced epoxy composites for combat vehicle applications
[AD-A256844] 05 p1096 N93-15706
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
Thermal isomerization and decomposition of ethynyldisilanes
[DE92-040578] 05 p1102 N93-16012
Vapor phase pyrolysis 05 p1108 N93-16891
Processes for metal extraction
05 p1382 N93-16893
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430

The design and construction of an ion trap based system for laser pyrolysis/mass spectrometry of single organic aerosol particles
[AD-A260455] 08 p2222 N93-24115
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Development of a pyrolysis waste recovery model with designs, test plans, and applications for space-based habitats 09 p2803 N93-26076
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261965] 10 p3008 N93-27666
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900

PYROLYTIC GRAPHITE
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510
STM tip-induced transitions of dislocation network structures on the surface of highly oriented pyrolytic graphite
[AD-A262419] 10 p3004 N93-27655
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303
Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614

PYROLYTIC MATERIALS
NT PYROLYTIC GRAPHITE

PYROMETERS
NT RADIATION PYROMETERS
NT THERMOCOUPLE PYROMETERS
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152

PYROMETRY
U TEMPERATURE MEASUREMENT

PYROPHORIC MATERIALS
Plutonium pyrophoricity
[RFP-4517] 04 p0845 N93-14723
Aerospace applications of metal combustion 10 p2920 N93-27175

PYROTECHNICS
NT HMX
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
Experimental approach on the pyrotechnical shock reduction of Ariane-5 upper stage 05 p1075 N93-15764
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
NASA pyrotechnically actuated systems program 07 p1863 N93-20133
Determination of pyrotechnic functional margin 07 p1863 N93-20134
Development of a NASA standard gas generator 07 p1863 N93-20135
Pyrotechnically actuated systems database and applications catalog 07 p1864 N93-20136
A semiconductor bridge ignited hot gas piston ejector 07 p1864 N93-20137
Small ICBM Laser Firing Unit (LFU) 07 p1864 N93-20138
Laser-initiated ordnance for air-to-air missiles 07 p1864 N93-20139
Laser diode ordnance design 07 p1864 N93-20140
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Proposed system safety design and test requirements for the microlaser ordnance system 07 p1864 N93-20144
Advances in laser diodes for pyrotechnic applications 07 p1865 N93-20146
Development and testing of hermetic, laser-ignited pyrotechnic and explosive components 07 p1865 N93-20149
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
Pyrotechnic modeling for the NSI and pin puller 07 p1866 N93-20153
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Molecular composition, structure, and sensitivity of explosives
[DE93-003850] 09 p2662 N93-26493
NASA aerospace pyrotechnically actuated systems: Program plan
[NASA-TM-109226] 12 p3712 N93-31308

PYROXENES
Refining the granulite suite 06 p1736 N93-18789

PYROXYLIN
U CELLULOSE NITRATE

PYRROLES
NT INDOLES
Infrared investigations of pristine polypyrrole. Is the polymer called polypyrrole really Poly (Pyrrole-Co-Hydroxypyrrole)?
[AD-A249746] 01 p0036 N93-10243
Mixed ionic and electronic conductivity in polymers
[DE92-018723] 02 p0273 N93-12500
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685

PYRUVATES
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369

P3V AIRCRAFT
U P-3 AIRCRAFT

P78-2 SATELLITE
U SCATHA SATELLITE

Q

Q FACTORS
A new model for interpreting experimental data from a circular waveguide cavity
[AD-A254067] 01 p0075 N93-10785
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
Achieving high Q(sub DD) operation in high poloidal beta discharges in TFTR
[DE92-019494] 03 p0718 N93-13535
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Experimental study of the selective properties of coaxial resonators
[INPE-5375-PRE/1748] 06 p1522 N93-19740
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
Airline quality issues 1992: Proceedings of the International Forum on Airline Quality
[NIAR-92-10] 07 p1764 N93-21561
A survey of quality measures for gray-scale image compression 08 p2431 N93-24550
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

Q SWITCHED LASERS
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Pulsed holography for hypervelocity impact diagnostics
[DE92-040259] 05 p1166 N93-15831
Multiple element ring laser
[AD-D015471] 05 p1173 N93-16469
Method and apparatus for detection and control of prelasing in a Q-switched laser
[NASA-CASE-LAR-14790-1] 06 p1542 N93-19373
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

Q VALUES
Multifractal analysis at negative q
[AD-A254370] 02 p0413 N93-12159
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604

QCD
U QUANTUM CHROMODYNAMICS

QPSK
U QUADRATURE PHASE SHIFT KEYING

QSO (RADIO SOURCES)
U QUASARS

QUADRANTID METEOROIDS
P/Machholz 1986 8 and quadrantid meteoroid stream. Orbital evolution and relationship 06 p1700 N93-19119
Evolution of the Quadrantid meteor stream 06 p1708 N93-19177
The spatial distribution of large cometary meteoroids in the inner solar system 06 p1712 N93-19208

QUADRATIC EQUATIONS
Performance and stability robustness for uncertain linear systems: A quadratic approach
[LAAS-92199] 05 p1271 N93-17494
A bibliography of the qualitative theory of quadratic systems of differential equations in the plane
[REPT-92-17] 06 p1642 N93-17842
Phase portraits of non degenerate quadratic systems with finite multiplicity one
[REPT-92-42] 06 p1643 N93-17874
Singular points at infinity of quadratic systems of differential equations
[REPT-91-58] 07 p2052 N93-20852
Bifurcation of limit cycles in a particular class of quadratic systems with two centres
[REPT-92-43] 10 p3119 N93-27931
Structurally stable quadratic systems without limit cycles
[REPT-92-58] 12 p3805 N93-31501
Uniqueness of limit cycles in polynomial systems with algebraic invariants
[REPT-92-72] 12 p3805 N93-31505

QUADRATIC PROGRAMMING
Sequential quadratic programming solutions to related aircraft trajectory optimization problems 03 p0505 N93-13926
Large-scale sequential quadratic programming algorithms
[AD-A257643] 05 p1253 N93-17791
Methods and convergence analysis in large scale nonlinear optimization
[AD-A258182] 06 p1616 N93-17898
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
A truncated SQP algorithm for large scale nonlinear programming problems
[PB92-226299] 07 p2039 N93-21045
Solution of quadratic distributed control problems by optimization methods
[ETN-93-93409] 07 p2040 N93-21303
Methods of optimization under uncertainty
[AD-A261487] 09 p2873 N93-26342
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Concurrent data objects in quadratic space
[CS-9112] 10 p3101 N93-28066
Duality and sensitivity in quadratic optimization over a sphere
[REPT-92-65] 12 p3804 N93-31470

QUADRATURE APPROXIMATION
U QUADRATURES

QUADRATURE PHASE SHIFT KEYING
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190

QUADRATURES
The rudes and the shrewds: An experimental comparison of several evolutionary heuristics applied to the QAP problem
[REPT-91-042] 06 p1620 N93-18325
Asymptotic behaviour of some bilinear functionals of the empirical process
[MEMO-1031] 07 p2059 N93-20956
Digital tracking loops for a programmable digital modem
[NASA-CR-189219] 10 p3089 N93-27014
QUADRIPHASE SHIFT KEYING
U QUADRATURE PHASE SHIFT KEYING
QUADRUPOLES
Magnetic field perturbation caused by bending vibrations of a quadrupole
[DE92-040644] 03 p0623 N93-13003
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
Design of a compact application-oriented free-electron laser
[DE92-040391] 05 p1172 N93-16183
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings
[DE92-556477] 05 p1298 N93-16646
Design and modeling of superconducting RFQ structures
[DE93-000511] 05 p1326 N93-17376
Calorimetric examination of the polarization cluster of the beginning ferroelectric material KTaO3
[ETN-93-93418] 07 p2084 N93-21067
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
An RF driven H(-) source and a low energy beam injection system for RFQ operation
[DE93-010438] 11 p3575 N93-29302
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
QUALIFICATIONS
Qualification of the gritblast assembly and process for the inside diameter of the RSRM forward and aft domes
[NASA-CR-184462] 03 p0558 N93-13021
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619
Instructions and advance training measures for the improvement of human reliability
[MBB-FE-313-S-PUB-0500] 07 p2025 N93-21402
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
QUALITATIVE ANALYSIS
Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435
Applying commercial style acquisition practices to the procurement of commercially available aircraft
[AD-A258143] 06 p1683 N93-18087
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
QUALITY
NT AIR QUALITY
NT ENVIRONMENTAL QUALITY
NT RIDING QUALITY
NT WATER QUALITY
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Relating porosity and mechanical properties in spray formed alloy 625
[AD-A260341] 08 p2234 N93-24269
QUALITY CONTROL
NT TOTAL QUALITY MANAGEMENT
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Introduction to software process improvement
[AD-A253326] 01 p0137 N93-10447
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
Quality management of finite element analysis
[PNR-90951] 02 p0331 N93-11110
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714
History of statistics in real time: Hammers and nails
[AD-A253521] 02 p0429 N93-12081
Program for implementing software quality metrics
[DE92-018617] 02 p0413 N93-12187
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Coordinating Council. Fifth Meeting: Quality
[NASA-TM-108018] 03 p0733 N93-12635
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725
The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) site visitation program
[PB92-217298] 03 p0642 N93-12726
Functional system design document for the Intelligent Inspection System (IIS)
[DE92-018240] 03 p0619 N93-12794
Spreadsheet-like image analysis
[AD-A254395] 03 p0619 N93-12864
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Statistical process management: An essential element of quality improvement
[DE92-019934] 03 p0619 N93-13036
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
An examination of the Total Quality Management (TQM) concept given current Federal/DoD competition initiatives
[AD-A255556] 03 p0620 N93-13876
Coordinating Council. Ninth Meeting: Total Quality Management
[NASA-TM-108106] 03 p0738 N93-13885
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
The use of International Standards Organization ISO 9000 quality assurance standards in place of military standards
[AD-A256203] 04 p0894 N93-14500
Data management in NOAA 04 p1003 N93-14779
SIDR Relative Weighted Product (RWP) assignment process
[AD-A255801] 04 p0946 N93-15068
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
Characteristics of the Nova laser disk edge cladding epoxy
[DE92-041046] 04 p0853 N93-15462
Preparation of the Pacific region energy information exchange system
[DE93-716353] 05 p1351 N93-15953
A multiple objective optimization approach to quality control
[NASA-CR-191872] 05 p1181 N93-16657
WELDSMART: A vision-based expert system for quality control
[NASA-CR-192415] 05 p1182 N93-16724
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
A paradigm shift in Air Force medicine
[AD-A258334] 06 p1596 N93-18159
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
QA system for structural analysis 06 p1557 N93-18755
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
The international forum on airline quality teaching guide
[NIAR-92-13] 06 p1680 N93-19376
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Measurement process error determination and control
[DE93-002948] 06 p1553 N93-19753
A Research Agenda for Scientific and Technical Information
[AGARD-AR-316] 06 p1692 N93-19796
New methodologies toward the integration of tolerancing in CAD/CAM systems
[PAPER-C-1-2] 07 p2035 N93-20825
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
Optimizing positioning of mechanical parts
[PAPER-C-1-5] 07 p2035 N93-20828
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines
[PAPER-C-1-6] 07 p2035 N93-20829
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
The total quality approach in the development of technical textiles 07 p1838 N93-21156
Infrared imaging of fibre reinforced plastic composites 07 p1838 N93-21162
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Summary report for the National Atmospheric Deposition Program National Trends Network (NADP/NTN) site visitation program
[PB92-219823] 07 p1991 N93-21494
Airline quality issues 1992: Proceedings of the International Forum on Airline Quality
[NIAR-92-10] 07 p1764 N93-21561
Printed wiring assembly cleanliness
[DE93-006040] 08 p2277 N93-22524
Development of size-specific data from particulate control technology research reports
[PB93-131456] 08 p2384 N93-22922
Total Quality Management: Good enough for government work
[AD-A259847] 08 p2520 N93-23954
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
What procedure to choose while designing a fuzzy control? Towards mathematical foundations of fuzzy control
[NASA-TM-108719] 09 p2820 N93-25459
Quality control: Variability in protocols
[PB93-157790] 09 p2766 N93-25876
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Implementation of quality improvement techniques for management and technical processes in the ACRV project 09 p2723 N93-26074
Exploring the link between intrinsic motivation and quality
[AD-A261722] 09 p2722 N93-26246
NDT standards from the perspective of the Department of Defense
[MTL-TR-92-68] 09 p2722 N93-26434
Designing and implementing a state quality award
[PB93-154458] 09 p2722 N93-26546
Some aspects of a 3-dimensional reference system for surveying in the Netherlands: Quality analysis of GPS phase observations
[REPT-92-1] 10 p3063 N93-27368
A system for measurement and control of weld pool geometry in automatic arc welding
[ETN-93-93154] 10 p3050 N93-27380

A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
Software quality and testing: What DOD can learn from commercial practices
[AD-A262332] 10 p3099 N93-27652
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
Application of quality function deployment to the design of a lithium battery
[DE93-008346] 10 p3033 N93-28459
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
A guide to total software quality control, volume 1
[AD-A263881] 11 p3531 N93-29920
A guide to total software quality control, volume 2
[AD-A263891] 11 p3531 N93-29921
Software testing using the IEEE standards
[DE93-009833] 11 p3532 N93-30050
Data quality statements for spatial databases
[AD-A264125] 11 p3616 N93-30195
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
The quality assurance liaison: Combined technical and quality assurance support
[DE93-008725] 11 p3450 N93-30636
A proposal on the quality of the binary thresholds of a contour detection
[REPT-91-075] 12 p3806 N93-31544
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

QUALITY FACTORS
U Q FACTORS

QUANTILES
History of statistics in real time: Hammers and nails
[AD-A253521] 02 p0429 N93-12081
Obtaining medians and other quantiles with limited memory space
[AD-A254506] 03 p0683 N93-12722
From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
Change PP plot and continuous sample quantile function
[AD-A259833] 08 p2472 N93-23460
Bootstrapping multivariable U-quantiles and related statistics
[CWI-BS-R9215] 10 p3126 N93-28091
Empirical quantile function nonparametric integrated analyses
[AD-A263704] 11 p3554 N93-29385

QUANTITATIVE ANALYSIS
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
A quantitative analysis of the effect of ELMs on H-mode thermal energy confinement in DIII-D
[DE92-017704] 03 p0712 N93-12687
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography
[BCRS-91-44] 07 p1968 N93-20740
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry
[DE93-003839] 07 p2098 N93-21849
A new index for the crevice corrosion resistance of materials
[AD-A260437] 08 p2233 N93-24112
Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367

QUANTIZATION
U MEASUREMENT

QUANTIZER
U COUNTERS

QUANTUM CHEMISTRY
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
On the evaluation of derivatives of Gaussian integrals 02 p0439 N93-11853
Connected triple excitations in coupled-cluster calculations of hyperpolarizabilities: Neon 02 p0439 N93-11854
Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
The use of quantum chemistry to estimate the performance and properties of explosives
[DE92-040369] 11 p3352 N93-30446
The 26th International Quantum Chemistry Symposium on Atomic, Molecular, and Condensed Matter Theory and Computational Methods
[AD-A264206] 11 p3315 N93-30534
Metastability in molecules
[AD-A264344] 12 p3817 N93-31063
Development of practical MO techniques for prediction of the properties and behavior of materials
[AD-A265730] 12 p3820 N93-31798

QUANTUM CHROMODYNAMICS
NT INSTANTONS
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
Research in theoretical particle physics
[DE92-016181] 01 p0154 N93-10605
Research program in elementary particle theory
[DE92-017399] 01 p0155 N93-10840
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
Search for doubly Cabibbo suppressed decays of the charged D meson
[DE92-018588] 03 p0703 N93-13092
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Recent developments in the theory of heavy-quark decays
[DE92-017598] 03 p0704 N93-13250
Low energy theorems in pion production
[DE92-040071] 04 p0977 N93-15279
Dark matter axions
[DE92-040501] 04 p1022 N93-15346
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
Research in particle theory
[DE93-002868] 05 p1284 N93-16147
A study of improvement in lattice QCD
[SSCL-PREPRINT-766] 05 p1286 N93-16348
Theoretical particle physics
[DE93-000649] 05 p1329 N93-16357
Lattice calculations of f(D) and f(B)
[SSCL-PREPRINT-798] 05 p1286 N93-16394
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-792] 05 p1287 N93-16414
D decays, B-physics, and CP-violation from lattice QCD
[PREPRINT-799] 05 p1287 N93-16419
Mixing of vector and axial correlators at finite volume: Implications for lattice computations
[PREPRINT-804] 05 p1287 N93-16424
QCD corrections to Z pair hadronic production
[PREPRINT-832] 05 p1288 N93-16954
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
Instability of the invisible axion
[PREPRINT-877] 05 p1289 N93-16981
Status of QCD
[PREPRINT-842] 05 p1298 N93-16996
QCD spectroscopy and phenomenology with improved actions
[PREPRINT-857] 05 p1106 N93-17015
Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016
Problems with the Euclidean formulation of heavy quark effective theories
[PREPRINT-884] 05 p1290 N93-17020
Gribov copies and smeared correlation functions in lattice QCD
[PREPRINT-892] 05 p1330 N93-17027
CP-violation in K(sup +/-) to 3 pi decays and lattice QCD B-factors
[PREPRINT-848] 05 p1323 N93-17068
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Two loop calculation of the anomalous dimension of four-fermion operators with static heavy quarks
[PREPRINT-873] 05 p1291 N93-17073
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Solutions to the strong-CP problem in a world with gravity
[DE93-002650] 05 p1291 N93-17200
High energy physics
[DE93-002411] 06 p1659 N93-17911
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Software for parallel processing applications
[DE93-002510] 06 p1627 N93-19744
Non-topological solitons in astrophysics and cosmology 07 p2096 N93-20292
Semi-leptonic decays of D-mesons in lattice QCD
[PREPRINT-808] 07 p2062 N93-20905
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-810] 07 p2062 N93-20923
Two loop calculation of the anomalous dimension of the axial current with static heavy quarks
[PREPRINT-813] 07 p2062 N93-20924
Two-parameter quantum groups
[PREPRINT-820] 07 p2060 N93-21182
Multi-jet production rates in deep-inelastic muon-proton scattering
[DE93-004410] 07 p2065 N93-21854
Experiences with the ACPMAPS 50 GFLOP system
[DE93-004418] 07 p2042 N93-21855
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
A study of four-jet events and search for double parton interactions at square root of s = 1.8 TeV
[DE93-005973] 08 p2480 N93-22693
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Theoretical studies in elementary particle physics
[DE93-005923] 08 p2481 N93-22883
Particle physics
[DE93-006894] 08 p2482 N93-22992
The QCD Teraflops Project
[DE93-006386] 08 p2447 N93-23026
Mass spectra of the particle-antiparticle system with a Dirac oscillator interaction 10 p3146 N93-27351
Time evolution of the quark-gluon plasma
[DE93-008703] 10 p3149 N93-27620
The improvement of hadronic matrix elements in lattice QCD
[SSCL-PREPRINT-737] 10 p3157 N93-28162
Final state interactions from Euclidean Correlation Functions
[SSCL-PREPRINT-742] 10 p3122 N93-28196
First calculation of D(+) approaches (K bar)(°0)e(+)nu(sub e) in lattice QCD
[SSCL-PREPRINT-748] 10 p3135 N93-28208
Hadron structure on the lattice
[SSCL-PREPRINT-754] 10 p3157 N93-28211

Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
Recent progress in lattice QCD
[DE93-006827] 10 p3157 N93-28312
Intermediate/high energy nuclear physics
[DE93-005927] 10 p3140 N93-28353
Beyond metric gravity: Progress on PS-200
[DE93-008723] 10 p3158 N93-28461
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
Normal equivariant forms of vector fields
[DE92-644845] 11 p3551 N93-30929
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
2 + 1 gravity without dynamics
[DE92-642587] 12 p3757 N93-31081
Random walks and a simple chirally invariant lattice Hamiltonian without fermion doubling
[DE93-609920] 12 p3821 N93-31913
Two jet production in hadron collisions at order alpha(sub s)(sup 3) in QCD
[DE93-010563] 12 p3822 N93-32159
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

QUANTUM EFFICIENCY
Progress toward x ray lasing between autoionizing transitions
[DE92-017426] 02 p0317 N93-11765
Performance characteristics of STIS detectors
[NASA-CR-191636] 04 p0868 N93-14915
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Observation of a charge limit for photocathode electron guns
[DE93-006948] 08 p2485 N93-24464
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771

QUANTUM ELECTRODYNAMICS
Quantum 1/f noise in high technology applications including ultrasmall structures and devices
[AD-A253922] 01 p0074 N93-10751
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
Non-perturbative studies in quantum electrodynamics 03 p0729 N93-13896
Staggered fermions and chiral symmetry breaking in transverse lattice regulated QED
[DE92-040505] 04 p0977 N93-15378
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
Research in particle theory
[DE93-002868] 05 p1284 N93-16147
Atomic collision physics: A summary and some projections
[DE92-040638] 05 p1287 N93-16407
Spectroscopy of highly charged multi-electron ions
[DE93-001617] 05 p1291 N93-17181
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Relativistic calculations of excitation and ionization of highly charged ions by electron impact
[DE93-002129] 05 p1296 N93-17783
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
Notes on radial drift for dalitz detection
[DE93-006971] 09 p2846 N93-24959
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Regular and chaotic motion of two dimensional electrons in a strong magnetic field
[DE93-604091] 11 p3607 N93-30933
String-like excitations in quantum electrodynamics
[DE92-642593] 12 p3830 N93-31075
Quantum transport
[AD-A264935] 12 p3832 N93-32072

QUANTUM ELECTRONICS
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Fellowship in physics/modern optics and quantum electronics
[AD-A253666] 01 p0087 N93-10228
Quantum 1/f noise in high technology applications including ultrasmall structures and devices
[AD-A253922] 01 p0074 N93-10751
Joint Services Electronics Program
[AD-A253842] 01 p0076 N93-10829
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502
Solid state research
[AD-A256019] 04 p0992 N93-14576
Solid state research
[AD-A256965] 05 p1318 N93-16251
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Research programs at the Research Laboratory of Electronics 06 p1522 N93-19482
Organization of the Optical Society of America Photonic Science Topical Meeting series (1991), volume 16. Conference edition: Summaries of papers presented at the persistent spectral hole-burning: Science and applications topical
[AD-A258663] 06 p1664 N93-19947
Proceedings of the International Workshop on Quantum Effect Physics, Electronics, and Applications
[AD-A259457] 07 p2084 N93-20242
Solid state research
[AD-A259726] 08 p2509 N93-24024
Quantum mechanics of electrons in crystals with graded composition
[AD-A260294] 08 p2512 N93-24262
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467
Joint services electronics program
[AD-A261801] 09 p2692 N93-26539
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz 10 p3014 N93-27749
Quantum transport of electrons in nanostructured silicon MOSFET's
[ETN-93-93597] 10 p3031 N93-27871
JSEP annual report, 11 January 1991 - 10 January 1993
[AD-A261948] 10 p3031 N93-27918
Solid state research
[AD-A262874] 10 p3154 N93-28247
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393

QUANTUM GENERATORS
U STIMULATED EMISSION DEVICES

QUANTUM MECHANICS
NT PAULI EXCLUSION PRINCIPLE
NT QUANTUM ELECTRODYNAMICS
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225
Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
The class of the paths in the Feynman path integral on the phase space
[DE92-630205] 01 p0170 N93-10386
On the measurement of time-dependent quantum phases
[DE92-630206] 01 p0170 N93-10387
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
Final Technical Report
[AD-A253529] 02 p0284 N93-12083
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
Mathematics and string theory
[DE92-019292] 03 p0727 N93-12796
Second quantization in bit-string physics
[DE92-019645] 03 p0727 N93-12826
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
Connection of microscopic with macroscopic dynamics: Towards a hydrodynamical description of quantum mechanics 03 p0729 N93-13957
Quantum fluctuations in stimulated Raman scattering 04 p0857 N93-14126
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Semi-classical quantization rules in supersymmetric quantum mechanics 04 p0998 N93-14590
Anti-hydrogen: The cusp between quantum mechanics and general relativity
[DE93-001807] 04 p0998 N93-15469
Quantum groups and Lie-admissable time evolution
[SSCL-PREPRINT-793] 05 p1264 N93-16349
Aspects of electron transport in semiconductor nanostructures
[ETN-92-92787] 05 p1321 N93-16486
Symmetry of wavefunctions in quantum algebras and supersymmetry
[DE92-041129] 05 p1265 N93-16551
Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
Solutions to the strong-CP problem in a world with gravity
[DE93-002650] 05 p1291 N93-17200
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
The uncertainty principle
[ETN-92-92533] 05 p1331 N93-17589
Yang phase for non-Hermitian systems and biunitary transformations
[PREPRINT-782] 06 p1645 N93-18197
Nanotechnology 06 p1678 N93-18489
Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477
Decoherence of multimode thermal squeezed coherent states
[DE93-002627] 06 p1679 N93-19489
Proceedings of the International Workshop on Quantum Effect Physics, Electronics, and Applications
[AD-A259457] 07 p2084 N93-20242
Study of the generalized parametric oscillator
[PREPRINT-815] 07 p2059 N93-21178
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
Configuration space Faddeev calculations
[DE93-006080] 08 p2475 N93-23337
Quantum mechanics of electrons in crystals with graded composition
[AD-A260294] 08 p2512 N93-24262

Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463
Theoretical calculations on the electron absorption spectra of selected Polycyclic Aromatic Hydrocarbons (PAH) and derivatives
[NASA-CR-192762] 09 p2892 N93-25200
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
Quons, an interpolation between Bose and Fermi oscillators 10 p3141 N93-27312
Phase-space quantum mechanics study of two identical particles in an external oscillatory potential
10 p3141 N93-27314
The SU(2) action-angle variables
10 p3129 N93-27316
Symmetries of coupled harmonic oscillators
10 p3142 N93-27318
The q-harmonic oscillators, q-coherent states and the q-symplecton 10 p3142 N93-27319
Deformation of supersymmetric and conformal quantum mechanics through affine transformations
10 p3142 N93-27321
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
Point form relativistic quantum mechanics and relativistic SU(6) 10 p3144 N93-27332
Phase space localization for anti-de Sitter quantum mechanics and its zero curvature limit
10 p3144 N93-27333
Proper-time relativistic dynamics
10 p3144 N93-27334
On harmonic oscillators and their Kemmer relativistic forms 10 p3144 N93-27336
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
Quantized discrete space oscillators
10 p3146 N93-27349
From harmonic to anharmonic oscillators
10 p3146 N93-27352
Atomic supersymmetry 10 p3146 N93-27353
Covariant harmonic oscillators: 1973 revisited
10 p3147 N93-27358
Fluctuations in quantum transport theories of nuclear matter
[KVI-930] 10 p3155 N93-27395
The Mathai-Quillen formalism and topological field theory
[NIKHEF-H/92-07] 10 p3155 N93-27496
The N equals 2 topological gauge theory, the Euler characteristic of moduli spaces, and the Casson invariant
[NIKHEF-H/91-28] 10 p3156 N93-27509
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Transformation of the Kepler problem
10 p3156 N93-28068
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
Beyond metric gravity: Progress on PS-200
[DE93-008723] 10 p3158 N93-28461
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Photodissociation of HBr/LiF(001): A quantum mechanical model
[NASA-CR-193119] 11 p3603 N93-28933
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
Differential calculus on quantum spaces and quantum groups
[DE93-010425] 11 p3551 N93-30392
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
Chaotic quantum systems
[DE93-606030] 11 p3606 N93-30802
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803
On two-dimensional quasiclassics
[DE93-606034] 11 p3606 N93-30805
Positive energy representations of the conformal quantum algebra
[DE93-606064] 11 p3551 N93-30809
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Topology and statistics in zero dimensions
[DE93-604080] 11 p3607 N93-30932
Regular and chaotic motion of two dimensional electrons in a strong magnetic field
[DE93-604091] 11 p3607 N93-30933
Low-energy behaviour of few-particle scattering amplitudes in two dimensions
[DE93-609834] 11 p3572 N93-30944
A squeezed state holomorphic phase space representation of equations of motion
[DE93-609835] 11 p3607 N93-30945
Formulation of wave mechanics without the Planck constant h/2 pi
[DE93-604083] 11 p3608 N93-30987
Multiparametric quantum symplectic phase space
[DE93-604081] 12 p3802 N93-31162
Quantum adiabatic expansion for dynamics in strong magnetic fields
[DE93-609388] 12 p3831 N93-31226
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289
Three lectures on quantum groups: Representations, duality, real forms
[DE93-608159] 12 p3832 N93-31807
Q-deformed conformal superalgebra and its Hopf subalgebras
[DE93-608160] 12 p3807 N93-31808
Free Maxwell equations, Dirac equation, and non-dispersive De Broglie wave packets
[DE93-609848] 12 p3832 N93-31908
A unified approach to classical and quantum physics
[DE93-609843] 12 p3833 N93-32411

QUANTUM NUMBERS

Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Electron terms and radiation from crystals
[AD-A254353] 02 p0468 N93-12271
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797

QUANTUM OPTICS

Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Which Q-analogue of the squeezed oscillator?
10 p3142 N93-27320
Novel properties of the q-analogue quantized radiation field 10 p3143 N93-27324
Distribution of photons in squeezed polymode light
10 p3143 N93-27325
Two photon annihilation operators and squeezed vacuum 10 p3143 N93-27326
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
Using harmonic oscillators to determine the spot size of Hermite-Gaussian laser beams
10 p3049 N93-27328
Squeezed states of damped oscillator chain
10 p3143 N93-27329
The uncertainty principle in resonant gravitational wave antennae and quantum non-demolition measurement schemes 10 p3143 N93-27330
Harmonic oscillator states in aberration optics
10 p3143 N93-27331
Squeezing phenomena in interacting electron-phonon systems
[SSCL-PREPRINT-727] 10 p3134 N93-28100
Non-isospectral extension of the chiral model and its geometry
[SSCL-PREPRINT-735] 10 p3128 N93-28101

QUANTUM STATISTICS

Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Stochastic quantization, stochastic calculus and path integrals: Selected topics
[PREPRINT-837] 05 p1279 N93-16992
The uncertainty principle
[ETN-92-92533] 05 p1331 N93-17589
Can Bose condensation of alpha particles be observed in heavy ion collisions?
[NASA-TM-108996] 10 p3138 N93-27259
Quons, an interpolation between Bose and Fermi oscillators 10 p3141 N93-27312
Wigner expansions for partition functions of nonrelativistic and relativistic oscillator systems
10 p3145 N93-27343
A boson field stochastic calculus and quantum filtering in Fock space
[SSCL-PREPRINT-723] 10 p3156 N93-28096
Large deviations theory and stochastic gauge fixing
[SSCL-PREPRINT-739] 10 p3126 N93-28193
On the impossibility of creating the quantum correlations with computers
[DE93-606039] 11 p3606 N93-30806
Topology and statistics in zero dimensions
[DE93-604080] 11 p3607 N93-30932

QUANTUM THEORY

Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Symmetry breaking and localization in quantum chaotic systems
[DE92-634890] 01 p0170 N93-10294
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
Mathematics and string theory
[DE92-019292] 03 p0727 N93-12796
Dynamics in neutron stars and the early universe
04 p1014 N93-14112
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Semi-classical quantization rules in supersymmetric quantum mechanics 04 p0998 N93-14590
Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884
Variational transition state theory
[DE92-040498] 04 p0842 N93-14908
Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space
[DE92-040503] 05 p1328 N93-15940
Application of multistep compound and multistep direct models for data evaluation
[DE93-000865] 05 p1285 N93-16304
On Gupta-Bleuler quantization of systems with second-class constants
[NIKHEF-H/92-05] 05 p1264 N93-16342
On a class of stochastic reaction-diffusion equations in two space dimensions
[PREPRINT-777] 05 p1265 N93-16442
Renormalization group in different fields of theoretical physics
[DE92-556707] 05 p1329 N93-16648
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961

Interacting Euclidean three-dimensional quantum gravity
[PREPRINT-867] 05 p1330 N93-16965
Problems with the Euclidean formulation of heavy quark effective theories
[PREPRINT-884] 05 p1290 N93-17020
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Dressed skeleton expansion and the coupling scale ambiguity problem
[DE93-002516] 05 p1331 N93-17185
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
The uncertainty principle
[ETN-92-92533] 05 p1331 N93-17589
Lie-admissible perturbation methods for open quantum systems
[PREPRINT-845] 06 p1651 N93-17840
Proceedings of the International Workshop on Quantum Effect Physics, Electronics, and Applications
[AD-A259457] 07 p2084 N93-20242
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404
Quantum theory of multiwave mixing with applications to squeezing in both atomic and semiconductor media
[AD-A259875] 08 p2514 N93-22732
Summary of the 1992 ACP Winter Conference on Future Trends in Low Temperature Physics
[AD-A259809] 08 p2508 N93-23643
Investigations in dynamics of gauge theories in theoretical particle physics
[DE93-007260] 08 p2484 N93-24448
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467
Twistor diagrams and a quantum field theory
09 p2871 N93-25423
Fundamental aspects of metal joining: The study of strong interfaces
[AD-A261293] 09 p2653 N93-26304
Interferometric measurement with squeezed light
[AD-A260910] 09 p2856 N93-26457
Low temperature Hall and Shubnikov-de Haas effects
[AD-A261871] 09 p2869 N93-26540
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
The q-harmonic oscillators, q-coherent states and the q-symplecton 10 p3142 N93-27319
Phase of the quantum harmonic oscillator with applications to optical polarization
10 p3142 N93-27322
Condition for equivalence of q-deformed and anharmonic oscillators 10 p3143 N93-27323
On inducing finite dimensional physical field representations for massless particles in even dimensions 10 p3144 N93-27339
Quantum harmonic oscillator in a thermal bath
10 p3145 N93-27345
Symmetry algebra of a generalized anisotropic harmonic oscillator 10 p3122 N93-27347
On the spring and mass of the Dirac oscillator
10 p3146 N93-27355
Classical confined particles 10 p3146 N93-27356
Second quantization in bit-string physics
10 p3146 N93-27357
Algebraic conformal field theory
[NIKHEF-H/91-26] 10 p3128 N93-27507
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz
10 p3014 N93-27749
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Quantum non-demolition measurements and generalized states at thermal equilibrium
[SSCL-PREPRINT-743] 10 p3158 N93-28386
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
The semiclassical stability of de Sitter spacetime
[DESY-92-131] 11 p3603 N93-28472
Applications of unitarity in the standard model
11 p3416 N93-28613
An algebraic approach to the quantization of constrained systems: Finite dimensional examples
11 p3548 N93-28671
Quantum devices using Si-based superlattices and structures
[AD-A263700] 11 p3595 N93-29383
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
Quantum field theory in spaces with closed time-like curves
[DE93-010564] 11 p3605 N93-30481
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Quantum group and symmetry of the heat equation
[DE93-607560] 11 p3605 N93-30779
Approximation formulae for functional integrals in P(phi)2-quantum field theory
[DE93-606067] 11 p3605 N93-30781
Phase structure of three- and four-dimensional phi(exp 4) field theory
[DE93-606069] 11 p3605 N93-30782
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
A squeezed state holomorphic phase space representation of equations of motion
[DE93-609835] 11 p3607 N93-30945
A non degenerate semi-classical Lagrangian for dilaton-gravity in two dimensions
[DE92-641339] 11 p3480 N93-31002
Quantum spectra and dynamics
12 p3831 N93-31129
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles
[DE93-608203] 12 p3818 N93-31240
Information-theoretic outlook of the quantum dissipation problem
[DE93-608162] 12 p3831 N93-31287
BRST cohomology ring in 2D gravity coupled to minimal models
[DE93-608192] 12 p3757 N93-31305
The constraint for the lowest Landau level and the effective field theory approach for the fractional quantum hall system
[DE93-608200] 12 p3831 N93-31509
The Lipkin model second order phase transition in the deformed su(2) algebra description
[DE93-608201] 12 p3807 N93-31661
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799
Nonclassical disordered phase in the strong quantum limit of frustrated antiferromagnets
[DE92-645691] 12 p3815 N93-31806
Three lectures on quantum groups: Representations, duality, real forms
[DE93-608159] 12 p3832 N93-31807
Lie bialgebras with triangular decomposition
[DE93-604232] 12 p3808 N93-31820

QUANTUM WELLS
NT PHOTOEXCITATION
Theory of light-induced drift of electrons in coupled quantum wells
[AD-A253609] 01 p0164 N93-10093
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Long wavelength multiple quantum well lasers for high-speed modulation applications
[AD-A253348] 01 p0087 N93-10211
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Photoinduced electron transfer counter to the bias field in coupled quantum wells
[AD-A254719] 02 p0469 N93-12338
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU]
03 p0605 N93-13418
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers
03 p0607 N93-13773
The three to five semiconductor quantum well lasers and related optoelectronic devices on silicon
[AD-A255368] 03 p0608 N93-13864
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
The III-V semiconductor quantum well lasers and related optoelectronic devices (on silicon). Oxide-defined semiconductor quantum well lasers and optoelectronic devices: Al-based III-V nativeoxide s
[AD-A255239] 04 p0885 N93-14667
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
Nonlinear optical studies of resonant systems
[AD-A257001] 05 p1302 N93-16235
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Quantum chaos without classical counterpart
[PREPRINT-830] 05 p1331 N93-17215
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446
Device applications of layered structures
06 p1523 N93-18461
Infrared photoluminescence spectroscopy
06 p1485 N93-18466
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
Long wavelength infrared detector
[NASA-CASE-NPO-17543-2-CU]
06 p1538 N93-19387
Ultrafast dynamics of quantum well lasers: Ultimate potential for high speed modulation
[AD-A258653] 07 p1910 N93-20365
Optical studies of laterally confined quantum well structures grown on ex-situ and in-situ patterned substrates
[AD-A260275] 08 p2511 N93-24167
Ion beam mixing in multi-quantum well structures
[AD-A259772] 08 p2516 N93-24509
Electric field effects on quantum-confined semiconductor structures 09 p2865 N93-25703
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Resonant tunneling through chemisorbed halogen atoms on Ag(111)
[AD-A261794] 09 p2868 N93-26254
Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Simulation of electron transport in quantum well devices 10 p3019 N93-27773
Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Quantum devices using Si-based superlattices and structures
[AD-A263700] 11 p3595 N93-29383
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983

Development of ultra-low noise, high sensitivity planar metal grating coupled 3-5 multiquantum well infrared detectors for focal plane array staring IR sensor systems
[AD-A264465] 11 p3599 N93-30536
Electronic states in quantum wells with periodically structured interfaces
[DE93-606295] 11 p3600 N93-30769
Multi-quantum well lateral-field-effect electro-refraction modulator
[AD-A264411] 12 p3729 N93-31191
Carrier capture in 3-5 semiconductor quantum wells
[ETN-93-94054] 12 p3828 N93-31620
Coulomb-blockade oscillations in quantum dots and wires
[ETN-93-94055] 12 p3831 N93-31621
Electronic Landau levels in quantum wells with periodically structured interfaces
[DE93-608514] 12 p3828 N93-31664
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665
The conditions leading to intense low frequency generation and strong localization in two level systems
[AD-A265110] 12 p3819 N93-31791
The optical response of a double quantum well driven by two lasers: Localization and low frequency generation
[AD-A265118] 12 p3819 N93-31792
Quantum well optical waveguide modulators
[AD-A265421] 12 p3824 N93-32050
Quantum transport
[AD-A264935] 12 p3832 N93-32072

QUARK MODELS
NT QUARK PARTON MODEL
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
A spectator model for deep inelastic electron scattering
[ETN-92-92539] 05 p1293 N93-17396
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1
[HU-SEFT-1991-09] 05 p1300 N93-17598
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Incremental generation and exploration of hidden structure 06 p1690 N93-19726
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
High-energy pion-nucleus scattering at LAMPF
[DE93-007364] 09 p2852 N93-25380
Heavy quark masses
[SSCL-PREPRINT-772] 10 p3133 N93-27699
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Covariant description of the delta in nuclear matter
[KVI-951] 12 p3817 N93-31149

QUARK PARTON MODEL
B(sub c) production --- pseudoscalar meson
[PREPRINT-806] 05 p1287 N93-16444
Calculation of the nucleon structure function from the nucleon wave function 10 p3147 N93-27359

QUARKS
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
A measurement of the Z(sup 0) hadronic branching fraction to bottom quarks and the charged multiplicity of bottom quark events using precision vertex detectors at E(sub cm) = 91 GeV
[DE92-018236] 01 p0154 N93-10820
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
Survey of composite particle models of electroweak interaction
[DE92-017110] 02 p0441 N93-12111
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
Recent developments in the theory of heavy-quark decays
[DE92-017598] 03 p0704 N93-13250
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
The Cabibbo-Kobayashi-Maskawa mixing matrix
[DE93-001255] 05 p1283 N93-15976
Dynamical approach to pair production from strong fields
[DE92-040224] 05 p1283 N93-16011
Research in elementary particle physics
[DE93-001858] 05 p1284 N93-16146
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
Nuclear physics and astrophysics
[DE93-002042] 05 p1364 N93-16362
Theory of the electroweak interactions
[SSCL-PREPRINT-775] 05 p1286 N93-16385
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
Weak matrix elements
[PREPRINT-854] 05 p1279 N93-16976
Problems with the Euclidean formulation of heavy quark effective theories
[PREPRINT-884] 05 p1290 N93-17020
The b quark polarization at LEP
[PREPRINT-886] 05 p1290 N93-17022
Two loop calculation of the anomalous dimension of four-fermion operators with static heavy quarks
[PREPRINT-873] 05 p1291 N93-17073
Dressed skeleton expansion and the coupling scale ambiguity problem
[DE93-002516] 05 p1331 N93-17185
A spectator model for deep inelastic electron scattering
[ETN-92-92539] 05 p1293 N93-17396
High energy physics
[DE93-002411] 06 p1659 N93-17911
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
Inclusive beauty decays and the spectator model
[PREPRINT-790] 07 p2061 N93-20850
Two loop calculation of the anomalous dimension of the axial current with static heavy quarks
[PREPRINT-813] 07 p2062 N93-20924
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
Charm physics at Fermilab E791
[DE93-006020] 08 p2480 N93-22543
Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739
Physics from photon and lepton-pair spectra
[DE93-003083] 08 p2481 N93-22752
Theoretical studies in elementary particle physics
[DE93-005923] 08 p2481 N93-22883
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Detection of fragments arising from greater than 10 GeV electron-nucleus collisions
[DE93-007725] 09 p2848 N93-25366
Classical confined particles 10 p3146 N93-27356
Semiweak production of a top quark accompanied by a bottom quark and 2 jets at hadron colliders
[NIKHEF-H/91-27] 10 p3132 N93-27508
Time evolution of the quark-gluon plasma
[DE93-008703] 10 p3149 N93-27620
B(sub c) decays
[SSCL-PREPRINT-774] 10 p3132 N93-27638
Heavy quark masses
[SSCL-PREPRINT-772] 10 p3133 N93-27699
Theoretical nuclear reaction and structure studies using hyperons and photons
[DE93-009765] 10 p3136 N93-28213
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
Single t-quark production in high energy (gamma)e collisions
[DE92-644947] 11 p3572 N93-30930
Fluctuations and intermittency in high energy nucleus-nucleus collisions
[DE93-608481] 11 p3577 N93-30990
Pion multiplicity as a probe of the deconfinement transition in heavy-ion collisions
[DE93-608484] 12 p3817 N93-31059
Radiative electroweak breaking and sparticle spectroscopy with tan(beta) is approximately equal to (m(sub t)) divided by (m(sub b))
[DE93-608399] 12 p3832 N93-31663
Lepton-quark families, cosmic strings and democratic mass matrix
[DE93-608263] 12 p3832 N93-31809
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

QUARTZ
NT COESITE
NT STISHOVITE
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Influence of the preshock temperature on shock effects in quartz 01 p0115 N93-10157
Quantum 1/f noise in high technology applications including ultrasmall structures and devices
[AD-A253922] 01 p0074 N93-10751
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Introduction to quartz frequency standards, revision 1
[AD-A256373] 04 p0870 N93-15330
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-27007

QUARTZ CRYSTALS
Quartz crystal resonators and oscillators for frequency control and timing applications: A tutorial, revision 5.2
[AD-A254892] 02 p0469 N93-12283
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting
[AD-A254745] 03 p0596 N93-12844
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
The effects of acceleration on precision frequency sources
[AD-A255465] 04 p0972 N93-14496
Introduction to quartz frequency standards, revision 1
[AD-A256373] 04 p0870 N93-15330
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Weak magnetic field sensitivity of quartz crystal oscillators 09 p2833 N93-24993
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture 09 p2833 N93-24995
The measurement of the resonant frequency of quartz crystal units: An ongoing saga 09 p2833 N93-24996
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020
Radiation effects in germanium doped quartz 09 p2837 N93-25021
Trapped energy quartz crystal resonator on wedge-shaped plate 09 p2837 N93-25022
Quartz crystal twinning under mechanical stress: Finite element analysis 09 p2839 N93-25032
Very wide bandwidth HF crystal filters 09 p2693 N93-25039
Thermionic current measurement in quartz 09 p2840 N93-25045
The third-order permittivity of quartz obtained by different methods 09 p2840 N93-25046
Thermoelasticity in quartz 09 p2841 N93-25047
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications 09 p2693 N93-25052

Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
Post-flight analyses of the crystals from the M0003-14 quartz crystal microbalance experiment 11 p3602 N93-29684
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2 11 p3414 N93-29685
Micromachined chemical sensor with integrated microelectronics [DE93-013761] 12 p3730 N93-32306

QUASARS
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992 [PB92-154913] 02 p0477 N93-11769
A closer look at active galactic nuclei: The great engines of the Universe [PB92-184464] 02 p0485 N93-11807
The emission-line properties of quasars 03 p0753 N93-13487
A search for dead QSO's among nearby luminous galaxies 04 p1011 N93-14228
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611
A faint spectroscopic quasar survey 04 p1012 N93-14629
Quasars, galaxies, and pseudo-vacuum droplets [NIKHEF-H/91-20] 04 p1020 N93-14686
The evolution of the quasar continuum [NASA-CR-191673] 04 p1012 N93-14759
Quasar x-ray spectra revisited 04 p1012 N93-14760
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
The gamma ray spectrum resulting from pp interactions in quasars 04 p1051 N93-14917
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium? [SSCL-PREPRINT-776] 05 p1365 N93-16386
Recent results on 3C 273 05 p1366 N93-17099
First results from the Compton Observatory 05 p1366 N93-17102
The x ray properties of a large, uniform QSO sample: Einstein observations of the LBQS 05 p1361 N93-17106
The quasar 1821+643 during the ROSAT survey 05 p1361 N93-17119
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
A comparative study of soft x ray QSO spectra 05 p1361 N93-17124
Spectra of radio-loud quasars observed in the ROSAT/XRT all sky survey 05 p1361 N93-17125
ROSAT x ray spectra of quasars with a range of continuum properties and redshift 05 p1362 N93-17128
Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Selection of faint quasars based on variability 05 p1363 N93-17156
The surface density of quasars and Seyfert galaxies at B is approximately 22.0 05 p1375 N93-17157
Optically selected quasars with Z greater than 4 05 p1363 N93-17158
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A [ESA-SP-1153-VOL-A] 07 p2096 N93-21007
Gravitational lenses 08 p2534 N93-23883
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
A faint field-galaxy redshift survey in quasar fields 10 p3179 N93-26751
Can quasars photoionize the intergalactic medium at high redshift? 10 p3179 N93-26756
Metal abundances at z = 3.4 10 p3179 N93-26757
Neutral hydrogen at the present epoch: A constraint on the evolution of high redshift systems 10 p3181 N93-26763
Probing the extent and content of low ionization gas in galaxies: QSO absorption and HI emission 10 p3181 N93-26766
The two-point correlation function of randomly distributed Lyman alpha clouds 10 p3181 N93-26767
Ionization states of metallic absorption-line systems in continua of quasars 10 p3182 N93-26772
Multi-filter spectrophotometry of quasar environments 10 p3196 N93-26850
Reduction and analysis of VLA maps for 281 radio-loud quasars using the UNLV Cray Y-MP supercomputer 10 p3197 N93-26855
Quasars in rich galaxy clusters 10 p3197 N93-26856
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857
Narrow band imaging and long slit spectroscopy of UGC 5101 10 p3198 N93-26860
Multi-filter spectrophotometry simulations 10 p3201 N93-26881
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
The Lyman alpha forest of the high-z quasar 0000-263 10 p3203 N93-26890
Quasar redshifts and non-potential interactions [SSCL-PREPRINT-758] 10 p3205 N93-28143
Multifractal analysis of radio lobes 11 p3380 N93-28689
ROSAT observations of quasar 3C 273 [ETN-93-94202] 12 p3844 N93-31049

QUASI-PARTICLES
U ELEMENTARY EXCITATIONS

QUASI-STEADY STATES
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041

QUASI-STELLAR RADIO SOURCES
U QUASARS

QUASILINEARITY
U NONLINEARITY

QUATERNARY ALLOYS
Application of the square root diffusivity analysis to measuring the diffusivity of multicomponent alloys [DE92-040978] 04 p0847 N93-15382

QUATERNIONS
An intrinsic construction of the algebra of quaternions [REPT-92-31] 06 p1643 N93-17845
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences [AD-A259371] 07 p1907 N93-21265
Attitude analysis in Flatland: The plane truth 09 p2603 N93-24712
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
Isocliny, Souillart matrices, quaternions and four-dimensional rotations [REPT-92-57] 12 p3813 N93-31502
Geometrical aspects of quaternions and complex numbers [REPT-92-56] 12 p3807 N93-31612

QUENCHING
Domain decomposition: A blowup problem and the Ginzburg-Landu equations [DE92-040736] 05 p1266 N93-16587

QUENCHING (ATOMIC PHYSICS)
Advances in laser cooling [AD-A255969] 04 p0884 N93-14402
Reduced mass persistent switches for large superconducting magnets in space [DE93-004782] 08 p2474 N93-22047
Reconstruction of twist grain boundaries in gold [DE93-004861] 08 p2226 N93-22049
Reaction and reorientation of electronically excited H2(B) [DE93-010435] 11 p3569 N93-29860

QUENCHING (COOLING)
The measurement and calculation of birefringence in quenched polycarbonate specimens 02 p0269 N93-11986
Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching 02 p0269 N93-11987
Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
Chemical kinetics for combustion 04 p0840 N93-14619
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor [DE92-040864] 05 p1147 N93-16590
Microgravity combustion of dust clouds 07 p1806 N93-21094
Quenching of a tube and filling of a vessel under microgravity 07 p1806 N93-21096

QUERY LANGUAGES
A front end implementation of the Pollyanna secure DBMS [RSRE-MEMO-4540] 02 p0475 N93-11404
An iconic query interface for an image database [AD-A253571] 02 p0475 N93-11506
Application of machine learning techniques for effective retrieval in image database [AD-A254907] 02 p0479 N93-12287
User interface of DFQL: An object-oriented approach [AD-A255225] 03 p0687 N93-13835
A theory of reference graphs in relational databases 03 p0739 N93-13912
PRISMA/DB: A parallel, main-memory relational DBMS [MEMO-INF-92-12] 04 p0959 N93-15141
Query optimization and planning in object-oriented knowledge bases [AD-A256006] 04 p1008 N93-15254
Multiparadigm design environments [AD-A257149] 05 p1231 N93-16031
Semantic query optimization in distributed database systems: A knowledge-based approach [ISBN-90-9003849-3] 05 p1356 N93-17590
G-LOG: A graph based query language [REPT-92-013] 06 p1618 N93-18198
An integrated information retrieval and document management system 08 p2530 N93-22156
A proposal of fuzzy connective with learning function and its application to fuzzy retrieval system 08 p2450 N93-22211
Parallel evaluation of deductive database queries 08 p2527 N93-23503
The StarView intelligent query mechanism 09 p2826 N93-25984
The power of parallel projection [RUU-CS-92-17] 10 p3100 N93-27908
Formal definition of a conceptual language for the description and manipulation of information models [TR-92-16] 11 p3523 N93-28503
A model for processing the SGML document in version oriented hypertext systems [ETN-93-93797] 11 p3611 N93-28528
A distributed object-oriented database application design [AD-A262591] 11 p3612 N93-28846
On the evaluation of fuzzy quantified queries in a database management system 11 p3517 N93-29569
A high performance, ad-hoc, fuzzy query processing system for relational databases 11 p3518 N93-29571
A query language for spatial data 12 p3745 N93-31261
Producing approximate answers to database queries 12 p3843 N93-32150
Knowledge based document retrieval in office environments: The Kabiria system [REPT-92-032] 12 p3843 N93-32389

QUEUEING THEORY
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter [CTN-92-60593] 01 p0135 N93-10088
A queue model relating synchronous and asynchronous communication [MEMO-INF-92-04] 04 p0966 N93-15491
MGMtool: A performance modelling tool based on matrix geometric techniques [MEMO-INF-92-35] 05 p1236 N93-16338
Parallel algorithms for simulating continuous time Markov chains [NASA-CR-189729] 05 p1238 N93-16550
Queueing systems on a circle [MEMO-1038] 05 p1276 N93-16670
Polling systems and multiple branching processes [CWI-BS-R9128] 05 p1267 N93-16726
An M/G/1 queue with dependence between interarrival and service times [CWI-BS-R9125] 05 p1276 N93-16849
On the optimality of LEPT and micron rules for parallel processors and dependent arrival processes [TW-92-01] 06 p1630 N93-18443
Optimality of a threshold policy on the M/M/1 queue with repeated vacations [INRIA-RR-1419] 06 p1632 N93-18515
On optimal polling policies [INRIA-RR-1541] 06 p1633 N93-18624
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem [INRIA-RR-1495] 06 p1647 N93-18653

Neural-network dedicated processor for solving competitive assignment problems
[NASA-CASE-NPO-17781-1-CU] 07 p2028 N93-20116
Performance evaluation of Platform Data ManagementSystem under various degrees of protocol implementation
[NASA-CR-192408] 07 p2088 N93-20161
Explicit probabilities for the symmetric coupled processor
[REPT-91-43] 07 p2058 N93-20809
Stochastic orderings on partial sums of random variables and on counting measures of random intervals
[INRIA-RR-1422] 07 p2052 N93-20860
Analysis of timed-token ring protocols
[INRIA-RR-1570] 07 p2044 N93-20894
Estimates of cycle times in stochastic Petri nets
[INRIA-RR-1572] 07 p2058 N93-20897
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling
[MEMO-COSOR-92-08] 10 p3124 N93-27277
Upper and lower bounds for the waiting time in the symmetric shortest queue system
[MEMO-COSOR-92-09] 10 p3127 N93-27278
A globally gated polling system with server interruptions, and applications to the repairman problem
[CWI-BS-R9208] 10 p3127 N93-27309
Analysing E(sub k)/E(sub r)/c queues
[MEMO-COSOR-92-27] 10 p3127 N93-27396
The compensation approach applied to a 2 by 2 switch
[MEMO-COSOR-92-28] 10 p3115 N93-27397
Approximate analysis of an M/G/1 priority queue with priority changes due to impatience
[CWI-BS-R9202] 10 p3127 N93-27606
A recurrence type characterization of mu-exponential ergodicity for Markov processes
[TW-92-03] 10 p3125 N93-27905
Optimal server assignment in the case of service times with monotone failure rates
[TW-92-04] 10 p3125 N93-27906
On parallel data structuring: A parallel priority queue
[RUU-CS-92-19] 10 p3108 N93-28061
A two-machine repair model with variable repair rate
[CWI-BS-R9214] 10 p3110 N93-28090
Some qualitative properties in polling systems
[INRIA-RR-1596] 11 p3552 N93-28506
Flow control using the theory of zero sum Markov games
[INRIA-RR-1597] 11 p3553 N93-28507
Optimal control of the M/G/1 queue with repeated vacations of the server
[INRIA-RR-1637] 11 p3541 N93-28637
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
Managing semantic heterogeneity with production rules and persistent queues
[REPT-92-078] 12 p3811 N93-31464
Regularity of stochastic processes: A theory based on directional convexity
[REPT-92-70] 12 p3811 N93-31503
Tapes, queues and communicating automata in DIAC
[REPT-92-94] 12 p3789 N93-31631

QUINONES
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761

QUOTIENTS
Proof elimination in type theory
[CS-9202] 05 p1278 N93-16351
Congruences and quotients in categories of algebras
[RUU-CS-92-23] 10 p3120 N93-28064

R

RACKS (FRAMES)
Problems involving combined loading 05 p1189 N93-17314

RACON BEACONS
U RADAR BEACONS

RADAR
NT AIRBORNE RADAR
NT AIRBORNE SURVEILLANCE RADAR
NT COHERENT RADAR
NT CONTINUOUS WAVE RADAR
NT DIFFERENTIAL ABSORPTION LIDAR
NT DOPPLER RADAR
NT EISCAT RADAR SYSTEM (EUROPE)
NT IMAGING RADAR
NT INCOHERENT SCATTER RADAR
NT INFRARED RADAR
NT METEOROLOGICAL RADAR
NT MONOPULSE RADAR
NT MOVING TARGET INDICATORS
NT MULTISPECTRAL RADAR
NT MULTISTATIC RADAR
NT OPTICAL RADAR
NT OVER-THE-HORIZON RADAR
NT PULSE DOPPLER RADAR
NT PULSE RADAR
NT RADAR MEASUREMENT
NT RANGE AND RANGE RATE TRACKING
NT SATELLITE-BORNE RADAR
NT SEARCH RADAR
NT SECONDARY RADAR
NT SIDE-LOOKING RADAR
NT SPACE BASED RADAR
NT SURVEILLANCE RADAR
NT SYNTHETIC APERTURE RADAR
NT TRACKING RADAR
Microwave guidance technology and its applications
[AD-A254107] 02 p0281 N93-11509
Automatic Attenuation/Phase Calibration System (AAPCS)
[DE92-017354] 02 p0284 N93-11917
Two-dimensional computer calculation of high-power microwave bandwidth broadening by air breakdown in a rectangular waveguide
[DE92-041083] 05 p1138 N93-16072
Delineate subsurface structures with ground penetrating radar
[DE93-000474] 07 p1886 N93-21664
Drifting ice in the Sea of Okhotsk 08 p2336 N93-22131
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Selected results from LLNL-Hughes RAR for West Coast Scotland Experiment 1991
[DE93-006972] 09 p2788 N93-24960
Modern approach to relativity theory (radar formulation)
[DE93-606032] 11 p3606 N93-30804

RADAR ALTIMETERS
U RADIO ALTIMETERS

RADAR ANTENNAS
Tether deployment monitoring system, phase 2
[NASA-CR-184098] 03 p0522 N93-13425
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
Development of novel ferrite antennas
[AD-A261690] 10 p3022 N93-26629
Array-fed reflector systems with limited scan 11 p3371 N93-30318
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

RADAR APPROACH CONTROL
Terminal area forecasts FY 1992 - 2005
[AD-A255797] 04 p0788 N93-15390
Airspace Design Expert System (ADES), a 2D/3D mapping and modelling tool incorporating an expert system for use in instrument approach design 11 p3247 N93-30357

RADAR ASTRONOMY
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
A Southern Hemisphere radar meteor orbit survey 06 p1701 N93-19121
The shape of asteroid 1917 Cuyo 06 p1714 N93-19218
Burst of the 1969 Leonids and 1982 Lyrids 06 p1714 N93-19222
Meteor radiant mapping with MU radar 06 p1699 N93-19259
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
Goldstone solar system radar signal processing 09 p2680 N93-26130

RADAR BEACONS
NT DISCRETE ADDRESS BEACON SYSTEM
A description of the Mode Select beacon system (Mode S) and its associated benefits to the National Airspace System (NAS)
[DOT/FAA/SE-92/6] 01 p0007 N93-10738
Geostationary-satellite beacon-receiver array for studies of ionospheric irregularities
[DE92-018979] 02 p0362 N93-11535

RADAR BEAMS
Observation of meteors by MST radar 06 p1697 N93-19180
Orbital parameter estimation using an extended Kalman filter
[AD-A260618] 09 p2608 N93-25636
Radar beam effects for a flight simulator using signal processor based hardware 11 p3373 N93-30328

RADAR CLUTTER MAPS
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Ground clutter measurements for surface-sited radar
[AD-A262472] 11 p3379 N93-28655

RADAR CORNER REFLECTORS
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789

RADAR CROSS SECTIONS
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era 04 p1026 N93-14304
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Radar cross section models for limited aspect angle windows
[AD-A258918] 06 p1510 N93-19341
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors
[NASA-CR-192302] 07 p1881 N93-20233
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
DSN observations of Titan 09 p2680 N93-26129
Computer-aided modeling for analysis of arbitrary scatterers and feeds 11 p3367 N93-30293
RCS of fundamental scatterers in the HF band by wire-grid modelling 11 p3371 N93-30320

Wide frequency polarimetric radar cross section measurements 11 p3371 N93-30321
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597

RADAR DATA
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
JARE data reports no. 173 (meteorology 28). Antarctic climate research data. Part 5: PPI radar data at Syowa Station, Antarctica from February to December 1989
03 p0663 N93-13446
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons
04 p1039 N93-14363
Magellan project 04 p1041 N93-14373
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
Convective scale 4-D data assimilation using simulated single-Doppler radar observations
04 p0921 N93-14683
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692
Estimating lunar pyroclastic deposit depth from imaging radar data: Applications to lunar resource assessment
05 p1386 N93-17240
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1
[AD-A258462] 06 p1502 N93-18262
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
A Southern Hemisphere radar meteor orbit survey
06 p1701 N93-19121
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Doppler radar results 06 p1419 N93-19595
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Goldstone solar system radar signal processing
09 p2680 N93-26130
Study of auroral dynamics with combined spacecraft and incoherent-scatter radar data
[NASA-CR-192224] 09 p2775 N93-26159
Status of the Olympus experiment at CRC
09 p2685 N93-26480
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A261105] 09 p2591 N93-26572
A new analysis of the multipath radar data measured by standard telecommunication laboratories
[AD-A261981] 10 p3026 N93-27643
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Software development and analysis for experimental high frequency surface wave radar data
[AD-A261982] 11 p3383 N93-29436
Classification of radar clutter in an air traffic control environment 11 p3246 N93-30299
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537
Deinterleaver technology for future Electronic Support Measures (ESM) systems
[AD-A265005] 12 p3721 N93-32079

RADAR DETECTION
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
The design and implementation of radar clutter modelling and adaptive target detection techniques
02 p0283 N93-11913
Radar signal processing for over resolved targets
[AD-A255256] 03 p0566 N93-13838
Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Two-dimensional chirp mapping of deep, fluctuating radar targets 06 p1517 N93-19543
Flight test operations 06 p1418 N93-19592
Rendezvous radar for the orbital maneuvering vehicle
07 p1814 N93-21419
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems
08 p2287 N93-22179
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Ultra-wideband radar transient detection using time-frequency and wavelet transforms
[AD-A262154] 10 p3026 N93-27549
Modified Acousto-Optic Adaptive Processor (Mod-AOAP)
[AD-A261983] 11 p3381 N93-28997
Project MEDSAT 11 p3231 N93-29739
A TACSAT SAR concept 11 p3286 N93-29910
Future directions in aviation security
11 p3244 N93-30274
Adaptive filtering for clutter suppression in high frequency radar 11 p3377 N93-30355
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879

RADAR DIRECTION FINDERS
U RADIO DIRECTION FINDERS

RADAR DISPLAYS
U RADARSCOPES

RADAR ECHOES
NT CLUTTER
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Scattering properties of Venus' surface
04 p1044 N93-14391
The division of a circle or spherical surface into equal-area cells or pixels
[AD-A257770] 05 p1192 N93-17726
Effect of the geomagnetic field on the diffusion of meteor trains 06 p1709 N93-19179
Diurnal variation of overdense meteor echo duration and ozone 06 p1718 N93-19243
Meteor radiant mapping with MU radar
06 p1699 N93-19259
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561

RADAR EQUIPMENT
NT DISCRETE ADDRESS BEACON SYSTEM
NT RADAR ANTENNAS
NT RADAR BEACONS
NT RADAR CORNER REFLECTORS
NT RADAR RECEIVERS
NT RADAR REFLECTORS
NT RADAR TRANSMITTERS
NT RADARSCOPES
NT RETROREFLECTORS
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Multifrequency measurements of radar ground clutter at 42 sites. Volume 2: Appendices A through D
[AD-A246711] 03 p0567 N93-13878
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A259834] 08 p2343 N93-23461
OTH-B radar system: System summary
[AD-A261727] 09 p2681 N93-26247
Installations and methods for measurement of aircraft radio components and systems
12 p3677 N93-31284

RADAR GEOLOGY
Geological applications of space SAR data
08 p2339 N93-22440
Geocoded products of future radar sensors
08 p2340 N93-22441
Revealing the face of Venus: Magellan
[NASA-CR-192922] 09 p2898 N93-26517
Proceedings of the Government Users Workshop on Ground Penetrating Radar Applications and Equipment
[AD-A261873] 09 p2686 N93-26541
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883

RADAR IMAGERY
Imaging radar investigations of the Sudbury structure
01 p0117 N93-10162
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Ultra wide band 3-D cross section (RCS) holography
[DE92-019133] 02 p0312 N93-11802
Fundamentals and Special Problems of Synthetic Aperture Radar (SAR)
[AGARD-LS-182] 03 p0563 N93-13049
Special SAR techniques and applications
03 p0564 N93-13059
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Coherent frame analysis of Synthetic Aperture Radar (SAR) ocean imagery 03 p0568 N93-14050
The geology of the Venera/Vega landing sites
04 p1024 N93-14296
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio
04 p1028 N93-14317
Largest impact craters on Venus
04 p1030 N93-14326
Magellan stereo images and Venusian geology
04 p1035 N93-14347
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Magellan project 04 p1041 N93-14373
The tectonics of Venus: An overview
04 p1042 N93-14382
Scattering properties of Venus' surface
04 p1044 N93-14391

Low-emissivity impact craters on Venus
04 p1044 N93-14392
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Lunar lava tube sensing 05 p1391 N93-17270
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431
Algorithms and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833
Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
Geocoded products of future radar sensors
08 p2340 N93-22441
RLE progress report no. 133, 1 January - 31 December 1990
[NASA-CR-192144] 08 p2263 N93-23195
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
Automatic feature extraction and localization using data fusion of radar and infrared images
08 p2270 N93-23628
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
One-class classifier networks for target recognition applications
[DE93-006288] 08 p2271 N93-24043
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789
The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845
DSN observations of Titan 09 p2680 N93-26129
V-GRAM: Magellan bulletin about Venus and the radar mapping mission
[NASA-CR-192923] 09 p2898 N93-26424
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
Multiscale morphological filtering for analysis of noisy and complex images 11 p3582 N93-28789
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-M!TT-92-09] 11 p3456 N93-28915
Forest examination with polarimetric radar image data
11 p3457 N93-28921
Remote sensing of agricultural vegetation: Status and perspectives 11 p3458 N93-28922
SAR shape-from-shading for a populated alpine area
11 p3458 N93-28923
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agricultural fields and forests
[BCRS-92-06] 11 p3460 N93-29320
A TACSAT SAR concept 11 p3286 N93-29910
Similarities between synthetic aperature radar and ground probing radar imaging 11 p3376 N93-30347
Segmentation of SAR images
11 p3376 N93-30348
Multiscale and multigrid information representation, extraction and fusion
[AD-A264623] 11 p3393 N93-30386

RADAR MAPS

Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
Surface processes on Venus
04 p1024 N93-14294
The division of a circle or spherical surface into equal-area cells or pixels
[AD-A257770] 05 p1192 N93-17726
Meteor radiant mapping with MU radar
06 p1699 N93-19259
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
The ERS-1 radarmaps of Germany and the Antarctic Peninsula 08 p2352 N93-23562
V-GRAM: Magellan bulletin about Venus and the radar mapping mission
[NASA-CR-192923] 09 p2898 N93-26424
Proceedings of the Government Users Workshop on Ground Penetrating Radar Applications and Equipment
[AD-A261873] 09 p2686 N93-26541
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095

RADAR MEASUREMENT

SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Radar studies of high latitude convection flows
03 p0648 N93-12626
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
JARE data reports no. 175 (ionosphere 46). Records of radio aurora at Syowa Station, Antarctica in 1990
03 p0651 N93-13285
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Research relative to weather radar measurement techniques
[NASA-CR-191911] 06 p1504 N93-18598
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
Report on the 7th Finnish EISCAT Workshop
[REPT-121(1992)] 06 p1577 N93-18736
On optimization of radar measurements
06 p1516 N93-18747
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
A case study of two auroral arcs using optical and radar measurements 06 p1722 N93-19519
Precipitation associated electric field enhancements
06 p1722 N93-19520
Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523
An incoherent scatter experiment for the measurement of particle collisions 06 p1723 N93-19528
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
Introduction to ionospheric heating at Tromsoe (Norway). Part 1: Experimental overview
06 p1724 N93-19531
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems
06 p1724 N93-19532
Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533
Next generation incoherent scatter radars
06 p1516 N93-19538
Non Maxwellian ion distributions in the auroral ionosphere in the presence of large electric fields. Part 3: The measurement problems with a radar
06 p1727 N93-19554
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic)
06 p1584 N93-19555
D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559
Program overview: 1991 flight test objectives
06 p1418 N93-19591
Doppler radar results 06 p1419 N93-19595
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Remote sensing of earth terrain
[NASA-CR-192139] 07 p1966 N93-19979
Aerosol chemistry in GLOBE
07 p2009 N93-20102
CO2 lidar backscatter experiment
07 p2009 N93-20103
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
The vertical profile of reflectivity and errors in radar estimates of rainfall 08 p2406 N93-23350
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
The comparison of satellite radar altimeter derived heights with global digital terrain model heights
08 p2355 N93-23584
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
A study of high-latitude auroral arcs using radar, optical, and in situ techniques 08 p2399 N93-24183
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
Radar backscatter measurements from Arctic sea ice during the fall freeze-up
[NASA-CR-193100] 09 p2790 N93-26050
Radar sensing of petroleum seepage gases
[AD-A261431] 09 p2682 N93-26455
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Ground clutter measurements for surface-sited radar
[AD-A262472] 11 p3379 N93-28655
The enhanced-model ladar wind sensor and its application in planetary wind velocity measurements
11 p3649 N93-28815

RADAR NAVIGATION

Radar seeker based autonomous navigation update system using topography feature matching techniques
08 p2256 N93-22030
Rendezvous radar for the orbital maneuvering vehicle
08 p2145 N93-22283
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914

RADAR NETWORKS

Software for prediction and analysis of ground wave propagation loss
[AD-A253474] 01 p0067 N93-10199

Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838

RADAR OBSERVATION
U RADAR TRACKING

RADAR RANGE
Nonlinear modeling of gated range tracker dynamics with application to radar range resolution, phase 1
[AD-A256074] 04 p0858 N93-14259
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
A bandwidth extrapolation technique for improved range resolution of coherent radar data, revision 1
[AD-A258462] 06 p1502 N93-18262
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

RADAR RECEIVERS
Geostationary-satellite beacon-receiver array for studies of ionospheric irregularities
[DE92-018979] 02 p0362 N93-11535
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Portable radar simulator
[AD-D015453] 05 p1139 N93-16459
Frequency diversity sidelobe canceller
[AD-D015647] 09 p2674 N93-25332
Distortion measurements on bandpass filters with powdered iron toroidal inductors
[AD-A260790] 09 p2675 N93-25689

RADAR RECEPTION
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761

RADAR REFLECTIONS
U RADAR ECHOES

RADAR REFLECTORS
NT RADAR CORNER REFLECTORS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062

RADAR RESOLUTION
An incoherent scatter experiment for the measurement of particle collisions 06 p1723 N93-19528
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331

RADAR SCANNING
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Array-fed reflector systems with limited scan 11 p3371 N93-30318

RADAR SCATTERING
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024
Scatterer modeling/calibration study
[AD-A255855] 04 p0856 N93-14107
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era 04 p1026 N93-14304
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Dielectric surface properties of Venus 04 p1039 N93-14360
Problem footprints in Magellan altimetry data 04 p1039 N93-14362
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363
Scattering properties of Venus' surface 04 p1044 N93-14391
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Systems issues in airborne Doppler radar/LIDAR certification 04 p0785 N93-14855
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy 05 p1390 N93-17261
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment 05 p1391 N93-17267
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
GUISDAP 06 p1579 N93-18746
On optimization of radar measurements 06 p1516 N93-18747
Applications of theory of experiments to IS measurements 06 p1516 N93-18748
Theory of radar scattering from dusty plasmas 06 p1516 N93-19540
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
Two-dimensional chirp mapping of deep, fluctuating radar targets 06 p1517 N93-19543
Multifrequency backscatter modelling of bare soil: Attema, Kats, and Krul model applied in Agriscatt 1987 data
[BCRS-91-43] 07 p1884 N93-20739
The spatial and temporal characteristics of high frequency auroral backscatter 08 p2266 N93-23604
Theoretical study of topside ionospheric clutter
[AD-A260982] 09 p2774 N93-25852
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations
[NASA-CR-193152] 11 p3476 N93-28842
SAR shape-from-shading for a populated alpine area 11 p3458 N93-28923
RCS of fundamental scatterers in the HF band by wire-grid modelling 11 p3371 N93-30320
Wide frequency polarimetric radar cross section measurements 11 p3371 N93-30321

RADAR SIGNATURES
Birds mimicking microbursts on 2 June 1990 in Orlando, Florida
[AD-A255703] 03 p0498 N93-14024
Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations
[NASA-CR-193152] 11 p3476 N93-28842
Forest examination with polarimetric radar image data 11 p3457 N93-28921

RADAR TARGETS
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
The design and implementation of radar clutter modelling and adaptive target detection techniques 02 p0283 N93-11913
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
Motion errors and compensation possibilities 03 p0563 N93-13052
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Polarization effects and multipolarization SAR 03 p0564 N93-13054
SAR simulation 03 p0564 N93-13056
Inverse Synthetic Aperture Radar 03 p0564 N93-13058
Special SAR techniques and applications 03 p0564 N93-13059
Tether deployment monitoring system, phase 2
[NASA-CR-184098] 03 p0522 N93-13425
Radar signal processing for over resolved targets
[AD-A255256] 03 p0566 N93-13838
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies 03 p0567 N93-14042
Scatterer modeling/calibration study
[AD-A255855] 04 p0856 N93-14107
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
A very efficient RCS data compression and reconstruction technique, volume 4
[NASA-CR-191378-VOL-4] 04 p0945 N93-14807
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
Two-dimensional chirp mapping of deep, fluctuating radar targets 06 p1517 N93-19543
High range resolution radar target identification using the Prony model and hidden Markov models
[AD-A259210] 07 p1883 N93-20553
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408
Video guidance sensor 07 p1812 N93-21409
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
Rendezvous radar for the orbital maneuvering vehicle 07 p1814 N93-21419
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Method and apparatus for determining target elevation angle, altitude and range, and the like in a monopulse radar system with reduced multipath errors
[AD-D015622] 08 p2272 N93-24232
Ultra-wideband radar transient detection using time-frequency and wavelet transforms
[AD-A262154] 10 p3026 N93-27549
Wide frequency polarimetric radar cross section measurements 11 p3371 N93-30321
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085

RADAR TRACKING
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574
Convective scale 4-D data assimilation using simulated single Doppler radar observations
[PB92-218726] 03 p0651 N93-12969
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255
Nonlinear modeling of gated range tracker dynamics with application to radar range resolution, phase 1
[AD-A256074] 04 p0858 N93-14259
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Radar observations of the effects of changing electric fields on the orientations of hydrometeors
[AD-A256712] 05 p1213 N93-16170
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment
05 p1391 N93-17267
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
About distribution and origin of the peculiar group of sporadic meteors 06 p1700 N93-19115
Radar cross section models for limited aspect angle windows
[AD-A258918] 06 p1510 N93-19341
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
HF radar observations of temporal variations in the high latitude convection 06 p1730 N93-19571
Microwave radiative transfer studies of precipitation
07 p2008 N93-20095
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Multivariable frequency response methods for optimal Kalman-Bucy filters with applications to radar tracking systems 08 p2255 N93-22024
An investigation of air transportation technology at the Massachusetts Institute of Technology, 1991-1992
08 p2105 N93-22562
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
OTH-B radar system: System summary
[AD-A261727] 09 p2681 N93-26247
Motion-sensitive optical correlator
[NASA-CASE-NPO-18769-1-CU]
10 p3148 N93-28133
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420
The effect of clock, media, and station location errors on Doppler measurement accuracy
11 p3246 N93-29588
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832
Evolution of radar data processing in the French air traffic control system 11 p3247 N93-30325
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085

RADAR TRANSMISSION
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Frequency diversity sidelobe canceller
[AD-D015647] 09 p2674 N93-25332
A new analysis of the multipath radar data measured by standard telecommunication laboratories
[AD-A261981] 10 p3026 N93-27643
Characteristics of high-frequency signals, noise, availability, and duration of bandwidths based on ROTHR Amchitka spectrum measurements
[AD-A264480] 11 p3393 N93-30423

RADAR TRANSMITTERS
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101
Portable radar simulator
[AD-D015453] 05 p1139 N93-16459
STARE: A new coherent radar in Scandinavia
06 p1517 N93-19572
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

RADARSAT
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060
An overview of RADARSAT payload technologies
04 p0807 N93-14933

RADARSCOPES
Doppler radar results 06 p1419 N93-19595

RADIAL DISTRIBUTION
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere
[NASA-CR-191809] 05 p1140 N93-16679
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
Proton Monte Carlo transport program PTRAN
[PB93-158673] 09 p2850 N93-28314
The multicomponent structure of bulges
10 p3187 N93-26800

RADIAL DRAINAGE PATTERNS
U DRAINAGE PATTERNS

RADIAL FLOW
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Introduction to radial turbine technology
01 p0077 N93-10051
Performance parameters and assessment
01 p0077 N93-10052
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
Non-dimensional conceptual design of radial inflow turbines. Part B: Application of empirical correlations
01 p0077 N93-10054
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056
An inverse design method for radial turbomachines
01 p0078 N93-10057
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results
01 p0078 N93-10058
Partial admission and unsteady flow in radial turbines
01 p0078 N93-10059
Testing techniques 01 p0078 N93-10060
Radial turbine cooling 01 p0078 N93-10061
Experimental investigations of radial loads induced by partial cavitation with the LH2 Vulcain inducer
[ETN-93-93023] 06 p1525 N93-18094
Design and performance of nozzle-less volute casings for inward flow radial turbines 09 p2593 N93-25471
Two-dimensional and three-dimensional time-dependent MHD model of extended corona
11 p3653 N93-30496

RADIAL VELOCITY
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile
06 p1517 N93-19579
Origin and evolution of cataclysmic variables
09 p2893 N93-25245
Radial velocity studies of the secondary in cataclysmic variables 09 p2888 N93-25286
Radial velocity measurements of carbon stars
09 p2895 N93-25713
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
The dynamics of Abell 2634 10 p3193 N93-26836
Evolution of molecular clouds
10 p3203 N93-26892
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672

RADIANCE
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
A two-pass physics-based global lighting model
04 p0957 N93-15570
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing
09 p2751 N93-24859
Neural networks for atmospheric retrievals
09 p2824 N93-25975
Radiometric calibration system for IR cameras
[DE93-009237] 11 p3430 N93-28520
The possible direct use of satellite radiance measurements by the Atmospheric Radiation Measurement Program
[DE93-009819] 11 p3462 N93-30049

RADIANT COOLING
Heat loads as key problem of hypersonic flight
[MBB-FE-202-S-PUB-0486] 07 p1762 N93-21054
Spaceborne passive radiative cooler
11 p3378 N93-28802

RADIANT FLUX DENSITY
NT ELECTRON FLUX DENSITY
NT IRRADIANCE
NT LUMINANCE
NT LUMINOUS INTENSITY
NT NEUTRON FLUX DENSITY
NT PARTICLE FLUX DENSITY
NT PROTON FLUX DENSITY
NT RADIANCE
NT SOLAR CONSTANT
NT SOLAR FLUX DENSITY
Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
A high-resolution radio survey of the galactic plane
03 p0744 N93-13480
Hard x ray observations of active galactic nuclei with SIGMA 05 p1360 N93-17100
Multifrequency observations of ROSAT selected radio sources 05 p1361 N93-17118
Preliminary results on the properties of the EMSS AGN's as derived from the ROSAT all sky survey
05 p1362 N93-17129
The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
The SVIRCO station: Measurement and study of the intensity of cosmic rays in Rome (Italy) from 1954
[NOTA-INTERNA-977] 05 p1401 N93-17648
Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883
Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327

RADIANT HEATING
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
A correlated k-distribution model of the heating rates for CH4 and N2O in the atmosphere between 0 and 60 km
[NASA-TM-108062] 03 p0643 N93-12926
Radiative heat transfer in combustion systems
04 p0840 N93-14621
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
A study of ignition phenomena of bulk metals by radiant heating 07 p1854 N93-20210
Adiabatic radiant hot air burner
[PB93-114486] 07 p1987 N93-21220
Rate of heating of the forest interior
[INPE-5235-RPQ/647] 07 p1979 N93-21648

Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
An experimental and analytical study of the unsteady combustion of homogeneous energetic solids using the laser-recoil method 09 p2630 N93-26042
The hydraulic analysis of cylindrical Flibe jets in a HYLIFE-2 ICF reactor
[DE93-009234] 11 p3586 N93-29053
Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085

RADIANT INTENSITY
U RADIANT FLUX DENSITY

RADIATION ABSORPTION
NT AURORAL ABSORPTION
NT ELECTROMAGNETIC ABSORPTION
NT GAMMA RAY ABSORPTION
NT INFRARED ABSORPTION
NT MICROWAVE ABSORPTION
NT MOLECULAR ABSORPTION
NT MULTIPHOTON ABSORPTION
NT PHOTOABSORPTION
NT POLAR CAP ABSORPTION
NT ULTRAVIOLET ABSORPTION
NT X RAY ABSORPTION
Hydrodynamic efficiencies in implosion experiments 02 p0308 N93-12030
Bremsstrahlung absorption in plasmas 02 p0321 N93-12047
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy 02 p0254 N93-12050
Optical limiting
[AD-A254620] 02 p0322 N93-12238
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
Transport of desert aerosols and their influence on local temperatures and motions
[ITN-93-85173] 05 p1202 N93-16737
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
An inverse free electron laser accelerator experiment
[DE93-003495] 06 p1542 N93-19506
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633

RADIATION BELTS
NT INNER RADIATION BELT
NT OUTER RADIATION BELT
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
Analysis and modeling of the CRRES satellite data
[AD-A254349] 03 p0650 N93-12944
The time variability of Jupiter's synchrotron radiation 04 p0973 N93-14227
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
Revised prediction of LDEF exposure to trapped protons 11 p3572 N93-29633
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737

RADIATION CHEMISTRY
NT PHOTODECOMPOSITION
NT PHOTODISSOCIATION
NT PHOTOLYSIS
NT RADIOLYSIS
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
The contribution of electronically excited states to the radiation chemistry of organic systems
[DE92-040465] 05 p1104 N93-16585
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198

RADIATION COUNTERS
NT CERENKOV COUNTERS
NT ELECTRON COUNTERS
NT GEIGER COUNTERS
NT NEUTRON COUNTERS
NT NEUTRON SPECTROMETERS
NT PARTICLE TELESCOPES
NT PROPORTIONAL COUNTERS
NT SCINTILLATION COUNTERS
A novel charge sensitive preamplifier without the feedback resistor
[DE92-015842] 01 p0074 N93-10731
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Elementary particle physics research
[DE92-019746] 03 p0702 N93-12855
Galactic cosmic ray exposure estimates for SAGE-3 mission in polar orbit
[NASA-TM-107678] 03 p0771 N93-13126
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Neutrino(e) appearance for neutrino(mu)-neutrino(tau) oscillations in matter
[DE92-040303] 03 p0772 N93-13533
Large area nuclear particle detectors using ET materials, phase 2
[NASA-CR-190866] 03 p0705 N93-13606
Using the Haleakala barrel extensive air shower array to study selected U.H.E. gamma ray point sources 04 p1050 N93-14639
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
High energy physics research
[DE93-000305] 05 p1296 N93-15668
First results from the SLD silicon calorimeters
[DE93-001805] 05 p1167 N93-16219
On the 17-keV conundrum
[DE93-000866] 05 p1286 N93-16305
Monte Carlo shower counter studies
[NASA-CR-191364] 05 p1243 N93-16933
Milagro: A low energy threshold extensive air shower array
[DE93-000852] 05 p1400 N93-17383
Calibration of phoswich detectors
[KVI-891] 05 p1169 N93-17404
Medium energy meson research
[DE93-004133] 06 p1655 N93-18449
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
Physics studies with ICARUS and a hybrid ionization and scintillation fiber detector
[DE93-003034] 08 p2482 N93-22986
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 06 p2482 N93-23244
GALLEX: First results and implications for neutrino physics
[DE93-004908] 08 p2483 N93-23977
Proposal for a universal particle detector experiment 11 p3286 N93-28795
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
Elementary particle interactions
[DE93-005113] 11 p3568 N93-29764

RADIATION DAMAGE
NT LASER DAMAGE
Proposed test program and data base for LDEF polymer matrix composites 01 p0038 N93-10587
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
System related testing and analysis of FRECOPA 01 p0039 N93-10592
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Radiation damage to DNA
[DE92-015760] 01 p0130 N93-10834
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Mechanisms of microwave induced damage in biologic materials
[AD-A255799] 04 p0933 N93-14648
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
CRRESRAD documentation
[AD-A256715] 05 p1213 N93-16172
Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy 05 p1128 N93-16794
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Ion-beam modification of Gd2Ti2O7
[DE93-001514] 05 p1328 N93-17652
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Indium phosphide photovoltaic technology 06 p1572 N93-18476
Characterization of radiation damage in solids 06 p1659 N93-18478
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Relaxation of radiation damages in a-Si:H layers
[MBB-Z-0317-90-PUB] 07 p2081 N93-21403
Implications of defect clusters formed in cascades on free defect generation and microstructural development
[DE93-005551] 08 p2500 N93-22344
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
AFRRI research, fiscal year 1991
[AD-A260933] 09 p2911 N93-25710
Temperature dependence of radiation damage and its annealing in silicon detectors
[DE93-003854] 09 p2869 N93-26494
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366

Unexpected increase in the thermal generation rate of bulk GaAs due to electron-beam metallization
[DE93-009829] 11 p3598 N93-30511
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035

RADIATION DETECTORS
NT DOSIMETERS
NT SILICON RADIATION DETECTORS
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
Particle physics experiments, 1991
[RAL-92-001] 02 p0444 N93-11687
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Elementary particle physics research
[DE92-019746] 03 p0702 N93-12855
Indiana University High Energy Physics Group, task C
[DE92-040458] 03 p0707 N93-13002
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics
[NASA-CR-191781] 04 p1013 N93-15589
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
High energy physics research
[DE93-000305] 05 p1296 N93-15668
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
First results from the SLD silicon calorimeters
[DE93-001805] 05 p1167 N93-16219
On the 17-keV conundrum
[DE93-000866] 05 p1286 N93-16305
The global second level trigger for ZEUS
[ETN-92-92816] 05 p1297 N93-16479
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
Cosmic ray test of SDC prototype muon drift tubes
[DE93-001680] 05 p1400 N93-17182
Experimental studies of elementary particle interactions at high energies
[DE93-003652] 05 p1294 N93-17575
Cosmic ray NM-64 neutron monitor data-18
[NOTA-INTERNA-972] 05 p1400 N93-17627
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
Bubble detectors for the measurement of space radiation 07 p1804 N93-21084
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Associated particle imaging 07 p1766 N93-21871
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
High energy physics program at Texas A and M University
[DE93-005112] 08 p2485 N93-23324
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
Interferometric fiber-optic radiation sensor
[DE93-003841] 09 p2852 N93-25127
Cosmic ray composition investigations using ICE/ISEE-3
[NASA-CR-192808] 09 p2900 N93-25241
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Superconducting submillimeter and millimeter wave detectors
[DE93-007656] 11 p3431 N93-29149
New Mexico Center for Particle Physics: Studies of fundamental interactions
[DE93-008302] 11 p3566 N93-29261
Laser radiation detection system
[AD-D015724] 11 p3438 N93-29287
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
Heavy ion measurement on LDEF 11 p3573 N93-29644
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Monte-Carlo simulations of secondary electron emission from CsI, induced by 1-10 keV x rays and electrons
[DE93-604906] 12 p3818 N93-31239
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826

RADIATION DISTRIBUTION
NT ANTENNA RADIATION PATTERNS
NT DIFFRACTION PATTERNS
NT SIDELOBES
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Two-photon cooperative cascade superfluorescence
[AD-A255690] 03 p0608 N93-14023
Monte Carlo analysis of energy deposition in solid state materials by 400 and 200 MeV electrons
[AD-A255335] 04 p0991 N93-14537
Meteor radiant mapping with MU radar 06 p1699 N93-19259
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637
Novel properties of the q-analogue quantized radiation field 10 p3143 N93-27324
Molecular processes in comets
[NASA-CR-193143] 10 p3204 N93-27537
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962
A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers 11 p3257 N93-29955
Radiated fields from an electromagnetic pulse simulator 11 p3366 N93-30290
Computer-aided modeling for analysis of arbitrary scatterers and feeds 11 p3367 N93-30293
Radiation from a dipole antenna into an inhomogeneous compressible and nonlinear space-plasma
[ESA-TT-1261] 12 p3716 N93-31341
Ly-alpha radiation from coronal transients 12 p3870 N93-31363

RADIATION DOSAGE
System related testing and analysis of FRECOPA 01 p0039 N93-10592
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Freeze-dried human red blood cells
[AD-A253295] 02 p0376 N93-11193
The electron-beam water calorimeter project at the National Physical Laboratory
[NPL-RSA(EXT)-30] 02 p0310 N93-11410
Measurement of absorbed dose to water for medium energy x rays
[NPL-RSA(EXT)-33] 02 p0436 N93-11412
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Radiation dose to critical body organs for October 1989 proton event
[NASA-TP-3237] 03 p0520 N93-12876
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
IIaO ultraviolet and nuclear emulsion films responses to orbital flights on STS-3, STS-7, STS-8, and STS-40 03 p0509 N93-13163
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
CRRESRAD documentation
[AD-A256715] 05 p1213 N93-16172
Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
Indium phosphide photovoltaic technology 06 p1572 N93-18476
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Development of 256 kbit SRAM 07 p1799 N93-20471
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Detection of objects concealed under persons' clothing using the SECURE system 07 p1767 N93-21879
Status of document search and data quality objective efforts
[DE93-003216] 07 p2092 N93-21959
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
Radiation effects in germanium doped quartz 09 p2837 N93-25021
Detailed component design for a Compact Environmental Anomaly Sensor (CEASE)
[AD-A261729] 09 p2620 N93-26248
Effects of space radiation on humoral and cellular immunity in rhesus monkeys
[AD-A261808] 09 p2793 N93-26259
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730

The meteorological database
[DE93-007289] 11 p3481 N93-29054
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Predicting radiation induced performance decrements of AH-1 helicopter crews. Volume 2: Evaluation of modeling and simulation techniques for predicting radiation induced performance decrements
[AD-A262872] 11 p3506 N93-29484
Revised prediction of LDEF exposure to trapped protons 11 p3572 N93-29633
A measurement of the radiation dose to LDEF by passive dosimetry 11 p3572 N93-29634
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
Light-heavy ion measurements in CR-39 located on the Earth side of LDEF 11 p3573 N93-29638
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments 11 p3573 N93-29640
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641
Future directions for LDEF ionizing radiation modeling and assessments 11 p3573 N93-29642
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2 11 p3414 N93-29685
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
Radiation-hardened microwave communications system
[DE93-007915] 11 p3394 N93-30631
Charge separation in bipolar transistors
[DE93-009624] 11 p3413 N93-30650
Hardness assurance and testing issues for bipolar/BiCMOS devices
[DE93-009623] 11 p3570 N93-30669
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179
The Thirteenth AINSE Radiation Biology Conference: Conference handbook
[DE93-609131] 12 p3773 N93-31225
Radiation exposure in aircraft 12 p3753 N93-31928
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS 12 p3794 N93-32142

RADIATION EFFECTS
NT LASER DAMAGE
NT RADIATION DAMAGE
NT RADIATION INJURIES
NT RADIOLYSIS
NT SINGLE EVENT UPSETS
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Understanding mechanisms of carcinogenesis using rat tracheal epithelial cells in vitro
[DE92-013510] 01 p0131 N93-10626
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
A monitor for the laboratory evaluation of control integrity in digital control systems operating in harsh electromagnetic environments
[NASA-TM-4402] 02 p0215 N93-12304
Photoinduced electron transfer counter to the bias field in coupled quantum wells
[AD-A254719] 02 p0469 N93-12338
VLSI reliability research
[AD-A254883] 02 p0295 N93-12360
Back-gate bias generator
[AD-A255126] 02 p0295 N93-12421
Experimental studies of cascade phenomena in metals
[DE92-019586] 03 p0540 N93-12573
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023
A Pennsylvania State University/General Electric Get Away Special (GAS) experiment 03 p0511 N93-13177
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0605 N93-13249
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
An investigation of the processes controlling ozone in the upper stratosphere
[DE92-019621] 03 p0645 N93-13615
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
Radiation monitoring for long duration space flights 04 p0812 N93-14959
Improvement and analysis of the radiation response of RADFET dosimeters
[AD-A254115] 04 p0869 N93-15133
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
Effects of high thermal neutron fluences on Type 6061 aluminum
[DE92-040569] 04 p0846 N93-15348
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660
CRRES: The combined release and radiation effects satellite program directory
[NASA-CR-184504] 05 p1076 N93-15713
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928
AFRRI Reports --- Radiobiology
[AD-A257231] 05 p1221 N93-15965
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
Investigation of ring current/storm dynamics: Preliminary results
[AD-A256704] 05 p1207 N93-16155
The CRRES Microelectronics Package (MEP) data processing system
[AD-A256709] 05 p1145 N93-16168
CRRESRAD documentation
[AD-A256715] 05 p1213 N93-16172
Transient radiation effects in polarization-maintaining fibers
[DE92-040355] 05 p1284 N93-16182
Diffusion-induced grain boundary migration during ion beam mixing of Au/Cu bilayers
[DE93-000508] 05 p1318 N93-16243
Structural changes induced by electron irradiation in graphite
[DE92-040863] 05 p1122 N93-16269
LDEF solar cell radiation effects analysis
[NASA-CR-192458] 05 p1195 N93-16374
Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002
Magnetic studies of current conduction and flux pinning in high-T(sub c) cuprates: Virgin, irradiated, and oxygen deficient materials
[DE93-001716] 05 p1323 N93-17075
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
Oxidation and volatilization of a niobium alloy
[DE93-001927] 05 p1116 N93-17392
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17496
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Ion-beam modification of Gd2Ti2O7
[DE93-001514] 05 p1328 N93-17652
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Health effects of low-frequency electric and magnetic fields
[DE93-005675] 06 p1599 N93-19838
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
Review on parts test data analyzing system 07 p1800 N93-20480
Industrial IC evaluation test: 256 kbit EEPROM 07 p1800 N93-20481
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Research on single event resistance evaluation technology: Research by heavy ion irradiation 07 p1801 N93-20483
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM 07 p1801 N93-20484
Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485
Direct-reading dosimeters for space life science experiments 07 p1804 N93-21083
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Non-equilibrium structures induced by ion irradiation in Ni4Mo
[DE93-004193] 07 p2063 N93-21720
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546

Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films
[DE93-005367] 08 p2507 N93-23326
Effects of UV-B and global climate change on rice
[PB93-135622] 08 p2388 N93-23874
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Radiation effects in germanium doped quartz 09 p2837 N93-25021
Mechanical properties of martensitic alloy AISI 422
[DE93-006563] 09 p2649 N93-25255
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
CRRES: Combined release and radiation effects satellite program summary
[NASA-CR-192469] 09 p2774 N93-25886
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity 09 p2626 N93-26020
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Modeling and analysis tools 09 p2897 N93-26397
Silicon carbide semiconductor technology for high temperature and radiation environments 10 p2978 N93-26928
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Surface analyses of composites exposed to the space environment on LDEF 10 p2993 N93-28268
Spectral infrared hemispherical reflectance measurements for LDEF tray clamps 10 p3149 N93-28270
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Combined space environment on spacecraft engineering materials
[NASA-CR-192536] 10 p2996 N93-28407
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF 11 p3573 N93-29639
Radiation sensitivity of quartz crystal oscillators experiment for the Long Duration Exposure Facility (LDEF), part 2 11 p3414 N93-29685
LEO effects on candidate solar cell cover materials 11 p3467 N93-29687
New results from FRECOPA analysis 11 p3448 N93-29688
Studies of effects on optical components and sensors: LDEF experiments AO-147 (ERB components) and S-0014 (APEX) 11 p3582 N93-29693
Effects of long term space environment exposure on optical substrates and coatings (S0050-2) 11 p3582 N93-29694
Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF 11 p3583 N93-29699
Radiation and temperature effects on LDEF fiber optic samples 11 p3583 N93-29700
Final results of space exposed experiment developed for students 11 p3492 N93-29702
Continued results of the seeds in space experiment 11 p3492 N93-29703
Problems in the implementation of x ray optics with x ray lasers
[DE93-009297] 11 p3438 N93-29781
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
Irradiation assisted stress corrosion cracking of stainless steel irradiated in FBR
[DE93-764495] 11 p3326 N93-30191
Simulation of transient radiation effects on semiconductor devices using a pulsed Q-switched Nd:YAG laser 11 p3357 N93-30230
Transient field computations within or proximity of complex structures: FD-TD approach 11 p3366 N93-30292
Effects of device scaling and geometry on MOS radiation hardness assurance
[DE93-009832] 11 p3413 N93-30516
Application of integral and differential equation methods for various EM interaction problems
[AD-A264821] 11 p3394 N93-30597
Radiation effects in FCC metals and intermetallic compounds: A molecular dynamics computer simulation study
[DE93-009546] 11 p3600 N93-30668
Hardness assurance and testing issues for bipolar/BiCMOS devices
[DE93-009623] 11 p3570 N93-30669
Hard photon emission from high energy electrons and positrons in single crystals
[DE93-606328] 11 p3600 N93-30770
Theoretical-experimental study of the non-thermal effects of the polarized laser radiation in living tissues
[DE93-607212] 11 p3441 N93-30775
Mathematical simulation of the induced (gamma)-radiation in structural materials of spaceships. Time dependence
[DE93-605312] 11 p3281 N93-31024
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Investigation of carbon near the graphite-diamond-liquid triple point
[DE93-609052] 12 p3708 N93-31178
Chemical effects of ionizing radiations and electron beam in polymers: Industrial uses
[DE93-609337] 12 p3708 N93-31179
The Thirteenth AINSE Radiation Biology Conference: Conference handbook
[DE93-609131] 12 p3773 N93-31225
Radiation reaction for the classical relativistic spinning particle in scalar, tensor and linearized gravitational fields
[DE93-608191] 12 p3757 N93-31304
Electron-microscopic investigations of irradiated and naturally aged aluminum alloy
[DE93-606752] 12 p3706 N93-31660
Rapid instrumental and separation methods for monitoring radionuclides in food and environmental samples
[DE93-608744] 12 p3820 N93-31813
Radiation exposure in aircraft 12 p3753 N93-31928
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

RADIATION EXPOSURE

U RADIATION DOSAGE

RADIATION FIELDS

U RADIATION DISTRIBUTION

RADIATION HARDENING

Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
VLSI microelectronics research 06 p1523 N93-18462
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Radiation-hardened control system
[DE93-007248] 09 p2688 N93-25377
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
Neutron radiation induced degradation of diode characteristics
[AD-A263277] 11 p3405 N93-28563
High-performance visible/UV CCD focal plane technology for spacebased applications 11 p3434 N93-28771
SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
Simulation of transient radiation effects on semiconductor devices using a pulsed Q-switched Nd:YAG laser 11 p3357 N93-30230
Effects of device scaling and geometry on MOS radiation hardness assurance
[DE93-009832] 11 p3413 N93-30516
Hardness assurance and testing issues for bipolar/BiCMOS devices
[DE93-009623] 11 p3570 N93-30669

RADIATION HAZARDS

Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Radiation dose to critical body organs for October 1989 proton event
[NASA-TP-3237] 03 p0520 N93-12876
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Fusion energy from the Moon for the twenty-first century 03 p0719 N93-13985
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
Predictions of dose from electrons in space
[NASA-CR-191617] 04 p1051 N93-15580
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Direct-reading dosimeters for space life science experiments 07 p1804 N93-21083
Radiological safety aspects of TNA deployment 07 p1770 N93-21893
Radiological safety regulation and licensing of nuclear-based explosive detection systems 07 p1770 N93-21894
Laser safety training programs for a large and diverse research and development laboratory
[DE93-006291] 08 p2307 N93-22546
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009

FALCON remote laser alignment system
[DE93-006448] 08 p2309 N93-23693
HERO resistant semiconductor bridge igniter
09 p2627 N93-26024
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Radiated fields from an electromagnetic pulse simulator 11 p3366 N93-30290

RADIATION HEATING
U RADIANT HEATING

RADIATION INJURIES
AFRRI reports
[AD-A254581] 03 p0674 N93-12649

RADIATION INTENSITY
U RADIANT FLUX DENSITY

RADIATION LAWS
NT STEFAN-BOLTZMANN LAW
NT STOKES LAW OF RADIATION

RADIATION MEASUREMENT
Molecular cytogenetics: A novel approach for measuring chromosome translocations in individuals years after exposure to low levels of ionizing radiation
[DE92-018066] 02 p0374 N93-10974
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
Proposal for the experimental demonstration of the coherent radiation
[DE92-017695] 02 p0284 N93-12132
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Neutrino mass
[DE92-017411] 03 p0701 N93-12588
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Radiation monitoring for long duration space flights
04 p0812 N93-14959
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Gravitationally induced synchrotron radiation: A new test for general relativity
[PREPRINT-822] 05 p1297 N93-16420
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
The SVIRCO station: Measurement and study of the intensity of cosmic rays in Rome (Italy) from 1954
[NOTA-INTERNA-977] 05 p1401 N93-17648
Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045
Geostationary earth climate sensor: Scientific utility and feasibility, phase A
[NASA-CR-191919] 07 p1996 N93-20248
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304
Long period pulsation events in electron precipitation and magnetic fields at the South Pole
08 p2394 N93-23387
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus
09 p2741 N93-24793
SRB environment evaluation and analysis. Volume 3: ASRB plume induced environments
[NASA-CR-192519] 09 p2631 N93-26054
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
A photon phreak digs the LDEF happening
11 p3572 N93-29629
A measurement of the radiation dose to LDEF by passive dosimetry 11 p3572 N93-29634
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
LET spectra measurements of charged particles in the P0006 experiment on LDEF 11 p3573 N93-29637
Development and application of a 3-D geometry/mass model for LDEF satellite ionizing radiation assessments
11 p3573 N93-29640
Future radiation measurements in low Earth orbit
11 p3654 N93-29708
The possible direct use of satellite radiance measurements by the Atmospheric Radiation Measurement Program
[DE93-009819] 11 p3462 N93-30049
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826
Optically powered photomultiplier tube
[AD-D015735] 12 p3722 N93-32207

RADIATION MEASURING INSTRUMENTS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
NT BOLOMETERS
NT CERENKOV COUNTERS
NT DOSIMETERS
NT ELECTRON COUNTERS
NT ELECTROPHOTOMETERS
NT ELECTROSTATIC PROBES
NT FLIR DETECTORS
NT GEIGER COUNTERS
NT HODOSCOPES
NT INFRARED DETECTORS
NT INFRARED INSTRUMENTS
NT INFRARED RADIOMETERS
NT INFRARED SCANNERS
NT INFRARED SPECTROMETERS
NT INFRARED SPECTROPHOTOMETERS
NT MICROWAVE RADIOMETERS
NT NEUTRON COUNTERS
NT NEUTRON SPECTROMETERS
NT PARTICLE TELESCOPES
NT PHOTOMETERS
NT PROPORTIONAL COUNTERS
NT PYRANOMETERS
NT RADIATION COUNTERS
NT RADIATION DETECTORS
NT RADIOMETERS
NT RIOMETERS
NT SCINTILLATION COUNTERS
NT SILICON RADIATION DETECTORS
NT SOLAR SPECTROMETERS
NT SPECTROHELIOGRAPHS
NT SPECTROPHOTOMETERS
NT SPECTRORADIOMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT ULTRAVIOLET DETECTORS
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
NT X RAY DETECTORS
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
The SVIRCO station: Measurement and study of the intensity of cosmic rays in Rome (Italy) from 1954
[NOTA-INTERNA-977] 05 p1401 N93-17648
Lightweight modular instrumentation for planetary applications 11 p3286 N93-28787
Optically powered photomultiplier tube
[AD-D015735] 12 p3722 N93-32207

RADIATION MEDICINE
U NUCLEAR MEDICINE

RADIATION METERS
U RADIATION MEASURING INSTRUMENTS

RADIATION NOISE
U ELECTROMAGNETIC NOISE

RADIATION PRESSURE
NT ELECTRON PRESSURE
NT LUMINANCE
NT LUMINOUS INTENSITY
NT SOUND PRESSURE
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere
04 p1033 N93-14338
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization
09 p2600 N93-24695
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite
10 p2924 N93-27199
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079

RADIATION PROTECTION
NT RADIATION SHIELDING
NT SOLAR RADIATION SHIELDING
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
Optical limiting
[AD-A254620] 02 p0322 N93-12238
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Environmental assessment: OMEGA upgrade project at the Laboratory for Laser Energetics, University of Rochester
[DE92-040410] 04 p0886 N93-14907
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806
Space radiation health program plan
[NASA-TM-108036] 06 p1598 N93-18375
Multi-function visor 06 p1609 N93-19770
Radiological assessment for Space Station Freedom
[NASA-TM-104758] 07 p2022 N93-20303
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
AFRRI research, fiscal year 1991
[AD-A260933] 09 p2911 N93-25710
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs
09 p2670 N93-26063
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
The radiation protection problems of high altitude and space flight
[DE93-008573] 10 p3218 N93-27106
Dose in water from external irradiation by electrons: Radiation protection data
[PB93-173425] 10 p3131 N93-27425
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Charge to frequency converter for ionization chambers belonging to the radiation protection system of AmPS/MEA
[DIGEL-1991-6] 11 p3577 N93-30837
Electronics for a neutron detector and a Geiger-Mueller detector for the radiation protection around MEA and AmPS
[DIGEL-1992-6] 11 p3413 N93-30838

RADIATION PYROMETERS
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
Correction-free pyrometry in radiant wall furnaces
[NASA-CASE-NPO-18655-1-CU]
10 p3046 N93-28322

RADIATION RESISTANCE
U RADIATION TOLERANCE

RADIATION SHIELDING
NT SOLAR RADIATION SHIELDING
Application of the Moyer method to transverse shielding of linear Bremsstrahlung sources
[DE92-017027] 02 p0443 N93-11493
Fully energy-dependent HZETRN (a galactic cosmic-ray transport code)
[NASA-TP-3243] 03 p0771 N93-13020
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
CRRESRAD documentation
[AD-A256715] 05 p1213 N93-16172
Human safety in the lunar environment
05 p1229 N93-16867

Design of a radiator shade for testing in a simulated lunar environment
[NASA-CR-192080] 05 p1229 N93-17710
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015
Design of a pressurized lunar rover
[NASA-CR-192033] 06 p1545 N93-18016
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192030] 06 p1605 N93-18018
Preliminary design of a radiator shading device for a lunar outpost
[NASA-CR-192016] 06 p1605 N93-18019
Shielding from space radiations
[NASA-CR-191966] 06 p1655 N93-18567
Resource availability at Taurus-Littrow
06 p1736 N93-18792
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
Green's function methods in heavy ion shielding
[NASA-TP-3311] 08 p2485 N93-22488
Polarization correction for ionization loss in a galactic cosmic ray transport code (HZETRN)
[NASA-TM-4443] 08 p2559 N93-23396
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Regolith-structure modeling 11 p3276 N93-29116
Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
Light-heavy ion measurements in CR-39 located on the Earth side of LDEF 11 p3573 N93-29638
Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF
11 p3573 N93-29639
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems
[DE93-007610] 11 p3281 N93-30509

RADIATION SOURCES
NT MONOCHROMATORS
NT NEUTRON SOURCES
NT POINT SOURCES
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
Application of the Moyer method to transverse shielding of linear Bremsstrahlung sources
[DE92-017027] 02 p0443 N93-11493
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
Experimental considerations of higher order parametric x rays from silicon crystals of varying thicknesses
[AD-A256082] 04 p0990 N93-14260
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Propagation of high frequency jet noise using geometric acoustics
[NASA-TM-106013] 04 p0975 N93-15575
Liquid xenon time projection chamber for gamma rays in the MeV region: Development status
04 p1014 N93-15592
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Variational derivation of equation for generalized pair correlation function 05 p1254 N93-16778
Simulated high heat load performance of an inclined crystal monochromator
[DE93-000506] 05 p1326 N93-17378
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511
Construction of a channeling radiation source and production of intensive channeling radiation at the Darmstadt (Germany) superconductive electron accelerator
[ETN-93-93410] 07 p2066 N93-21206
The effects of ionizing and particle radiation on precision frequency sources (proposal for IEEE standards project P1193)
[PB92-227073] 07 p1893 N93-21350
Ultrafast laser generation of hard x rays
07 p1912 N93-21952
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory
[DE93-007274] 10 p3048 N93-28355
Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980
A novel approach for new radiation sources based on solid state plasma instabilities
[AD-A263699] 11 p3588 N93-29382
ELF propagation in deep and shallow sea water
11 p3397 N93-30739
Characterisation of a protection level Am-241 calibration source
[NPL-RSA(EXT)-35] 12 p3819 N93-31335

RADIATION SPECTRA
NT ABSORPTION SPECTRA
NT BALMER SERIES
NT ELECTROMAGNETIC SPECTRA
NT ELECTRONIC SPECTRA
NT EMISSION SPECTRA
NT FRAUNHOFER LINES
NT GAMMA RAY SPECTRA
NT H ALPHA LINE
NT H BETA LINE
NT INFRARED SPECTRA
NT K LINES
NT LINE SPECTRA
NT LYMAN SPECTRA
NT MICROWAVE SPECTRA
NT RADIO SPECTRA
NT RAMAN SPECTRA
NT RYDBERG SERIES
NT SOLAR SPECTRA
NT STELLAR SPECTRA
NT ULTRAVIOLET SPECTRA
NT VIBRATIONAL SPECTRA
NT VISIBLE SPECTRUM
NT X RAY SPECTRA
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166
Rosat deep surveys 02 p0482 N93-11474
Theoretical and experimental investigations of coincidences in Poisson distributed pulse trains and spectral distortion caused by pulse pileup
[ISBN-0-315-60449-2] 08 p2286 N93-24614
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105

RADIATION THERAPY
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
Measuring the metastatic potential of cancer cells
09 p2794 N93-25566

RADIATION TOLERANCE
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
Reliability of small geometry VLSI devices for microelectronics
[AD-A247355] 02 p0289 N93-11414
Monopole elements with disk ground planes on flat earth: Atlas of directivity, radiation efficiency, radiation resistance, and input impedance
[AD-A257911] 06 p1503 N93-18366
Development of power MOSFET (150 W class)
07 p1797 N93-20461
Review on Schottky barrier diode development
07 p1798 N93-20464
Development of radiation resistant HCMOSIC
07 p1798 N93-20467
Development of radiation resistant linear IC (equivalent to mu PC 806) 07 p1798 N93-20468
Development of 256 kbit PROM
07 p1799 N93-20470
Development of 256 kbit SRAM
07 p1799 N93-20471
Development of 32 bit MPU 07 p1799 N93-20473
Review on radiation resistant 32 bit MPU
07 p1799 N93-20474
Review on parts test data analyzing system
07 p1800 N93-20480
Industrial IC evaluation test: 256 kbit EEPROM
07 p1800 N93-20481
Research on single event resistance evaluation technology: Research by heavy ion irradiation
07 p1801 N93-20483
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM
07 p1801 N93-20484
Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485
Monolithic preamplifier employing epitaxial N-channel JFETs
[DE93-002951] 07 p1894 N93-21980
Quartz oscillators, frequency synthesizers, and timing systems for geodesy and radio science applications
09 p2693 N93-25052
Space radiation susceptibility of ultra stable crystal oscillators 09 p2693 N93-25053
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
Spacecraft computer technology at Southwest Research Institute 11 p3522 N93-28813
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108
Test structure to microcircuit correlation
[AD-A264157] 11 p3412 N93-30152
The Thirteenth AINSE Radiation Biology Conference: Conference handbook
[DE93-609131] 12 p3773 N93-31225
Radiation exposure in aircraft
12 p3753 N93-31928

RADIATION TRANSPORT
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
X-UV spectroscopy temporal resolution
02 p0318 N93-12028
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
Low-frequency oscillations in radiative-convective models
[DE92-018779] 04 p0922 N93-14901
Experimental evidence of off-diagonal transport term and the discrepancy between energy/particle balance and perturbation analyses
[DE92-556732] 05 p1309 N93-16237
Renormalization group in different fields of theoretical physics
[DE92-556707] 05 p1329 N93-16648
Improved response functions for gamma-ray skyshine analyses
[DE93-003230] 05 p1400 N93-17466
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Monte Carlo variance reduction approaches for non-Boltzmann tallies
[DE93-005665] 08 p2467 N93-22910
A local exponential transform method for global variance reduction in Monte Carlo transport problems
[DE92-018992] 08 p2468 N93-22926
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Proceedings of the Second Atmospheric Radiation Measurement (ARM) Science Team Meeting
[DE93-005886] 11 p3476 N93-28889
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264

Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986

RADIATION TRAPPING
The NASA/National Space Science Data Center trapped radiation environment model program, 1964 - 1991
[NASA-TM-107993] 02 p0349 N93-11003
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
Future directions for LDEF ionizing radiation modeling and assessments 11 p3573 N93-29642

RADIATIVE HEAT TRANSFER
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
Development status of SINDA/FLUINT and SINAPS 03 p0585 N93-13393
Summary on comparison of radiative heat transfer solutions for a specified problem
[DE92-040098] 03 p0588 N93-13575
Opacity, equation of state, and radiation transport model for moderate density, eV-temperature plasmas
[AD-A256056] 04 p0988 N93-14579
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems 05 p1165 N93-16786
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Correlation of results of radiant heat test and convective heat test for three layered protective clothing 07 p1838 N93-21161
Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
A correlated K-distribution model of the heating rates for H2O and a molecular mixture in the 0-2500 cm(exp -1) wavelength region in the atmosphere between 0 and 60 km
[DE93-005741] 09 p2762 N93-25147
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
The Evolution of Galaxies and Their Environment
[NASA-CP-3190] 10 p3171 N93-26706
Galaxy tracers in N-body simulations 10 p3176 N93-26732
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673
Application of ray tracing in radiation heat transfer
[NASA-TM-106206] 11 p3419 N93-29075
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221
The thermal structure, dust loading, and meridional transport in the Martian atmosphere during late southern summer 11 p3651 N93-29616
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers 11 p3257 N93-29955
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055
Some historical notes about the Stefan problem
[REPT-93-07] 12 p3728 N93-32397

RADIATIVE LIFETIME
Limits on neutrino radiative decay from SN1987A
[NASA-CR-193262] 11 p3653 N93-29164

RADIATIVE RECOMBINATION
Merged beam studies of laser stimulated radiative recombination
[AD-A253308] 01 p0089 N93-10698
Recombination and metastability in amorphous silicon and silicon germanium alloys
[DE92-010593] 02 p0463 N93-11816
Direct radiative recombination of atomic ions 02 p0321 N93-12048
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971

RADIATIVE TRANSFER
NT RADIATIVE HEAT TRANSFER
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
The fine structure of prominences 01 p0180 N93-10910
Radiative forcing of climate 02 p0351 N93-11094
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029
Development of a hydrodynamic code: MINNIE 02 p0318 N93-12031
Radiative transfer theory for polarimetric remote sensing of pine forest 03 p0633 N93-13085
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
The role of particle diffusion in the lower transition region: Revised interpretation of emission measures 03 p0770 N93-13476
Radiative transfer in the middle atmosphere 03 p0652 N93-13482
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
Cloud-radiative feedbacks in tropical convection 04 p0919 N93-14180
Infrared radiative properties of clouds 04 p0919 N93-14196
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Non-uniform patch luminance for global illumination 04 p0957 N93-15569
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960
Cloud scene simulation modeling
[AD-A256689] 05 p1212 N93-16096
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
A microwave scattering model for layered vegetation 06 p1565 N93-18074
ARM Fourier transform spectrometer data analysis tools
[DE93-004648] 06 p1586 N93-18454
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Microwave radiative transfer studies of precipitation 07 p2008 N93-20095
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
End-to-end tests of satellite data 07 p1953 N93-21571
Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses 07 p1956 N93-21586
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Analysis of IUE observations of hydrogen in comets
[NASA-CR-192693] 08 p2548 N93-23231
Active and passive remote sensing of ice
[AD-A259765] 08 p2415 N93-24026
Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
The role of multiple scattering in twilight zenith sky observations of atmospheric absorbers: Diurnal photochemistry and airmass factors 09 p2772 N93-25535
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Vector radiative transfer model: Application to rainfall retrieval with microwave radiometric data 09 p2784 N93-25743
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
The absorption and emission spectrum of radiative cooling galactic fountain gas 10 p3200 N93-26871
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CO2 and H2O
[DE93-007391] 11 p3474 N93-30504
Radiative modeling of solar prominences, two-dimensional transfer plus partial frequency redistribution 12 p3875 N93-31389
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

RADIATORS
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
Degradation of radiator performance on Mars due to dust 04 p0823 N93-15616

RADICALS
NT AMINO RADICAL
NT FREE RADICALS
NT HYDROXYL RADICALS
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser 02 p0245 N93-11135
An experimental and theoretical study of degradation pathways for atmospheric halocarbons 03 p0646 N93-13624
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Radical reactions of atmospheric importance 03 p0659 N93-14053
Radical ion formation in polymers as a mechanism for laser eye protection
[AD-A255992] 04 p0850 N93-15111
Computed barrier heights for H + CH2O yields CH3O yields CH2OH 05 p1107 N93-17409
Effects of delocalization on intrinsic barriers for H-atom transfer: Implications for the radical hydrogen transfer reaction
[DE93-001565] 05 p1107 N93-17461
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Cometary implications of recent laboratory experiments on the photochemistry of the C2H and C3H2 radicals 06 p1708 N93-19173
Solvation effects on reactive intermediates: The benzyl radical and its clusters with Ar, N2, CH4, C2H6, and C3H88
[AD-A258764] 06 p1658 N93-19868
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422

Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515
Photoabsorption and photodissociation of molecules important in the interstellar medium
[NASA-CR-192829] 08 p2552 N93-24488
Theoretical studies of the reactions and spectroscopy of radical species relevant to combustion reactions and diagnostics
[DE93-010247] 10 p2993 N93-26619
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474

RADII

Long pulse electron beam propagation
[DE92-014948] 03 p0706 N93-12830
Minimum size of disc cams with radial translating roller followers
[ESDU-92005] 06 p1544 N93-17998
A nanoradian differential VLBI tracking demonstration 09 p2677 N93-26108

RADIO ALTIMETERS

Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions 04 p1023 N93-14289
Surface processes on Venus 04 p1024 N93-14294
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres 04 p0926 N93-14966
North-Australian tropical seas circulation study 04 p0926 N93-14968
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data 04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment 04 p0928 N93-14976
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Ocean circulation using altimetry 04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream 04 p0929 N93-14985
Ocean circulation modeling by use of radar altimeter data 04 p0929 N93-14986
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data 04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean 04 p0931 N93-14995
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Analysis of altimeter data jointly with seafloor electric data (vertically integrated velocity) and VCTD-yoyo data (detailed profiles of VCTD) 04 p0931 N93-14998
Marine research using data from TOPEX/Poseidon 04 p0932 N93-15001
Global ocean circulation by altimetry 04 p0932 N93-15002
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
ERS-1 radar altimetry of ice sheets 07 p1959 N93-21606
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
ESA ERS 1 product specification
[ESA-SP-1149] 08 p2200 N93-23389
The radar altimeter instrument for POEM-1 mission 08 p2363 N93-23788

RADIO ANTENNAS

NT HORN ANTENNAS
NT LENS ANTENNAS
NT MICROWAVE ANTENNAS
Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. A: Multiband dipole antenna
[AD-A262010] 10 p3027 N93-27668
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Models for performance assessment of HF antennas on the CH-135/Twin Huey helicopter 11 p3366 N93-30291
VLF/LF transmitting antennas 11 p3398 N93-30747
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753

RADIO ASTRONOMY

The Comet Halley archive: Summary volume
[NASA-CR-190358] 02 p0484 N93-11243
A high-resolution radio survey of the galactic plane 03 p0744 N93-13480
The emission-line properties of quasars 03 p0753 N93-13487
A study of the neutral and ionized gas in the interstellar medium and galactic H 2 regions 03 p0756 N93-13853
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Microwave observations of Uranus 04 p1046 N93-14863
Laboratory evaluation and application of microwave absorption properties under simulated conditions for planetary atmospheres
[NASA-CR-191298] 04 p1047 N93-15061
Multifrequency observations of rapidly variable blazars 05 p1361 N93-17109
The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
Observations of cometary parent molecules with the IRAM radio telescope 06 p1697 N93-19143
Radio spectroscopy of comets: Recent results and future prospects 06 p1697 N93-19144
Thirteen new BL Lacertae objects discovered by an efficient x ray/radio/optical technique 07 p2095 N93-20796
Observations and modeling of the dust and gas in an isolated diffuse interstellar cloud 08 p2549 N93-23722
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713
Two searches for primeval galaxies 10 p3172 N93-26714
Evolution of luminous IRAS galaxies: Radio imaging 10 p3184 N93-26786
A neutral hydrogen survey of the Hydra 1 cluster 10 p3194 N93-26843
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Very Large Array (VLA) observations of coronal loops 12 p3879 N93-31419
User friendly database for Neptune planetary radio astronomy observations
[NASA-CR-193261] 12 p3851 N93-32324

RADIO AURORAS

JARE data reports no. 175 (ionosphere 46). Records of radio aurora at Syowa Station, Antarctica in 1990 03 p0651 N93-13285
An algorithm to quantify the performance of the JOVE program 05 p1254 N93-17306

RADIO BEACONS

Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661
The Virginia Tech OLYMPUS propagation experiment 09 p2685 N93-26479
Status of the Olympus experiment at CRC 09 p2685 N93-26480

RADIO BROADCASTING

U BROADCASTING

RADIO BURSTS

NT SOLAR RADIO BURSTS

RADIO COMMUNICATION

NT CODE DIVISION MULTIPLE ACCESS
NT RADIO RELAY SYSTEMS
NT RADIO TELEMETRY
NT TELEPHONY
NT TIME DIVISION MULTIPLE ACCESS
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
Defence electronics industry profile, 1990-1991
[CTN-92-60515] 01 p0066 N93-10653
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
Low Density Radio Communications Link (LDRCL) Operational Test and Evaluation (OT/E) integration and operation test plan
[AD-A258216] 02 p0285 N93-12331
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
Regional satellites: The European experience with Eutelsat for TV, voice, data and mobile transmissions
[REPT-921-440-106] 04 p0818 N93-15071
Meteor burst communication system
[AD-D015470] 05 p1139 N93-16466
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344
Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514
Communication interference/jamming and propagation analysis system and its application to radio location 08 p2269 N93-23621
Airborne system for detection and location of radio interference sources 08 p2269 N93-23622
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
WARC 92 and some thoughts as to its impact on the NASA propagation program 09 p2684 N93-26475
Allocations by the 1992 World Administrative Radio Conference 09 p2684 N93-26476
ESA's planning and coordination of the OLYMPUS propagation experiment 09 p2684 N93-26477
Observations on the NASA Propagation Program 09 p2685 N93-26482
ACTS propagation terminal update 09 p2685 N93-26484

Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642
Activities report of PTT Research
[ISBN-9-07-212514-2] 11 p3392 N93-30025
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Design issues and initial performance of an adaptive air/ground/air HF communication system 11 p3375 N93-30342
The evolution of global mobile communications 11 p3376 N93-30349
Introduction 11 p3395 N93-30728
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
VLF/LF propagation measurements 11 p3395 N93-30732
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3398 N93-30734
VLF/LF transmitting antennas 11 p3398 N93-30747
Study of a VLF distributed antenna array 11 p3398 N93-30749
Pattern measurements of US Navy ELF antennas 11 p3399 N93-30752
Viability assessment for reliable long-wave communication links 11 p3399 N93-30754

RADIO CONTROL
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Remote driving with reduced bandwidth communication 12 p3719 N93-32114

RADIO DETECTION AND RANGING
U RADAR

RADIO DIRECTION FINDERS
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Bearing determination and bearing quality indication from a goniometric HF DF system 08 p2268 N93-23617
Angle of arrival characteristics of ionospheric skywave signals 08 p2268 N93-23618
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603

RADIO EMISSION
NT HYDROXYL EMISSION
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992
[PB92-154913] 02 p0477 N93-11769
A closer look at active galactic nuclei: The great engines of the Universe
[PB92-184464] 02 p0485 N93-11807
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars 04 p1050 N93-14242
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Dielectric surface properties of Venus 04 p1039 N93-14360
Soft x ray segregation of Seyfert galaxies 05 p1362 N93-17135
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception 06 p1458 N93-18910
Observations of OH in comet Levy with the Nancay radio telescope 06 p1697 N93-19129
A radio continuum survey of edge-on spiral galaxies at 90 cm 10 p3185 N93-26790
A study of the x ray environment of radio galaxies 10 p3194 N93-26845
Nuclear activity and the environments of nearby radio galaxies 10 p3196 N93-26852
A halo and a blow-out in NGC 253 10 p3199 N93-26869
Distribution of dark matter in the galaxy and the lower limits for the masses of supersymmetric particles
[BONN-IR-92-31] 11 p3632 N93-28473
Multifractal analysis of radio lobes 11 p3380 N93-28689
Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716] 11 p3634 N93-29246
3D reconstruction methods of coronal structures by radio observations 12 p3874 N93-31387
Analysis of Uranian radio emissions, Uranus Data Analysis Program (UDAP)
[NASA-CR-193524] 12 p3882 N93-32222

RADIO EQUIPMENT
NT HORN ANTENNAS
NT IONOSONDES
NT LENS ANTENNAS
NT MICROWAVE ANTENNAS
NT RADIO ANTENNAS
NT RADIO BEACONS
NT RADIO FILTERS
NT RADIO RECEIVERS
NT RADIO TELESCOPES
NT RADIO TRANSMITTERS
NT RADIOSONDES
NT RADIOTELEPHONES
NT RAWINSONDES
NT RECTENNAS
NT SONOBUOYS
NT SPACECRAFT ANTENNAS
NT SUPERHETERODYNE RECEIVERS
NT TRANSMITTER RECEIVERS
NT TRANSPONDERS
NT VERY LARGE ARRAY (VLA)
Basic and applied research in the field of electronics and communications
[AD-A253593] 01 p0067 N93-10092
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
AFIT/AFOSR Workshop on the Role of Wavelets in Signal Processing Applications
[AD-A256172] 04 p0859 N93-14649
Proposed revisions to RTCM SC-104 recommended standards for differential NAVSTAR/GPS service for carrier phase applications
[AD-A255276] 04 p0789 N93-15005
Remote vehicle controller
[AD-D015389] 04 p0893 N93-15251
Comparison of synchronization techniques for the AFIT direct sequence spread spectrum system
[AD-A256440] 04 p0861 N93-15316
Tactical line-of-sight path reliability: Improved MSE system procedures
[AD-A256504] 04 p0862 N93-15376
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
Installations and methods for measurement of aircraft radio components and systems 12 p3677 N93-31284

RADIO FILTERS
Design and evaluation of a quasi-active delay-line limiter/filter RF protection device
[AD-A254179] 01 p0071 N93-10255

RADIO FREQUENCIES
NT C BAND
NT EXTREMELY HIGH FREQUENCIES
NT EXTREMELY LOW RADIO FREQUENCIES
NT HIGH FREQUENCIES
NT LOW FREQUENCIES
NT MICROWAVE FREQUENCIES
NT SUPERHIGH FREQUENCIES
NT ULTRAHIGH FREQUENCIES
NT VERY HIGH FREQUENCIES
NT VERY LOW FREQUENCIES
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing
[AD-A254035] 01 p0071 N93-10240
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
The locator system for wandering individuals
[NASA-TM-104754] 02 p0388 N93-11649
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192
Test of a new RF separator structure for CEBAF
[CEBAF-PR-92-024] 03 p0708 N93-13284
Special MAFIA postprocessors for the analysis of RF structures
[DE92-040248] 03 p0565 N93-13510
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
RF vacuum microelectronics
[AD-A257320] 05 p1144 N93-15984
RF vacuum microelectronics
[AD-A257208] 05 p1145 N93-16004
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams
[DE93-000837] 05 p1292 N93-17362
Design and modeling of superconducting RFQ structures
[DE93-000511] 05 p1326 N93-17376
Discrimination of ionic species from broad-beam ion sources
[NASA-CR-4483] 06 p1654 N93-18140
Field-emitter arrays for RF vacuum microelectronics
[AD-A258211] 06 p1518 N93-18203
A method of optimal radio frequency assignment for deep space missions 06 p1508 N93-18922
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Field emitter array RF amplifier development project. Phase 1: Cathode technology development
[AD-A258768] 06 p1521 N93-19048
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073
Computer codes for RF cavity design
[DE93-004002] 06 p1515 N93-19509
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625
Design of RF conditioner cavities
[DE93-002576] 06 p1543 N93-19895
Microwave vs optical crosslink study
[NASA-CR-192207] 07 p1879 N93-19989
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
Video guidance sensor 07 p1812 N93-21409
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
NTIA Microcomputer Spectrum Analysis Models (MSAM). Version 4.0, August 1992
[PB93-108346] 08 p2432 N93-23269
Airborne system for detection and location of radio interference sources 08 p2269 N93-23622
Radio frequency cable to optical fiber cable
[AD-D015620] 08 p2284 N93-24230
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
The process of consensus on EMF: SAB review of the EPA draft document on EMF and cancer
[DE93-007183] 08 p2273 N93-24466
HERO resistant semiconductor bridge igniter 09 p2627 N93-26024
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279

RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311
Allocations by the 1992 World Administrative Radio Conference 09 p2684 N93-26476
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU] 10 p3048 N93-28132
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
An RF driven H(-) source and a low energy beam injection system for RFQ operation
[DE93-010438] 11 p3575 N93-29302
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
High-speed, CMOS dual modulus frequency divider for RF frequency synthesis 11 p3359 N93-30245
High density plasma production in a multicusp plasma generator with RF antenna
[DE93-764493] 11 p3590 N93-30606
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033
Measurements and analysis of the equivalent circuit of the GEC RF Reference Cell
[DE93-013498] 12 p3718 N93-32425

RADIO FREQUENCY DISCHARGE
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534

RADIO FREQUENCY HEATING
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
Microwave processing of ceramics: Guidelines used at the Oak Ridge National Laboratory
[DE92-040862] 05 p1123 N93-16297
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Low frequency RF current drive
[DE93-005130] 08 p2260 N93-22421
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
An outgoing energy flux boundary condition for finite difference ICRP antenna models
[DE93-007788] 09 p2674 N93-25300
Microwave processing of ceramics
[DE93-010708] 11 p3332 N93-29252
Fundamental studies of fusion plasmas
[DE93-013144] 11 p3589 N93-30189

RADIO FREQUENCY IMPEDANCE PROBES
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451

RADIO FREQUENCY INTERFERENCE
NT ATMOSPHERICS
NT CHIRP
NT CHIRP SIGNALS
NT COSMIC NOISE
NT ELECTROMAGNETIC NOISE
NT IONOSPHERICS
NT POLAR RADIO BLACKOUT
NT SHOT NOISE
NT THERMAL NOISE
NT WHISTLERS
NT WHITE NOISE
LORAN and the effects of terrestrial propagation
[PB92-197219] 02 p0205 N93-11472
Long-term averages of globally-measured ELF/VLF radio noise
[AD-A255518] 03 p0566 N93-13869
Carrier wave signals interfering with Loran-C
[ETN-92-92528] 05 p1059 N93-17584
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073
Effects of wind turbines on UHF television reception: Field tests in Denmark, November 1991
[BBC-RD-1992/7] 07 p1885 N93-21365
Communication interference/jamming and propagation analysis system and its application to radio location 08 p2269 N93-23621
Airborne system for detection and location of radio interference sources 08 p2269 N93-23622
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062

RADIO FREQUENCY NOISE
U ELECTROMAGNETIC NOISE

RADIO FREQUENCY RADIATION
U RADIO WAVES

RADIO FREQUENCY SHIELDING
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073

RADIO GALAXIES
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992
[PB92-154913] 02 p0477 N93-11769
A closer look at active galactic nuclei: The great engines of the Universe
[PB92-184464] 02 p0485 N93-11807
Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713
Two searches for primeval galaxies 10 p3172 N93-26714
Distant radio galaxies in the near IR 10 p3177 N93-26742
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
A study of the x ray environment of radio galaxies 10 p3194 N93-26845
Nuclear activity and the environments of nearby radio galaxies 10 p3196 N93-26852
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
Multifractal analysis of radio lobes 11 p3380 N93-28689

RADIO INTERFERENCE
U RADIO FREQUENCY INTERFERENCE

RADIO INTERFEROMETERS
Report of the Science Working Group: Science with a lunar optical interferometer 03 p0747 N93-13600
Feeding IC 342: The nuclear spiral of a starburst galaxy 10 p3184 N93-26782
Study of ISM turbulence using radiointerferometers (new method) 12 p3847 N93-31767

RADIO JETS (ASTRONOMY)
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828
Jet induced star formation in centrally dominant galaxies? 10 p3193 N93-26840
ROSAT observations of quasar 3C 273
[ETN-93-94202] 12 p3844 N93-31049

RADIO METEOROLOGY
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257

RADIO METEORS
Diurnal variation of overdense meteor echo duration and ozone 06 p1718 N93-19243

RADIO NAVIGATION
NT LORAN
NT LORAN C
NT SHORAN
NT VHF OMNIRANGE NAVIGATION
LORAN and the effects of terrestrial propagation
[PB92-197219] 02 p0205 N93-11472
Navstar global positioning system: Introduction and status
[NLR-TP-91008-U] 05 p1059 N93-17559
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
The role of GPS in a future radionavigation mix: Trends in the 1992 US Federal Radionavigation Plan 08 p2124 N93-23509
A European radionavigation plan? 08 p2124 N93-23513
The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991 09 p2835 N93-25006
The Telecommunications and Data Acquisition Report
[NASA-CR-193144] 11 p3384 N93-29586
On-board derived flight-path measurement as demonstrated by an ILS measurement system 12 p3677 N93-31282

RADIO OBSERVATION
Multifrequency observations of ROSAT selected radio sources 05 p1361 N93-17118
Optically selected quasars with Z greater than 4 05 p1363 N93-17158
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
Radio observations of coronal streamers 12 p3870 N93-31359
Observations of stationary radio sources: Coronal polar plumes? 12 p3871 N93-31365
Observation of a coronal streamer at meter and decimeter wavelengths 12 p3872 N93-31373
Models of coronal streamers at meter-decameter wavelengths 12 p3872 N93-31374

RADIO OCCULTATION
Long-term variations in abundance and distribution of sulfuric acid vapor in the Venus atmosphere inferred from Pioneer Venus and Magellan radio occultation studies 04 p1030 N93-14328
Laboratory evaluation and application of microwave absorption properties under simulated conditions for planetary atmospheres
[NASA-CR-191298] 04 p1047 N93-15081
Mars observer radio science (MORS) observations in polar regions 06 p1743 N93-19818

RADIO PHYSICS
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800

RADIO PROBING
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815

RADIO PROPAGATION
U RADIO TRANSMISSION

RADIO RANGES
U RADIO BEACONS

RADIO RECEIVERS
NT SUPERHETERODYNE RECEIVERS
NT TRANSMITTER RECEIVERS
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
Real-time edge-enhanced optical correlator
[NASA-CASE-NPO-18521-1-CU] 04 p0981 N93-14404
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094
Reduced electrical bandwidth receivers for direct detection 4-ary PPM optical communication intersatellite links
[NASA-CR-192310] 07 p1880 N93-19993
Certification plan for a planar near-field range used for high-performance phased-array testing
[PB92-213305] 07 p1885 N93-21493
Simulation of a NC-FSK maximum likelihood receiver for fast Rayleigh fading
[ISBN-0-315-59024-6] 08 p2274 N93-24627
First experience with the ASN-16 GLONASS receiver 09 p2693 N93-25033
Oscillators for mobile GPS receivers 09 p2694 N93-25055
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
Flight termination receiver catalog
[AD-A261558] 09 p2682 N93-26460
The ACTS propagation program 09 p2683 N93-26465
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
A low-noise 492 GHz SIS waveguide receiver 10 p3015 N93-27750
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
Progress in integrated-circuit horn antennas for receiver applications. Part 2: A 90 GHz quasi-integrated horn antenna receiver 10 p3016 N93-27756
Embedding impedance approximations in the analysis of SIS mixers 10 p3016 N93-27760
Source conductance scaling for high frequency superconducting quasiparticle receivers 10 p3018 N93-27771
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
Time delay measurements of current primary FAA air/ground transmitters and receivers
[DOT/FAA/CT-TN93/14] 11 p3379 N93-28555
Miniature modular microwave end-to-end receiver
[NASA-CASE-NPO-18713-1-CU] 11 p3381 N93-29087
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
An adaptive maximum likelihood receiver for correlated Rayleigh fading channels 11 p3371 N93-30316
Embedded GPS: The Canadian Marconi approach 11 p3247 N93-30330
Experiences with two GPS receivers in northern Europe
[NLR-TP-91168-U] 12 p3675 N93-31120
Fix-tracking system
[AD-D015738] 12 p3718 N93-32210

RADIO RECEPTION
Utilization of a reception network of the Losquet Island retrodiffusion probe in radiogoniometry 08 p2269 N93-23619

RADIO RELAY SYSTEMS
NT CODE DIVISION MULTIPLE ACCESS
NT TIME DIVISION MULTIPLE ACCESS
Orbital manoeuvre effects on large flexible antennae 05 p1078 N93-15729
Research on space communication equipment technology: Study on relay system 07 p1790 N93-20420

RADIO SCATTERING
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349

RADIO SIGNAL PROPAGATION
U RADIO TRANSMISSION

RADIO SIGNALS
Method and apparatus for passive direction finding with sideband determination
[AD-D015546] 07 p1882 N93-20306
Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367
Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598
Irregular media effects on radiowave signals used in navigation and positioning systems 08 p2266 N93-23606
The influence of propagation on high frequency radiogoniometry and single station location 08 p2266 N93-23607
A new passive SSL technique for HF radiolocation 08 p2267 N93-23609
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Large bearing errors observed at a high latitude DF site 08 p2268 N93-23615
Communication interference/jamming and propagation analysis system and its application to radio location 08 p2269 N93-23621
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
Fix-tracking system
[AD-D015738] 12 p3718 N93-32210

RADIO SOURCES (ASTRONOMY)
NT EXTRAGALACTIC RADIO SOURCES
NT PULSARS
NT QUASARS
NT RADIO GALAXIES
NT RADIO JETS (ASTRONOMY)
NT RADIO STARS
Periodicities in pulsar microstructure 02 p0484 N93-11230
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992
[PB92-154913] 02 p0477 N93-11769
A high-resolution radio survey of the galactic plane 03 p0744 N93-13480
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386
Multifrequency observations of ROSAT selected radio sources 05 p1361 N93-17118
A new look at radio/x ray correlations 05 p1362 N93-17136
The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137
The goldstone real-time connected element interferometer 06 p1512 N93-19417
High resolution HI observations of HII regions. 3: Photodissociation regions and the magnetic field near Orion B
[MPE-PREPRINT-214] 07 p2098 N93-21951
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933
The dynamics of Abell 2634 10 p3193 N93-26836
Observations of stationary radio sources: Coronal polar plumes? 12 p3871 N93-31365

RADIO SPECTRA
NT MICROWAVE SPECTRA
Periodicities in pulsar microstructure 02 p0484 N93-11230
The emission-line properties of quasars 03 p0753 N93-13487
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
Spectra of radio-loud quasars observed in the ROSAT/XRT all sky survey 05 p1361 N93-17125
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
The correlation between water production rates and visual magnitudes in comets 06 p1709 N93-19181
Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Starburst ages in HII galaxies 10 p3183 N93-26777
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095

RADIO SPECTROSCOPY
Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611
Radio spectroscopy of comets: Recent results and future prospects 06 p1697 N93-19144

RADIO STARS
NT PULSARS
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars
[NASA-CR-193243] 11 p3635 N93-30053

RADIO TELEMETRY
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception 06 p1458 N93-18910
Micro-t telemetry system
[AD-D015542] 07 p1822 N93-20305
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681

RADIO TELESCOPES
NT VERY LARGE ARRAY (VLA)
Report of the Working Design Group 03 p0748 N93-13601
Experiences with large CFRP-radiotelescope reflectors 05 p1084 N93-15777
Radio astrometry from the Moon 05 p1363 N93-17452
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785

RADIO TRACKING
Test results of the advanced translator processing system 08 p2269 N93-23620
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers 11 p3642 N93-28777
Fix-tracking system
[AD-D015738] 12 p3718 N93-32210

RADIO TRANSMISSION
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT MICROWAVE ATTENUATION
NT MICROWAVE TRANSMISSION
NT MULTIPATH TRANSMISSION
NT SHORT WAVE RADIO TRANSMISSION
NT SINGLE SIDEBAND TRANSMISSION
NT SPREAD SPECTRUM TRANSMISSION
Meteor burst communications system trial, 1990-1991
[AD-A253625] 01 p0067 N93-10203
ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Short range propagation measurements at 2.4, 4.5, and 11.5 GHz in indoor and outdoor environments
[AD-A256563] 04 p0860 N93-14806
Coupling losses in multiple beam antennas
[AD-A257494] 06 p1500 N93-17903
Selected worldwide Marine weather broadcasts
[PB93-118164] 07 p2013 N93-21294
Source mechanisms and radio effects of ionospheric plasma
[AD-A259743] 08 p2395 N93-23480
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
A new passive SSL technique for HF radiolocation 08 p2267 N93-23609

Utilization of a reception network of the Losquet Island retrodiffusion probe in radiogoniometry
08 p2269 N93-23619
The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991
09 p2835 N93-25006
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
Proceedings of the 16th NASA Propagation Experimenters Meeting (NAPEX 16) and the Advanced Communications Technology Satellite (ACTS) Propagation Studies Miniworkshop
[NASA-CR-192800] 09 p2682 N93-26463
Opening remarks 09 p2682 N93-26464
The ACTS propagation program
09 p2683 N93-26465
A database for propagation models
09 p2684 N93-26472
ACTS propagation terminal update
09 p2685 N93-26484
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations
[NASA-TM-106172] 10 p2956 N93-27064
A comparison of trans-equatorial ionosphere propagation predictions from AMBCOM with measured data
[AD-A264006] 11 p3391 N93-29987
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
Introduction 11 p3395 N93-30728
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737
VLF/LF transmitting antennas
11 p3398 N93-30747
Study of a VLF distributed antenna array
11 p3398 N93-30749
Pattern measurements of US Navy ELF antennas
11 p3399 N93-30752
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines
11 p3399 N93-30755

RADIO TRANSMITTERS
NT IONOSONDES
NT RADIO BEACONS
NT RADIOSONDES
NT RADIOTELEPHONES
NT RAWINSONDES
NT SONOBUOYS
NT TRANSMITTER RECEIVERS
Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220
Micro-t telemetry system
[AD-D015542] 07 p1822 N93-20305
Propagation characteristics of the ionospheric transmission window relating to long wave radio location issues 08 p2265 N93-23600
Propagation effects on HF direction finding
08 p2265 N93-23602
The influence of propagation on high frequency radiogoniometry and single station location
08 p2266 N93-23607
A new passive SSL technique for HF radiolocation
08 p2267 N93-23609
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
Improvements in X-band transmitter phase stability through Klystron body temperature regulation
09 p2678 N93-26114
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas
10 p3011 N93-27728
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
Time delay measurements of current primary FAA air/ground transmitters and receivers
[DOT/FAA/CT-TN93/14] 11 p3379 N93-28555
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
A dynamic bandwidth and phase linearity measurement technique for 4-channel MSK VLF antenna systems
11 p3398 N93-30748
Study of a VLF distributed antenna array
11 p3398 N93-30749
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines
11 p3399 N93-30755

RADIO WAVES
NT CENTIMETER WAVES
NT DECAMETRIC WAVES
NT HYDROXYL EMISSION
NT LONG WAVE RADIATION
NT MICROWAVE EMISSION
NT MICROWAVES
NT MILLIMETER WAVES
NT RADIO EMISSION
NT SHORT WAVE RADIATION
NT SKY WAVES
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
NT SUBMILLIMETER WAVES
NT WHISTLERS
Satellite measurement of ionospheric-induced VHF distortion
[DE92-040328] 04 p0862 N93-15435
Reliability of numerical solutions of a diffusion equation modeling RF noise-induced dilution in particle beams
[DE92-040620] 05 p1296 N93-16022
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
Data compression for the Cassini radio and plasma wave instrument 08 p2432 N93-24555
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Proceedings of the 16th NASA Propagation Experimenters Meeting (NAPEX 16) and the Advanced Communications Technology Satellite (ACTS) Propagation Studies Miniworkshop
[NASA-CR-192800] 09 p2682 N93-26463
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
A computer simulation of the production of an artificially ionized layer using the Arecibo facility
[DE93-010817] 11 p3478 N93-30487
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737
Studies of the propagation of Low Frequency (LF) radio waves 11 p3396 N93-30738
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062

RADIOACTIVE AGE DETERMINATION
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17
06 p1738 N93-18808
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882

RADIOACTIVE CONTAMINANTS
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456
Rapid instrumental and separation methods for monitoring radionuclides in food and environmental samples
[DE93-608744] 12 p3820 N93-31813

RADIOACTIVE DATING
U RADIOACTIVE AGE DETERMINATION

RADIOACTIVE DECAY
NT ALPHA DECAY
NT NEUTRON EMISSION
High energy physics at Tufts University
[DE92-018081] 02 p0444 N93-11668
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Experimental investigations in particle physics at intermediate energies
[DE93-000406] 05 p1284 N93-16160
Theory working group: Summary of the results
[PREPRINT-803] 05 p1297 N93-16423
The decay pi neutral to gamma nu nu-bar as a probe of the tau neutrino magnetic moment
[PREPRINT-847] 05 p1288 N93-16959
Improved renormalization constants for B decay and BB-bar mixing
[PREPRINT-864] 05 p1288 N93-16964
CP violation in B(sub C) decays
[PREPRINT-871] 05 p1288 N93-16977
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016
CP-violation in K(sup +/-) to 3 pi decays and lattice QCD B-factors
[PREPRINT-848] 05 p1323 N93-17068
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
QCD on the light cone
[DE93-001822] 05 p1330 N93-17183
Meson spectroscopy and decay constants with Wilson fermions at beta = 6.4
[PREPRINT-823] 05 p1291 N93-17213
CP violation in the decays B(sup 0) yields (psi)K(sub s) and B(sup 0) yields (pi)(+)(pi)(-): A probe for new physics
[DE93-002413] 05 p1331 N93-17364
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1
[HU-SEFT-1991-09] 05 p1300 N93-17598
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176]
05 p1294 N93-17600
Measurement of the branching ratio for D(+) yields (bar-K)*(892)(sup 0)mu(+)nu
[DE93-002414] 05 p1295 N93-17624
Search for pp decay to neutral H decay to (neutral Z)(neutral Z) decay to (mu +)(mu -)(mu +)(mu -) at the LHC
[NOTA-INTERNA-970] 05 p1300 N93-17644
Muon rates at the LHC
[NOTA-INTERNA-971] 05 p1300 N93-17645
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
Heavy quarks in lattice QCD
[PREPRINT-786] 06 p1654 N93-18324
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
Nuclear structure studies
[DE93-002791] 06 p1654 N93-18402
Neutrino masses and solar neutrinos
[DE93-002416] 06 p1655 N93-18522
Experiments on the nuclear interactions of pions and electrons
[DE93-001800] 06 p1655 N93-18590
Inclusive beauty decays and the spectator model
[PREPRINT-790] 07 p2061 N93-20850
Semi-leptonic decays of D-mesons in lattice QCD
[PREPRINT-808] 07 p2062 N93-20905
Mixing and CP-violation in K and B-mesons: A lattice QCD point of view
[PREPRINT-910] 07 p2062 N93-20923
Direct searches for neutrino mass
[DE93-003867] 08 p2479 N93-22068
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
Meson form-factors and wave-functions with Wilson fermions
[DE93-003859] 08 p2479 N93-22542
Charm physics at Fermilab E791
[DE93-006020] 08 p2480 N93-22543
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Particle physics
[DE93-006894] 08 p2482 N93-22992
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence
[DE93-005457] 08 p2482 N93-23244
Topics in CP violation
[DE93-007615] 09 p2847 N93-25323
Studies in medium energy physics
[DE93-007305] 10 p3131 N93-27048
B(sub c) decays
[SSCL-PREPRINT-774] 10 p3132 N93-27638

A lattice computation of the decay constant of the B-meson
[SSCL-PREPRINT-747] 10 p3135 N93-28198
First calculation of D(+) approaches (K bar)(*0)e(+)nu(sub e) in lattice QCD
[SSCL-PREPRINT-748] 10 p3135 N93-28208
Hadron structure on the lattice
[SSCL-PREPRINT-754] 10 p3157 N93-28211
Selected problems in experimental intermediate energy physics
[DE93-007300] 10 p3137 N93-28356
Medium energy measurements on N-N parameters
[DE93-007304] 10 p3137 N93-28358
Leading non-logarithmic contribution to the electropenguin diagram and phenomenology of kaon decays
[SSCL-PREPRINT-745] 10 p3137 N93-28388
Experimental challenges at future hadron colliders (lectures for the 1992 Saint Croix Summer School)
[DE93-008613] 10 p3140 N93-28429
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Limits on neutrino radiative decay from SN1987A
[NASA-CR-193262] 11 p3653 N93-29164
Cosmogenic radionuclides on LDEF: An unexpected Be-10 result 11 p3573 N93-29643
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Study of heavy-flavored particles
[DE93-011535] 11 p3569 N93-30128
Partial cross sections in H(-) photodetachment
[DE93-011570] 11 p3569 N93-30130
HELAS: HELicity amplitude subroutines for Feynman diagram evaluations
[DE93-715538] 12 p3813 N93-31166
On the quantitative interpretation of uranium series disequilibria
[VTT-TIED-1404] 12 p3821 N93-31863

RADIOACTIVE ELEMENTS
U RADIOACTIVE ISOTOPES

RADIOACTIVE ISOTOPES
NT AMERICIUM 241
NT BERYLLIUM 10
NT CALIFORNIUM ISOTOPES
NT CARBON 14
NT CESIUM 137
NT COBALT 60
NT FERMIUM
NT KRYPTON 85
NT NEPTUNIUM ISOTOPES
NT PLUTONIUM
NT PLUTONIUM 239
NT POLONIUM 210
NT TRANSURANIUM ELEMENTS
NT TRITIUM
NT XENON 133
NT XENON 135

The ORNL radioactive ion beam project with the ORIC accelerator
[DE92-040027] 03 p0708 N93-13574
Gamma-ray imaging observations of Supernova 1987A 04 p1012 N93-14628
Alpha migration through air filters: A numerical simulation
[UCRL-LR-109866] 04 p0878 N93-15285
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Stable isotope enrichment: Current and future potential
[DE92-041258] 05 p1326 N93-17368
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
Isotopic ages and characteristics of ancient (pre-Serenitatis) crustal rocks at Apollo 17 06 p1738 N93-18808
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Cosmic ray composition investigations using ICE/ISEE-3
[NASA-CR-192808] 09 p2900 N93-25241
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Status of the Soviet-American gallium experiment
[DE93-009067] 10 p3218 N93-28157
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Research programs from the University of South Carolina on high energy physics
[DE93-007829] 11 p3574 N93-28969
Radioactivities induced in some LDEF samples 11 p3572 N93-29628
A photon phreak digs the LDEF happening 11 p3572 N93-29629
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
Induced activation study of LDEF 11 p3572 N93-29632
Rapid instrumental and separation methods for monitoring radionuclides in food and environmental samples
[DE93-608744] 12 p3820 N93-31813
On the quantitative interpretation of uranium series disequilibria
[VTT-TIED-1404] 12 p3821 N93-31863

RADIOACTIVE MATERIALS
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 08 p2137 N93-22237
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus 09 p2741 N93-24793
Micro-organisms, cytotoxins and radioactive preparation: Risks at rescue operations in hospital environment
[FOA-A-40065-4.5] 12 p3772 N93-32423

RADIOACTIVE NUCLIDES
U RADIOACTIVE ISOTOPES

RADIOACTIVE WASTES
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
Trip report: Marshall Space Center computed tomography
[DE92-018139] 02 p0437 N93-11597
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Technical data management at the Yucca Mountain Site Characterization Project
[DE92-018115] 04 p1008 N93-15229
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
Non-conventional measurement techniques for the determination of some long-lived radionuclides produced ion nuclear fuel: Literature survey
[VTT-TIED-1357] 06 p1660 N93-18654
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495
Survey of fiber-optic sensor for remote sensing in radiologically and chemically harsh environments
[DE93-004998] 10 p3062 N93-26624
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Status and integration of the gas generation studies performed for the hydrogen safety program
[DE93-008518] 10 p2994 N93-27105
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059
Technical bases for precipitate hydrolysis process operating parameters, revision 1
[DE93-009694] 11 p3309 N93-28553
Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
The quality assurance liaison: Combined technical and quality assurance support
[DE93-008725] 11 p3450 N93-30636
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829

RADIOACTIVITY
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Gamma ray astronomy
[NASA-CR-184447] 02 p0483 N93-12348
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Phenomenological correlations in nuclear structure: An opportunity for nuclear astrophysics and a challenge to theory
[DE93-003470] 07 p2098 N93-21775
Advanced design for a seafloor Gamma Measurement Data Collection System
[PB93-105013] 07 p2020 N93-21793
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Status of LDEF ionizing radiation measurements and analysis 11 p3654 N93-29626
Collection, analysis, and archival of LDEF activation data 11 p3624 N93-29631
Induced activation study of LDEF 11 p3572 N93-29632
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810
Integration of measurements with atmospheric dispersion models: Source term estimation for dispersal of (239)Pu due to non-nuclear detonation of high explosive
[DE93-012550] 12 p3766 N93-32295

RADIOBIOLOGY
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Katz model prediction of Caenorhabditis elegans mutagenesis on STS-42
[NASA-TM-4383] 03 p0674 N93-13023

AFRRI Reports --- Radiobiology
[AD-A257231] 05 p1221 N93-15965
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
On the biological effects of cosmic rays: Epidemiological study
[NOTA-INTERNA-979] 05 p1400 N93-17596
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381
AFRRI research, fiscal year 1991
[AD-A260933] 09 p2911 N93-25710
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730
The Thirteenth AINSE Radiation Biology Conference: Conference handbook
[DE93-609131] 12 p3773 N93-31225

RADIOCHEMISTRY
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Proposed Lower Limits of Detection (LLD), Decision Limits (LC), and error terms for identified analytes from the inorganic, isotopic, bioassay, and organic groups
[DE93-002942] 06 p1484 N93-19752
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Status of the Soviet-American gallium experiment
[DE93-009067] 10 p3218 N93-28157
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198

RADIOGENIC MATERIALS
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts 06 p1739 N93-18812
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405

RADIOGONIOMETERS
The influence of propagation on high frequency radiogoniometry and single station location 08 p2266 N93-23607
Utilization of a reception network of the Losquet Island retrodiffusion probe in radiogoniometry 08 p2269 N93-23619

RADIOGRAPHY
NT ANGIOGRAPHY
NT AUTORADIOGRAPHY
NT COMPUTER AIDED TOMOGRAPHY
NT NEUTRON RADIOGRAPHY
NT TOMOGRAPHY
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Review of progress in quantitative NDE
[DE92-018814] 03 p0620 N93-13071
High speed imaging for flash radiography using PIN diodes
[DE92-040959] 04 p0882 N93-15381
High speed cineradiography using electronic imaging
[DE92-040366] 05 p1166 N93-15662
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878
Three-dimensional x ray imaging for the detection of contraband 07 p1768 N93-21882
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction
[DE93-006796] 08 p2243 N93-24461
Analysis of shaped charge jet penetration experiments with Pen
[UCRL-LR-110773] 09 p2730 N93-26177
Flash x ray system: Techniques and applications
[DE93-011477] 11 p3430 N93-28645

RADIOIMMUNOASSAY
Phadiatop: A screening test for inhalant allergy 02 p0383 N93-11313

RADIOISOTOPE BATTERIES
Milliwatt Generator Project
[DE92-015348] 02 p0294 N93-12156
Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015
Design of a pressurized lunar rover
[NASA-CR-192033] 06 p1545 N93-18016
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596

RADIOLOGY
Quality assurance practices for data entry and electronic data transfer
[DE92-014804] 01 p0172 N93-10396
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Automated system for early breast cancer detection in mammograms 09 p2796 N93-25568
Annual report of the National Institute of Radiological Sciences
[DE93-704237] 12 p3820 N93-31810

RADIOLYSIS
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694

RADIOMETERS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
NT INFRARED DETECTORS
NT INFRARED RADIOMETERS
NT INFRARED SCANNERS
NT MICROWAVE RADIOMETERS
NT SPECTRORADIOMETERS
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655
EURECA
[ESA-F-26] 03 p0522 N93-12964
Radiometric calibration of SAR systems 03 p0564 N93-13055
Space-qualified submillimeter radiometer
[NASA-CR-190886] 03 p0603 N93-13709
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Output data formatter for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4432] 04 p0871 N93-15529
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
Determination of the dissipative loss of a two-port network from noise temperature measurements 06 p1505 N93-18904
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045
Experimental investigations of undulator radiation compatability
[ETN-93-92566] 07 p2066 N93-20880
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR 08 p2337 N93-22141
MOS-1 08 p2340 N93-22442
A bolometric radiometer for investigations in cosmology 08 p2303 N93-22684
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304
Automatic feature extraction and localization using data fusion of radar and infrared images 08 p2270 N93-23628
Earth's mysterious atmosphere. ATLAS 1: Teachers guide with activities
[NASA-EP-282] 08 p2396 N93-23733
Method for enhancing of the spatial resolution of the passive radiometric systems 08 p2365 N93-23799
Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Commercial applications multispectral sensor system 09 p2758 N93-25615
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder 09 p2773 N93-25739
DSS-13 26-meter antenna upgraded radiometer system 09 p2679 N93-26122
Opening remarks 09 p2682 N93-26464
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
All-solid-state radiometers for environmental studies to 700 GHz 10 p3020 N93-27784
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Physics laboratory technical activities, 1992
[PB93-178648] 11 p3561 N93-30888

RADIOMETRIC CORRECTION
Method for enhancing of the spatial resolution of the passive radiometric systems 08 p2365 N93-23799
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis 08 p2158 N93-24361
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321

RADIOMETRIC RECTIFICATION
U RADIOMETRIC CORRECTION

RADIOMETRIC RESOLUTION
Basic principles of SAR 03 p0563 N93-13050
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842

RADIONUCLIDES
U RADIOACTIVE ISOTOPES

RADIOSENSITIVITY
U RADIATION TOLERANCE

RADIOSONDES
NT IONOSONDES
NT RAWINSONDES
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Proposal for a coordination between EISCAT and INTERBALL 06 p1726 N93-19544
Global temperature variations 07 p2003 N93-20068
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832

RADIOTELEPHONES
Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642

RADIOTHERAPY
U RADIATION THERAPY

RADIUS
U RADII

RADOME MATERIALS
Fiber-reinforced monoclinic celsian matrix composite material
[NASA-CASE-LEW-15269-1] 07 p1831 N93-20040

RADOMES
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418

Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232

RADON
NT RADON ISOTOPES
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470

RADON ISOTOPES
Radon as a tracer for lunar volatiles
05 p1388 N93-17248
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470

RAFTS
NT LIFE RAFTS

RAIL TRANSPORTATION
Vehicle/guideway interaction in maglev systems
[DE92-019051] 02 p0326 N93-11653
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
Fatigue life assessment of service damaged and corroded members of structural steel
07 p1949 N93-21331
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715
Comparison of major parameters in electrodynamic and electromagnetic levitation transport systems
[PB93-154755] 10 p3051 N93-27412
Aerodynamic forces on maglev vehicles
[PB93-154813] 10 p2930 N93-27413
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Determination of low frequency reference slipping for high frequency unstationary motion processes
[ILR-MITT-273(1992)] 11 p3455 N93-31017
LNG as a fuel for railroads: Assessment of technology status and economics
[PB93-188787] 12 p3713 N93-31434
Overview of Fuzzy Logic 12 p3688 N93-31445
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800

RAILGUN ACCELERATORS
Measurement of acceleration using an instrumented railgun projectile
[AD-A253366] 01 p0012 N93-10106
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Electromagnetic launcher control using finite state machines
[AD-A254433] 02 p0222 N93-12161
Railgun armature velocity improvement, SBIR phase 2
[AD-A254749] 02 p0222 N93-12505
Data acquisition applications for long duration electromagnetic launcher experiments
[AD-A254546] 03 p0519 N93-12611
Validation of the flux loop diagnostic for the measurement of launch package motion during electromagnetic launch
[AD-A256547] 04 p0814 N93-14266
The railplug: Development of a new ignitor for internal combustion engines
[DE93-003068] 05 p1176 N93-16178
Application of railgun principle to high-velocity hydrogen pellet injection for magnetic fusion reactor fueling
[DE93-004563] 06 p1456 N93-19496
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
A multiple armature railgun launcher
[AD-A259768] 08 p2171 N93-23486
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
A survey of codes for modeling electromagnetic launch
[AD-A264946] 12 p3687 N93-32074

RAILROADS
U RAIL TRANSPORTATION

RAIN
NT ACID RAIN
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
Spatial resolution enhancement of SSM/I microwave brightness temperatures and its impact on rainfall retrieval algorithms
[AD-A254382] 03 p0661 N93-12861
NOAA Workshop on Climate Scale Operational Precipitation and Water Vapor Products
[NOAA-TR-NESDIS-62] 03 p0662 N93-13066
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall
03 p0663 N93-13489
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US
03 p0664 N93-13631
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics
04 p0918 N93-14115
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
Modern methods in meteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida
05 p1219 N93-17285
A plan for accurate estimation of daily area-mean rainfall during the CaPE experiment 05 p1219 N93-17292
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
Global rainfall monitoring by SSM/I
07 p2003 N93-20069
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water
07 p2005 N93-20082
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
The vertical profile of reflectivity and errors in radar estimates of rainfall 08 p2406 N93-23350
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia
08 p2407 N93-23721
Dynamic and thermodynamic characteristics of a pre-frontal convective rainband in northern Taiwan determined form Tamex data 08 p2409 N93-24162
Climatology of station storm rainfall in the continental United States: Parameters of the Bartlett-Lewis and Poisson rectangular pulses models
[NASA-CR-192968] 08 p2411 N93-24523
Equatorial atmospheric weather regimes: Their structure and role 08 p2411 N93-24580
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
Satellite communications application to Pacific countries above Ku band 09 p2683 N93-26471
Rain compensation algorithm using adaptive linear prediction 09 p2685 N93-26485
More rain compensation results
09 p2686 N93-26486
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448

RAIN FORESTS
An ion budget for a terra firme rainforest in Central Amazonia
[INPE-5365-PRE/1745] 03 p0632 N93-13005
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 2: Greenhouse gas emissions from deforestration in the Brazilian Amazon
[DE93-001526] 05 p1200 N93-16092
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737
Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Variational iterative method for the calculation of heat flux and mean energy balance
[INPE-5236-RPQ/648] 06 p1583 N93-19824
A strategy for monitoring the tropical forest with ERS-1 SAR imagery 08 p2358 N93-23758
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment
08 p2367 N93-23812
World Forest Watch: A global forest monitoring test
09 p2748 N93-24836
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
Advanced Earth Observing Satellite (ADEOS)
11 p3279 N93-29648

RAIN GAGES
Method and apparatus for acoustically measuring rainfall
[AD-D015450] 05 p1213 N93-16457
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156
Rain rate and modeled fade distributions at 20 GHz and 30 GHz derived from five years of network rain gauge measurements 09 p2683 N93-26468
A comparative assessment of R. M. Young and tipping bucket rain gauges 09 p2685 N93-26483

RAINDROPS
A laboratory investigation of raindrop oscillations
03 p0666 N93-13790
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156

RAINSTORMS
NT THUNDERSTORMS
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US
03 p0664 N93-13631
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872

RAMAN EFFECT
U RAMAN SPECTRA

RAMAN LASERS
Research on stimulated Raman scattering with applications to atmospheric lidar
02 p0322 N93-12163
Nonlinear dynamics of optical systems
04 p0979 N93-14124

RAMAN SCATTERING
U RAMAN SPECTRA

RAMAN SPECTRA
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering
02 p0318 N93-12025
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Research on stimulated Raman scattering with applications to atmospheric lidar
02 p0322 N93-12163
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Quantum fluctuations in stimulated Raman scattering
04 p0857 N93-14126
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
High-energy laser-particle interaction
06 p1543 N93-18469
Ion produced cometary organic crust
06 p1701 N93-19122
EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581
Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering
[AD-D015579] 07 p1910 N93-20770
Comparison of the efficiencies of lidar techniques for atmospheric-temperature measurement based on rotational Raman, and Rayleigh scattering
07 p1960 N93-21614
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Apparatus for imaging an object in or through a scattering medium using coherent anti-Stokes Raman scattering
[AD-D015642] 09 p2852 N93-25358
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor
[ONERA-P-1990-3] 11 p3313 N93-30109
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Measurement of the rotation Raman spectra of nitrogen, oxygen, and water vapor under conditions of a temperature humidity lidar
[GKSS-92/E/32] 11 p3485 N93-31018

RAMAN SPECTROSCOPY
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
On-line analysis of chemical composition using an FT-Raman spectrometer in the near-IR
[DE92-016503] 02 p0253 N93-12311
Remote fiber optic sensor for gaseous and liquid environments, phase 2
[AD-A256224] 04 p0983 N93-15241
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930
Inverse Raman spectroscopy measurements of line-shift coefficients in hydrogen perturbed by argon
[DE93-003906] 07 p1852 N93-21840
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Visible light emission from porous silicon examined by photoluminescence and Raman spectroscopy
[DE93-006780] 09 p2646 N93-26502
Spectroscopic effects of disorder and vibrational localization in mixed-halide metal-halide chain solids
[DE93-007361] 09 p2646 N93-26505
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods
[AD-A263728] 11 p3411 N93-29986
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Vibrational spectroscopy of shock-compressed fluids
11 p3318 N93-30072
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307

RAMJET ENGINES
NT INTEGRAL ROCKET RAMJETS
NT PULSEJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT TURBORAMJET ENGINES
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Aerodynamic studies of supersonic air intakes
03 p0497 N93-13222
Active control of combustion instability in a ramjet using large-eddy simulations
[AD-A255226] 04 p0798 N93-14111
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Airbreathing Propulsion for Missiles and Projectiles
[AGARD-CP-526] 05 p1092 N93-17607
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Experimental analysis of combustion oscillations with reference to ramjet propulsion 05 p1093 N93-17614
Ramjet propulsion for advanced projectiles
05 p1067 N93-17615
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1089 N93-17617
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
What is the progress in propulsion?
06 p1404 N93-19006
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Regression rate mechanism in a solid fuel ramjet
10 p2922 N93-27185
Flight mechanical model for performance calculations and interactions between flight vehicle and ramjet in regard to the flight orbit
[ESA-TT-1267] 11 p3248 N93-29464

RAMJET MISSILES
Potential missile flight performance gains from improvements to the propulsion system
05 p1092 N93-17609

RAMPS
Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475

RANDOM ACCESS
Considerations for space and naval aviation applications of ferroelectric memory
[AD-A261300] 09 p2807 N93-26294
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Comparison of two random access techniques for the North American MSAT system 11 p3370 N93-30315

RANDOM ACCESS MEMORY
NT CORE STORAGE
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087
High speed magneto-resistive random access memory
[NASA-CASE-NPO-17954-1-CU]
04 p0940 N93-14704
Research on single event resistance evaluation technology: Research by heavy ion irradiation
07 p1801 N93-20483
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU]
08 p2432 N93-22032
Rutger's CAM2000 chip architecture
[NASA-CR-193078] 10 p3151 N93-27094
A single-transistor memory cell and sense amplifier for a gallium arsenide dynamic random access memory
[AD-A261975] 10 p3153 N93-27953
Generation of configurable self-synchronizing synchronous CMOS static RAMs
11 p3361 N93-30259

RANDOM DISTRIBUTIONS
U STATISTICAL DISTRIBUTIONS

RANDOM ERRORS
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
Tolerance theory of phased array antennas: A statistical approach 11 p3369 N93-30307
The characterization of materials using x ray diffraction 11 p3293 N93-30968

RANDOM LOADS
NT GUST LOADS
Evolutionary spectra of time-dependent discretized systems to time-frequency modulated random excitations 01 p0055 N93-10524
Prediction of the random load fatigue life distribution
07 p1922 N93-20337
Probabilistic chain fatigue model
07 p1922 N93-20338

RANDOM NOISE
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
Modeling and estimation of reciprocal diffusion and Gauss-Markov random fields
[AD-A255034] 03 p0698 N93-12709
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334

Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
Nonlinearization of nonlinear systems under external and parametric random excitations 07 p1945 N93-20730
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
New results in signal design for the AWGN channel
[AD-A261424] 09 p2682 N93-26451
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Statistical techniques for signal processing
[AD-A262731] 10 p3126 N93-28400
Theory and applications of random fields
[AD-A262829] 11 p3555 N93-29454
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879

RANDOM PROCESSES
NT RANDOM WALK
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Evolutionary spectra of time-dependent discretized systems to time-frequency modulated random excitations 01 p0055 N93-10524
Sojourns, extremes, and self-intersections of stochastic processes
[AD-A257251] 05 p1274 N93-15820
Chaotic dynamics in the Maxwell-Bloch equations
[DE93-000854] 05 p1278 N93-15898
Digital simulation and discrete modelling of a chaotic system
[RR-447] 05 p1279 N93-16561
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
Statistical error in a chord estimator of correlation dimension: The rule of five
[DE93-000687] 05 p1276 N93-17195
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
A randomised schema mutator for evolutionary database optimisation
[TR-91-24] 05 p1356 N93-17595
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Derivatives of likelihood ratios and smoothed perturbation analysis for the routing problem
[INRIA-RR-1495] 06 p1647 N93-18653
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
Ultrametricity in an inhomogeneous simplest spin glass model
[PREPRINT-819] 07 p2055 N93-21181
Simulation method for stationary Gaussian random functions based on the sampling theorem
[PB93-127496] 07 p2059 N93-21818
PROMISS user manual, appendix 1
[NASA-CR-192990] 08 p2333 N93-24530
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 4
[NASA-CR-192834] 09 p2769 N93-24910
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
Properties of readings of periodically correlated random processes
[AD-A261225] 09 p2686 N93-26573
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Subset selection: Robustness and imprecise selection
[MEMO-COSOR-92-10] 10 p3124 N93-27279
The compensation approach applied to a 2 by 2 switch
[MEMO-COSOR-92-28] 10 p3115 N93-27397
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
Finite interpolation of random fields
[CWI-BS-R9210] 10 p3126 N93-28087
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics
[SSCL-PREPRINT-725] 10 p3126 N93-28098
On Radon-Nikodym derivatives of finitely additive measures induced by nonlinear transformations on Hilbert space
[MEMO-1063] 10 p3129 N93-28147
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431
Theory and applications of random fields
[AD-A262829] 11 p3555 N93-29454

RANDOM SAMPLING
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Optimal sampling plans for items representing two population groups
[AD-A259429] 07 p2057 N93-20009
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845

RANDOM VARIABLES
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy 03 p0518 N93-13768
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
Random quadratic forms and the bootstrap for U-statistics
[W-9207] 05 p1275 N93-16356
An introduction to the statistical analysis of engineering data
[ESDU-92040] 06 p1648 N93-17950
Stochastic orderings on partial sums of random variables and on counting measures of random intervals
[INRIA-RR-1422] 07 p2052 N93-20860
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Stochastic scheduling with variable profile and precedence constraints
[INRIA-RR-1525] 07 p2059 N93-21396
Transformations of gaussian random fields and a test for independence of a survival time from a covariate
[AD-A260442] 08 p2472 N93-24114
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Some limit theorems in log density
[W-9108] 10 p3126 N93-28120
On Radon-Nikodym derivatives of finitely additive measures induced by nonlinear transformations on Hilbert space
[MEMO-1063] 10 p3129 N93-28147
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431
Theory and applications of random fields
[AD-A262829] 11 p3555 N93-29454
Efficient estimation of the mean for interval censoring, case 2
[REPT-92-83] 12 p3811 N93-31491
Estimation of density functionals
[REPT-92-98] 12 p3807 N93-31655

RANDOM VIBRATION
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
A new non-Gausssian approximation technique for random vibration of general hysteresis 01 p0050 N93-10496
An environmental testing facility for Space Station Freedom power management and distribution hardware 04 p0820 N93-15601
A study of the Lute Metering Structure 05 p1189 N93-17294
High-voltage failure mechanisms in liquid-filled, Fluorinert FC-40, capacitors
[DE93-006286] 08 p2282 N93-23677
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189

RANDOM WALK
Change analysis
[AD-A253567] 01 p0146 N93-10795
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
Wait-free consensus
[AD-A255978] 04 p0943 N93-14423
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
Tidally averaged models for dispersion in shallow water
[REPT-92-66] 12 p3769 N93-31497
Random walks and a simple chirally invariant lattice Hamiltonian without fermion doubling
[DE93-609920] 12 p3821 N93-31913

RANGE
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation
[NASA-CR-192619] 07 p1892 N93-20910

RANGE (EXTREMES)
NT DYNAMIC RANGE
NT FREQUENCY RANGES
Optimal dynamic range integrated continuous-time filters
[ISBN-90-6275-755-3] 05 p1150 N93-17395
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
Wavelet local extrema applied to image processing
[AD-A262362] 10 p3118 N93-27691

RANGE AND RANGE RATE TRACKING
Application of high-precision two-way ranging to Galileo Earth-1 encounter navigation 06 p1454 N93-19415
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983

RANGE CONTROL
U TRAJECTORY CONTROL

RANGE ERRORS
Nonlinear modeling of gated range tracker dynamics with application to radar range resolution, phase 1
[AD-A256074] 04 p0858 N93-14259

RANGE FINDERS
NT LASER RANGE FINDERS
NT OPTICAL RANGE FINDERS
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Uncertainty in object pose determination with three light-stripe range measurements
[AD-A261435] 09 p2857 N93-26488

RANGE INDICATORS
U RANGE FINDERS

RANGE MEASUREMENT
U RANGEFINDING

RANGE RESOURCES
Estimating test range capacity
[AD-A262493] 11 p3270 N93-28938

RANGE SAFETY
Booster rocket range safety system
[AD-D015363] 02 p0221 N93-11428
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node
[NASA-TM-104566-VOL-2] 11 p3486 N93-28497

RANGEFINDING
NT LUNAR RANGEFINDING
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Positioning of the Tromso Station (Norway) by satellite laser ranging; campaign 1990 data acquisition and analysis
[LR-668] 05 p1058 N93-16209
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario 06 p1454 N93-18899
Application of high-precision two-way ranging to Galileo Earth-1 encounter navigation 06 p1454 N93-19415
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy 06 p1512 N93-19418
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410

Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
Radar seeker based autonomous navigation update system using topography feature matching techniques 08 p2256 N93-22030
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
Discrete range clustering using Monte Carlo methods [NASA-TM-104004] 09 p2584 N93-24914
The advances in F and T technology: Their benefits of and for space science and technology 09 p2831 N93-24979
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites 09 p2686 N93-24999
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
Image-based ranging and guidance for rotorcraft [NASA-CR-177608] 09 p2586 N93-26549
Neural networks application to divergence-based passive ranging [NASA-TM-103981] 11 p3245 N93-29653
Wind measurement accuracy of a loran radiosonde [AD-A263572] 11 p3483 N93-29832
A single band processor for the computation of range from optical absorbance 11 p3363 N93-30272
Expansion-based passive ranging [NASA-TM-104025] 12 p3678 N93-32348

RANGELANDS
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation [NASA-CR-191886] 05 p1190 N93-16382
Contribution of remote sensing and GIS for rangeland management in the region of Ouarzazate (Morocco) 08 p2367 N93-23814
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854

RANGES (FACILITIES)
NT BALLISTIC RANGES
NT MISSILE RANGES
NT TEST RANGES

RANGING
U RANGEFINDING

RANKINE CYCLE
Compound cycle engine for helicopter application [NASA-CR-180824] 01 p0009 N93-10348
A gas-cooled cermet reactor system for planetary base power [DE92-018017] 02 p0443 N93-11433
Thermal control systems for low-temperature heat rejection on a lunar base [NASA-CR-191286] 03 p0679 N93-13717
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985

RANKINE-HUGONIOT RELATION
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Nonlinear stability of viscous shock waves [TRITA-NA-9205] 11 p3419 N93-29025

RANKING
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016

RAPCON (CONTROL)
U RADAR APPROACH CONTROL

RAPID QUENCHING (METALLURGY)
Measurements of crystal growth kinetics at extreme deviations from equilibrium [DE92-019744] 03 p0720 N93-12827
FNAS modify matric and transparent experiments [NASA-CR-184442] 03 p0531 N93-13311
Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics [DE92-040233] 04 p0852 N93-15320
Microstructural control of complex alloys 06 p1490 N93-18485
Excimer laser surface modification: Process and properties [DE93-003726] 08 p2306 N93-22044
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta) [DE93-004445] 08 p2503 N93-22726
Microstructure of rapidly-solidified lithium powders [DE93-004765] 08 p2229 N93-22880
A study into the effects of electric fields and currents on the aging and quench hardening of steels [AD-A260228] 08 p2233 N93-24098
Solidification processing and phase transformations in ordered high temperature alloys [AD-A261751] 09 p2652 N93-26284
Precipitation phenomena in aluminium-based metal matrix composites: Effects of reinforcement on kinetics and misfit accommodation [ETN-93-93604] 10 p2999 N93-27877

RAPID SOLIDIFICATION
U RAPID QUENCHING (METALLURGY)
U SOLIDIFICATION

RAPID TRANSIT SYSTEMS
Vehicle/guideway interaction in maglev systems [DE92-019051] 02 p0326 N93-11653
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom) [ETN-92-92774] 05 p1359 N93-16577
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000 [NASA-CR-192023] 06 p1436 N93-18049
HSCT mission analysis of waverider designs [NASA-CR-192193] 07 p1783 N93-21646
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis [PB92-224666] 07 p1916 N93-21715
High speed ground transportation study: Executive summary [PB93-141091] 08 p2532 N93-22903
Comparison of major parameters in electrodynamic and electromagnetic levitation transport systems [PB93-154755] 10 p3051 N93-27412
Aerodynamic forces on maglev vehicles [PB93-154813] 10 p2930 N93-27413
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1 [PB93-169902] 11 p3447 N93-30820

RARE EARTH ALLOYS
Optimization of film synthesized rare earth transition metal permanent magnet systems [DE92-018726] 02 p0432 N93-12116
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds [DE92-040377] 04 p0998 N93-14905

RARE EARTH COMPOUNDS
NT CERIUM OXIDES
NT DYSPROSIUM COMPOUNDS
NT EUROPIUM COMPOUNDS
NT LUTETIUM COMPOUNDS
NT NEODYMIUM COMPOUNDS
NT PRASEODYMIUM COMPOUNDS
NT SCANDIUM COMPOUNDS
NT TERBIUM COMPOUNDS
Oxygen barrier oxides [AD-A253683] 01 p0036 N93-10343
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x) [DE92-016302] 02 p0462 N93-11706
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees [AD-D015422] 04 p0850 N93-14743
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses [DE93-002133] 05 p1324 N93-17079
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides [AD-A259136] 07 p1847 N93-20595
High temperature rare earth and Si-Ge thermoelectric materials [DE93-006913] 08 p2513 N93-24462

RARE EARTH ELEMENTS
NT CERIUM
NT DYSPROSIUM
NT ERBIUM
NT ERBIUM ISOTOPES
NT GADOLINIUM
NT HOLMIUM
NT HOLMIUM ISOTOPES
NT LANTHANUM ISOTOPES
NT NEODYMIUM
NT NEODYMIUM ISOTOPES
NT SAMARIUM
NT SCANDIUM ISOTOPES
NT THULIUM ISOTOPES
NT YTTERBIUM ISOTOPES
NT YTTRIUM
Electronic structure of highly correlated structures [DE92-017017] 01 p0155 N93-10863
Calculation of binary phase diagrams between the actinide elements, rare earth elements, and transition metal elements [DE92-019119] 02 p0249 N93-11801
The crystal structures of oxygen deficient rare earth oxides [DE92-040331] 05 p1317 N93-16179
Atomic and electronic structure of metals and alloys: Clean surfaces and chemisorbed molecules [DE93-004371] 06 p1487 N93-18452
Energy levels and predicted absorption spectra of rare-earth ions in rare-earth arsenides [AD-A259136] 07 p1847 N93-20595
Low-spin identical bands in neighboring odd-A and even-even nuclei [DE93-008569] 10 p3132 N93-27486

RARE GAS-HALIDE LASERS
NT KRYPTON FLUORIDE LASERS
NT XENON CHLORIDE LASERS
NT XENON FLUORIDE LASERS
Pulsed laser deposition of amorphous diamond-like carbon films with ArF (193 nm) excimer laser [AD-A257551] 06 p1491 N93-17966
Electron-beam-pumped recombination lasers 09 p2712 N93-25344

RARE GASES
NT ARGON
NT ARGON ISOTOPES
NT HELIUM
NT HELIUM ISOTOPES
NT KRYPTON
NT KRYPTON ISOTOPES
NT KRYPTON 85
NT LIQUID HELIUM
NT LIQUID HELIUM 2
NT NEON
NT RADON
NT RADON ISOTOPES
NT XENON
NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135
Theoretical analysis of discharges in copper vapor lasers: A comparison of Ne and He [DE92-014739] 01 p0087 N93-10083
VUV and UV sources and spectroscopic applications [AD-A247293] 02 p0291 N93-11758
Inert gas electric heater for elevated temperature testing of small propulsion components [DE92-017434] 02 p0221 N93-12317
Energetics and dynamics of excess electrons in simple fluids 03 p0704 N93-13369
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
The physics of spin polarized gases [AD-A261396] 09 p2850 N93-26288
FALCON nuclear-reactor-pumped laser program and wireless power transmission [DE93-007607] 09 p2715 N93-26597
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380

RAREFACTION WAVES
U ELASTIC WAVES

RAREFIED GAS DYNAMICS
investigations of the motion of discrete-velocity gases [AD-A253728] 01 p0084 N93-10895
Using NEKTON to solve systems of discrete Boltzmann equations [DE92-018272] 02 p0303 N93-11799
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow 03 p0495 N93-13746
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
Hypersonic rarefied wake characterization [NASA-TP-3327] 06 p1529 N93-18604
Rarefied gas numerical wind tunnel. Part 7: OREX 06 p1410 N93-19280
Rarefied-flow Shuttle aerodynamics model [NASA-TM-107698] 07 p1759 N93-19976
SUMS experiment flight results on STS-35 [NASA-TM-107738] 08 p2201 N93-23407
The theory behind the SOCRATES code [AD-A259987] 08 p2196 N93-24298
Hypersonic panel flutter in a rarefied atmosphere [NASA-CR-4514] 10 p2929 N93-27084
Heat transfer measurements using infra-red thermography in rarefied flows [RAE-TM-W-1] 12 p3724 N93-31336

RAREFIED GASES
NT COSMIC GASES
NT INTERPLANETARY GAS
NT INTERSTELLAR GAS

Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
Atmospheric transmission of polar meteorites
[ESA-TT-1283] 08 p2547 N93-23206

RASERS
U MASERS

RASTER SCANNING
Arc digital raster imagery evaluation
[AD-A255403] 04 p0817 N93-14565
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement 07 p1967 N93-20532
ATKIS: The introduction phase at IfAG 07 p1967 N93-20533
The economic use of PC for cartographic distributed tasks 07 p1967 N93-20534
The promise of raster data processing in digital terrain modelling 08 p2358 N93-23585
An architecture for interactive raster graphics
[CWI-CS-R9229] 10 p3102 N93-28102

RATE METERS
U MEASURING INSTRUMENTS

RATES (PER TIME)
NT ACCELERATION (PHYSICS)
NT ACOUSTIC VELOCITY
NT AIRSPEED
NT ANGULAR ACCELERATION
NT ANGULAR VELOCITY
NT ARRHYTHMIA
NT BIT ERROR RATE
NT BURNING RATE
NT COLLISION PARAMETERS
NT COLLISION RATES
NT CURRENT DENSITY
NT DECAY RATES
NT DECELERATION
NT DRIFT RATE
NT ELECTRON ACCELERATION
NT ELECTRON FLUX DENSITY
NT ESCAPE VELOCITY
NT EVAPORATION RATE
NT EXHAUST VELOCITY
NT FLOW VELOCITY
NT FLUX (RATE)
NT FLUX DENSITY
NT GROUND SPEED
NT GROUP VELOCITY
NT HEART RATE
NT HEAT FLUX
NT HIGH ACCELERATION
NT HIGH SPEED
NT HYPERSONIC SPEED
NT IMPACT ACCELERATION
NT ION PRODUCTION RATES
NT IRRADIANCE
NT LANDING SPEED
NT LOADING RATE
NT LOW SPEED
NT LUMINANCE
NT LUMINOUS INTENSITY
NT MAGNETIC FLUX
NT MASS FLOW RATE
NT NEUTRON FLUX DENSITY
NT PARTICLE ACCELERATION
NT PARTICLE FLUX DENSITY
NT PHASE VELOCITY
NT PHOTON DENSITY
NT PHYSIOLOGICAL ACCELERATION
NT PLASMA ACCELERATION
NT PROPAGATION VELOCITY
NT PROTON FLUX DENSITY
NT PULSE RATE
NT PULSE REPETITION RATE
NT RADIAL VELOCITY
NT RADIANCE
NT RADIANT FLUX DENSITY
NT RECOMBINATION COEFFICIENT
NT RELATIVISTIC VELOCITY
NT ROTOR SPEED
NT SOLAR CONSTANT
NT SOLAR FLUX
NT SOLAR FLUX DENSITY
NT SOLAR WIND VELOCITY
NT SOUND INTENSITY
NT SPIN REDUCTION
NT STRAIN ENERGY RELEASE RATE
NT STRAIN RATE
NT SUBSONIC SPEED
NT SUPERSONIC SPEED
NT TIP SPEED
NT TRANSONIC SPEED
NT TRANSVERSE ACCELERATION
NT WIND VELOCITY

An investigation of electromagnetic launcher repeatability
[AD-A254339] 02 p0222 N93-12130
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
Data storage and retrieval system 05 p1354 N93-16324
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Analysis of automated fatigue crack growth rate data
[DE93-752853] 08 p2324 N93-22771
A comparative assessment of R. M. Young and tipping bucket rain gauges 09 p2685 N93-26483
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations 11 p3319 N93-30099
Technique for measuring the spin rate of kinetic energy projectiles
[AD-A264114] 12 p3717 N93-32031

RATINGS
Testability design rating system. Volume 2: Analytical procedure
[AD-A254333] 02 p0413 N93-12146
Testability design rating system: Testability handbook, volume 1
[RL-TR-92-12-VOL-1] 04 p0867 N93-14699
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
The airline quality report, 1992
[NIAR-92-11] 06 p1418 N93-18036
Consumer interest in the air safety data of the airline quality rating. Testimony to the US House of Representatives, Committee on Government Operations, Government Activities and Transportation Subcommittee
[NIAR-92-4] 06 p1432 N93-19941
An environmental rating for heat pump equipment
[DE93-004526] 08 p2379 N93-22983
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659
An intelligent knowledge system for selection of materials for critical aerospace applications (IKSMAT), phase 2
[AD-A263394] 12 p3835 N93-31078

RATIONAL FUNCTIONS
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773
On ranks of twists of elliptic curves and power-free values of binary forms
[W-9213] 10 p3118 N93-27868
The generic arithmetic of SISYPHE
[INRIA-RT-0136] 11 p3524 N93-28755

RATIONS
Climatic variation of storms 07 p2006 N93-20084
Trial of emergency ration of the Spanish Air Force 12 p3778 N93-32247

RATIOS
NT ASPECT RATIO
NT COMPRESSION RATIO
NT DIMENSIONLESS NUMBERS
NT FIBER VOLUME FRACTION
NT FROUDE NUMBER
NT FUEL-AIR RATIO
NT HIGH ASPECT RATIO
NT HIGH REYNOLDS NUMBER
NT LEAF AREA INDEX
NT LEWIS NUMBERS
NT LIFT DRAG RATIO
NT LOW ASPECT RATIO
NT LOW REYNOLDS NUMBER
NT MACH NUMBER
NT MASS RATIOS
NT MASS TO LIGHT RATIOS
NT NUSSELT NUMBER
NT POISSON RATIO
NT PRANDTL NUMBER
NT PRESSURE RATIO
NT RAYLEIGH NUMBER
NT REYNOLDS NUMBER
NT RICHARDSON NUMBER
NT SCHMIDT NUMBER
NT SIGNAL TO NOISE RATIOS
NT SIMILARITY NUMBERS
NT STANDING WAVE RATIOS
NT STRESS RATIO
NT STROUHAL NUMBER
NT THICKNESS RATIO
NT THRUST-WEIGHT RATIO
NT VOID RATIO
Vapor to liquid ratio test as an indicator of volatility
[DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
NO(+)-enhancement in the height range between 180 and 300 km during ion heating events 06 p1732 N93-19583

RATS
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
Dark-cycle monitoring of biological subjects on Space Station Freedom
[NASA-TM-103976] 06 p1500 N93-19103
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
The challenge of biodetection for screening persons carrying explosives 07 p1776 N93-21931
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Variations of time-to-incapacitation and carboxyhemoglobin values in rats exposed to two carbon monoxide concentrations
[DOT/FAA/AM-93/7] 10 p3082 N93-27152
Electrophoretic separation of cells and particles from rat pituitary and rat spleen
[NASA-CR-193073] 10 p3083 N93-28415
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
An assessment of peripheral nerve damage in the rat following non-freezing cold exposure: An electrophysiological and histopathological examination
[AD-A264293] 11 p3492 N93-30818
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061

RAWINSONDES
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491

RAY ACOUSTICS
U GEOMETRICAL ACOUSTICS

RAY OPTICS
U GEOMETRICAL OPTICS

RAY TRACING
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods
[DE92-019032] 02 p0445 N93-11831
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies 03 p0567 N93-14042
Design, development, and testing of a prototype optical system for a next generation multiplexed imager
[AD-A256538] 04 p0981 N93-14286
Combining ray-trace and diffraction analysis: A design example 04 p0985 N93-15511
Hierarchical Poisson disk sampling distributions 04 p0954 N93-15545

A data parallel algorithm for raytracing of heterogeneous databases 04 p0955 N93-15553
Object space temporal coherence for ray tracing 04 p0955 N93-15554
Ray tracing polygons using spatial subdivision 04 p0955 N93-15555
Parametric height field ray tracing 04 p0955 N93-15556
Propagation of high frequency jet noise using geometric acoustics [NASA-TM-106013] 04 p0975 N93-15575
Powerful algorithm for inversion of geophysical reflection profiles [ITN-93-85179] 05 p1267 N93-16743
Space plasma physics research [NASA-CR-192158] 06 p1665 N93-18404
User's reference guide for Noise Assessment Prediction System (NAPS) [AD-A258865] 06 p1652 N93-19075
The CQL3D Fokker-Planck code [DE93-002962] 06 p1668 N93-19754
The effects of small ice crystals on the infrared radiative properties of cirrus clouds [NASA-CR-192181] 07 p2002 N93-20046
Birefringent polarization ray tracing: Theory and applications 07 p2067 N93-20285
Observation of ionospheric modification using high power oblique HF transmissions [AD-A258706] 07 p1998 N93-20378
A radiosity approach realistic image synthesis system [AD-A259082] 07 p2032 N93-20406
Magnetospheric space plasma investigations [NASA-CR-192620] 07 p2074 N93-20914
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation [PB92-218544] 07 p1992 N93-21649
Digital Oblique Remote Ionospheric Sensing (DORIS) program development [AD-A261750] 09 p2776 N93-26283
Improvements to the high-frequency benchmark propagation analysis program [AD-A262278] 10 p3103 N93-28240
Correction-free pyrometry in radiant wall furnaces [NASA-CASE-NPO-18655-1-CU] 10 p3046 N93-28322
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D [DE93-008987] 10 p3149 N93-28348
Thermal analysis of transmissive elements in high average power laser beam delivery systems [DE93-009235] 10 p3049 N93-28451
Application of ray tracing in radiation heat transfer [NASA-TM-106206] 11 p3419 N93-29075
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
USU center of excellence in theory and analysis of the geo-plasma environment [AD-A264750] 11 p3590 N93-30585

RAYLEIGH EQUATIONS
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump [NAL-TR-1130] 02 p0329 N93-12364

RAYLEIGH NUMBER
Natural convection between a vertical cylinder and a surrounding array [DE92-019763] 03 p0728 N93-12857
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container [NASA-CR-193238] 11 p3594 N93-29214

RAYLEIGH SCATTERING
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems [AD-A253186] 01 p0158 N93-10445
Shock enhancement and control of hypersonic combustion [AD-A254295] 01 p0031 N93-10843
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering [DE92-018934] 02 p0448 N93-11627
Gas temperature measurements using the dual-line detection Rayleigh scattering technique 03 p0599 N93-13668
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering 03 p0602 N93-13684
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function [AD-A256525] 04 p0862 N93-15397
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets [NASA-TM-105999] 06 p1471 N93-17995
A study of the structure of gaseous detonation waves using Rayleigh scattering 06 p1483 N93-19028
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering [NASA-TM-105784] 06 p1539 N93-19651
Comparison of the efficiencies of lidar techniques for atmospheric-temperature measurement based on rotational Raman, and Rayleigh scattering 07 p1960 N93-21614
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations [PB93-126092] 07 p2064 N93-21828
Data analysis and interpretation of lunar dust exosphere 09 p2898 N93-26059
Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry [NASA-TM-106213] 09 p2631 N93-26149
SWAT system performance predictions [AD-A262857] 11 p3579 N93-29470
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames [AD-A264341] 11 p3425 N93-30162
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556

RAYLEIGH WAVES
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
The detection and correlation modeling of Rayleigh distributed radar signals [AD-A256612] 04 p0858 N93-14250
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggles, acoustic streaming effects in standing waves, and spark-source lithotripter pulses [AD-A256289] 04 p0974 N93-14458
Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680
Attenuation and source studies in Northern Eurasia [AD-A259323] 07 p2000 N93-21700
A systematic study of the effects of crust and upper mantle structure on regional seismograms [AD-A260231] 08 p2399 N93-24086
Structural acoustics: A general form of reciprocity principles in acoustics [AD-A261515] 09 p2846 N93-26376
An operator method to study some resonance boundary value problems in elasticity theory [REPT-92-84] 12 p3740 N93-31490

RAYLEIGH-BENARD CONVECTION
Adequate sampling of a chaotic time series [AD-A254170] 01 p0127 N93-10664
Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom 05 p1161 N93-16820
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container [NASA-CR-193238] 11 p3594 N93-29214

RAYLEIGH-RITZ METHOD
Nonlinear aeroelasticity of composite structures [AD-A254285] 01 p0008 N93-10842
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Vibration of a multi-guided rotating string 07 p1934 N93-20672
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
Improvement to the higher order finite strip method 07 p1939 N93-20697
Optimization techniques for contact stress analysis [AD-A260846] 09 p2729 N93-25911
A Rayleigh-Ritz analysis methodology for cutouts in composite structures 11 p3307 N93-30869

RBE
U RELATIVE BIOLOGICAL EFFECTIVENESS (RBE)

RC CIRCUITS
Model for impedance of an ionic conductor sandwiched between blocking electrodes [DE92-017812] 03 p0569 N93-12561

RC NETWORKS
U RC CIRCUITS

RDX
Impact sensitivity reduction via exo-electron control 01 p0015 N93-10004
Thermal decomposition of HNIW and HNIW-Based formulations [AD-A255613] 04 p0854 N93-15011
Growth and defects of explosives crystals [DE93-003866] 07 p2082 N93-21780
Explosives detection by pure N-14 NQR 07 p1770 N93-21897
A thermodynamic study of the vapor pressures of C-4 and pure RDX 07 p1772 N93-21906
Negative-ion formation in the explosives RDX, PETN, and TNT using the Reversal Electron Attachment Detection (READ) technique 07 p1773 N93-21910
Detection of explosives material on single microparticles 07 p1774 N93-21916
Fourier Transform Ion-Cyclotron Resonance (FT-ICR) mass spectrometry of RDX, PETN and other explosives 07 p1774 N93-21921
Development of rate expressions for the thermal decomposition of RDX [DE93-005345] 08 p2244 N93-22502
Development of rate expressions for the thermal decomposition of RDX 09 p2629 N93-26034
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine [AD-A261804] 09 p2662 N93-26387
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine [AD-A261965] 10 p3008 N93-27666
Thermal decomposition of nitramines 11 p3318 N93-30065
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Determination of gas phase species and temperature profiles above solid propellants 11 p3346 N93-30080
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083
Dislocation roles in energetic crystal responses 11 p3348 N93-30086
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Applications of density functional theory to calculation of reaction energetics 11 p3351 N93-30098

REACTANCE AMPLIFIERS
U PARAMETRIC AMPLIFIERS

REACTING FLOW
NT COMBUSTIBLE FLOW
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow [AD-A253617] 01 p0079 N93-10094
Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors 02 p0235 N93-11133
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Carbon/carbon composition ablation effects on ionized boundary layers [AD-A254465] 02 p0242 N93-12235
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies 03 p0536 N93-12836
A PDF closure model for compressible turbulent chemically reacting flows [NASA-CR-191209] 03 p0587 N93-13453
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Stability of the compressible reacting mixing layer 03 p0592 N93-13948
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Chemical reactions in turbulent mixing flows [AD-A256004] 04 p0842 N93-15114

Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Study of basic physical processes in liquid rocket engines
[NASA-CR-184481] 05 p1091 N93-16722
Combustion instabilities in a side-dump model ramjet combustor 05 p1067 N93-17613
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Flow visualization and combustion diagnostic 06 p1485 N93-18480
Stability of nonequilibrium shear flows 06 p1534 N93-19056
Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Asymptotic studies of gravity-driven reacting coating flows and pultrusion processes 09 p2704 N93-25683
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF) 09 p2598 N93-26006
Gasp 1.3 results for the transverse hydrogen reacting jet 09 p2625 N93-26011
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets 09 p2625 N93-26012
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations 11 p3428 N93-30902
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839

REACTION BONDING

Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
Polyorganosilazane preceramic binder development for reaction bonded silicon nitride composites
[DE93-004063] 07 p1844 N93-21842

REACTION CONTROL

Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415

REACTION JETS

U JET FLOW
U JET THRUST

REACTION KINETICS

Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Ignition delays, heats of combustion, and reaction rates of aluminum alkyl derivatives as used as ignition and combustion enhancers for supersonic combustors 02 p0244 N93-11134
Numerical calculations of an axisymmetric laminar diffusion flame with detailed and reduced reaction mechanisms 02 p0246 N93-11259
The intensity of knock in an internal combustion engine: An experimental and modeling study
[DE92-019504] 02 p0326 N93-11540
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
Exciton kinetics in poly(di-n-hexylsilane)
[DE92-018278] 02 p0283 N93-11800
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Laser spectroscopy and dynamics of transient species formed in pyrolysis reactions
[DE92-016206] 02 p0251 N93-12091
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
Inhibition of moist carbon monoxide oxidation by trace amounts of hydrocarbons
[DE92-008736] 02 p0253 N93-12257
Catalytic hydrogenation of carbon monoxide
[DE92-014729] 02 p0253 N93-12428
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
Measurements of cellular structure in spray detonation
[DE92-019580] 03 p0555 N93-12933
Kinetics and dynamics of oxidation reactions involving an adsorbed CO species
[DE92-019745] 03 p0537 N93-12995
The reactions of imidogen with nitric oxide and molecular oxygen
[DE92-006697] 03 p0537 N93-13233
Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530
A novel process for methanol synthesis
[DE92-019719] 03 p0539 N93-13617
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications 03 p0656 N93-13784
Radical reactions of atmospheric importance 03 p0659 N93-14053
Electronically excited molecules: Reaction kinetics and emission of light: Nanosecond infrared spectroscopy, electronic emission from chemical reactions
[AD-A255642] 04 p0976 N93-14283
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Chemical kinetics for combustion 04 p0840 N93-14619
Gas-surface interactions
[AD-A255390] 04 p0841 N93-14652
Comments on 'Kinetic Study on the Hexacelsian-Celsian Phase Transformation'
[NASA-TM-105917] 04 p0850 N93-14886
Variational transition state theory
[DE92-040498] 04 p0842 N93-14908
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Simplified jet-A kinetic mechanism for combustor application
[NASA-TM-105940] 04 p0844 N93-15504
Homogeneous-heterogeneous combustion: Thermal and chemical coupling
[DE93-002881] 05 p1100 N93-15840
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Chemistry of oxygenates on transition metal surfaces: Activation of C-H, C-C, and C-O bonds
[DE92-040843] 05 p1110 N93-15927
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Fundamental studies of the mechanism of catalytic reactions with catalysts effective in the gasification of carbon solids and the oxidative coupling of methane
[DE93-001602] 05 p1101 N93-15942
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
Pulsed laser kinetic studies of liquids under high pressure
[DE93-000884] 05 p1172 N93-16193
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267
The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN
[DE92-040734] 05 p1285 N93-16268
Growth on the reconstructed diamond (100) surface
[AD-A256954] 05 p1319 N93-16301
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Particle kinetic simulation of high altitude hypervelocity flight
[NASA-CR-191628] 05 p1055 N93-16538
LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614
A critical analysis of the accuracy of several numerical techniques for combustion kinetic rate equations
[NASA-TP-3315] 05 p1066 N93-16941
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
Primary charge separation in isolated photosystem 2 reaction centers
[DE92-041128] 05 p1223 N93-17189
Combustion Research Program: Flame studies, laser diagnostics, and chemical kinetics
[DE93-002758] 05 p1106 N93-17212
Computerized reduction of elementary reaction sets for CFD combustion modeling 05 p1108 N93-17337
Effects of delocalization on intrinsic barriers for H-atom transfer: Implications for the radical hydrogen transfer reaction
[DE93-001565] 05 p1107 N93-17461
Reaction kinetics and product distributions in photoelectrochemical cells
[DE93-003885] 05 p1198 N93-17471
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
Evaporation and burning of a spherical fuel droplet in a uniform convective flowfield
[DE93-002223] 06 p1482 N93-17910
Heteroepitaxial diamond growth
[AD-A257510] 06 p1671 N93-18079
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
Nuclear structure studies
[DE93-002791] 06 p1654 N93-18402
Novel short-wavelength lasers 06 p1543 N93-18472
Flame-front kinetics 06 p1485 N93-18481
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484

Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051
Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054
Japan's microgravity combustion science program
07 p1868 N93-20182
Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Bipolar rechargeable lithium battery for high power applications 07 p1987 N93-20526
Laser probes of natural gas ignition chemistry
[PB92-227776] 07 p1911 N93-21352
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943
Thermodynamic and stochastic theory of hydrodynamic and power-producing processes
[DE93-006891] 08 p2515 N93-23028
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Chemical kinetics and photochemical data for use in stratospheric modeling
[NASA-CR-192795] 08 p2392 N93-23124
Theory of the dissociation dynamics of small molecules on metal surfaces: Finite temperature studies
[DE93-005870] 08 p2482 N93-23298
Spectroscopy and kinetics of combustion gases at high temperatures
[DE93-006892] 08 p2221 N93-23340
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Reacting liquid monopropellant sprays: Experiments with high velocity full cone sprays in 33 MPa, 500 C nitrogen
[AD-A259799] 08 p2245 N93-23456
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Laser excitation and chemi-ionization of combustion species
[AD-A260120] 08 p2224 N93-24414
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Determination of rates of reaction in the gas-phase in the troposphere. Theory and practice. 5. Rate of indirect photoreaction
[PB93-149334] 08 p2402 N93-24569
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
Coarsening of a quiescent electrorheological fluid I: Experiment
[DE93-006776] 09 p2642 N93-24972
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108
Design of a high activity and selectivity alcohol catalyst
[DE93-008103] 09 p2659 N93-25112
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
A novel process for methanol synthesis
[DE93-008037] 09 p2659 N93-25118
Probe molecule studies: Active species in alcohol synthesis
[DE93-008097] 09 p2659 N93-25119
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
The structure of particle cloud premixed flames
[NASA-CR-192827] 09 p2643 N93-25229
Electron-beam-pumped recombination lasers
09 p2712 N93-25344
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Chemical dynamics studies of high energy species
[AD-A260743] 09 p2852 N93-25676
Luminescence probe studies of ionomers. 3: Distribution of decay rate constants for tris bipyridyl ruthenium(2) in Nafion membranes
[AD-A260764] 09 p2645 N93-25916
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
Hybrid rocket fuel combustion study
09 p2626 N93-26019
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry
09 p2627 N93-26025
Kinetic studies in gas-phase reaction mechanisms important to the combustion process of high energy density materials: The H2/NO2 reaction
09 p2628 N93-26027
Dark zone modeling of solid propellant flames
09 p2628 N93-26028
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples
09 p2628 N93-26032
Development of rate expressions for the thermal decomposition of RDX 09 p2629 N93-26034
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
Mechanisms of decomposition and oxidation of borane compounds
[AD-A261137] 09 p2645 N93-26045
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
In-process cure monitoring of composites via fiber-optic fluorescence
[AD-A261712] 09 p2641 N93-26580
Experiment and simulation of hole-coupled resonator modes with a CW HeNe laser
[DE93-007729] 10 p3047 N93-26613
Reduction of iron-bearing lunar minerals for the production of oxygen 10 p2997 N93-26676
Recovery and separation of precious metals from space 10 p3001 N93-26686
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Regression rate mechanism in a solid fuel ramjet
10 p2922 N93-27185
Regenerable biocide delivery unit, volume 2
[NASA-CR-185701-VOL-2] 10 p3082 N93-27360
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Quantum dynamics of X2BC van der Waals clusters
[DE93-006416] 11 p3565 N93-28892
Membrane-based photochemical systems as models for photosynthetic cells
[DE93-009758] 11 p3310 N93-28911
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion
11 p3310 N93-29125
Generation of carbon monoxide in compartment fires
[PB93-146702] 11 p3244 N93-29211
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves
[AD-A263653] 11 p3312 N93-29389
Rates and mechanisms of reaction of hydrogen sulfide with iron chelates
[PB93-184299] 11 p3312 N93-29665
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
Kinetics and dynamics of reacting systems
[AD-A264046] 11 p3313 N93-30030
ONR/LANL Workshop on the Fundamental Physics and Chemistry of Combustion, Initiation, and Detonation of Energetic Materials
[CPIA-PUBL-589] 11 p3343 N93-30061
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials
11 p3343 N93-30063
Thermal oxidation of HCN by NO2 in shock waves
11 p3318 N93-30064
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
Numerical modeling of multidimensional flames with application to energetic materials
11 p3319 N93-30079
Pressure dependence of the reaction propagation rate of TATB to 40 GPa 11 p3319 N93-30082
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083
Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction 11 p3347 N93-30084
Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Rate constant determinations of reactions H + HNO from ab initio reaction path calculations
11 p3319 N93-30099
Studies of curvature, strain, and unsteady effects on premixed flames 11 p3316 N93-30646
NOx chemistry in natural gas flames
[PB93-175263] 11 p3317 N93-30760
The kinetics of the hydriding of uranium metal 2
[DE93-004766] 12 p3704 N93-31184
Kinetics of mediated electron transfer between viologen groups in a self-assembled monolayer and metal complexes in solution
[AD-A265729] 12 p3820 N93-31797
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages
12 p3862 N93-31938
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185
Optical and kinetic processes in excimer lasers
[AD-A264210] 12 p3733 N93-32402

REACTION PRODUCTS

Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242

Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261965] 10 p3008 N93-27666
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
High pressure preignition chemistry of hydrocarbons and hydrocarbon mixtures
[AD-A263611] 11 p3311 N93-29283
Charged particle activation studies on the surface of LDEF spacecraft 11 p3572 N93-29630
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Determination of gas phase species and temperature profiles above solid propellants 11 p3346 N93-30080
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815

REACTION RATE
U REACTION KINETICS

REACTION TIME
Multimodal interactions in sensory-motor processing
[AD-A255780] 04 p0938 N93-15067
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815

REACTION WHEELS
Research on equipment life extension technology 07 p1793 N93-20436
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Accurate attitude determination of the LACE satellite 09 p2605 N93-24726
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
Attitude stabilization of bias momentum satellites 10 p2923 N93-27195
TechSAT attitude control 10 p2924 N93-27197

REACTIVITY
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Mathematical analysis of reactive multiphase flows
[AD-A253854] 01 p0083 N93-10810
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Threshold photodetachment spectroscopy of negative ions
[DE92-017090] 02 p0440 N93-12100
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
Computed Potential Energy Surfaces for Chemical Reactions
[NASA-CR-191804] 05 p1107 N93-17407
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems 06 p1638 N93-18684
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
Selective reactivity, ultrafast energy transfer and the development of chemically pumped visible lasers
[AD-A260123] 08 p2309 N93-24071
Design and synthesis of reactive separation systems
[DE93-008764] 09 p2642 N93-25115
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
Stability and reactivity of dimethylethoxysilane 10 p2997 N93-28258
Atomic oxygen effects on LDEF experiment AO171 10 p3138 N93-28281
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Kinetics and dynamics of reacting systems
[AD-A264046] 11 p3313 N93-30030
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Phenylethynyl endcapping reagents and reactive diluents
[NASA-CASE-LAR-14796-1] 12 p3702 N93-31459
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
Chemical reactivity of the Martian soil 12 p3867 N93-31963
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189

REACTOR CHEMISTRY
U RADIOCHEMISTRY

REACTOR CORES
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 08 p2137 N93-22237
Particle bed reactor modeling 10 p2980 N93-26954
A plotting system for three-dimensional oblique coordinates (triangular mesh) of CITATION
[DE92-526848] 12 p3792 N93-32185

REACTOR DESIGN
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Molten salt reactor for potentiostatic electroplating
[AD-D015358] 03 p0551 N93-13101
Small steady-state tokamak (TST) for divertor testing
[DE93-001213] 05 p1309 N93-16274
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Design study on divertor plates of Large Helical Device (LHD)
[NIFS-190] 07 p2074 N93-21361
Biases in Monte Carlo eigenvalue calculations
[DE93-004189] 08 p2471 N93-22061
Plasma edge diagnostics 08 p2495 N93-23261
Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
Particle bed reactor modeling 10 p2980 N93-26954
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
SIRIUS-P: An inertially confined direct drive laser fusion power reactor
[DE93-012433] 11 p3439 N93-30186
Preliminary design study of a steady state tokamak device
[DE93-764162] 11 p3589 N93-30397

REACTOR FUELS
U NUCLEAR FUELS

REACTOR MATERIALS
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Advanced materials: The key to attractive magnetic fusion power reactors
[DE92-040637] 05 p1307 N93-16103
Fracture toughness measurements with subsize disk compact specimens
[DE93-001374] 05 p1187 N93-17002
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
Tritium permeation model for plasma facing components
[DE93-007044] 08 p2499 N93-24465
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
DOE fundamentals handbook: Material science
[DE93-012224] 11 p3314 N93-30199
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200

Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396
Development of Ni-Cr-W superalloys for high temperature components in high temperature gas-cooled reactors, part 2
[DE93-764469] 11 p3326 N93-30399
Detection of radiation-induced changes in electrochemical properties of austenitic stainless steels using miniaturized specimens and the single-loop electrochemical potentiokinetic reactivation method
[DE93-012865] 12 p3707 N93-32302

REACTOR PHYSICS
Wavelet transform techniques and signal analysis
[DE93-007919] 11 p3382 N93-29244
Development of a PC code package for the analysis of research and power reactors
[DE92-638517] 11 p3536 N93-31001

REACTOR SAFETY
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
Aluminum oxide film thickness and emittance
[DE92-019931] 03 p0550 N93-13035
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Nuclear safety for the space exploration initiative
[NASA-CR-189180] 06 p1659 N93-18032
Probabilistic methods in nuclear power plant component ageing analysis
[VTT-PUBS-94] 06 p1660 N93-18696
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
Immunizing digital systems against electromagnetic interference
[DE93-005935] 08 p2271 N93-24041
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
Analysis of complex systems using neural networks
[DE93-003541] 08 p2464 N93-24514
Human factors engineering: A key element of instrumentation and control system design
[DE93-006731] 09 p2800 N93-25415
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
SNTP environmental, safety, and health 10 p2980 N93-26939
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Austrian contributions to reactor safety research
[OEFZS-4622] 10 p3139 N93-28203
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Acid solution absorption of extruded polyethylene foam
[DE93-011701] 11 p3330 N93-28839
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
Annual progress report on the NSRR experiments, (21)
[DE93-753190] 11 p3574 N93-29137
TRAB: A transient analysis program for BWR. Part 2: User's manual
[VTT-TIED-1232-PT-2] 11 p3575 N93-29996
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996

REACTOR STARTUP TESTS
Nova Upgrade: A proposed ICF facility to demonstrate ignition and gain, revision 1
[DE92-018960] 02 p0451 N93-11534

REACTOR TECHNOLOGY
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Plasma reactor waste management systems 03 p0680 N93-14000
Interagency Advanced Power Group semi-annual compilation of briefs, September 1992
[DE93-000703] 06 p1571 N93-19613
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Fast neutron cross section measurements
[DE93-009053] 11 p3563 N93-28546

READ-ONLY MEMORY DEVICES
NT CD-ROM
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
Scientific and Technical Information (STI) towards technological and industrial development: The case of Portugal 01 p0173 N93-10596
Technology for libraries and information centers: A seminar in Greece, Portugal, and Turkey 01 p0174 N93-10601
Services: User services in defence and aerospace documentation centres 01 p0174 N93-10602
Development of 256 kbit PROM 07 p1799 N93-20470
Development of 256 kbit SRAM 07 p1799 N93-20471
Industrial IC evaluation test: 256 kbit EEPROM 07 p1800 N93-20481
Lossless compression of image data products on th e FIFE CD-ROM series 09 p2804 N93-25929

READING
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
CAPS ReReader simulation model user's manual version 1.0
[AD-A257180] 05 p1234 N93-16000
Representation and readability of logic diagrams and aspects of their automatic generation
[ETN-93-92559] 07 p1890 N93-20751
A framework for the design of usable electronic text 09 p2877 N93-25754
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082
Educational software marketplace and adult literacy niches
[PB93-163897] 10 p3160 N93-27414
Case study of technology use in adult literacy programs
[PB93-163905] 10 p3161 N93-27415
Software for adult literacy: Scope, suitability, available sources for information, and implications for federal policy
[PB93-163913] 10 p3161 N93-27416
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
Expertise, text coherence, and constraint satisfaction: Effects on harmony and settling rate — mental representations
[AD-A262703] 11 p3498 N93-28901
Profiles of major federal literacy programs
[PB93-163863] 11 p3608 N93-30657

READJUSTMENT
U ADJUSTING

READOUT
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
Indian experience in flight data readout and analysis 04 p0794 N93-15161
Czechoslovak development and experience in flight data recorder readout and analysis 04 p0794 N93-15162
Solid state flight data recorder with rapid data access 04 p0795 N93-15167
Parallel readout of optical disks
[AD-A256625] 04 p1008 N93-15409
Transfer function characteristics of super resolving systems 04 p0985 N93-15512
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
Design of a pixel cell optimized for a data push architecture readout
[DE93-011016] 11 p3616 N93-30122

REAGENTS
Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Studies of the analyte-carrier interface in flow injection analysis
[DE93-008374] 09 p2644 N93-25311
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764

REAL GASES
Computational study of real gas effects in high speed high temperature flow, volume 2
[AERO-REPT-9203-VOL-2] 05 p1054 N93-16470
Computational study of real gas effects in high speed high temperature flow
[AERO-REPT-9102] 06 p1526 N93-18129
Issues and approach to develop validated analysis tools for hypersonic flows: One perspective
[NASA-TM-103937] 06 p1417 N93-19379
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
Hypersonic lateral and directional stability characteristics of aeroassist flight experiment configuration in air and CF4
[NASA-TM-4435] 11 p3239 N93-29166

REAL NUMBERS
NT INTEGERS
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
Contribution to computer arithmetic
[ETN-93-92680] 07 p2053 N93-20901
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-03] 10 p3112 N93-27275

REAL TIME OPERATION
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Mesoscale severe weather development under orographic influences
[AD-A253630] 01 p0125 N93-10204
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Analysis of reservation-based dual-link networks for real-time applications
[AD-A254176] 01 p0067 N93-10253
Biological and theoretical studies of adaptive networks: The conditioned response
[AD-A253329] 01 p0142 N93-10354
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers 01 p0178 N93-10948
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
A real-time diagnostic and performance monitor for UNIX
[NASA-CR-190975] 02 p0404 N93-11462

A rule-based system for real-time analysis of control systems
[NASA-TM-104258] 02 p0277 N93-11619
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936
Model-based vision for space applications 02 p0398 N93-11955
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
A methodology for systems requirements specification and traceability for large real time complex systems
[AD-A254738] 02 p0419 N93-12358
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
Real-time data archiving for GTA
[DE92-018613] 03 p0733 N93-12567
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
Performance of a plasma fluid code on the Intel parallel computers
[DE92-011680] 03 p0716 N93-13297
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0689 N93-13382
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
Phase conjugation using CO2 lasers 03 p0607 N93-13812
Approximate optimal guidance for the Advanced Launch System 03 p0519 N93-13819
Technology reconciliation in the remote sensing era of US civilian weather forcasting: 1957 - 1987 04 p0918 N93-14114
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Real-time edge-enhanced optical correlator
[NASA-CASE-NPO-18521-1-CU] 04 p0981 N93-14404
Trace algebra for automatic verification of real-time concurrent systems
[AD-A256199] 04 p0968 N93-14492
The 1992 Summer SIGAda AIWG Workshop applications experiences and lessons learned panel message from the panel chair
[AD-A256188] 04 p0962 N93-14519
Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision
[AD-A256059] 04 p0937 N93-14580
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
A probabilistic approach to anytime algorithm for intelligent real-time problem solving
[AD-A255709] 04 p0945 N93-14654
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
Wind shear related research at Princeton University 04 p0785 N93-14854
Real-time in-flight engine performance and health monitoring techniques for flight research application 04 p0795 N93-15169
A deadlock-free communication system for a transputer network
[AD-A256473] 04 p0959 N93-15319
A plan for spacecraft automated rendezvous
[NASA-TM-108385] 04 p0813 N93-15392
Integrated support for real-time control systems
[PNR-90994] 04 p0952 N93-15476
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
An investigation of requirements traceability to support systems development
[AD-A257444] 05 p1351 N93-15868
Spatial light modulator nonlinearity effects in optical pattern recognition
[AD-A256184] 05 p1301 N93-15873
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989
NPSGDL: An object oriented graphics description language for virtual world application support
[AD-A257337] 05 p1234 N93-15992
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Fault tolerant real-time systems
[AD-A257352] 05 p1235 N93-16174
An open, parallel I/O computer as the platform for high-performance, high-capacity mass storage systems 05 p1353 N93-16322
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Study of port of FRAMES artificial intelligence system
[NASA-CR-192449] 05 p1261 N93-16740
The state operator in real time process algebra
[CWI-CS-R9140] 05 p1269 N93-16852
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
Requirements for the implementation of schedule repair technology in the Experiment Scheduling Program 05 p1278 N93-17286
Distributed intelligent control and management (DICAM) applications and support for semi-automated development 05 p1249 N93-17513
RT-Syn: A real-time software system generator 05 p1250 N93-17523
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Static scheduler for hard real-time tasks on multiprocessor systems
[AD-A257663] 05 p1257 N93-17724
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763
Building reusable software components for automated retrieval
[AD-A257605] 05 p1253 N93-17765
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Holographic enhanced remote sensing system
[NASA-CR-190867] 06 p1565 N93-18230
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471
Realization of real time graphics in vehicles with high dynamic motion
[ETN-93-92739] 06 p1622 N93-18630
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Real-time scheduling using minimum search 06 p1637 N93-18676
Real-time contingency handling in MAESTRO 06 p1638 N93-18683
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms 06 p1465 N93-18839
Technology test bed engine real-time failure control
[NASA-CR-192414] 06 p1474 N93-18879
Development of an hp-version finite element method for computational optimal control
[NASA-CR-192220] 06 p1639 N93-18882
A parallel implementation of a multisensor feature-based range-estimation method
[NASA-TM-103999] 06 p1432 N93-18883
An intelligent real-time system architecture implemented in Ada
[AD-A259002] 06 p1640 N93-18893
A synopsis of test results and knowledge gained from the Phase-0 CSI evolutionary model 06 p1467 N93-18933
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
NASA experimental airborne doppler radar and real time processor for wind shear detection 06 p1420 N93-19607
Aid in investigation by figure animation 06 p1422 N93-19659
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
Program manager: Journal of the Defense Systems Management College, volume 21, number 6, November-December 1992
[AD-A258766] 06 p1553 N93-19870
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Development of a realtime DGPS system
[DLR-MITT-92-06] 07 p1779 N93-20749
Knowledge-based consulting system for dynamic network security control
[ETN-93-93420] 07 p2028 N93-21069
Formal specification and timing analysis of high-integrity real-time systems
[REPT-92-041] 07 p2028 N93-21185
Investigation of the real-time accuracy of the DGPS method
[AD-A257692] 07 p1780 N93-21222
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
Autonomous pre-alignment of a docking mechanism 07 p1814 N93-21418
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations 07 p1817 N93-21439
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data 07 p1960 N93-21610
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
Multi-window registration algorithm for automatic detection and tracking of moving targets 08 p2255 N93-22022
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023

Multi-beam range imager for autonomous operations
08 p2310 N93-22160
Automated real-time software development
08 p2445 N93-22168
Reactive control and reasoning assistance for scientific laboratory instruments 08 p2465 N93-22186
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
Predictive sensor method and apparatus
08 p2305 N93-22202
US automated rendezvous and capture capabilities review. Remote umbilical system abstract
08 p2138 N93-22239
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
The real-time operations of the Space Shuttle Orbiter during rendezvous and proximity operations
08 p2139 N93-22249
A PARC system for terminal docking
08 p2141 N93-22259
Office of Space Flight standard spaceborne Global Positioning System user equipment project
08 p2148 N93-22301
Photonic correlator pattern recognition: Application to autonomous docking 08 p2148 N93-22303
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
08 p2151 N93-22316
Demonstration plan for real time receiving and processing of flight data from the space transportation system
[NASA-TM-107725] 08 p2152 N93-22468
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
Parallel processor for real-time structural control
[DE93-006284] 08 p2446 N93-22545
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Flight evaluation of differential GPS aided inertial navigation systems 08 p2120 N93-22790
Data ingest and objective analysis for the PSU/NCAR modeling system. Programs DATAGRID and RAWINS
[PB93-138519] 08 p2393 N93-23252
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
The Oden real time ice monitoring demonstration
08 p2371 N93-23837
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
Modeling and control of flexible manipulators
08 p2318 N93-24182
Training high performance skills using above real-time training
[NASA-CR-192616] 08 p2425 N93-24192
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
TDRSS-user orbit determination using batch least-squares and sequential methods
09 p2601 N93-24703
Real-time attitude determination and gyro calibration
09 p2602 N93-24708
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
The role of ocean climate data in operational Naval oceanography 09 p2732 N93-24916
Global Temperature and Salinity Pilot Project
09 p2733 N93-24924
The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies 09 p2736 N93-24939
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Coarsening of a quiescent electrorheological fluid I: Experiment
[DE93-006776] 09 p2642 N93-24972
Putting time into proof outlines
[NASA-CR-192978] 09 p2809 N93-25152
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
Concurrency control in real-time database systems
09 p2874 N93-25271
Dynamic error analysis of numerical methods for simulation of state-variable derivatives with discontinuities 09 p2819 N93-25278
Log-ratio signal-processing technique for beam position monitors
[DE93-007356] 09 p2851 N93-25314
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems
09 p2814 N93-25589
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
Active control of NITINOL-reinforced structural composites
[AD-A261062] 09 p2638 N93-25780
The Grid Analysis and Display System (GRADS): A practical tool for Earth science visualization
09 p2880 N93-25805
Multi-layer holographic bifurcative neural network system for real-time adaptive EOS data analysis
09 p2880 N93-25807
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932
The WorkPlace distributed processing environment
09 p2825 N93-25977
VETA x ray data acquisition and control system
09 p2854 N93-26186
Real-time value-driven monitoring and repair
[AD-A260959] 09 p2811 N93-26221
Realtime control of multiple sensor systems
[AD-A261037] 09 p2680 N93-26226
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Intelligent, real-time problem solving, phase 3
[AD-A261441] 09 p2829 N93-26345
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Managing real-time software projects: Problems and issues
[AD-A261428] 09 p2813 N93-26453
Real time process algebra with prefixed integration
[CWI-CS-R9219] 10 p3114 N93-27362
Priority inheritance in real-time micro kernels
[MEMO-INF-92-52] 10 p3095 N93-27387
Abstraction in real time process algebra
[CWI-CS-R9144] 10 p3096 N93-27492
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
Burst-by-burst laser frequency monitor
[NASA-CASE-NPO-18596-1-CU]
10 p3048 N93-28132
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Radiation monitoring equipment dosimeter experiment
11 p3266 N93-28730
Near real-time GIS in deep-ocean exploration
[AD-A262073] 11 p3487 N93-29003
Improved real-time imaging spectrometer
[NASA-CASE-NPO-18410-1-CU]
11 p3578 N93-29086
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Resource utilization model for the algorithm to architecture mapping model
[NASA-CR-193122] 11 p3527 N93-29171
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
SPREE Interactive Data Analysis Tool (SIDAT)
[AD-A262782] 11 p3273 N93-29306
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
Operating manual for single-shot autocorrelator
[AD-A262016] 11 p3438 N93-29395
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514
A neuro-fuzzy architecture for real-time applications
11 p3511 N93-29529
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU]
11 p3521 N93-29608
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A264831] 11 p3543 N93-29791
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
Three-dimensional graphical representation of objects according to movement data in realtime
[ESA-TT-1258] 11 p3521 N93-30104
A parallel processing system for intensive I/O
11 p3362 N93-30262
A multiprocessor architecture for realtime robot control 11 p3372 N93-30327
Issues of ATC conflict resolution under real-time constraints 11 p3247 N93-30350
A video transmission system for low-bandwidth remote driving
[DE93-010275] 11 p3544 N93-30529
Intelligent real-time problem solving
[AD-A264830] 11 p3535 N93-30614
Timing analysis of real-time systems
[REPT-92-060] 12 p3803 N93-31251
Two-stage gas measurement system
[NASA-CASE-LAR-14791-1] 12 p3729 N93-31297
Conception of a modular real-time system for laser remote sensing with particular consideration of upward compatibility
[SER-C-378] 12 p3731 N93-31340
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Man-machine cooperation in advanced teleoperation
12 p3784 N93-32106
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
Real-time qualitative reasoning for telerobotic systems
12 p3737 N93-32116
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119

Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Mixed data/goal driven intelligent real-time assessment and control 12 p3794 N93-32140
Integration of domain and resource-based reasoning for real-time control in dynamic environments 12 p3794 N93-32141
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147
Information for the user in design of intelligent systems 12 p3801 N93-32149
Is time a real time? An overview of time ontology in informatics
[REPT-92-046] 12 p3842 N93-32383
Strategic control of reactive behavior in intelligent agents
[AD-A264376] 12 p3801 N93-32413

REAL VARIABLES
NT ABEL FUNCTION
NT ASYMPTOTES
NT ASYMPTOTIC SERIES
NT BESSEL FUNCTIONS
NT BETHE-SALPETER EQUATION
NT BIHARMONIC EQUATIONS
NT BOREL SETS
NT BURGER EQUATION
NT CALCULUS OF VARIATIONS
NT CAUCHY-RIEMANN EQUATIONS
NT COLLINEARITY
NT COPLANARITY
NT CUBIC EQUATIONS
NT DELTA FUNCTION
NT DIFFERENTIAL EQUATIONS
NT DUFFING DIFFERENTIAL EQUATION
NT EINSTEIN EQUATIONS
NT ELLIPTIC DIFFERENTIAL EQUATIONS
NT EULER-CAUCHY EQUATIONS
NT EXISTENCE THEOREMS
NT EXTREMUM VALUES
NT FOKKER-PLANCK EQUATION
NT FOURIER SERIES
NT FUNCTIONAL INTEGRATION
NT GAUSS EQUATION
NT GREEN'S FUNCTIONS
NT HANKEL FUNCTIONS
NT HYPERBOLIC DIFFERENTIAL EQUATIONS
NT HYPERBOLIC FUNCTIONS
NT HYPERPLANES
NT INTEGRAL CALCULUS
NT J INTEGRAL
NT JACOBI MATRIX METHOD
NT KERNEL FUNCTIONS
NT LIAPUNOV FUNCTIONS
NT LIMITS (MATHEMATICS)
NT LINEAR EQUATIONS
NT LIOUVILLE EQUATIONS
NT MAXIMA
NT MEASURE AND INTEGRATION
NT MINIMA
NT NEUMANN PROBLEM
NT NONLINEAR EQUATIONS
NT NONLINEAR EVOLUTION EQUATIONS
NT NUMERICAL DIFFERENTIATION
NT NUMERICAL INTEGRATION
NT PARABOLIC DIFFERENTIAL EQUATIONS
NT PARTIAL DIFFERENTIAL EQUATIONS
NT PERIODIC FUNCTIONS
NT POISSON EQUATION
NT POWER SERIES
NT PRONY SERIES
NT QUADRATIC EQUATIONS
NT RICCATI EQUATION
NT RUNGE-KUTTA METHOD
NT SERIES (MATHEMATICS)
NT STIELTJES INTEGRAL
NT STURM-LIOUVILLE THEORY
NT TAYLOR SERIES
NT TRIGONOMETRIC FUNCTIONS
NT VECTOR ANALYSIS
NT VLASOV EQUATIONS
NT VORTICITY
NT VORTICITY EQUATIONS
NT WEIGHTING FUNCTIONS
Canonical floquet perturbation theory
[AD-A258970] 06 p1721 N93-19358

REARWARD FACING STEPS
U BACKWARD FACING STEPS

REATTACHED FLOW
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
An experimental investigation of the separating/reattaching flow over a backstep
[NASA-CR-192105] 06 p1408 N93-18781
The effect of large-scale unsteady motion on a turbulent reattaching shear layer: Application to the supersonic compression ramp 08 p2114 N93-24215

REATTACHMENT
U ATTACHMENT

REB
U RELATIVISTIC ELECTRON BEAMS

RECEIVERS
NT LINEAR RECEIVERS
NT RADAR RECEIVERS
NT RADIO RECEIVERS
NT RADIOTELEPHONES
NT SUPERHETERODYNE RECEIVERS
NT TELEVISION RECEIVERS
NT TRANSMITTER RECEIVERS
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Development of an expendable particle sensor
[AD-A255702] 04 p0881 N93-14653
An MCM/chip concurrent engineering validation
[AD-A257415] 05 p1233 N93-15863
Multipath effects in a Global Positioning Satellite system receiver 05 p1059 N93-17311
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
Application of multirate digital filter banks to wideband all-digital phase-locked loops design 06 p1505 N93-18908
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 07 p1817 N93-21440
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
Focal plane arrays for submillimeter waves using two-dimensional electron gas elements: A grant under the Innovative Research Program
[NASA-CR-192271] 08 p2263 N93-23062
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability
[DLR-MITT-92-07] 08 p2123 N93-24138
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
GPS standardization for the needs of time transfer 09 p2836 N93-25016
Oscillators for mobile GPS receivers 09 p2694 N93-25055
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes 09 p2889 N93-25440
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
Cross-switched MICRAD seeker
[AD-D015676] 09 p2691 N93-26142
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Progress in integrated-circuit horn antennas for receiver applications. Part 1: Antenna design 10 p3015 N93-27755
Measurements of the single sideband suppression for a 650 GHz heterodyne receiver 10 p3020 N93-27780
A broadband THz receiver for low background space applications 10 p3020 N93-27782
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
Attitude determination using GPS: Development of an all solid-state guidance, navigation, and control sensor for air and space vehicles based on the global positioning system 11 p3246 N93-30605
A long wave TE/TM noise prediction model 11 p3397 N93-30742
The microwave radiometer as a remote sensing device: Design and application
[ISBN-9-09-005507-X] 12 p3746 N93-31537
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915

RECEIVING SYSTEMS
U RECEIVERS

RECEPTACLES (CONTAINERS)
U CONTAINERS

RECEPTORS (PHYSIOLOGY)
NT OTOLITH ORGANS
NT PHOTORECEPTORS
NT PROPRIOCEPTORS
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603

RECESSES
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903

RECESSION
The interannual variability of polar cap recessions as a measure of Martian climate and weather: Using Earth-based data to augment the time line for the Mars observer mapping mission 06 p1742 N93-19814

RECHARGING
Long cycle life rechargeable lithium batteries
[NASA-CR-190937] 02 p0291 N93-11604
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Design considerations for rechargeable lithium batteries 07 p1987 N93-20527

RECIPROCATING ENGINES
U PISTON ENGINES

RECIPROCATION
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Prospects of two-way international time scale comparisons 09 p2832 N93-24988

RECIPROCITY THEOREM
Structural acoustics: A general form of reciprocity principles in acoustics
[AD-A261515] 09 p2846 N93-26376

RECIRCULATION
U CIRCULATION

RECIRCULATIVE FLUID FLOW
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Turbulence measurements of high shear flow fields in a turbomachine seal configuration 01 p0093 N93-10893
Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192937] 09 p2767 N93-26427

RECLAMATION
NT GAS RECOVERY
NT MATERIALS RECOVERY
NT NUCLEAR FUEL REPROCESSING
NT WATER RECLAMATION
Polymeric materials for use in wet hydrochloric acid environments
[DE93-010881] 11 p3330 N93-28600

RECOGNITION
NT CHARACTER RECOGNITION
NT PATTERN RECOGNITION
NT SPEECH RECOGNITION
NT TARGET RECOGNITION
NT TIMBER IDENTIFICATION
Object recognition with a robot hand
02 p0420 N93-11457
Research on a reconfigurable modular manipulator system
[DE92-018943] 02 p0327 N93-11865
Implementations of the double dot parsing algorithm
[REPT-92-73] 12 p3788 N93-31506

RECOIL ATOMS
Modeling of atom-diatom scattering
[AD-A261645] 09 p2849 N93-26173
Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281

RECOIL IONS
Experimental study of interactions of highly charged ions with atoms at keV energies
[DE92-019512] 02 p0436 N93-11541
Measurement of 1s2s(sup 3)S(sub 1)-1s2p(sup 3)P(sub 2,0) intervals in helium-like neon
[DE93-009243] 11 p3563 N93-28521

RECOIL PROTONS
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008

RECOMBINATION COEFFICIENT
Determination of E region effective recombination coefficient using impulsive precipitation events
06 p1723 N93-19526
Contactless microwave lifetime measurement
[ETN-93-93595] 10 p3027 N93-27870

RECOMBINATION REACTIONS
NT ATOMIC RECOMBINATION
NT ELECTRON RECOMBINATION
NT ELECTRON-ION RECOMBINATION
NT ION RECOMBINATION
NT RADIATIVE RECOMBINATION
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications
03 p0656 N93-13784
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861
Spin dependent recombination in conjugated polymers: An optically detected magnetic resonance study
[DE93-001221] 05 p1126 N93-17349
Theoretical studies of important processes in planetary and comet atmospheres
[NASA-CR-192114] 07 p2098 N93-19959

RECOMMENDATIONS
Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector
[AD-A247266] 02 p0475 N93-11465
Spacecraft sustained load fracture control
05 p1077 N93-15724
Atomic time scales for dynamical astronomy
09 p2832 N93-24984
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN)
09 p2799 N93-25595
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153

RECOMPRESSION
U COMPRESSING

RECONNAISSANCE
NT AERIAL RECONNAISSANCE
NT PHOTORECONNAISSANCE
NT SPECTRAL RECONNAISSANCE
Results of the laser sensor technology transition investigation
[AD-A255845] 03 p0608 N93-14085
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
The future of the US Space Industrial Base
07 p1789 N93-20044
Testing of an experimental system for image reconnaissance
12 p3677 N93-31283
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica
12 p3759 N93-31883

RECONNAISSANCE AIRCRAFT
NT CL-84 AIRCRAFT
NT MIRAGE AIRCRAFT
NT SR-71 AIRCRAFT
NT U-2 AIRCRAFT
NT WEATHER RECONNAISSANCE AIRCRAFT
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Hypersonic reconnaissance aircraft
[NASA-CR-192049] 05 p1064 N93-17804
A manned hypersonic reconnaissance vehicle which does not require airborne fueling
06 p1434 N93-17888
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
High-altitude reconnaissance aircraft
11 p3227 N93-29713

RECONNAISSANCE SPACECRAFT
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Low cost missions to explore the diversity of near Earth objects
06 p1453 N93-19124
A conceptual design analysis of an air launched anti-satellite missile system
[ETN-93-93487] 08 p2126 N93-23372

RECONSTRUCTION
NT WAVE FRONT RECONSTRUCTION
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA
[NIKHEF-H/92-02] 05 p1297 N93-16340
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
Reconstruction of twist grain boundaries in gold
[DE93-004861] 08 p2226 N93-22049
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Restoration of incomplete contour images using Markov random fields
[INRIA-RR-1688] 10 p3126 N93-28445

RECORDING
NT DATA RECORDING
NT DATA SMOOTHING
NT MAGNETIC RECORDING
NT PHOTOGRAPHIC RECORDING

RECORDING HEADS
Integrated device with diffractive polarization components for a magneto-optical disk head
04 p0986 N93-15517

RECORDING INSTRUMENTS
NT BATHYTHERMOGRAPHS
NT FLIGHT RECORDERS
NT PLOTTERS
NT SEISMOGRAPHS
NT TAPE RECORDERS
NT VIDEO TAPE RECORDERS
Millisecond readout CCD camera
[DE93-000694] 05 p1167 N93-16359
Spacecraft optical disk recorder memory buffer control
05 p1170 N93-16773
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Uninterrupted, enhanced-rate, event-time recorder with mixed-speed counter modules
[AD-D015578] 07 p1906 N93-20769
Optical disk technology Spaceflight Optical Disk Recorder (SODR) 10 p2964 N93-27710
The NT digital micro tape recorder
11 p3435 N93-30461

RECORDS
NT VIDEO DISKS

RECORDS MANAGEMENT
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
Searching the Occurrence Reporting and Processing Systems (ORPS) database
[DE93-005242] 08 p2523 N93-22499

RECOVERABLE LAUNCH VEHICLES
Development trends in space transportation systems: From Hermes to Saenger
[MBB-UK-0146-91-PUB] 02 p0223 N93-11007

RECOVERABLE SATELLITES
U RECOVERABLE SPACECRAFT

RECOVERABLE SPACECRAFT
NT AEROSPACE PLANES
NT ATLANTIS (ORBITER)
NT AURORA 7
NT BURAN SPACE SHUTTLE
NT CHALLENGER (ORBITER)
NT COLUMBIA (ORBITER)
NT DISCOVERY (ORBITER)
NT ENDEAVOUR (ORBITER)
NT HERMES MANNED SPACEPLANE
NT REUSABLE SPACECRAFT
NT SPACE SHUTTLE ORBITERS
NT SPACE SHUTTLES
NT X-30 VEHICLE
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630

RECOVERY
Some consistency requirements on hardening-recovery evolution equations for welding, part 1
[DE92-015992] 02 p0329 N93-12220
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
Constraint checking during error recovery
08 p2445 N93-22169

RECRYSTALLIZATION
Bohemian circular structure, Czechoslovakia: Search for the impact evidence 01 p0119 N93-10172
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Recrystallization of amorphous or nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE92-016302] 02 p0462 N93-11706
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
The ancient lunar crust, Apollo 17 region
06 p1736 N93-18795
Recrystallization of amorphous and nanocrystalline NdBa2Cu3O(7-x) and GdBa2Cu3O(7-x)
[DE93-004469] 08 p2508 N93-23950
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486

RECTANGLES
Hydroelastic vibrations in a rectangular container under zero-gravity
[LRT-WE-9-FB-28-1991] 05 p1134 N93-17602
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149

RECTANGULAR COORDINATES
U CARTESIAN COORDINATES

RECTANGULAR DRAINAGE
U DRAINAGE PATTERNS

RECTANGULAR PANELS
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
A Rayleigh-Ritz analysis methodology for cutouts in composite structures 11 p3307 N93-30869

RECTANGULAR PLANFORMS
NT RECTANGULAR PANELS
NT RECTANGULAR PLATES
NT RECTANGULAR WINGS

RECTANGULAR PLATES
Vibration of laminated composite plates using various plate theories: Analytical and finite element results
01 p0045 N93-10473
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478

Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Investigation of laminated composite plates under impact dynamic loading by using a three-dimensional hybrid stress finite element method 01 p0029 N93-10510
Experimental investigation of simple support condition in free vibration analysis of plates 01 p0056 N93-10530
Nonlinear aeroelasticity of composite structures [AD-A254285] 01 p0008 N93-10842
Large-deflection analysis of cord composite plates 03 p0530 N93-13008
A numerical study of dynamic crack propagation in composites [AD-A257544] 06 p1476 N93-17961
High-frequency techniques for RCS prediction of plate geometries and a physical optics/equivalent currents model for the RCS of trihedral corner reflectors [NASA-CR-192302] 07 p1881 N93-20233
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Uniform roughness studies [WL-TR-92-3041] 09 p2706 N93-25951
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates [NASA-TM-107753] 10 p2990 N93-27141

RECTANGULAR WAVEGUIDES
Two-dimensional computer calculation of high-power microwave bandwidth broadening by air breakdown in a rectangular waveguide [DE92-041083] 05 p1138 N93-16072
Computer program for numerical evaluation of the performance of a TM01 circular to TE10 rectangular waveguide mode converter [AD-A257694] 05 p1141 N93-17689
Plotting the magnitude and direction of waveguide surface currents in three dimensions [AD-A258872] 06 p1509 N93-19077
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754

RECTANGULAR WINGS
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities 03 p0501 N93-13807
An experimental investigation of interacting wing-tip vortex pairs [AD-A258471] 06 p1406 N93-18272
An experimental investigation of a finite circulation control wing [AD-A259044] 06 p1440 N93-18896
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450

RECTENNAS
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas) 08 p2264 N93-23504
Microwave-powered aircraft [CA-PATENT-1-295-019] 08 p2128 N93-24591
Rectenna thermal model development 10 p3022 N93-27986
Choice of antenna geometry for microwave power transmission from solar power satellites 10 p2988 N93-27987

RECTIFICATION
NT GEOMETRIC RECTIFICATION (IMAGERY)
Ultrafast optical studies of surface reaction processes at semiconductor interfaces [DE93-009049] 11 p3593 N93-29096

RECTIFIER ANTENNAS
U RECTENNAS

RECTIFIERS
NT AVALANCHE DIODES
NT THYRATRONS
NT THYRISTORS
High temperature rectifiers and MOS devices in 6H-silicon carbide [AD-A254725] 02 p0295 N93-12340
Development of high speed rectifier diodes 07 p1798 N93-20463
Modelling a single phase voltage controlled rectifier using Laplace transforms [NASA-TM-106005] 08 p2474 N93-23016

RECUPERATORS
U REGENERATORS

RECURSION FORMULAS
U RECURSIVE FUNCTIONS

RECURSIVE FUNCTIONS
Unifying the landmark developments in optimal bounding ellipsoid identification [AD-A253502] 01 p0143 N93-10200
On recursive free types in Z [RSRE-91028] 02 p0425 N93-11437
Backward assembly planning with DFA analysis [NASA-CASE-NPO-18817-1-CU] 02 p0278 N93-12202
Recursive construction of fractals [ISBN-951-41-0689-X] 03 p0697 N93-13271
Equivalent flexibility modelling for the recursive simulation of robot manipulator dynamics [NLR-TP-89076-U] 05 p1259 N93-16291
An introduction mechanism for recursive functions: A case study [MEMO-INF-92-34] 05 p1264 N93-16337
A short proof of the decidability of bisimulation for normal BPA processed [CWI-CS-R9151] 05 p1267 N93-16731
Error feedback for reduction of quantization errors due to arithmetic operations in recursive digital filters [EL-9] 05 p1272 N93-17633
Parallel simulation of stochastic Petri nets using recursive equations [INRIA-RR-1520] 05 p1257 N93-17738
On recursive least-squares filtering algorithms and implementations [NASA-CR-191396] 06 p1623 N93-18775
Recursive ascent parsing 07 p2030 N93-20222
Adaptive meshing in solids [DE93-003238] 08 p2287 N93-22331
A novel recursive partitioning criterion [AD-A259921] 08 p2464 N93-24564
Provably recursive programs [CWI-CS-R9212] 10 p3097 N93-27500
A primitive recursive set theory and AFA: On the logical complexity of the largest bisimulation [CWI-CS-R9213] 10 p3097 N93-27501
Computable processes and bisimulation equivalence [CWI-CS-R9207] 10 p3098 N93-27552
Iterative encoding methods for computer generated holograms [AD-A263705] 11 p3431 N93-29297
RLS techniques with generalized forgetting devices for the identification of time-varying systems [REPT-92-069] 12 p3810 N93-31463
A single recursion operator is sufficient [REPT-92-59] 12 p3805 N93-31500
Adaptive RLS identification with generalized forgetting techniques [REPT-92-037] 12 p3810 N93-32390

RECYCLING
The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California [DE92-019172] 02 p0373 N93-11734
Long-term lunar stations: Some ecological considerations 03 p0648 N93-13995
Technology development for lunar base water recycling 03 p0680 N93-13999
MHD seed recovery/regeneration [DE93-000904] 05 p1312 N93-17347
Application of molten salts in pyrochemical processing of reactive metals [DE92-018618] 06 p1489 N93-19437
Application of remote sensing data for the investigation of environmental degradation sites in East Germany 09 p2739 N93-24785
Low cost dewatering of waste slurries 09 p2769 N93-25573
Gas storage and recovery system [NASA-CASE-MSC-22091-1] 10 p3021 N93-28136
Trend survey of the global environment adaptation type industry technology [DE93-781442] 10 p3066 N93-28435

RED ARCS
EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581

RED BLOOD CELLS
U ERYTHROCYTES

RED GIANT STARS
NT CARBON STARS
Hydrodynamical calculations of stellar interactions 03 p0755 N93-13764
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9 [ETN-93-94203] 12 p3851 N93-31050

RED SHIFT
The emission-line properties of quasars 03 p0753 N93-13487
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
A faint spectroscopic quasar survey 04 p1012 N93-14629
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
ROSAT all-sky survey on the Einstein EMSS sample [NASA-CR-191627] 04 p1013 N93-15340
ROSAT x ray spectra of quasars with a range of continuum properties and redshift 05 p1362 N93-17128
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Optically selected quasars with Z greater than 4 05 p1363 N93-17158
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Two searches for primeval galaxies 10 p3172 N93-26714
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution 10 p3173 N93-26715
The nature of faint emission-line galaxies 10 p3173 N93-26716
Two protogalaxy candidates in one night 10 p3173 N93-26717
A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
Environmental influences on galaxy evolution 10 p3175 N93-26727
Cluster evolution as a probe of primordial density fluctuations 10 p3175 N93-26730
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
Near-IR imaging of moderate redshift galaxy clusters 10 p3177 N93-26741
Distant radio galaxies in the near IR 10 p3177 N93-26742
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
A faint field-galaxy redshift survey in quasar fields 10 p3179 N93-26751
Searching for Lyman alpha emission from a possible Zel'dovich pancake 10 p3179 N93-26755
Can quasars photoionize the intergalactic medium at high redshift? 10 p3179 N93-26756
Metal abundances at z = 3.4 10 p3179 N93-26757
Evidence for a multiphase, inhomogeneous interstellar medium in damped Ly alpha systems 10 p3180 N93-26760
HST/FOS spectra of PG 1351+64: An intrinsic absorber at low redshift 10 p3180 N93-26761
Low redshift Lyman alpha absorption lines and the dark matter halos of disk galaxies 10 p3180 N93-26762
Neutral hydrogen at the present epoch: A constraint on the evolution of high redshift systems 10 p3181 N93-26763
Probing the extent and content of low ionization gas in galaxies: QSO absorption and HI emission 10 p3181 N93-26766
Intensity correlation of ionizing background at high redshifts 10 p3181 N93-26768
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875
Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877
Multi-filter spectrophotometry simulations 10 p3201 N93-26881
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
Dynamics of the baryonic component in hierarchical clustering universes 10 p3203 N93-26888
Quasar redshifts and non-potential interactions [SSCL-PREPRINT-758] 10 p3205 N93-28143
GRO: Red-shifted electron-positron annihilation gamma-rays from radiopulsars [NASA-CR-193243] 11 p3635 N93-30053
ROSAT observations of quasar 3C 273 [ETN-93-94202] 12 p3844 N93-31049

RED TIDE
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns [AD-A254835] 02 p0374 N93-12431

REDUCED GRAVITY
U MICROGRAVITY

REDUCTION
Near-IR absorption spectra for the C70 fullerene anions [AD-A253658] 02 p0246 N93-11280

REDUCTION (CHEMISTRY)
NT HYDROGENATION

Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
Beneficiation and extraction of nonterrestrial materials, part 2
05 p1381 N93-16886
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
Polymer-based separations: Synthesis and application of polymers for ionic and molecular recognition
[DE93-001835] 05 p1127 N93-17529
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-27969
The electrolyte factor in O2 reduction electrocatalysis
[AD-A263565] 11 p3313 N93-29828

REDUCTION (MATHEMATICS)
U OPTIMIZATION

REDUNDANCY
Optimal coordination of robotic systems with redundancy 03 p0693 N93-13336
Nonholonomic motion of free-flying space robots
03 p0615 N93-13638
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU]
05 p1261 N93-17275
Redundant drive current imbalance problem of the Automatic Radiator Inspection Device (ARID)
06 p1552 N93-19398
URV flight test of an Ada implemented self-repairing flight control system
[AD-A259205] 07 p1787 N93-20551
Algorithms for optimal redundancy allocation
[DE93-005709] 09 p2827 N93-24973
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Minimize system cost by choosing optimal subsystem reliability and redundancy
[NASA-TM-106251] 12 p3812 N93-31145
Analysis of fault tolerance in artificial neural networks
[REPT-92-048] 12 p3797 N93-31255
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642

REDUNDANCY ENCODING
Fault detection and fault tolerance in robotics
02 p0330 N93-11961
Simulation and analysis of support hardware for multiple instruction rollback
[NASA-CR-190972] 02 p0406 N93-12541
Optimal allocation under partial ordering of lifetimes of components
[AD-A255577] 05 p1181 N93-16040
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
Fault-tolerant fiber optic backplane
[NASA-CASE-LAR-14785-1] 06 p1663 N93-19052
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Compiler-assisted multiple instruction rollback recovery using a read buffer
[NASA-CR-193175] 11 p3527 N93-29170

REDUNDANT COMPONENTS
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Analysis of cache for streaming tape drive
11 p3435 N93-30477

REDUNDANT STRUCTURES
U REDUNDANT COMPONENTS

REED-SOLOMON CODES
Mappings between codewords of two distinct (N,K) Reed-Solomon codes over GF(2 sup J)
[NASA-CASE-NPO-18771-1-CU]
02 p0412 N93-11664
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373
Self-dual (48,24;12) codes 06 p1505 N93-18905
Binary weight distributions of some Reed-Solomon codes 06 p1514 N93-19430
Versatile Reed-Solomon decoders
[ISBN-0-315-64738-8] 08 p2274 N93-24626
A (72, 36; 15) box code 09 p2671 N93-24663
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198

REEFS
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536

REELS
Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Cable-line shortening device
[AD-D015427] 04 p0891 N93-14822
US Army helicopter inertia reel locking failures
06 p1427 N93-19689

REENTRY
NT HYPERSONIC REENTRY
NT MANNED REENTRY
NT SPACECRAFT REENTRY
Flow field calculations around the Hermes spaceplane during reentry phase
[MBB-UK-0148-91-PUB] 02 p0195 N93-11008
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
System specification for the reusable reentry satellite
[NASA-CR-187882] 04 p0824 N93-15632
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study
[NASA-CR-188578] 04 p0825 N93-15633
Reusable Reentry Satellite (RRS): Recovery tradeoff study
[NASA-CR-186396] 04 p0825 N93-15658
Concept of overall operation of H-2 Orbiting Plane (HOPE) 07 p1791 N93-20424
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237

REENTRY BODIES
U REENTRY VEHICLES

REENTRY EFFECTS
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011

REENTRY GLIDERS
U LIFTING REENTRY VEHICLES

REENTRY PHYSICS
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011

REENTRY SHIELDING
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221

REENTRY VEHICLES
NT AEROSPACE PLANES
NT ATLANTIS (ORBITER)
NT AURORA 7
NT BURAN SPACE SHUTTLE
NT CHALLENGER (ORBITER)
NT COLUMBIA (ORBITER)
NT DISCOVERY (ORBITER)
NT ENDEAVOUR (ORBITER)
NT HERMES MANNED SPACEPLANE
NT LIFTING REENTRY VEHICLES
NT MANEUVERABLE REENTRY BODIES
NT RECOVERABLE SPACECRAFT
NT REUSABLE SPACECRAFT
NT SINGLE STAGE TO ORBIT VEHICLES
NT SPACE SHUTTLE ORBITERS
NT SPACE SHUTTLES
NT X-30 VEHICLE
Plug nozzle propulsion system
01 p0017 N93-10013
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles
04 p0817 N93-14632
Shape-stable reentry body nose tip
[AD-D015437] 04 p0817 N93-14725
Reusable Reentry Satellite (RRS) system design study
[NASA-CR-187897] 04 p0817 N93-14733
Outline for reusable reentry satellite system specification, volumes 1 - volume 9
[NASA-CR-185958] 05 p1086 N93-15791
Reusable Reentry Satellite (RRS): Launch tradeoff study
[NASA-CR-186395] 05 p1086 N93-15803
Reusable Reentry Satellite (RRS): Configuration trade study
[NASA-CR-187772] 05 p1086 N93-15804
Experiment module/support module interface specification for the reusable reentry satellite
[NASA-CR-187885] 05 p1086 N93-15805
Ablative thermal protection structure design of ballistic reentry spacecraft
[AD-A256908] 05 p1087 N93-16027
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix
[NASA-CR-184490] 05 p1075 N93-16556
Reusable Reentry Satellite (RRS): Propulsion system trade study
[NASA-CR-186527] 05 p1087 N93-16720
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Orbit re-entry experiment vehicle development
07 p1792 N93-20432
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method
[MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Reentry systems: Material technology needs
08 p2176 N93-22108
Flexible thermal protection materials for entry systems
08 p2177 N93-22111
Entry systems technology assessment
08 p2177 N93-22118
Reusable reentry satellite system specification. Volume 1-9
[NASA-CR-192969] 08 p2196 N93-24543
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles
[DE93-008363] 10 p3025 N93-26670
The infrared measurement for the reentry-body-translation
[AD-A263100] 11 p3278 N93-29134
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736

REFERENCE ATMOSPHERES
Effects of surface-based ducts on electromagnetic systems
[AD-A257443] 05 p1137 N93-15867
Graphical comparison of U.S. standard atmospheres and military standard climatic extremes
[AD-A264639] 11 p3484 N93-30521

REFERENCE STARS
Carlsberg meridian catalogue La Palma (Spain). Number 6: Observations of positions of stars and planets 1990
[ISBN-84-7469-052-8] 08 p2543 N93-24059
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048

REFERENCES (STANDARDS)
U STANDARDS

REFILLING
A new approach to plasmasphere refilling: Anomalous plasma effects
[NASA-CR-192128] 06 p1670 N93-19945
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank
[NASA-TM-106018] 10 p3039 N93-27155
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP)
11 p3264 N93-28711

REFINING
INEL spray-forming research
09 p2658 N93-25562
Lunar materials processing system integration
10 p3021 N93-27972

REFLECTANCE
NT BIDIRECTIONAL REFLECTANCE
NT SPECTRAL REFLECTANCE
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Fast electrochromic switching for optical hardening applications
[AD-A248174] 02 p0447 N93-11186
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
On the definition and calculation of effective impedances and averaged boundary conditions with application to the analysis of high complexity frequency selective surfaces
[RSRE-MEMO-4518] 02 p0281 N93-11387
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Erosion rates for polymers measured on LDEF
02 p0270 N93-11994
An observational study of a prefrontal convective rainband using TAMEX single- and dual-Doppler data
[AD-A249839] 02 p0371 N93-12251
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Characterization of magneto-optical recording media
04 p0979 N93-14140
Radar-anomalous, high-altitude features on Venus
04 p1036 N93-14349
Problem footprints in Magellan altimetry data
04 p1039 N93-14362
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument
[AD-A256830] 05 p1166 N93-15688
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
Picosecond studies of space optical materials
06 p1664 N93-18475
Polarized neutron reflection study of the unidirectional magnetic anisotropy of permalloy on Ni(0.5)Co(0.5)O
[DE93-000509] 06 p1487 N93-18528
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Determination of the dissipative loss of a two-port network from noise temperature measurements
06 p1505 N93-18904
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Optical constants and scattering factors from reflectivity measurements: 50 eV to 5 keV
[DE93-003750] 07 p2068 N93-21674
Radar seeker based autonomous navigation update system using topography feature matching techniques
08 p2256 N93-22030
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
The vertical profile of reflectivity and errors in radar estimates of rainfall 08 p2406 N93-23350
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
The x ray reflectivity of the AXAF VETA-I optics
09 p2855 N93-26192
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-28007
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Maximum and minimum return losses from a passive two-port network terminated with a mismatched load
11 p3385 N93-29594
High resolution free-electron laser spectroscopy
[AD-A263734] 11 p3439 N93-29853
A variable reflectivity output coupler for optically pumped far infrared lasers
[MPE-PREPRINT-225] 11 p3441 N93-30640
An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228
Sensor fusion for assured vision in space applications
12 p3824 N93-32105
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

REFLECTED RADIATION
U REFLECTED WAVES

REFLECTED RAYS
U REFLECTED WAVES

REFLECTED WAVES
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning
07 p1843 N93-21528
Migration of seismic data in the double Radon transformed domain
[ETN-93-93596] 10 p3073 N93-28094
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868

REFLECTING TELESCOPES
NT LARGE DEPLOYABLE REFLECTOR
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978

REFLECTION
NT INFRARED REFLECTION
NT MACH REFLECTION
NT OPTICAL REFLECTION
NT RETROREFLECTION
NT SIGNAL REFLECTION
NT SPECULAR REFLECTION
NT WAVE REFLECTION
Reflection of plasma ions from metals (and its use as a hyperthermal neutral beam source)
01 p0160 N93-10353
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems
[AD-A253186] 01 p0158 N93-10445
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Light scattering from a sphere on or near an interface
02 p0448 N93-12531
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
The reflection operator in discrete event systems
[CS-9201] 10 p3110 N93-28067

REFLECTION COEFFICIENT
U REFLECTANCE

REFLECTION NEBULAE
Near-infrared imaging polarimetry of bipolar nebulae
02 p0481 N93-11248
Shells, outflows and star formation in the giant molecular cloud Monoceros R2 09 p2893 N93-25555

REFLECTIVITY
U REFLECTANCE

REFLECTOMETERS
NT MICROWAVE REFLECTOMETERS
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Optical constants and scattering factors from reflectivity measurements: 50 eV to 5 keV
[DE93-003750] 07 p2068 N93-21674
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731

REFLECTOR ANTENNAS
NT PARABOLIC ANTENNAS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Project and test of a reconfigurable multiple feed system in C-band
[MBB-UK-0162-92-PUB] 02 p0278 N93-11009
Method of moments analysis of symmetric dual reflector antennas with feeds
[AD-A255171] 02 p0286 N93-12407
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655
Ku-band antenna design for MSAT mission
04 p0813 N93-14963
Acoustic tests structural predictions
05 p1081 N93-15750
HISPASAT DBS reflector: Mechanical analysis-environmental test correlation
05 p1081 N93-15751
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Dynamic deployment analysis of a mesh antenna reflector 05 p1083 N93-15770
Experiences with large CFRP-radiotelescope reflectors
05 p1084 N93-15777
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Antenna analysis using neural networks
05 p1142 N93-16790

Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites
06 p1507 N93-18921
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview
09 p2680 N93-26128
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
A satellite-tracking millimeter-wave reflector antenna system for mobile satellite-tracking
[NASA-CASE-NPO-18772-1-CU]
11 p3381 N93-28955
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195
Planar microstrip YAGI antenna array
[NASA-CASE-NPO-17873-2-CU]
11 p3384 N93-29507
A note on the computation of antenna-blocking shadows 11 p3385 N93-29593
Maximum and minimum return losses from a passive two-port network terminated with a mismatched load
11 p3385 N93-29594

REFLECTOR SATELLITES
U PASSIVE SATELLITES

REFLECTORS
NT FRESNEL REFLECTORS
NT PARABOLIC REFLECTORS
NT PARABOLOID MIRRORS
NT RADAR CORNER REFLECTORS
NT RADAR REFLECTORS
NT RETROREFLECTORS
NT SOLAR COLLECTORS
NT SOLAR REFLECTORS
NT WIGGLER MAGNETS
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors
[NASA-TP-3246] 01 p0013 N93-10744
Antenna pattern measurement facilities
[AD-A250219] 02 p0283 N93-11764
Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU]
04 p0832 N93-14700
Ku-band antenna design for MSAT mission
04 p0813 N93-14963
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
A systematic approach for the DRSS IOL APM design
05 p1081 N93-15753
TELECOM 2 deployable reflectors
05 p1082 N93-15761
Dynamic of large reflectors 05 p1084 N93-15773
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
Capacifiector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
DSN observations of Titan 09 p2680 N93-26129
Aberration correction of unstable resonators
[NASA-CASE-NPO-18662-1-CU]
10 p3148 N93-28425
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Maximum and minimum return losses from a passive two-port network terminated with a mismatched load
11 p3385 N93-29594

REFLEXES
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility
[NASA-CR-193304] 12 p3774 N93-32364

REFRACTED RADIATION
U REFRACTED WAVES

REFRACTED RAYS
U REFRACTED WAVES

REFRACTED WAVES
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643

REFRACTION
NT ATMOSPHERIC REFRACTION
NT BIREFRINGENCE
Laser glasses
[DE92-018061] 02 p0267 N93-11549
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026
Picosecond optical mixing in photorefractive materials
[AD-A256824] 05 p1170 N93-15685
Photorefractive properties of doped BaTiO 3 and SBN
[AD-A257989] 05 p1305 N93-17748
Optical fiber fluorosensor
[NASA-CASE-LAR-14525-1-CU]
07 p2069 N93-22008
Enhanced photorefractive effects in barium titanate
[AD-A264724] 11 p3599 N93-30554
Efficient optical logic, interconnections and processing using quantum confined structures
[AD-A265734] 12 p3823 N93-31799

REFRACTIVE INDEX
U REFRACTIVITY

REFRACTIVITY
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953
Analysis of advanced optical glass and systems
[NASA-CR-184434] 02 p0448 N93-12201
An optical VLA on the Moon
03 p0747 N93-13596
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements
04 p0914 N93-14641
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Exact calculation of light scattering from a particle on a mirror
[AD-A258464] 06 p1662 N93-18247
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
Application of photorefractive crystals to solve matrix algebra problems optically
[AD-A259067] 06 p1662 N93-18957
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
SSG 4.93: Wave propagation in refractive media
07 p1972 N93-20980
Optical properties of slags: Data for refractive indices and absorption coefficients
[NPL-DMM(A)-73] 08 p2486 N93-22453
Radiolocation of a satellite-borne LOVHF beacon
08 p2268 N93-23613
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Fiber optic interferometer configuration with pump-induced phase carrier
[AD-D015617] 08 p2489 N93-24156
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570
Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869
Interferometric fiber-optic radiation sensor
[DE93-003841] 09 p2852 N93-25127
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Atmospheric transverse coherence length measurement system for laser communications
[AD-A263563] 11 p3439 N93-29827
Physical chemical studies on molecular composite compositions
[AD-A264834] 11 p3339 N93-30898
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

REFRACTORIES
U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5-Ma ages for a K-T target site and 2700-1850-Ma ages for the Sudbury impact event 01 p0115 N93-10156
Impact glasses from the less than 20-micrometer fraction of Apollo 17 soils 72501 and 78221
06 p1738 N93-16807
Ion produced cometary organic crust
06 p1701 N93-19122
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
A transient FGM interlayer based approach to joining ceramics
[DE93-010415] 11 p3331 N93-29248
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802

REFRACTORY COATINGS
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431

REFRACTORY MATERIALS
NT CHROMIUM
NT CHROMIUM ISOTOPES
NT IRIDIUM
NT MOLYBDENUM
NT MOLYBDENUM ALLOYS
NT NIOBIUM
NT NIOBIUM ALLOYS
NT REFRACTORIES
NT REFRACTORY METALS
NT RHENIUM
NT RHENIUM ALLOYS
NT TANTALUM
NT TANTALUM ALLOYS
NT TUNGSTEN
NT TUNGSTEN ALLOYS
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center
02 p0228 N93-12455
Thermostructural applications of heat pipes for cooling leading edges of high-speed aerospace vehicles
02 p0229 N93-12460
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
Testing and characterisation of metallic materials for structural analysis of high temperature components
05 p1082 N93-15757
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170

The nature of comet nuclei 06 p1718 N93-19250
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Synthesis, processing, and properties of Ti5Si3
[DE93-004465] 08 p2229 N93-22820
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Low-temperature deposition of ZrC thin films from a single source precursor
[DE93-007333] 08 p2514 N93-24518
Evaluation of a candidate material for a coal-fired magnetohydrodynamic (MHD) high temperature recuperative air heater
[DE93-006630] 09 p2858 N93-24968
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Computer modelling of cyclic deformation of high-temperature materials
[AD-A260978] 09 p2639 N93-25936
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Radial basis function network learns ceramic processing and predicts related strength and density
[NASA-TM-106048] 10 p2990 N93-27129
Aerospace applications of metal combustion 10 p2920 N93-27175
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts 10 p2962 N93-27575
Soft computing in design and manufacturing of advanced materials
[NASA-TM-106032] 11 p3295 N93-28624
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802
Carborane-(silane or siloxane)-unsaturated hydrocarbon based thermosetting polymers
[AD-D015718] 11 p3338 N93-30580
Carborane-(siloxane or silane)-unsaturated hydrocarbon based polymers
[AD-D015717] 11 p3338 N93-30586
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299

REFRACTORY METAL ALLOYS
NT MOLYBDENUM ALLOYS
NT NIOBIUM ALLOYS
NT RHENIUM ALLOYS
NT TANTALUM ALLOYS
NT TUNGSTEN ALLOYS

REFRACTORY METALS
NT CHROMIUM
NT CHROMIUM ISOTOPES
NT IRIDIUM
NT MOLYBDENUM
NT NIOBIUM
NT RHENIUM
NT TANTALUM
NT TUNGSTEN

A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
Chronopotentiometry of refractory metals, actinides and oxyanions in molten salts: A review
[NASA-TM-105862] 02 p0249 N93-11545
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Refractory metal disilicides research
[AD-A262416] 11 p3320 N93-28499

REFRASIL (TRADEMARK)
U FIBERS
U SILICON DIOXIDE

REFRIGERANTS

Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Materials compatibility and lubricants research on CFC-refrigerant substitutes: Thermophysical properties
[DE92-015116] 01 p0043 N93-10397
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
The role of refrigerants in climate change
[DE92-019385] 02 p0354 N93-11677
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
Non-inert refrigerant study for automotive applications
[DE92-041034] 05 p1120 N93-16042
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-000537] 05 p1121 N93-16192
Thermophysical properties
[DE93-000493] 05 p1329 N93-16242
Miscibility of lubricants with refrigerants
[DE93-000538] 05 p1122 N93-16244
Compatibility of refrigerants and lubricants with elastomers
[DE93-000539] 05 p1122 N93-16245
Compatibility of refrigerants and lubricants with motor materials
[DE93-000540] 05 p1122 N93-16246
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
[DE93-002351] 05 p1163 N93-17038
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-000541] 05 p1128 N93-17807
Thermophysical properties
[DE93-006427] 08 p2216 N93-22056
Compatibility of refrigerants and lubricants with elastomers
[DE93-006429] 08 p2216 N93-22057
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-006426] 08 p2237 N93-22884
Compatibility of refrigerants and lubricants with motor materials
[DE93-006428] 08 p2237 N93-22885
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Heat pump technology: Responding to new opportunities
[DE93-005939] 08 p2379 N93-22978
An evaluation of magnetic refrigeration cycles based on how effectively the thermal properties of the refrigerant are utilized 08 p2258 N93-23170
ARTI refrigerant database
[DE93-006431] 08 p2239 N93-23949
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-007826] 08 p2243 N93-24507
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
Compressor calorimeter performance of refrigerant blends: Comparative methods and results for a refrigerator/freezer application
[DE93-006734] 09 p2667 N93-24970
Experimental and theoretical studies of dense fluid mixtures
[DE93-006070] 09 p2695 N93-24976
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-013082] 12 p3715 N93-32163
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-014771] 12 p3711 N93-32293

REFRIGERATING

Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
High-temperature superconducting current leads
[DE92-040729] 05 p1145 N93-16028
Experimental development of tubeside heat transfer correlations for laminar flow with and without inserts
[AD-A257099] 05 p1156 N93-16124
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
Compatibility of refrigerants and lubricants with elastomers
[DE93-006429] 08 p2216 N93-22057
COP improvement of refrigerator/freezers, air-conditioners, and heat pumps using nonazeotropic refrigerant mixtures 08 p2259 N93-22166
Compatibility of refrigerants and lubricants with elastomers
[DE93-007808] 08 p2237 N93-22729
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Heat pump technology: Responding to new opportunities
[DE93-005939] 08 p2379 N93-22978
An evaluation of magnetic refrigeration cycles based on how effectively the thermal properties of the refrigerant are utilized 08 p2258 N93-23170
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Diffusion-absorption heat pump
[PB93-165777] 10 p3037 N93-26620
Hybrid oxygen system
[AD-A262417] 11 p3500 N93-28464
Spaceborne passive radiative cooler 11 p3378 N93-28802
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292

REFRIGERATING MACHINERY
NT REFRIGERATORS

REFRIGERATORS

ARTI Refrigerant Database
[DE92-015122] 01 p0030 N93-10401
New technologies for refrigeration without CFC's
[DE92-018886] 03 p0557 N93-12922
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
Three-stage sorption type cryogenic refrigeration systems and methods employing heat regeneration
[NASA-CASE-NPO-18366-1-CU] 03 p0558 N93-13422
Adiabatic demagnetization refrigerator for use in zero gravity
[NASA-CR-190864] 05 p1130 N93-15689
Magnetic refrigeration cycle analysis using selected thermodynamic property characterizations for gadolinium gallium garnet
[DE93-000448] 05 p1134 N93-15896
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K
[NASA-CR-192365] 07 p1878 N93-21815

Superfluid Stirling refrigerator with a counterflow regenerator
[DE93-003858] 07 p1879 N93-21971
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
Compressor calorimeter performance of refrigerant blends: Comparative methods and results for a refrigerator/freezer application
[DE93-006734] 09 p2667 N93-24970
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Low temperature Hall and Shubnikov-de Haas effects
[AD-A261871] 09 p2869 N93-26540
Diffusion-absorption heat pump
[PB93-165777] 10 p3037 N93-26620
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Theoretical and experimental study of thermoacoustic engines
[AD-A261934] 11 p3561 N93-28995

REFUELING
NT AIR TO AIR REFUELING
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Orbital Spacecraft Consumables Resupply System (OSCRS). Volume 3: Program cost estimate
[NASA-CR-185685] 03 p0740 N93-12814
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
Military standardization handbook: Aircraft refueling handbook
[AD-A261755] 09 p2662 N93-26600
An engineer/constructor's view of lunar resource development 10 p3211 N93-27960
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-28398

REGENERATION (ENGINEERING)
MHD seed recovery/regeneration, phase 2
[DE93-006008] 08 p2493 N93-22769
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Development of a high temperature steam regenerative H2S removal process based on alumina supported MnO and FeO
[ETN-93-93617] 10 p2995 N93-27938

REGENERATION (PHYSIOLOGY)
Lunar base CELSS: A bioregenerative approach 03 p0680 N93-13993
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
The USO-concept applied to a biological model experiment 08 p2162 N93-24379

REGENERATIVE COOLING
Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Three-stage sorption type cryogenic refrigeration systems and methods employing heat regeneration
[NASA-CASE-NPO-18366-1-CU] 03 p0558 N93-13422
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697

REGENERATIVE CYCLES
U REGENERATION (ENGINEERING)

REGENERATIVE FEEDBACK
U POSITIVE FEEDBACK

REGENERATIVE FUEL CELLS
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
SPE (tm) regenerative hydrogen/oxygen fuel cells for extraterrestrial surface and microgravity applications 10 p2969 N93-27813
Fuel cell energy storage for Space Station enhancement 10 p2969 N93-27815
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977

REGENERATORS
A small, single stage orifice pulse tube cryocooler demonstration
[NASA-CR-190859] 03 p0558 N93-13404
Superfluid Stirling refrigerator with a counterflow regenerator
[DE93-003858] 07 p1879 N93-21971

REGGE POLES
High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231
Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241

REGIONAL PLANNING
NT URBAN PLANNING
Post-war regional planning: The French silicon valley
[RSRE-MEMO-4282] 02 p0472 N93-10976
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil 04 p0905 N93-14450
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038
The regional planning and control using the satellite data 09 p2740 N93-24788
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419

REGIONS
NT AMAZON REGION (SOUTH AMERICA)
NT ANTARCTIC REGIONS
NT ARCTIC REGIONS
NT AURORAL ZONES
NT D REGION
NT E REGION
NT EQUATORIAL REGIONS
NT F REGION
NT F 2 REGION
NT FRESNEL REGION
NT HABITATS
NT INTERTROPICAL CONVERGENT ZONES
NT M REGION
NT MCMURDO SOUND
NT NEW ENGLAND (US)
NT NULL ZONES
NT PELAGIC ZONE
NT POLAR REGIONS
NT REMOTE REGIONS
NT ROSS ICE SHELF
NT SOUTHEAST ASIA
NT SPORADIC E LAYER
NT TEMPERATE REGIONS
NT TROPICAL REGIONS

REGISTERS (COMPUTERS)
NT ACCUMULATORS (COMPUTERS)
Optimal multi-writer multi-reader atomic register
[CWI-CS-R9235] 10 p3091 N93-27999
Linear-time snapshot protocols for unbalanced systems
[CWI-CS-R9236] 10 p3091 N93-28000

REGOLITH
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Resources for a lunar base: Rocks, minerals, and soil of the Moon 03 p0760 N93-13973
Availability of hydrogen for lunar base activities 03 p0762 N93-13982
Potential of derived lunar volatiles for life support 03 p0680 N93-13998
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment 03 p0766 N93-14007
In-situ lunar oxygen extraction 04 p0806 N93-14929
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Lunar exploration for resource utilization 05 p1380 N93-16877
Application of manufactured products 05 p1383 N93-16902
Shock-treated lunar soil simulant: Preliminary assessment as a construction material 05 p1386 N93-17238
Lunar resource assessment: Strategies for surface exploration 05 p1391 N93-17266
High-resolution Earth-based lunar radar studies: Applications to lunar resource assessment 05 p1391 N93-17267
Remote assessment of lunar resource potential 05 p1391 N93-17268
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192030] 06 p1605 N93-18018
The ancient lunar crust, Apollo 17 region 06 p1736 N93-18795
The Apollo 17 regolith 06 p1737 N93-18799
Geochemistry of HASP, VLT, and other glasses from double drive tube 79001/2 06 p1737 N93-18800
The Apollo 17 samples: The Massifs and landslide 06 p1738 N93-18809
Lunar science measurements and instruments for resource characterization
[DE93-005436] 08 p2553 N93-22905
Lunar regolith and structure mechanics 09 p2670 N93-26412
Indigenous lunar construction materials 09 p2670 N93-26413
Magnetic beneficiation of lunar soils 10 p3213 N93-27968
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Research on lunar resources development and their utilization 10 p2952 N93-28039
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
Lunar regolith densification 11 p3276 N93-29115
Regolith-structure modeling 11 p3276 N93-29116
Lunar regolith penetrators and cutters 11 p3276 N93-29117
Indigenous lunar construction materials 11 p3277 N93-29120
Systems engineering studies of lunar base construction 11 p3277 N93-29121
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
Low-temperature formation of magnetic iron oxides 12 p3863 N93-31946
Implications of isotopic compositions of N and Ne in the Martian atmosphere to temporal evolution of its atmosphere and regolith 12 p3864 N93-31947
Using the Viking biology experimental results to obtain chemical information about Martian regolith 12 p3865 N93-31955
Chemical modeling constraints on Martian surface mineralogies formed in an early, warm, wet climate, and speculations on the occurrence of phosphate minerals in the Martian regolith 12 p3865 N93-31956

REGRESSION (STATISTICS)
U REGRESSION ANALYSIS

REGRESSION ANALYSIS
NT REGRESSION COEFFICIENTS
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Research in statistical inference
[AD-A252928] 02 p0429 N93-12429
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
Nondestructive evaluation of the in-place compressive strength of concrete based upon limited destructive testing
[PB92-222751] 03 p0623 N93-12981
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
Goals versus algorithms
[AD-A256106] 04 p0942 N93-14237
JT-60 configuration parameters for feedback control determined by regression analysis
[DE92-556731] 05 p1310 N93-16650
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069

An orthogonal estimation algorithm for complex number systems
[RR-405] 06 p1621 N93-18568
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Aircraft trajectory tracking and prediction
[AD-A259039] 06 p1441 N93-18999
A central limit theorem for autoregressive integrated moving average processes
[AD-A258923] 06 p1650 N93-19445
ARC.2: Linear regression in ABACUS 06 p1629 N93-19731
A necessary and sufficient condition for the existence of the maximum likelihood estimate in autoregressive models
[RR-866-M] 07 p2058 N93-20944
Estimation methods for parameters of multivariate autoregressive models
[ETN-93-92685] 07 p2059 N93-21062
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
Improving the chi-squared approximation for bivariate normal tolerance regions
[NASA-TP-3304] 08 p2472 N93-22670
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
PROMISC user manual, appendix 2
[NASA-CR-192989] 08 p2332 N93-24529
Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839
Removing Malmquist bias from linear regressions 10 p3122 N93-26872
Basic statistical analyses of candidate nickel-hydrogen cells for the Space Station Freedom
[NASA-TM-106111] 10 p3123 N93-27124
A comparison of variable selection criteria for multiple linear regression: A second simulation study
[AD-A262512] 10 p3125 N93-27664
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
Pilot Candidate Selection Method (PCSM): What makes it work?
[AD-A262871] 11 p3498 N93-29481
Fuzzy multiple linear regression: A computational approach 11 p3518 N93-29574
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795
Easy-to-apply results for establishing convergence of Markov chains in Bayesian analysis
[AD-A264015] 11 p3555 N93-29979
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
Adaptive RLS identification with generalized forgetting techniques
[REPT-92-037] 12 p3810 N93-32390

REGRESSION COEFFICIENTS
Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635
Example of statistical techniques applied to analysis of measurements of the landing airborne manoeuvre. (Multiple linear regression with two independent variables and one dependent variable.)
[ESDU-92022] 05 p1062 N93-16636
Derivation of total ozone amount from NOAA/TOVS data 10 p3071 N93-26997

REGULARITY
Proximal techniques for convex programming
[RR-877-M] 07 p2039 N93-21167
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273

REGULATION
U CONTROL

REGULATIONS
Combat aircraft noise: The operator's perspective 01 p0148 N93-10669
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
DOE guideline: Guide to good practices for incorporating operating experiences
[DE92-017684] 02 p0472 N93-12223
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
Reports to the Nation on our changing planet: Our ozone shield 03 p0645 N93-13413
Environmental Compliance Management System
[DE92-019595] 03 p0645 N93-13479
Reduction of chlorofluorocarbon emissions from refrigeration systems
[DE92-019360] 03 p0645 N93-13505
PC-based expert system for integrated assessment of environmental compliance
[DE92-019964] 05 p1199 N93-15853
Environmental Review Guide for Operations (ERGO)
[AD-A256922] 05 p1202 N93-16502
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
Framework for decision making: An EPA perspective
[PB93-134369] 08 p2518 N93-22904
An environmental rating for heat pump equipment
[DE93-004526] 08 p2379 N93-22983
US data policy for Earth observation from space 08 p2373 N93-23852
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data 08 p2374 N93-23855
Enabling document for regulations governing compliance extensions for early reductions of hazardous air pollutants
[PB93-147007] 08 p2390 N93-24584
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660

REGULATORS
NT AUTOMATIC FREQUENCY CONTROL
NT CURRENT REGULATORS
NT FLOW REGULATORS
NT FREQUENCY CONTROL
NT FUEL FLOW REGULATORS
NT PRESSURE REGULATORS
NT RELIEF VALVES
NT VOLTAGE REGULATORS

REGULATORY MECHANISMS (BIOLOGY)
Measurement of behavioral thermoregulation
[PB92-217033] 07 p2024 N93-21046
Cerebral autoregulation in microgravity 07 p1809 N93-21112

REHEATING
U HEATING

REIGNITION
U IGNITION

REINFORCED PLASTICS
NT CARBON FIBER REINFORCED PLASTICS
NT GLASS FIBER REINFORCED PLASTICS
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Mass loaded composite rotor for vibro-acoustic application
[AD-D015604] 07 p1831 N93-20016
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
Predesign of the tubular braiding process using a mathematical process description 07 p1836 N93-21143
Infrared imaging of fibre reinforced plastic composites 07 p1838 N93-21162
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984

REINFORCED PLATES
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609

REINFORCED SHELLS
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders 04 p0897 N93-14251
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015

REINFORCEMENT (STRUCTURES)
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852

REINFORCING FIBERS
NT ARAMID FIBERS
NT CARBON FIBERS
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Toughness of SiGN4-SiC whisker composites
[REPT-921-430-101] 02 p0239 N93-11586
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Fracture toughness of short fiber/brittle matrix composites 03 p0528 N93-12630
Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754
Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy 04 p0829 N93-14192
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
Advances in 3-dimensional braiding 04 p0833 N93-14748
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Industrial applications of multiaxial warp knit composites 04 p0833 N93-14750
Properties of textile grade ceramic fibers 04 p0833 N93-14751
The optimal fiber volume fraction and fiber-matrix property compatibility in fiber reinforced composites 04 p0833 N93-14752
Mechanical response of composite materials with through-the-thickness reinforcement 04 p0834 N93-14753
Modeling of Euclidean braided fiber architectures to optimize composite properties 04 p0834 N93-14755
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364
Effect of microstructure on the strength and fracture energy of bimaterial interfaces
[AD-A259181] 07 p1921 N93-20271
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
Production of highly integrated FRP parts in the braiding technology 07 p1835 N93-21136
Continuous fiber reinforced thermoplastic composites 07 p1835 N93-21138
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials 07 p1836 N93-21141
Special fibres from natural polymers 07 p1837 N93-21151
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597

International Workshop on Advances in Inorganic Fibre Technology
[AD-A260719] 09 p2639 N93-25908
Electrostatic fiber spreader
[AD-D015677] 09 p2640 N93-26143
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
The study of fiber-matrix interactions via FT-IR microscopy and NMR imaging
[AD-A262326] 10 p3004 N93-27651
Aligned, short-fiber composites by novel flow processing methods
[DE93-008701] 11 p3296 N93-28904
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
Progress in speckle-shift strain measurement 12 p3693 N93-31558
Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

REINFORCING MATERIALS
Large-deflection analysis of cord composite plates 03 p0530 N93-13008
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
The thermoviscoelastic behavior of composite materials
[ITN-93-85185] 05 p1098 N93-16856
The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Numerical control fabrication technique for dynamic composite models
[NASA-CASE-LAR-14004-1] 06 p1640 N93-19024
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
What's a Parabeam 3D? 07 p1835 N93-21137
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829

REISSNER THEORY
Load-transfer and crack bridging in fiber-toughened ceramic composites 03 p0629 N93-13754

RELATIVE BIOLOGICAL EFFECTIVENESS (RBE)
Target fragmentation in radiobiology
[NASA-TM-4408] 06 p1598 N93-18381

RELATIVISTIC EFFECTS
Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
Relativistic condensate and cosmology 02 p0486 N93-12330
Fast ion-driven Bernstein instabilities
[DE92-019393] 03 p0705 N93-12713
The 2S(+) - 2P separation in KO
[NASA-TM-108086] 03 p0702 N93-12900
Cross sections and rate coefficients for the electron-impact excitation of He-like ions
[ISAS-RN-647] 03 p0703 N93-13095
Cosmological constraints on early-decaying particles 03 p0750 N93-13123
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
The advances in F and T technology: Their benefits of and for space science and technology 09 p2831 N93-24979
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Prospects of two-way international time scale comparisons 09 p2832 N93-24988
Point form relativistic quantum mechanics and relativistic SU(6) 10 p3144 N93-27332
Phase space localization for anti-de Sitter quantum mechanics and its zero curvature limit 10 p3144 N93-27333
Proper-time relativistic dynamics 10 p3144 N93-27334
Quasar redshifts and non-potential interactions
[SSCL-PREPRINT-758] 10 p3205 N93-28143
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test 12 p3849 N93-31778

RELATIVISTIC ELECTRON BEAMS
Simulation of electron beam transport in ion-focused regime conditioning cells
[AD-A253352] 01 p0070 N93-10215
Propagation of relativistic high current electron beams across the geomagnetic field
[DE92-018276] 02 p0362 N93-11564
BANSHEE: High-voltage repetitively pulsed electron-beam driver
[DE92-017413] 02 p0444 N93-11763
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Forecasting the relativistic electron flux at geosynchronous orbit
[AD-A254016] 02 p0226 N93-12064
Theory of the ion-channel laser 03 p0607 N93-13777
Conditioning electron beams in the ion-focused regime
[AD-A255635] 04 p0978 N93-14127
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
Electron acceleration by longitudinal electric field of a Gaussian laser beam
[DE92-526947] 04 p0887 N93-15296
Measurements of the energy spectrum of an intense microsecond relativistic electron beam in the beam-plasma experiments using a multi-foil analyzer
[DE93-606271] 11 p3590 N93-30768
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation
[DE93-605693] 11 p3400 N93-30993

RELATIVISTIC PARTICLES
NT RELATIVISTIC ELECTRON BEAMS
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
Radiation belt dynamic and quasi-static modeling based on CRRES data: Outer-belt short-term response data base
[AD-A256483] 04 p0916 N93-14899
Production of relativistic anti-hydrogen atoms by pair production with positron capture and measurement of the Lamb shift
[DE93-001767] 04 p0978 N93-15468
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
BRST field theory of relativistic particles
[NIKHEF-H/92-04] 05 p1286 N93-16341
A two body relativistic equation for interacting nucleons
[NOTA-INTERNA-976] 05 p1295 N93-17630
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom
[NOTA-INTERNA-993] 06 p1653 N93-17944
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Remarks about massive and massless particles in supersymmetry 10 p3138 N93-27335
Covariant harmonic oscillators: 1973 revisited 10 p3147 N93-27358
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
Radiation reaction for the classical relativistic spinning particle in scalar, tensor and linearized gravitational fields
[DE93-608191] 12 p3757 N93-31304
Scalar symmetry of the massless Dirac equation
[DE93-609921] 12 p3832 N93-31914
Helicity amplitudes for matter-coupled gravity
[DE93-609932] 12 p3832 N93-32025

RELATIVISTIC PLASMAS
Topics in high-intensity laser plasma interaction 02 p0450 N93-11191
Electron acceleration in a relativistic electron plasma wave 02 p0319 N93-12033
Interactions of relativistic electrons with relativistic plasma waves 04 p0988 N93-14139
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990
Emission from relativistic jets in blazars 08 p2536 N93-23900

RELATIVISTIC THEORY
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
A two body relativistic equation for interacting nucleons
[NOTA-INTERNA-976] 05 p1295 N93-17630
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187
Theoretical studies in medium-energy nuclear and hadronic physics
[DE93-004373] 06 p1657 N93-19503
Configuration space Faddeev calculations
[DE93-006080] 08 p2475 N93-23337
Point form relativistic quantum mechanics and relativistic SU(6) 10 p3144 N93-27332
Phase space localization for anti-de Sitter quantum mechanics and its zero curvature limit 10 p3144 N93-27333
Proper-time relativistic dynamics 10 p3144 N93-27334
The algebra of supertraces for 2+1 super de Sitter gravity 10 p3144 N93-27337
Wigner expansions for partition functions of nonrelativistic and relativistic oscillator systems 10 p3145 N93-27343
An algebraic approach to the quantization of constrained systems: Finite dimensional examples 11 p3548 N93-28671
Modern approach to relativity theory (radar formulation)
[DE93-606032] 11 p3606 N93-30804
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927
Fourth-rank cosmology
[DE92-641346] 11 p3637 N93-30997
Scalar symmetry of the massless Dirac equation
[DE93-609921] 12 p3832 N93-31914

RELATIVISTIC VELOCITY
Observation of pulses propagating at supraluminous speed in an optical fiber 02 p0320 N93-12040
Electromagnetic lepton-pair production in relativistic collisions
[DE92-011069] 03 p0706 N93-12829
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922

Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923

RELATIVITY

Data reduction analysis for the Stanford relativity gyroscope experiment 01 p0086 N93-10347
Anti-hydrogen: The cusp between quantum mechanics and general relativity
[DE93-001807] 04 p0998 N93-15469
Gravitationally induced synchrotron radiation: A new test for general relativity
[PREPRINT-822] 05 p1297 N93-16420
SSG 4.119: Relativistic effects in geodesy 07 p1973 N93-20985
Electromagnetism from counting
[DE93-006930] 08 p2261 N93-22582
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
The two black hole problem in 3+1 general relativity: Analytical approximations and numerical solutions of the initial data 08 p2548 N93-23212
Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463
Atomic time scales for dynamical astronomy 09 p2832 N93-24984
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Variational methods in general relativity: Mitteleuropean mathematical inaccuracy and Italian rigour. The contribution of A. Palatini
[SSCL-PREPRINT-760] 10 p3156 N93-28145
Beyond metric gravity: Progress on PS-200
[DE93-008723] 10 p3158 N93-28461
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
An algebraic approach to the quantization of constrained systems: Finite dimensional examples 11 p3548 N93-28671
Topics in General Relativity theory: Gravitational-wave measurements of black-hole parameters; gravitational collapse of a cylindrical body; and classical-particle evolution in the presence of closed, timelike curves 11 p3603 N93-28690
Investigation of a geodesy coexperiment to the Gravity Probe B relativity gyroscope program
[NASA-CR-193263] 11 p3460 N93-29179
A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784
On the photonic chiral anomaly in an external gravitational field
[DE93-606082] 11 p3479 N93-30785
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786
Modern approach to relativity theory (radar formulation)
[DE93-606032] 11 p3606 N93-30804
A simple formula for reducing Feynman diagrams to scalar integrals
[DE92-644717] 11 p3607 N93-30916
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927
Relativity theory in (2 + 2)-space
[DE92-644671] 11 p3608 N93-30983
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
Ashtekar variables, self-dual metrics, and w(infinity)
[DE92-642588] 12 p3802 N93-31074
2 + 1 gravity without dynamics
[DE92-642587] 12 p3757 N93-31081
Relativistic transport theory
[KVI-952] 12 p3830 N93-31121
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles
[DE93-608203] 12 p3818 N93-31240

RELAXATION (MECHANICS)

NT SPIN-LATTICE RELAXATION
NT STRESS RELAXATION
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
Microwave and infrared dielectric relaxation of alkylcarbonates, chloroform and their mixtures at 25 C
[AD-A253606] 03 p0537 N93-13096
Atomic relaxation modes in grain boundaries
[DE92-016781] 03 p0722 N93-13195
Energetics and dynamics of excess electrons in simple fluids 03 p0704 N93-13369
Charge-induced structural relaxation in amorphous semiconductors
[MBB-Z-0265-89-PUB] 05 p1151 N93-17641
Role of atomic size and valence in bonding and diffusion at metal surfaces
[DE93-003994] 07 p1857 N93-21972
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics
[SSCL-PREPRINT-725] 10 p3126 N93-28098
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays
[DE93-008713] 11 p3593 N93-29094
Anelastic relaxations associated with local disordering in grain boundaries
[AD-A263101] 11 p3596 N93-29796
Electrical relaxation in acid-form nafion
[AD-A263558] 11 p3410 N93-29826
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805

RELAXATION METHOD (MATHEMATICS)

SU(3) lattice gauge fixing with overrelaxation and Gribov copies
[PREPRINT-839] 05 p1322 N93-16993
Use of the microcomputer to solve large p-median problems
[INPE-5336-PRE/1735] 06 p1628 N93-19786
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Image classification using Markov random fields with two new relaxation methods: Deterministic pseudo annealing and modified metropolis dynamics
[INRIA-RR-1606] 11 p3553 N93-28510
Mapping robust parallel multigrid algorithms to scalable memory architectures
[NASA-CR-191470] 12 p3793 N93-32359

RELAXATION TIME

Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Isothermal annealing and relaxation of the second harmonic generation signal from a nonlinear optical polymer
[AD-A262007] 11 p3333 N93-29442

RELAY SATELLITES

NPR and intermodulation in mobile satellite systems 04 p0806 N93-14931
Frequency generation and synthesis in the DRSS 09 p2693 N93-25054

RELEASING

Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718

RELIABILITY

NT AIRCRAFT RELIABILITY
NT CIRCUIT RELIABILITY
NT COMPONENT RELIABILITY
NT COMPUTER PROGRAM INTEGRITY
NT SOFTWARE RELIABILITY
NT SPACECRAFT RELIABILITY
NT STRUCTURAL RELIABILITY
Review and analysis of check valve failure data
[DE92-014462] 01 p0091 N93-10381
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Identifiability in the autopsy model of reliability theory 03 p0620 N93-13710
Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Reliability modelling for non-electronic systems
[REPT-921-440-103] 04 p0894 N93-15139
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
Reliability evaluation methodology for NASA applications 05 p1182 N93-17328
UPT scenarios: Implications for system reliability 05 p1182 N93-17332
A revised lower confidence limit procedure for the reliability of complex quasi-coherent systems
[AD-A257599] 05 p1277 N93-17764
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Optimum design of experiments in composite reliability
[AD-A257574] 06 p1477 N93-18178
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
Portable RF leak detector evaluations and UDRI/MRC HAMS refinements
[AD-A258819] 06 p1509 N93-19073
What makes a family reliable? 06 p1720 N93-19264
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
NiCd cell reliability in the mission environment 07 p1985 N93-20510
Reliability of failure envelopes for composite materials 07 p1929 N93-20642
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Representation and readability of logic diagrams and aspects of their automatic generation
[ETN-93-92559] 07 p1890 N93-20751
An evaluation of R/D needs based on cogeneration system operational experience
[PB93-114494] 07 p1987 N93-21455
Reliability of solid rocket motor cases and nozzles 08 p2176 N93-22103
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
Rendezvous strategy impacts on CTV avionics design, system reliability requirements, and available collision avoidance maneuvers 08 p2139 N93-22248
Safety and performance of a long life lithium-thionyl chloride battery
[DE93-005348] 08 p2279 N93-22821
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report 10 p2983 N93-26976
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
Follow-on operational test and evaluation of the NAVSTAR global positioning system air integration/installation program
[AD-A263067] 10 p2941 N93-27925
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
Tutorial: Performance and reliability in redundant disk arrays 11 p3537 N93-30463
Striped tertiary storage arrays 11 p3620 N93-30464
Optimizing digital 8mm drive performance 11 p3435 N93-30479
The position test: A computer generated process for acquisition of inductive logic thinking 12 p3775 N93-31232

Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113
Information for the user in design of intelligent systems 12 p3801 N93-32149

RELIABILITY ANALYSIS

Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs 01 p0010 N93-10539
VLSI design for reliability - hot electron [AD-A253942] 01 p0074 N93-10715
Ceramic component reliability with the restructured NASA/CARES computer program [NASA-TM-105856] 02 p0334 N93-11004
On the basis of experience: Built in product reliability [PNR-90932] 02 p0331 N93-11034
Advanced three-shaft engines: Configured for reliability, efficiency, and growth [PNR-90986] 02 p0211 N93-11068
VLSI design for reliability [AD-A253207] 02 p0292 N93-11781
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1 [AD-A254633] 02 p0414 N93-12242
Reliability analysis of a utility-scale solar power plant [DE92-016550] 02 p0348 N93-12312
VLSI reliability research [AD-A254883] 02 p0295 N93-12360
Requirements for soldered electrical connections [NHB-5300.4(3A-2)] 03 p0570 N93-12674
Probabilistic finite elements for fatigue and fracture analysis [NASA-CR-191246] 03 p0624 N93-13029
Software reliability through fault-avoidance and fault-tolerance [NASA-CR-189880] 03 p0686 N93-13293
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits [AD-A255836] 04 p0894 N93-14104
Development of an environment for software reliability model selection [AD-A256609] 04 p0942 N93-14241
Flight termination systems commonality standard [AD-A255349] 04 p0789 N93-14517
Software reliability, measurement, and testing software reliability and test integration, volume 1 [AD-A256242] 04 p0944 N93-14572
Software reliability, measurement, and testing. Volume 2: Guidebook for software reliability measurement and testing [AD-A256164] 04 p0944 N93-14581
Reliability techniques for combined hardware and software systems [AD-A256347] 04 p0895 N93-15204
An overview of reliability growth models and their potential use for NASA applications [NASA-TP-3309] 04 p0895 N93-15433
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock [AD-A257461] 05 p1090 N93-16131
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems 05 p1254 N93-17305
Reliability analysis of External Tank Attack Ring (ETA) 05 p1182 N93-17322
Reliability of numerical solutions of a diffusion equation modeling rf noise-induced dilution in particle beams [DE93-000837] 05 p1292 N93-17362
The product and services design and development software aided tool RELIASEP [ETN-93-93015] 06 p1617 N93-18076
Application of a neural network as a potential aid in predicting NTF pump failure [NASA-TM-107667] 06 p1620 N93-18332
A safety-based decision making architecture for autonomous systems [NASA-CR-191864] 06 p1641 N93-19362
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques [AGARD-CP-532] 06 p1422 N93-19653
Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program [NASA-CR-192405] 07 p2029 N93-19981
Development of high heat radiation printed boards 07 p1796 N93-20456
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Safety validation test equipment operation 07 p1801 N93-20487
Review on safety validation test 07 p1802 N93-20488
NiCd cell reliability in the mission environment 07 p1985 N93-20510
Reliability study of the NiH2 strain gage 07 p1908 N93-20515
An efficient method for the reliability analysis of geometric nonlinear frame structures 07 p1931 N93-20651
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
Instructions and advance training measures for the improvement of human reliability [MBB-FE-313-S-PUB-0500] 07 p2025 N93-21402
Report of the SSME assessment team [NASA-TM-108217] 07 p1830 N93-21645
Solid Propulsion Integrity Program (SPIP) for verifiable enhanced solid rocket motor reliability 08 p2176 N93-22104
Orbiter Autoland reliability analysis [NASA-TM-4464] 08 p2194 N93-23139
Modeling and analysis of software reliability 08 p2438 N93-23196
Fatigue and reliability analyses for wind turbines [DE93-004497] 08 p2380 N93-23318
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 1 [FL-D-22-VOL-1] 08 p2282 N93-23501
Study on the improved reliability and safety of lithium batteries by the use of electrochemical noise measurement, volume 2 [FL-D-22-VOL-2] 08 p2282 N93-23728
Aircraft engine reliability analysis using lower confidence limit estimate procedures [AD-A260386] 08 p2131 N93-24271
Development of code evaluation criteria for assessing predictive capability and performance [NASA-CR-192552] 08 p2442 N93-24473
Statistical modelling of software reliability [NASA-CR-192985] 09 p2809 N93-25257
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads 09 p2726 N93-25533
Reliability analysis of complex models using sure bounds [NASA-CR-191445] 10 p3091 N93-26897
Interactive reliability model for whisker-toughened ceramics [NASA-CR-191048] 10 p3002 N93-27006
Reliability studies of integrated modular engine system designs [NASA-TM-106178] 10 p2984 N93-27022
Probabilistic sizing of laminates with uncertainties [NASA-TM-106145] 10 p2990 N93-27082
Minimizing error in predicting the reliability of on-board satellite systems [AD-A262212] 10 p2963 N93-27650
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process [AD-A262118] 10 p2945 N93-28184
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA [DE93-001923] 11 p3505 N93-28942
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques [NASA-CR-190785] 11 p3288 N93-29068
Efficient algorithms for the evaluation of planar network reliability [AD-A263602] 11 p3531 N93-29916
Multiprocessing systems: Reliability modelling and analysis using multimode components and dependent failures [AD-A264230] 11 p3540 N93-30364
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing [NASA-CR-4509] 11 p3533 N93-30380
Automated failure mode effects and criticality analyses for reliability prediction of multibody mechanical systems 12 p3738 N93-31107
Minimize system cost by choosing optimal subsystem reliability and redundancy [NASA-TM-106251] 12 p3812 N93-31145
Phases of the project development and examination methodologies 12 p3775 N93-31231
Long-term reliability of gas pipeline repairs by reinforced composites. Annual report, July 1991-June 1992 [PB93-188647] 12 p3700 N93-31334
Experimental evaluation of an arrival time difference lightning positioning system [KNMI-WR-92-01] 12 p3767 N93-31600
Automatic specification of reliability models for fault-tolerant computers [NASA-TP-3301] 12 p3812 N93-31869
Multivariate problems of statistics, combinatorics, reliability, and signal processing [AD-A265213] 12 p3811 N93-32003
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
Enhanced methods for determining operational capabilities and support costs of proposed space systems [NASA-CR-193265] 12 p3812 N93-32350

RELIABILITY CONTROL

U QUALITY CONTROL
U RELIABILITY ENGINEERING

RELIABILITY ENGINEERING

Reliability assurance requirements for ESA space systems [ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
Ceramic component reliability with the restructured NASA/CARES computer program [NASA-TM-105856] 02 p0334 N93-11004
Role of automation in the ACRV operations 02 p0230 N93-11977
Ultrasonic flaw classification and sizing 02 p0333 N93-12533
Requirements for soldered electrical connections [NHB-5300.4(3A-2)] 03 p0570 N93-12674
Software reliability through fault-avoidance and fault-tolerance [NASA-CR-189880] 03 p0686 N93-13293
The use of degradation measures in assessing reliability 03 p0573 N93-13607
Identifiability in the autopsy model of reliability theory 03 p0620 N93-13710
Finite element study of ultrasonic imaging 03 p0700 N93-13774
Reliability techniques for combined hardware and software systems [AD-A256347] 04 p0895 N93-15204
An overview of reliability growth models and their potential use for NASA applications [NASA-TP-3309] 04 p0895 N93-15433
Optimal allocation under partial ordering of lifetimes of components [AD-A255577] 05 p1181 N93-16040
Kinematic evaluation of end effector design [AD-A257519] 06 p1544 N93-18002
Reliability, Maintainability, and Supportability (RMS) education in engineering schools [AD-A258260] 06 p1552 N93-18026
Defect tolerance of hybrid pressure vessels: The total reliability versus total failure as an interpretation criterion [ILR-MITT-272(1992)] 06 p1552 N93-18097
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems [AD-A257790] 06 p1519 N93-18236
Reliable fusion of control and sensing in intelligent machines [NASA-CR-192780] 07 p2048 N93-21371
High reliability residual compressive stress processes. State-of-the-art assessment [PB93-127751] 08 p2331 N93-24207
Multiobjective optimization of aerospace structures [AD-A260433] 08 p2127 N93-24430
Reliability assessment at airline inspection facilities. Volume 1: A generic protocol for inspection reliability experiments [DOT/FAA/CT-92/12-VOL-1] 09 p2582 N93-25110
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report 10 p2983 N93-26976
Onboard system health assessment 10 p2965 N93-27716
Development of an updated pinch-welding capability [DE93-009823] 11 p3442 N93-28552
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing [NASA-CR-4509] 11 p3533 N93-30380
Steps required in the pursuit of quantitative risk management processes for high pressure systems [DE93-007586] 11 p3378 N93-30508
Automated failure mode effects and criticality analyses for reliability prediction of multibody mechanical systems 12 p3738 N93-31107
System reliability and risk assessment task goals and status 12 p3695 N93-31568
Life extending control: An interdisciplinary engineering thrust 12 p3697 N93-31581
Advanced launch system multi-path redundant avionics architecture analysis and characterization [NASA-CR-4516] 12 p3795 N93-31642

RELIC RADIATION

Cosmic microwave background anisotropies from plausible double inflation [DE92-016195] 01 p0192 N93-10616
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146

Measurements of the cosmic microwave background temperature at 1.47 GHz
[DE93-000587] 05 p1400 N93-17379

RELIEF MAPS
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11958
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364
Automated classification of basic-level terrain features in digital elevation models
[AD-A256932] 05 p1190 N93-16504
An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system
07 p1967 N93-20529
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Multisensor data applications for digital landscape models 08 p2350 N93-23550
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Code vector density in topographic mappings
[RSRE-MEMO-4669] 12 p3746 N93-31611

RELIEF VALVES
Gas storage and recovery system
[NASA-CASE-MSC-22091-1] 10 p3021 N93-28136

RELIEVING
NT STRESS RELIEVING

REMAGNETIZATION
U MAGNETIZATION

REMANENCE
Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129
Modification of the S-band phase shifter model 331A-3 of Electromagnetic Sciences Inc.
[DIGEL-1992-5] 11 p3399 N93-30836

REMELTING
U MELTING

REMODULATION
Design and integration of high bit rate four phase monolithic demodulators and modulators at X band
[LAAS-92354] 11 p3414 N93-31030

REMOTE CONSOLES
Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373

REMOTE CONTROL
NT RADIO CONTROL
Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966
Remote systems development
02 p0330 N93-11971
Sensor-based driving of a car with fuzzy inferencing VLSI chips and boards
[DE92-017819] 04 p0963 N93-14818
Remote vehicle controller
[AD-D015389] 04 p0893 N93-15251
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Teleprogramming: Remote site robot task execution
06 p1641 N93-19046
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
Remotely controlled C band signal generator
[AD-D015602] 07 p1880 N93-20014
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Research on data handling technology
07 p1795 N93-20448
Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
US automated rendezvous and capture capabilities review. Remote umbilical system abstract
08 p2138 N93-22239
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Payload operations for precursor mission E-1
08 p2155 N93-24342
Telescience opportunities in the precursor flights
08 p2161 N93-24376
Columbus automation testbed: A tool for users
08 p2164 N93-24390
The Space Robot Technology Experiment (ROTEX) on Spacelab-mission D2 08 p2164 N93-24391
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions
08 p2165 N93-24398
Telescience Testbed Program: A study of software for SIRTF instrument control
[NASA-CR-192764] 08 p2442 N93-24476
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Modeling, simulation, and high-autonomy control of a Martian oxygen production plant
10 p3021 N93-26693
An electromagnetically levitated two-axis gimbaless pointing mechanism 10 p2961 N93-27565
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
Security of the remote control link of Anik E satellites
11 p3365 N93-30282
A video transmission system for low-bandwidth remote driving
[DE93-010275] 11 p3544 N93-30529
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056
Telescience pilot experiment results using telePODI
[NLR-TP-90326-U] 12 p3823 N93-31118
Remote surface inspection system
12 p3739 N93-32099
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
Real-time qualitative reasoning for telerobotic systems
12 p3737 N93-32116
Potential low-cost telerobotics flight experiments
12 p3737 N93-32120

REMOTE HANDLING
Automated dry powder dispenser for explosive components
[DE92-019425] 03 p0555 N93-12568
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22892
FALCON remote laser alignment system
[DE93-006448] 08 p2309 N93-23693
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Detailed solution to a complex kinematics chain manipulator
[DE93-004619] 09 p2725 N93-25357
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Robotics and artificial intelligence for hazardous environments
[DE93-008271] 11 p3541 N93-29047
Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
Radiation-hardened microwave communications system
[DE93-007915] 11 p3394 N93-30631

REMOTE MANIPULATOR SYSTEM
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
Modelling of flexible multibody dynamics and a computer method via the bond graph method
01 p0065 N93-10573
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Enhanced accuracy for closed-loop robot
03 p0617 N93-13808
Dexterous grasp and manipulation
03 p0618 N93-14075
Cooperative control of multiple space manipulators
04 p0805 N93-14923
Vision system requirements and concept for the Special Purpose Dexterous Manipulator system (SPDM)
04 p0805 N93-14924
MOVE: A neutral network paradigm for robotic control
04 p0805 N93-14925
Applications of the mobile servicing system to the space exploration initiative 04 p0809 N93-14946
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
A concept for a supervised autonomous robot
04 p0810 N93-14950
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration
06 p1468 N93-18934
Research on space robot technology
07 p1794 N93-20440
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware
08 p2141 N93-22260
Magnetic end effectors for space operations
08 p2146 N93-22291
Advanced telerobotic control using neural networks
08 p2455 N93-22364
End effectors and grapple fixtures
[CA-PATENT-1-294-917] 08 p2316 N93-23966
Grapple fixture
[CA-PATENT-1-297-519] 08 p2317 N93-23967
Space Station Freedom automation and robotics: An assessment of the potential for increased productivity
[NASA-TM-108714] 08 p2195 N93-24149
Dynamics of on-orbit construction process
09 p2669 N93-26406
The mobile servicing system
10 p2970 N93-27821
Space teleoperations technology for Space Station evolution 10 p2970 N93-27823
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover
10 p2951 N93-28032
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080
A functional system architecture for fully autonomous robot 11 p3370 N93-30311
Joint drive development for the Space Station Remote Manipulator System 11 p3370 N93-30313
Active damping in a flexible manipulator
12 p3689 N93-31452
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146

REMOTE REGIONS
NT ANTARCTIC REGIONS
NT ARCTIC REGIONS
Aerosol chemistry in GLOBE
07 p2009 N93-20102

REMOTE SENSING
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Imaging radar investigations of the Sudbury structure
01 p0117 N93-10162
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
SBS applications study
[AD-A253779] 01 p0102 N93-10234

Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283
Automatic cloud classification from multi-spectral satelliite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
Monitoring structural response in pressurized environments. Part 2: Applications
[DE92-015034] 01 p0094 N93-10327
Remote sensing data for monitoring and evaluating burned areas: Case of Emas National Park (GO)
[INPE-5312-PRE/1709] 01 p0102 N93-10373
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Magnetospheres and atmospheres of planets 01 p0182 N93-10922
The millimeter wave Cloud Profiling Radar System (CPRS)
[DE92-016970] 02 p0366 N93-10971
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
An evidential reasoning approach to the classification of satellite images
[DLR-FB-91-29] 02 p0342 N93-11140
Volcanology from space: Applications of infrared remote sensing 02 p0343 N93-11213
Payload advisory panel recommendations
[NASA-TM-108012] 02 p0219 N93-11528
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789
Foil optimization for low energy neutral atom imaging
[DE92-013435] 02 p0365 N93-12263
Low energy neutral atom imaging
[DE92-013531] 02 p0365 N93-12264
ERS-1 user handbook
[ESA-SP-1148] 02 p0344 N93-12280
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
Meeting review: Third NCAR Research Aircraft Fleet Workshop
[PB92-222710] 03 p0649 N93-12818
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Radiometric calibration of SAR systems 03 p0564 N93-13055
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Radiative transfer theory for polarimetric remote sensing of pine forest 03 p0633 N93-13085
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0669 N93-13382
Brazilian remote sensing community: Historical, geographical and economic aspects
[INPE-5421-PRE/1763] 03 p0634 N93-13412
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall 03 p0663 N93-13489
New approaches to the measurement of chlorophyll, related pigments and productivity in the sea
[NASA-CR-190879] 03 p0673 N93-13612
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
Development of moored oceanographic spectroradiometer
[NASA-CR-190883] 03 p0670 N93-13708
The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters 03 p0635 N93-13840
Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867
Automatic pattern recognition techniques for geometrical correction on satellite data 03 p0687 N93-13913
An evaluation of the use and future need of remotely sensed images in grades K-12 03 p0635 N93-13956
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Technology reconciliation in the remote sensing era of US civilian weather forcasting: 1957 - 1987 04 p0918 N93-14114
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil 04 p0905 N93-14450
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612
Definition study PHARUS
[AD-A256560] 04 p0860 N93-14805
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823
Ocean wave detection using satellite altimetry 04 p0906 N93-14839
Two micron laser development for atmospheric remote sensing at NASA Langley Research Center 04 p0784 N93-14845
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor 04 p0784 N93-14846
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
Global survey of effective particle size in liquid water clouds by satellite observations 04 p0921 N93-14862
An overview of RADARSAT payload technologies 04 p0807 N93-14933
Earth environment space initiative 04 p0811 N93-14953
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans 04 p0927 N93-14971
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data 04 p0927 N93-14975
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data 04 p0928 N93-14981
Ocean circulation using altimetry 04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream 04 p0929 N93-14985
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Precise orbit computation and sea surface modeling 04 p0813 N93-15000
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171
Observation of the Earth-atmosphere system by NOAA satellite (acquisition, production, application, and use of NOAA data)
[BCRS-92-02] 05 p1207 N93-16221
Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Cloud and aerosol characterization for the ARM central facility: Multiple remote sensor techniques development
[DE93-000915] 05 p1202 N93-16535
An expert system shell for inferring vegetation characteristics: Implementation of additional techniques (task E)
[NASA-CR-190999] 05 p1191 N93-16685
An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687
An expert system shell for inferring vegetation characteristics
[NASA-CR-191207] 05 p1191 N93-16691
Lunar exploration for resource utilization 05 p1380 N93-16877
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
LEAF research
[BCRS-91-16] 05 p1192 N93-17053
Remote hydrogen sensing techniques
[NASA-CR-192416] 05 p1189 N93-17203
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Joint Workshop on New Technologies for Lunar Resource Assessment
[NASA-CR-191918] 05 p1385 N93-17233
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234
Lunar resource assessment: An industry perspective 05 p1387 N93-17246
Lunar prospector: A preliminary surface remote sensing resource assessment for the Moon 05 p1389 N93-17256
Remote assessment of lunar resource potential 05 p1391 N93-17268
Lunar lava tube sensing 05 p1391 N93-17270
A second generation expert system for checking and diagnosing AXAF's electric power system 05 p1152 N93-17287
A plan for accurate estimation of daily area-mean rainfall during the CaPE experiment 05 p1219 N93-17292
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis 05 p1170 N93-17338

Validation of simulated evaporation reductions using remote sensing in Mander (Netherlands)
[REPT-131] 05 p1192 N93-17397

The Lunar Orbital Prospector
05 p1395 N93-17436

Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437

Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755

Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927

Image matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951

Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953

Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979

Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009

Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073

A microwave scattering model for layered vegetation
06 p1565 N93-18074

Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126

Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216

Holographic enhanced remote sensing system
[NASA-CR-190867] 06 p1565 N93-18230

Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast
[NASA-CR-192120] 06 p1586 N93-18360

An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373

Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374

Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430

Microwave remote sensing for forest monitoring purposes
[BCRS-91-15] 06 p1566 N93-18431

Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432

Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525

Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557

Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658

Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761

RAWS 1992 progress report
[NASA-CR-191382] 06 p1587 N93-18849

Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881

C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931

Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036

Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337

Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370

Incorporation of orbital imagery into a cartographic data base
[INPE-5300-PRE/1705] 06 p1688 N93-19644

Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646

On the computation of carbon and water cycles in forest ecosystems using a biogeochemical model and remotely sensed data
[INPE-5443-TDI/489] 06 p1567 N93-19737

Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739

Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789

Multiple study inventory method for tropical forest
[INPE-5319-PRE/1716] 06 p1568 N93-19790

Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792

Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795

NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821

Tube diode
[INPE-5438-NTC/304] 06 p1551 N93-19832

Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833

Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856

Airborne Remote Sensing
[VTT-SYMPOSIUM-127] 06 p1569 N93-19871

What is the aerial telemapping system?
06 p1569 N93-19872

Business development considerations for the imaging spectrometer project 06 p1569 N93-19873

Microwave instruments 06 p1569 N93-19874

The Geological Research Center's aerial geological measuring system 06 p1569 N93-19875

Atmospheric measurements taken from an aeroplane
06 p1569 N93-19876

Present and future imaging spectrometers in telemapping 06 p1570 N93-19877

The use of imaging spectrometers
06 p1570 N93-19878

Airborne imaging spectrometer development tasks
06 p1539 N93-19880

Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192098] 06 p1583 N93-19886

Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898

Remote sensing of earth terrain
[NASA-CR-192139] 07 p1966 N93-19979

The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987

High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022

Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045

NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067

Global temperature variations
07 p2003 N93-20068

Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079

AMPR/SSMI data comparisons
07 p2005 N93-20081

WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water
07 p2005 N93-20082

Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083

Atmospheric electricity/meteorology analysis
07 p2006 N93-20086

Airborne full polarization radiometry using the MSFC Advanced Microwave Precipitation Radiometer (AMPR)
07 p2007 N93-20089

Microwave radiative transfer studies of precipitation
07 p2008 N93-20095

MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097

Aerosol chemistry in GLOBE
07 p2009 N93-20102

CO2 lidar backscatter experiment
07 p2009 N93-20103

Remote sensing of water vapor features
07 p2010 N93-20107

An investigation of the role of current and future remote sensing data systems in numerical meteorology
07 p2010 N93-20108

Data compression in remote sensing applications
07 p1881 N93-20172

Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322

Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360

In-situ determination of optical properties of sea water and particle characteristics in the Corfu Sea (Mediterranean): Report on the first joint campaign of the Mito project
[BCRS-92-04] 07 p2018 N93-20741

Report of the NERC Unit for Thematic Information Systems
[REPT-1989/91] 07 p1968 N93-20846

Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results
[NASA-TM-108607] 07 p2018 N93-20891

Product development of a user interface for Geographic Information Systems (GIS) and remote sensing for training purposes
[BCRS-90-32] 07 p2091 N93-20952

Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953

The use of thermal infrared remote sensing for water management: Report of the operational research
[BCRS-91-34] 07 p1969 N93-20954

Intelligent processing equipment within the Environmental Protection Agency
[PB92-217330] 07 p1989 N93-21011

Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038

The 1991-2000 National Remote Sensing Program
[BCRS-91-35] 07 p1975 N93-21205

Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270

Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271

International Space Year in China
07 p1975 N93-21272

Space program in Indonesia 07 p1975 N93-21273

Space program in Malaysia 07 p1976 N93-21277

National space programs and application of the remote sensing data in Mongolia 07 p1976 N93-21278

Status of remote sensing and Geographic Information System (GIS) applications in the Environment and Natural Resources (ENR) sector 07 p1976 N93-21279

Russian space system for the Earth remote sensing
07 p1977 N93-21280

Sun-synchronous and geo-synchronous satellite data utilization for environmental studies
07 p1977 N93-21281

Thailand ISY activities 07 p1977 N93-21282

National space program in Australia
07 p1977 N93-21283

Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286

Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539

Principles and application tendency of remote sensing: Its principle, function, and utilization
07 p1978 N93-21540

Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541

Study for natural environment in Okinawa Islands by using remote sensing 07 p1978 N93-21542

Remote sensing data application on forests in Okinawa Islands focusing on mangrove forests
07 p1978 N93-21543

Production of teaching materials from Geostationary Meteorological Satellite Himawari images
07 p1978 N93-21544

Changing weather information: Roles of meteorological information through meteorological satellites
07 p1979 N93-21545

Finding fish way by using remote sensing
07 p1979 N93-21546

Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569

Earth observation in the TIGER programme of the UK Natural Environment Research Council
07 p1953 N93-21572

Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields 07 p1955 N93-21580
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data 07 p1955 N93-21583
Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585
The influence of high clouds on climate 07 p1956 N93-21588
Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Satellite radar altimetry over sea ice 07 p1957 N93-21596
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
Microwave radiometry for monitoring the diverse cloudiness regimes on Earth: A review 07 p1958 N93-21600
Lake remote sensing for global climate research 07 p1958 N93-21602
Remote sensing of latent heat fluxes at the air-sea interface 07 p1959 N93-21603
Air/sea latent heat flux measurements with microwave radiometers 07 p1959 N93-21604
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
Representativity of wind measurement from space 07 p1961 N93-21617
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images 07 p1962 N93-21624
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
Measurement and interpretation of the sunlight backscattered from clouds within the oxygen-A absorption band 07 p1963 N93-21627
CLEOPATRA: A step towards GEWEX on the regional scale 07 p1963 N93-21628
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633
Surface circulation in the Adriatic Sea as observed by AVHRR 07 p1964 N93-21634
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636
Generation and distribution of remotely-sensed sea surface temperature images 07 p1964 N93-21637
Satellite data assimilation in the wave model 3G-WAM 07 p1965 N93-21638
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Specialist meeting on microwave radiometry and remote sensing applications, murad 92 [PB93-105757] 07 p1979 N93-21657
Remote sensing: Environmental effects of surface films [AD-A258571] 07 p1980 N93-21754
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry [DE93-003839] 07 p2098 N93-21849
Development of a multi-sensor in situ fiber optic fluorometer [DE93-004646] 07 p1995 N93-21975
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium [JTN-93-80413] 08 p2334 N93-22119
Overview of ISY plan 08 p2334 N93-22120
Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Overview of activities of ISY PIE Committee 08 p2335 N93-22129
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk 08 p2336 N93-22131
Microwave remote sensing of ice 08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
Vegetation distribution of South East Asia 08 p2336 N93-22134
Monitoring of growth environment of forest 08 p2336 N93-22135
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Upper-air circulation systems 08 p2337 N93-22138
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR 08 p2337 N93-22141
Environmental data sets in Canada 08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
Environmental data set in Thailand 08 p2338 N93-22145
Environmental data sets at the University of Alaska 08 p2338 N93-22146
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package 08 p2305 N93-22203
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR) [ESA-TT-1245] 08 p2339 N93-22436
The first European remote sensing satellite, ERS-1. A summary of useful load, mission, ground segment, standard products and user service 08 p2339 N93-22437
Use of remote sensing as part of the technical co-operation with developing countries 08 p2339 N93-22438
Earth sensing data service 08 p2339 N93-22439
Geological applications of space SAR data 08 p2339 N93-22440
MOS-1 08 p2340 N93-22442
Vegetation index for Europe 08 p2340 N93-22443
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data 08 p2340 N93-22445
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
The use of remote sensing data in a statistical ground utilization information system 08 p2341 N93-22447
Classification of TM data as a contribution to remote sensing for a hydrological run-off model 08 p2341 N93-22448
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Third Stokes parameter emission from a periodic water surface [NASA-CR-192334] 08 p2342 N93-22454
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model [ESA-TT-1238] 08 p2342 N93-22461
A sparse architecture low power gated integrator for use with germanium gamma ray spectrometers in remote geochemistry measurements [DE93-004769] 08 p2303 N93-22491
Investigation of cloud/water vapor motion winds from geostationary satellite [NASA-CR-192274] 08 p2403 N93-22653
Calibration, navigation, and registration of MAMS data for FIFE [NASA-TM-108397] 08 p2342 N93-22699
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology [DE93-003602] 08 p2279 N93-22819
Dual use of distributed remote sensing satellites [DE93-005442] 08 p2193 N93-22906
Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces [DE93-003865] 08 p2553 N93-22949
SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting [NASA-TM-104566-VOL-8] 08 p2413 N93-23010
Investigation of the applicability of remote sensing techniques for ecological water quality evaluation [BCRS-91-37] 08 p2342 N93-23106
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants [PB93-136604] 08 p2343 N93-23278
Carbon and biogeochemistry [DE93-001368] 08 p2386 N93-23306
Laser range camera data fusion [DE93-005159] 08 p2263 N93-23313
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
Perception, scene reconstruction and world modeling for unmanned underwater vehicles [PB93-146983] 08 p2459 N93-23443
Asteroid detection and monitoring using a satellite-borne visible scanner [AD-A259797] 08 p2543 N93-23455
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system [AD-A259834] 08 p2343 N93-23461
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping [ESA-ISY-2] 08 p2343 N93-23507
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
The production of satellite image maps: Experiments at the Technical University of Berlin 08 p2348 N93-23538
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Communications techniques supporting the data management 08 p2276 N93-23543
Mapping from SPOT data 08 p2349 N93-23544
System design for ARTEMIS environmental monitoring 08 p2349 N93-23545
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems 08 p2349 N93-23546
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Delivery of information from Earth observation satellites 08 p2350 N93-23549
Multisensor data applications for digital landscape models 08 p2350 N93-23550

Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data 08 p2350 N93-23552
Data for map algebra 08 p2350 N93-23553
A Digital Landscape Model for Europe (DLME) 08 p2351 N93-23554
Image treatment and geographical information systems at the service of the Common Agricultural Policy 08 p2351 N93-23555
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
The influence of geology and geomorphology on landslide hazards in an area in the Colombian Andes: The GIS approach 08 p2351 N93-23557
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data 08 p2351 N93-23558
Remote sensing landslide hazard mapping using GIS technology in Colombian Andes 08 p2351 N93-23559
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia 08 p2352 N93-23561
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563
Multispectral intelligent fusion techniques 08 p2352 N93-23564
The use of multiple linked self-organised artificial neural networks for classification of remotely sensed images 08 p2353 N93-23565
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
Assessment of actual land use by means of an integrated LIS 08 p2353 N93-23568
Application of remote sensing and GIS. Technology to natural resources management: Selecting rice fields in Vietnam 08 p2353 N93-23569
Integration of remote sensing and GIS data for a multiscale study of the Po river basin 08 p2353 N93-23570
Prototype for a regional data management system, a step towards a regional land use project 08 p2353 N93-23571
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
Integration of digital image matching and multi image shape from shading 08 p2354 N93-23575
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm 08 p2354 N93-23576
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems 08 p2354 N93-23577
Analysis of human impact on degradation and desertification of the West African Sahel by means of multi-level remote sensing techniques 08 p2355 N93-23578
The analysis of remotely sensed data with neural networks 08 p2355 N93-23579
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques 08 p2355 N93-23581
The creation of a DEM from SPOT data 08 p2355 N93-23582
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
The comparison of satellite radar altimeter derived heights with global digital terrain model heights 08 p2355 N93-23584
Feature detection using ERS-1 SAR data 08 p2356 N93-23586
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia 08 p2407 N93-23721
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects [ESA-ISY-1-VOL-3] 08 p2356 N93-23748
The Earth Observing System 08 p2356 N93-23749
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
NASDA's Earth observation satellite program 08 p2357 N93-23751
Meteosat operational programme current missions and services 08 p2357 N93-23752
Satellite-borne Earth observations in the framework of German global change research 08 p2357 N93-23755
Italian Space Agency activities in Earth observation 08 p2358 N93-23756
ERS-1: The first European Earth observation system 08 p2358 N93-23757
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2359 N93-23760
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters 08 p2359 N93-23762
The SPOT program 08 p2360 N93-23766
The SPOT 4 satellite and beyond 08 p2360 N93-23767
SPOT 4 image ground segment 08 p2360 N93-23768
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
The scientific program of the Priroda project 08 p2360 N93-23771
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit 08 p2361 N93-23775
Observations of atmospheric chemistry on the first European polar platform 08 p2361 N93-23776
Earth resources and ecological spacecraft 08 p2361 N93-23777
Remarks and proposals to adapt some Earth observations space programmes in the period of transition of the countries of central/eastern Europe; focused on Romania 08 p2362 N93-23778
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential 08 p2362 N93-23780
Usage of small-sized aerospace plane in the infrastructure of space research of the Earth 08 p2362 N93-23781
Priroda project: Optical sensors for environment research 08 p2362 N93-23782
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
The European polar platform and its Earth observation mission 08 p2363 N93-23784
Medium Resolution Imaging Spectrometer (MERIS) 08 p2363 N93-23785
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1 08 p2363 N93-23786
An advanced scatterometer for the European polar platform 08 p2363 N93-23787
The radar altimeter instrument for POEM-1 mission 08 p2363 N93-23788
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1 08 p2363 N93-23789
The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790
Broadband imaging spectrometer technology and its use potential for environmental change mission 08 p2364 N93-23791
Design of an imaging spectrometer processing chain for space application 08 p2364 N93-23792
Global ozone monitoring experiment 08 p2364 N93-23793
IASI (Infrared Atmospheric Sounding Interferometer): Programme objectives and status 08 p2364 N93-23794
Millimeter wave Atmospheric Sounder (MAS) 08 p2364 N93-23795
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
Method for enhancing of the spatial resolution of the passive radiometric systems 08 p2365 N93-23799
High resolution stereo images from the Space Station Mir 08 p2365 N93-23800
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2 08 p2365 N93-23801
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data 08 p2365 N93-23802
The International Space Year programme 08 p2366 N93-23803
COSPAR/SAFISY panel of experts on space science scientific program for the ISY 08 p2366 N93-23804
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
German contributions to the International Space Year ISY 1992 08 p2366 N93-23806
The Swedish ISY projects: A joint national contribution 08 p2366 N93-23807
Ocean colour programmes for the European marine environment 08 p2366 N93-23808
The space debris environment for remote sensing satellites 08 p2199 N93-23809
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment 08 p2367 N93-23812
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management 08 p2367 N93-23813
Contribution of remote sensing and GIS for rangeland management in the region of Ouarzazate (Morocco) 08 p2367 N93-23814
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Applicability of satellite remote sensing for slope instability hazard zonation 08 p2368 N93-23817
Results of international meeting held in Tunis (Tunisia) 08 p2368 N93-23818
Remote sensing of the Earth: A pilot program in German schools 08 p2369 N93-23822
Innovative interactive Earth systems science courseware for middle and high school students 08 p2334 N93-23823
Centres for space science and technology education: A United Nations initiative 08 p2369 N93-23826
Remote sensing satellite and thematic applications in high schools and elementary schools in France 08 p2370 N93-23829
Satellite-images in secondary education in Baden-Wuerttemberg (Germany) 08 p2370 N93-23830
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
GEOSCOPE: An interactive global change encyclopedia 08 p2370 N93-23833
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
The Oden real time ice monitoring demonstration 08 p2371 N93-23837
Development of data sets for the ISY sea surface temperature: MOS-1/MOS-1b data sets 08 p2371 N93-23838
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
Earth observation programmes and plans of the Commission of the European Communities (CEC) 08 p2372 N93-23843
New developments in the coordination of Earth observation from space activities: The role of the Committee on Earth Observations Satellites (CEOS) 08 p2372 N93-23844
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs 08 p2372 N93-23846
Canadian Earth observation program 08 p2373 N93-23847
United Kingdom Earth observation programme 08 p2373 N93-23848

The contribution of the Italian Space Agency to the establishment of space services for the changing Earth
08 p2373 N93-23849

Eumetsat practice for protection of its satellite data
08 p2373 N93-23850

US data policy for Earth observation from space
08 p2373 N93-23852

Conditions of access to Earth observation data: Legal aspects 08 p2373 N93-23853

Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854

International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data
08 p2374 N93-23855

Airborne studies of ocean-particle-cloud interactions [AD-A259874] 08 p2415 N93-23958

Active and passive remote sensing of ice [AD-A259765] 08 p2415 N93-24026

Studies on dynamism in photogrammetry
08 p2374 N93-24122

Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data [DLR-FB-92-10] 08 p2374 N93-24140

Remote sensing of inner heliospheric plasmas [AD-A260337] 08 p2558 N93-24268

Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite [AD-A260015] 08 p2401 N93-24301

Remote sensing and geographic informations systems: Implications for Global Marine Fisheries [PB93-149409] 08 p2374 N93-24309

Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis
08 p2158 N93-24361

Final report on the first step in distributed remote sensing [DE93-007936] 08 p2375 N93-24520

The 1993 Space and Earth Science Data Compression Workshop [NASA-CP-3191] 08 p2430 N93-24544

Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data [ESA-TT-1262] 08 p2558 N93-24633

Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater [PB93-150001] 08 p2375 N93-24638

Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700

Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704

Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management [ESA-ISY-1-VOL-2] 09 p2737 N93-24775

Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers
09 p2738 N93-24776

Remote sensed spectral signatures classification and recognition by neural networks: An approach to unsupervised techniques 09 p2738 N93-24779

Verification of a climate convention: Role and limitations of a space based remote sensing system
09 p2738 N93-24781

Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783

Satellite remote sensing for environmental geology: The Bandung (West Java) experience
09 p2739 N93-24784

Application of remote sensing data for the investigation of environmental degradation sites in East Germany
09 p2739 N93-24785

Application of remote sensing to environmental monitoring in Poland 09 p2739 N93-24786

The regional planning and control using the satellite data 09 p2740 N93-24788

Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789

Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791

Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792

Aerospace techniques in radiation and ecological monitoring of the Republic Belarus
09 p2741 N93-24793

Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794

Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795

A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information
09 p2741 N93-24796

Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797

Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods
09 p2741 N93-24798

Archaeological, historical and geoelectrical data as ground truth for Landsat TM imagery application to coastal plain evolution studies 09 p2742 N93-24799

Demonstration of seasonal changes in the territory of Finland using multitemporal NOAA-AVHRR data
09 p2742 N93-24801

The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802

Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803

Natural disasters and their mitigation using space technology 09 p2742 N93-24804

Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation
09 p2743 N93-24805

Satellite borne remote sensing data: A tool for natural disaster reduction 09 p2743 N93-24806

Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map
09 p2743 N93-24807

Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries 09 p2743 N93-24808

Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809

A method for sequential image analysis of hazard areas 09 p2743 N93-24810

The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811

Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812

The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813

Remote sensing of non-renewable resources
09 p2744 N93-24814

Remote sensing geology 09 p2744 N93-24815

Remote sensing in hydrology and water management
09 p2744 N93-24816

Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817

Remote sensing applied to agriculture state of the art and new trends 09 p2745 N93-24818

Applications of remote sensing for tidal waters, coastal areas and inland waters 09 p2745 N93-24819

Supporting the Portuguese fisheries with satellites
09 p2745 N93-24821

Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822

Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques
09 p2746 N93-24823

NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824

SEOMAR: An Italian approach to the observation of the Mediterranean area 09 p2746 N93-24825

The extent and status of mangroves in Mombasa district, Kenya: A case study based on remote sensing
09 p2746 N93-24826

Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827

Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828

Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data [ED-659-CP] 09 p2746 N93-24829

Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830

Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques 09 p2747 N93-24831

Hel's peninsula coastal zone changes in the last 40 years on a base of remote sensing methods
09 p2747 N93-24832

Evaluation of nearshore suspended sediment concentration through Landsat TM data: First results
09 p2747 N93-24833

Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834

Coastal environmental mapping using Landsat data [ED-658-CP] 09 p2747 N93-24835

World Forest Watch: A global forest monitoring test
09 p2748 N93-24836

The national parks of Bavarian Forest and Sumava: A Landsat TM perspective on the structure and dynamics of the largest woodland of Central Europe
09 p2748 N93-24837

Application of photographic remote sensing data from space for information about forests
09 p2748 N93-24838

Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839

The ESA ISY initiatives for forest inventory in Europe
09 p2748 N93-24840

Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842

Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843

A prototype system for forest fire prevention and control 09 p2749 N93-24844

The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845

Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846

Swedish forest information atlas
09 p2749 N93-24847

Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848

Toward a satellite based crop information system in Hungary 09 p2750 N93-24849

Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850

Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851

Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852

Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring
09 p2750 N93-24853

North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854

Registration of the use of agricultural fields and soil erosion using satellite remote sensing
09 p2751 N93-24856

Appliction of remote sensing to forestry mapping: Experience from the European collaborative programme for the less favoured areas 09 p2751 N93-24857

Biodiversity indication by Earth observation data
09 p2751 N93-24858

Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing
09 p2751 N93-24859

Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860

Combining spectral information with crop rotation knowledge for crop classifications
09 p2752 N93-24861

Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862

Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863

Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864

Scale dependence in the reflectance of deciduous woodland: Evidence from a helicopter-mounted spectroradiometer 09 p2752 N93-24865

Operational use of MOMS-02 (P2) data
09 p2752 N93-24866

Influence due to antenna pattern change in brightness temperature estimation for a space-based microwave radiometer 09 p2753 N93-24868

Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870

EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871

Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872

Current trends in satellite data supply for environmental monitoring 09 p2754 N93-24874

The Global Ocean Observing System
09 p2733 N93-24923

The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927

Feasibility study of a long duration balloon flight with NASA/GSFC and Soviet Space Agency Gamma Ray Spectrometers
[NASA-CR-192934] 09 p2573 N93-25077
Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
An expert system shell for inferring vegetation characteristics: Interface for the addition of techniques (Task H)
[NASA-CR-192897] 09 p2754 N93-25154
CEOS Committee on Earth Observations Satellites consolidated report, 1992
[NASA-TM-108776] 09 p2615 N93-25217
Cloud properties as inferred from HIRS/2 multi-spectral data 09 p2782 N93-25293
Former Soviet Republic capabilities in space and science
[DE93-007613] 09 p2598 N93-25322
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy) 09 p2755 N93-25434
Commercial applications multispectral sensor system 09 p2758 N93-25615
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Remote sensing of precipitation and electrification with a dual-polarization, coherent, wideband radar system
[AD-A260779] 09 p2756 N93-25679
Detecting the scale and resolution effects in remote sensing and GIS 09 p2756 N93-25707
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data 09 p2878 N93-25798
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800
Advanced data visualization and sensor fusion: Conversion of techniques from medical imaging to Earth science 09 p2880 N93-25810
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
The probabilistic neural network architecture for high speed classification of remotely sensed imagery 09 p2824 N93-25972
Image analysis by integration of disparate information 09 p2824 N93-25973
Method and apparatus for deflection measurements using eddy current effects
[NASA-CASE-GSC-13506-1] 09 p2710 N93-26103
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
Radar sensing of petroleum seepage gases
[AD-A261431] 09 p2682 N93-26455
Dual use of distributed remote sensing satellites
[DE93-008852] 10 p3062 N93-26615
Determination of lunar ilmenite abundance from remotely sensed data 10 p3208 N93-26689
GRAMI: A crop growth model that can use remotely sensed information
[PB93-162014] 10 p3062 N93-27053
Remotely sensed data from space: Distribution, pricing, and applications. An OTA background paper 10 p3062 N93-27066
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Coherent systems in the terahertz frequency range: Elements, operation, and examples 10 p3011 N93-27727
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Unmanned lunar surface exploration 10 p2951 N93-28035
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
SeaWiFS technical report series. Volume 6: SeaWiFS technical report series cumulative index: Volumes 1-5
[NASA-TM-104566-VOL-6] 11 p3486 N93-28500
Preprocessing remotely-sensed data for efficient analysis and classification
[DE93-007367] 11 p3611 N93-28580
Results from the US/Russian Meteor-3/Total Ozone Mapping Spectrometer
[NASA-TM-104576] 11 p3467 N93-28682
Polarimetric multispectral imaging technology 11 p3434 N93-28774
Imaging spectrometers using concave holographic gratings 11 p3434 N93-28783
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793
Filtering interpolators for image comparison algorithms 11 p3463 N93-28797
Use of particle beams for lunar prospecting 11 p3650 N93-28822
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
The German PAF (Processing and Archiving Facilities) for ERS-1 11 p3457 N93-28916
Processing of altimeter data by the German ERS-1 Processing and Archiving Facility (D-PAF) 11 p3457 N93-28917
Exact trajectory determinator for ERS-1 11 p3457 N93-28918
The interferometric SAR technology and its usability in the framework of ERS-1 11 p3457 N93-28919
Recording of forest surface in SAR-images with statistical methods in areas of pronounced relief 11 p3457 N93-28920
Forest examination with polarimetric radar image data 11 p3457 N93-28921
Remote sensing of agricultural vegetation: Status and perspectives 11 p3458 N93-28922
SAR shape-from-shading for a populated alpine area 11 p3458 N93-28923
Fog studies in the Alpine region with digital NOAA/AVHRR data 11 p3458 N93-28925
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland) 11 p3458 N93-28926
Model-oriented correction of thematic mapper raw data 11 p3459 N93-28930
Evidence-based classification of satellite image data 11 p3459 N93-28931
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
Earth observation from space: Competition or cooperation?
[AD-A262044] 11 p3459 N93-29000
Fiber grating-based sensing system with interferometric wavelength-shift detection
[AD-D015697] 11 p3577 N93-29038
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146
Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data 11 p3614 N93-29234
Spatial Analysis and Modeling Systems (SAMS) 11 p3614 N93-29239
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 1: Introduction, user requirements, and feasibility tests
[BCRS-90-40A-PT-1] 11 p3460 N93-29307
The MAESTRO-1 campaign: Analyses of polarimetric SAR data of agricultural fields and forests
[BCRS-92-06] 11 p3460 N93-29320
Preprocessing airborne remote sensing PARES calibration maintenance functional design document
[BCRS-92-07] 11 p3460 N93-29321
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Design of a high resolution spatial heterodyne interferometer
[AD-A262867] 11 p3285 N93-29461
National remote sensing programme 2 ACMS project. Phase 1: Validation. Part 1: Definition of validation experiment
[BCRS-92-10-PHASE-1-PT-1] 11 p3461 N93-29465
Remote sensing in Czechoslovakia and Hungary: An analysis of the possible co-operation of The Netherlands with Czechoslovakia and Hungary in the field of remote sensing
[BCRS-92-12] 11 p3461 N93-29466
Project Copernicus: An Earth observing system 11 p3231 N93-29738
Project MEDSAT 11 p3231 N93-29739
Low cost TACSAT for NATO surveillance 11 p3285 N93-29911
Cost effective TacSats for military support 11 p3285 N93-29912
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055
Observing and modelling F-region ionospheric dynamics using the OII 7320A emission 11 p3479 N93-30564
Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213
Conception of a modular real-time system for laser remote sensing with particular consideration of upward compatibility
[SER-C-378] 12 p3731 N93-31340
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
SWAN: A study of solar wind anisotropies 12 p3868 N93-31351
Observational tests of coronal heating models 12 p3877 N93-31403
Microflares observed with UVSP and HXIS 12 p3877 N93-31405
The microwave radiometer as a remote sensing device: Design and application
[ISBN-9-09-005507-X] 12 p3746 N93-31537
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803
Pulse holographic measurement techniques
[DE93-607634] 12 p3729 N93-31835
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859
Mass balance assessment using GPS 12 p3761 N93-31892
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178
Manipulating remotely-sensed data with Khoros
[DE93-012622] 12 p3842 N93-32298
Remotely sensed data from space. Distribution, pricing, and applications: An OTA background paper
[PB93-176964] 12 p3747 N93-32309
The application of remotely sensed data to studies of volcanism within the Galapagos Islands 12 p3747 N93-32326

Vegetation mapping for environment management and monitoring
[ETN-93-93466] 12 p3747 N93-32342
Satellite pictures: An efficient aid for information about land use
[ETN-93-93467] 12 p3747 N93-32343
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344
A new view of the sea
[ETN-93-93469] 12 p3747 N93-32345
ESTAR: The Electronically Scanned Thinned Array Radiometer for remote sensing measurement of soil moisture and ocean salinity
[NASA-TM-4523] 12 p3747 N93-32362

REMOTE SENSORS
NT THEMATIC MAPPERS (LANDSAT)
Remote sounding of the Martian atmosphere
01 p0189 N93-10378
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM
03 p0514 N93-13551
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans
04 p0784 N93-14847
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
Development of advanced seal verification
[NASA-CR-184502] 04 p0892 N93-15117
Remote fiber optic sensor for gaseous and liquid environments, phase 2
[AD-A256224] 04 p0983 N93-15241
Operational strategies for contamination control of composite materials 04 p0822 N93-15614
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Device for sensing unwanted electric and magnetic fields in a remote sensor electrical lead
[AD-D015508] 05 p1167 N93-16520
Cloud and aerosol characterization for the ARM central facility: Multiple remote sensor techniques development
[DE93-000915] 05 p1202 N93-16535
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Business development considerations for the imaging spectrometer project 06 p1569 N93-19873
Microwave instruments 06 p1569 N93-19874
Present and future imaging spectrometers in telemapping 06 p1570 N93-19877
The use of imaging spectrometers
06 p1570 N93-19878
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
Simulations of satellite Doppler wind observations
07 p2010 N93-20104
Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160
Research on advanced Earth observing sensors
07 p1790 N93-20416
IRCCD research 07 p1790 N93-20417
Evaluation and analysis of long term satellite operation data 07 p1796 N93-20454
Principles and application tendency of remote sensing: Its principle, function, and utilization
07 p1978 N93-21540
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package
08 p2305 N93-22203
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436
Geocoded products of future radar sensors
08 p2340 N93-22441
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
Global ozone monitoring experiment
08 p2364 N93-23793
Millimeter wave Atmospheric Sounder (MAS)
08 p2364 N93-23795
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR 08 p2365 N93-23797
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
Handbook of actuators and edge alignment sensors
[NASA-CR-193203] 09 p2620 N93-25317
Rain rate instrument for deployment at sea, phase 2
[NASA-CR-192442] 09 p2786 N93-26156
Survey of fiber-optic sensor for remote sensing in radiologically and chemically harsh environments
[DE93-004998] 10 p3062 N93-26624
All-solid-state radiometers for environmental studies to 700 GHz 10 p3020 N93-27784
Sensor and actuator technology development
10 p3047 N93-27900
Moon revolving observation satellite
10 p2952 N93-28038
Improved real-time imaging spectrometer
[NASA-CASE-NPO-18410-1-CU]
11 p3578 N93-29086
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
CAESAR development plan 1992-1995
[BCRS-92-17] 11 p3463 N93-31009
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Non-contact heat flux measurement using a transparent sensor
[NASA-TM-106252] 12 p3713 N93-32330

REMOTELY PILOTED VEHICLES
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A256296] 04 p0790 N93-14440
Remote vehicle controller
[AD-D015389] 04 p0893 N93-15251
RPH preliminary design, trend analysis and initial analysis of the NPS hummingbird
[AD-A257854] 06 p1439 N93-18304
JEFF: Air transport system design simulation
[NASA-CR-192069] 06 p1439 N93-18350
Report to the Chairman, Legislation, and National Security Subcommittee, Committee on Goverment Operations, House of Representatives. Unmanned aerial vehicles: More testing needed before production of short-range system
[AD-A259473] 07 p1780 N93-20245
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Workshop on Trajectory Optimization Methods and Applications: Presentations from the 1992 AIAA Atmospheric Flight Mechanics Conference
[AD-A259761] 08 p2126 N93-23482
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
A mission concept for near term Lunar exploration
[DE93-007598] 09 p2896 N93-25321
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
Design study to simulate the development of a commercial transportation system
11 p3228 N93-29718
Solar powered multipurpose remotely powered aircraft
11 p3229 N93-29722
Preliminary development of a VTOL unmanned air vehicle for the close-range mission
[AD-A263514] 11 p3354 N93-29969
Testing of an experimental system for image reconnaissance 12 p3677 N93-31283
Proximity operations in space station environment
12 p3689 N93-31449

REMOVAL
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217

RENAL FUNCTION
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497

RENDEZVOUS
NT EARTH ORBITAL RENDEZVOUS
NT ORBITAL RENDEZVOUS
NT SPACE RENDEZVOUS

RENDEZVOUS GUIDANCE
New developments in astrodynamics algorithms for autonomous rendezvous 08 p2144 N93-22279
A navigation and control system for an autonomous rescue vehicle in the space station environment
08 p2146 N93-22289
Rendezvous guidance 12 p3689 N93-31450

RENDEZVOUS SPACECRAFT
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space
08 p2136 N93-22229
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22287
Piloting decision aid for spacecraft proximity operations 08 p2147 N93-22295
Optimal cooperative power-limited rendezvous
09 p2607 N93-24904

RENDEZVOUS TRAJECTORIES
Optimal impulsive trajectories for orbital rendezvous between elliptic orbits 04 p0813 N93-15103
Operator-assisted planning and execution of proximity operations subject to operational constraints
07 p1817 N93-21436
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations
07 p1817 N93-21439
Use of automated rendezvous trajectory planning to improve spacecraft operations efficiency
08 p2146 N93-22292
Spacecraft rendezvous operational considerations affecting vehicle systems design and configuration
08 p2147 N93-22296
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204
Galileo post-Gaspra cruise and Earth-2 encounter
11 p3385 N93-29597

RENORMALIZATION GROUP METHODS
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Renormalization group methods for the Reynolds stress transport equations 05 p1154 N93-15800
Renormalization of lattice two-fermion operators with improved nearest-neighbour action
[PREPRINT-765] 05 p1275 N93-16413
Renormalization group in different fields of theoretical physics
[DE92-556707] 05 p1329 N93-16648
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
Remarks on turbulent constitutive relations
[NASA-TM-106116] 10 p3038 N93-27010
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Phase structure of three- and four-dimensional phi(exp 4) field theory
[DE93-606069] 11 p3605 N93-30782

REPAIRING
U MAINTENANCE

REPLACING
Bearing servicing tool
[NASA-CASE-MSC-21881-1] 04 p0891 N93-14871
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system
06 p1496 N93-19402
Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives. Intelligence programs: New RC-135 aircraft engines can reduce cost and improve performance
[AD-A259283] 08 p2105 N93-22397
AEW aircraft design
[AD-A261800] 09 p2590 N93-26444

REPLENISHMENT
The resupply interface mechanism
10 p2968 N93-27800
REPLICAS
Preparation and properties of low density replica carbon foams
[DE92-019573] 03 p0552 N93-13538
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
REPORTS
NT CONGRESSIONAL REPORTS
NT POSTLAUNCH REPORTS
NT PRESIDENTIAL REPORTS
Activities report of the Kernfysisch Versneller Institute
[ETN-93-93340] 06 p1653 N93-17931
The FY 1992 scientific and technical reports, articles, papers, and presentations
[NASA-TM-108392] 07 p2091 N93-20920
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
Activities report of Lufthansa German Airlines
[ETN-93-93465] 08 p2117 N93-23004
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
Annual bibliography, 1989
[ISBN-951-22-0488-6] 08 p2526 N93-23424
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Research activities and highlights of the University of Maryland's Department of Aerospace Engineering
08 p2571 N93-24478
NASA scientific and technical publications: A catalog of special publications, reference publications, conference publications, and technical papers, 1991-1992
[NASA-SP-7063(06)] 08 p2529 N93-24654
NASA Microgravity Science and Applications Program
[NASA-TM-108775] 09 p2663 N93-25194
AFOSR technical report summaries
[AD-A261551] 09 p2918 N93-26380
NASA/DoD Aerospace Knowledge Diffusion Research Project. Paper 29: The US government technical report and the transfer of federally funded aerospace R and D
[NASA-TM-109221] 11 p3615 N93-29709
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409
REPRESENTATIONS
Generalized LR parsing for general context-free grammars
[CWI-CS-R9153] 05 p1242 N93-16853
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
Representation and readability of logic diagrams and aspects of their automatic generation
[ETN-93-92559] 07 p1890 N93-20751
Basic and evolutive concepts of pattern recognition: Pluridiscipline approach. Approximation concept
[ISAL-91-0098] 07 p2047 N93-20941
Finite element mesh generation from CSG models
[ETN-93-93614] 10 p3119 N93-27932
REPRODUCTION
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
REPRODUCTION (BIOLOGY)
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943
REPRODUCTION (COPYING)
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
A database approach to aircraft carrier airplan production
[AD-A257737] 05 p1053 N93-17666
Modernization and unification: Strategic goals for NASA STI program
[NASA-TM-109186] 08 p2528 N93-24117
High-speed data duplication/data distribution: An adjunct to the mass storage equation
11 p3619 N93-30459
REPRODUCTIVE SYSTEMS
NT PROSTATE GLAND
REPUBLIC MILITARY AIRCRAFT
U MILITARY AIRCRAFT
REPUBLIC OF CHINA
U TAIWAN
REPUBLIC OF KOREA
U SOUTH KOREA
REPUBLIC OF SOUTH AFRICA
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
The Vredefort Dome: Review of geology and deformation phenomena and status report on current knowledge and remaining problematics (five years after the cryptoexplosion workshop) 01 p0119 N93-10173
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
REPUBLIC OF VIETNAM
U VIETNAM
REQUIREMENTS
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Demonstration and performances of real-time fringe tracking: A step towards cophased interferometers
01 p0178 N93-10948
Advanced materials in gas turbine engines: An assessment
[PNR-90946] 02 p0211 N93-11105
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
Requirements Specification Language (RSL) and supporting tools
[NASA-CR-189700] 02 p0405 N93-12345
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Progress in DND's space-based radar R/D project
04 p0812 N93-14958
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Spacecraft sustained load fracture control
05 p1077 N93-15724
Structural development of flight systems
05 p1078 N93-15727
An initial model of requirements traceability: An empirical study
[AD-A256720] 05 p1275 N93-15978
Issues in requirements elicitation
[AD-A258932] 06 p1627 N93-19448
Satisfying the customer's requirements
[PNR-90988] 07 p1785 N93-20735
Education in geodesy 07 p1975 N93-20996
Derating requirements applicable to electronic, electrical, and electro-mechanical components for ESA space systems
[ESA-PSS-01-301-ISSUE-2] 07 p1893 N93-21194
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom
08 p2140 N93-22252
Delivery of information from Earth observation satellites 08 p2350 N93-23549
Fluid science users requirements
08 p2163 N93-24385
Columbus payload requirements in human physiology
08 p2163 N93-24386
The SE role in establishing, verifying and controlling top-level program requirements
09 p2666 N93-24685
Optimization in the systems engineering process
09 p2666 N93-24691
GPS standardization for the needs of time transfer
09 p2836 N93-25016
Languages for requirements specifications
[RSRE-MEMO-4585] 09 p2810 N93-25453
Determination of burn rate requirements from ASRM performance specifications 09 p2627 N93-26023
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support
09 p2815 N93-26075
Advanced Launch System (ALS) test requirements
[MCR-91-5004] 09 p2610 N93-26181
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644
RESCUE OPERATIONS
Assured crew return vehicle post landing configuration design and test
[NASA-CR-191253] 03 p0520 N93-12910
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue (joint Canadian/US Coast Guard experiment)
[AD-A255525] 04 p0939 N93-14554
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
TALON and CRADLE: Systems for the rescue of tumbling spacecraft and astronauts
08 p2142 N93-22268
A navigation and control system for an autonomous rescue vehicle in the space station environment
08 p2146 N93-22289
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
Group Task Force on Satellite Rescue and Repair
[NASA-TM-108713] 08 p2193 N93-23040
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658
Simplified Aid For Crew Rescue (SAFR)
10 p2967 N93-27793
Micro-organisms, cytotoxins and radioactive preparation: Risks at rescue operations in hospital environment
[FOA-A-40065-4.5] 12 p3772 N93-32423
RESEARCH
NT DYNAMIC PROGRAMMING
NT HIGH TEMPERATURE RESEARCH
NT LINEAR PROGRAMMING
NT MARKET RESEARCH
NT NONLINEAR PROGRAMMING
NT NUCLEAR RESEARCH
NT QUADRATIC PROGRAMMING
NASA/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program 1992
[NASA-CR-189691] 05 p1332 N93-16760
Activities report of the Kernfysisch Versneller Institute
[ETN-93-93340] 06 p1653 N93-17931
Activities report of the Institute of Space Physics
[ETN-93-93360] 06 p1665 N93-17947
Spectral features (200 nm - 10 micrometers) of atmospheric molecules: A bibliography (1979-1990)
[NOTA-INTERNA-982] 06 p1575 N93-17957
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108590] 06 p1564 N93-18070
The US global change research program: Early achievements and future directions
06 p1573 N93-18864
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Ongoing research projects at VTT in 1991
[ISBN-951-38-3771-8] 08 p2570 N93-23423
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
In the national interest: The Federal Government and research-intensive universities
[PB93-140135] 08 p2518 N93-24583
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 8: Phillips Laboratory
[AD-A261972] 10 p3163 N93-27642
RESEARCH AIRCRAFT
NT U-2 AIRCRAFT
NT X-15 AIRCRAFT
Flight test progress of the STOL research aircraft ASKA
[NAL-TM-643] 02 p0208 N93-12354
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method
[NASA-CR-191216] 03 p0503 N93-12903
NASA aeronautics: Research and technology program highlights
[NASA-NP-159] 03 p0491 N93-13110
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831
The F-18 systems research aircraft facility
[NASA-TM-4433] 05 p1072 N93-16753
X-31A high angle of attack and initial post stall flight testing 06 p1443 N93-19911
System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914
In-flight structural mode excitation system for flutter testing 06 p1444 N93-19915

Development and flight testing of a surface pressure measurement installation on the EAP demonstrator aircraft
06 p1446 N93-19927
A neural based intelligent flight control system for the NASA F-15 flight research aircraft
08 p2132 N93-22368
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Development and testing of the Perseus proof-of-concept aircraft
[DE93-010121] 11 p3247 N93-28586
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack
11 p3260 N93-28851
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272
The basic measurement equipment of the DLR test aircraft
12 p3675 N93-31273
Instigation and processing of flight tests in DLR
12 p3675 N93-31275
Pallet for helicopter test instrumentation
12 p3676 N93-31279

RESEARCH AND DEVELOPMENT
Accelerator Technology Division
[DE92-016023] 01 p0156 N93-10462
Establishing a scientific and technical information program: Planning and resource management
01 p0173 N93-10597
The technology advantage: A guide to science, technology, and innovation in Manitoba
[CTN-92-60571] 01 p0192 N93-10654
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-009] 02 p0220 N93-11169
The NASA CSTI high capacity power project
[NASA-TM-105813] 02 p0221 N93-11398
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP)
[NASA-CR-190995] 02 p0219 N93-11754
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Electricity from biomass: A development strategy
[DE92-010590] 02 p0346 N93-11814
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 23: Information technology and aerospace knowledge diffusion: Exploring the intermediary-end user interface in a policy framework
[NASA-TM-108077] 02 p0478 N93-12007
Activity of the technical groups (LULI Palaiseau, France)
02 p0322 N93-12052
Soviet chemical propellant research and development
[PB92-195577] 02 p0275 N93-12147
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
The collaborative program of research in engineering sciences
[DE92-016838] 02 p0490 N93-12477
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
USAF 1990 research initiation program, volume 3
[AD-A254755] 03 p0775 N93-12849
Air Force Office of Scientific Research technical report summaries
[AD-A254380] 03 p0775 N93-12859
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Advanced energy projects FY 1992 research summaries
[DE92-040442] 03 p0637 N93-13001
Research priorities in networking and communications
[NSF-92-109] 03 p0562 N93-13024
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Plasma Science Committee (PLSC) and study on new opportunities in plasma science and technology
[DE92-019507] 03 p0716 N93-13359
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Highlights 92/2 03 p0775 N93-13474
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
Research and technology in support of IAM
03 p0515 N93-13562
Westinghouse PAFC program update
[DE92-019978] 03 p0640 N93-13623
Selected data on Federal funds for research and development: Fiscal years 1990, 1991, and 1992
[NSF-92-319] 03 p0741 N93-13657
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
Directory of awards, fiscal year 1991. Directorate for engineering
[NSF-92-55] 03 p0775 N93-13704
NSF Science and Technology Centers
[NSF-92-104] 03 p0507 N93-13712
Arctic science, engineering, and education. Directory of awards, fiscal year 1991
[NSF-92-60] 03 p0775 N93-13713
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Research in geosciences policy
[NASA-CR-190470] 03 p0632 N93-13833
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836
Preparing for the future
[ESA-BR-37-H] 03 p0517 N93-13860
Symposium on Polymeric Materials for Photonic and Optical Applications
[AD-A255820] 03 p0554 N93-14029
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150
Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418
Institute for the Study of Human Capabilities
[AD-A256091] 04 p0938 N93-14427
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
Fault tolerant systems practitioner's workshop
[AD-A255376] 04 p0944 N93-14563
Solid state research
[AD-A256019] 04 p0992 N93-14576
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195
Report on Workshop on Research in Experimental Computer Science
[AD-A256874] 05 p1230 N93-15707
Spacecraft Structures and Mechanical Testing, volume 2
[ESA-SP-321-VOL-2] 05 p1076 N93-15718
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Strategic defense initiative: 15-year funding requirements
[AD-A256738] 05 p1277 N93-16070
Integrated automation for support of research and development
[NLR-MP-88063-U] 05 p1235 N93-16290
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16388
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
1991 research and technology
[NASA-TM-103924] 05 p1402 N93-16652
The NASA High-Speed Research Program
05 p1064 N93-16761
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
National Aeronautics and Space Administration
05 p1358 N93-17091
Joint Workshop on New Technologies for Lunar Resource Assessment
[NASA-CR-191918] 05 p1385 N93-17233
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy
05 p1390 N93-17261
1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-184505] 05 p1339 N93-17279
Systems engineering process and organization assessment
05 p1340 N93-17281
Modern helicopter technologies at MBB and the application in future programmes
[MBB-UD-0599-91-PUB] 05 p1063 N93-17566
Federal funds for research and development: Fiscal years 1990, 1991, and 1992, volume 40
[NSF-92-322-VOL-40] 06 p1694 N93-17853
EHR directory of awards, FY 1990
[NSF-92-75] 06 p1746 N93-17854
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
Air University Library index to military periodicals, volume 43, number 3, July - September 1992
[AD-A258452] 06 p1685 N93-18013
Vulcain: A cryogenic engine for Ariane 5
[ETN-93-93022] 06 p1472 N93-18082
Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Transportation and platforms perspective
06 p1453 N93-18636
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
Research interests of the Air Force of Scientific Research
[AD-A258806] 06 p1754 N93-18985
Improving NASA's technology for space science
[NASA-CR-192331] 06 p1695 N93-19389
NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191004] 06 p1754 N93-19390
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452
Calendar of selected aeronautical and space meetings, July 1991 onwards
[AGARD-CAL-91/2] 06 p1683 N93-19639
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Establishing a research agenda for Scientific and Technical Information (STI): Focus on the user
06 p1692 N93-19797
University research: Controlling inappropriate access to federally funded research results. Report to the Chairman, Human Resources and Intergovernmental Relations Subcommittee, Committee on Government Operations, House of Representatives
[GAO/RCED-92-104] 06 p1684 N93-19844
The National Aero-Space Plane program: A revolutionary concept
06 p1443 N93-19908
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 27: Knowledge diffusion and US government technology policy: Issues and opportunities for sci/tech librarians
[NASA-TM-108680] 07 p2088 N93-20110
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111

Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Activities of the Seibersdorf Research Center
[ETN-93-92597] 07 p2103 N93-20857
The 1992 Research/Technology report
[NASA-TM-105924] 07 p1759 N93-20902
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
Fiber development in Japan 07 p1834 N93-21130
Thermoplastic composites for structural applications: Past and future 07 p1834 N93-21131
The 1991-2000 National Remote Sensing Program
[BCRS-91-35] 07 p1975 N93-21205
By the year 2000: First in the world. FY 1993 budget summary
[PB93-108512] 07 p2086 N93-21231
Continuous improvement on a research and development environment
[DE93-001561] 07 p2086 N93-21304
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
List of US Army Research Institute research and technical publications, October 1, 1990 to September 30, 1991 with author and subject index
[PB93-108611] 07 p2103 N93-21381
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191991] 07 p2099 N93-21553
Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for Fiscal Year 1993. Part 3: Nondepartmental Witnesses
[S-HRG-102-716-PT-3] 07 p2093 N93-21676
Experimental nuclear physics
[DE93-004950] 07 p2063 N93-21705
Summaries of FY 1992 geosciences research
[DE93-004826] 07 p1965 N93-21726
Science and technology in US international affairs
[ISBN-1-881054-00-4] 07 p2094 N93-21758
Activities report of the European Space Agency
[ETN-93-93509] 07 p2103 N93-21764
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Journal of research of the National Institute of Standards and Technology, July-August 1992. Volume 97, number 4
[PB93-124246] 07 p2104 N93-21814
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
Overview of Advanced Turbine Systems Program
[DE93-003193] 08 p2311 N93-22413
Microgravity fluid physics research in the Space Station Freedom era 08 p2191 N93-22644
Office of Commercial Programs' research activities for Space Station Freedom utilization 08 p2191 N93-22647
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671
Center for Space Microelectronics Technology
[NASA-CR-192799] 08 p2279 N93-22812
Space Station Freedom Utilization Conference. Executive summary
[NASA-TM-108709] 08 p2193 N93-23001
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM)
[NASA-CR-192656] 08 p2152 N93-23033
Biofuels program plan, FY 1992 - 1996
[DE93-000036] 08 p2245 N93-23048
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-001] 08 p2153 N93-23103
Industry perspectives 08 p2154 N93-23162
Parallel processing research in the former Soviet Union
[PB93-134435] 08 p2447 N93-23204
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
NASA's Education Program Inventory FY 91
[NASA-EP-284] 08 p2518 N93-23250
High energy physics program at Texas A and M University
[DE93-005112] 08 p2485 N93-23324
Learning to meet the science and technology challenge
[PB93-139996] 08 p2520 N93-23680
Earth observation programmes and plans of the Commission of the European Communities (CEC) 08 p2372 N93-23843
United Kingdom Earth observation programme 08 p2373 N93-23848
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
Activities of the Institute for Mechanical Engineering
[NRC-33578] 08 p2319 N93-24287
Activities of the Industrial Materials Institute
[NRC-34380] 08 p2207 N93-24288
COMPASS: A computerized payload operations support system for Columbus 08 p2161 N93-24377
Remote sensing applied to agriculture state of the art and new trends 09 p2745 N93-24818
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048
Current research activities: Applied and numerical mathematics, fluid mechanics, experiments in transition and turbulence and aerodynamics, and computer science
[NASA-CR-191408] 09 p2803 N93-25084
Applied aerodynamics: Challenges and expectations
[NASA-TM-103963] 09 p2575 N93-25091
Advanced energy systems and technologies - National R and D programme
[DE93-769943] 09 p2758 N93-25097
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
NASA Microgravity Science and Applications Program
[NASA-TM-108775] 09 p2663 N93-25194
Science, technology, and national security 09 p2886 N93-25232
SIHTI: The research and development program of energy and environmental technology
[DE93-769925] 09 p2763 N93-25360
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-022] 09 p2795 N93-25407
JPRS report: Science and technology. Japan. 30th National Aerospace Laboratory Conference
[JPRS-JST-93-009] 09 p2901 N93-25418
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-002] 09 p2737 N93-25426
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Air Force Office of Scientific Research
[AD-A260675] 09 p2911 N93-25893
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 1
[NASA-CR-188242-VOL-1] 09 p2911 N93-26058
National Aeronautics and Space Administration (NASA)/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program, 1992, volume 2
[NASA-CR-188242-VOL-2] 09 p2914 N93-26070
High performance computing and communications panel report 09 p2807 N93-26131
Engineering: Research development and technology
[UCRL-53868-91] 09 p2917 N93-26326
Summary report of the Defense Sciences Research Council Summer Conference
[AD-A261375] 09 p2917 N93-26359
Science, Technology, and Industrial Policy in the Former Soviet Union
[DE93-006528] 09 p2887 N93-26499
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-192883] 10 p3206 N93-26674
Satellites and the BISDN: An overview of NASA R/D
[NASA-TM-106108] 10 p3025 N93-26903
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286
CSTL technical activities 1992
[PB93-173482] 10 p3219 N93-27399
Ceramics technical activities, 1992 (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173508] 10 p3003 N93-27400
Magnetic Suspension Technology Workshop
[NASA-CP-3202] 10 p2959 N93-27554
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 10: Wright Laboratory
[AD-A262018] 10 p3161 N93-27596
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 11: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A262019] 10 p3161 N93-27597
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 12: Armstrong Laboratory
[AD-A262020] 10 p3161 N93-27598
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 13: Phillips Laboratory
[AD-A262021] 10 p3161 N93-27599
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 14: Rome Laboratory
[AD-A262022] 10 p3161 N93-27600
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 15: Wright Laboratory
[AD-A262023] 10 p3162 N93-27601
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 2: Armstrong Laboratory
[AD-A261989] 10 p3162 N93-27628
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 3: Phillips Laboratory
[AD-A261990] 10 p3162 N93-27629
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 4: Rome Laboratory
[AD-A261991] 10 p3162 N93-27630
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5A: Wright Laboratory
[AD-A261992] 10 p3162 N93-27631
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5B: Wright Laboratory
[AD-A261993] 10 p3162 N93-27632
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 6: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A261994] 10 p3162 N93-27633
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 9: Rome Laboratory
[AD-A262017] 10 p3163 N93-27634
JSEP annual report, 11 January 1991 - 10 January 1993
[AD-A261948] 10 p3031 N93-27918
Activities report of the Technische Dienst TNO-TU, Delft (Netherlands)
[ETN-93-93343] 10 p3219 N93-28201
Summer research program (1992). Graduate student
[AD-A261971] 10 p3163 N93-28223

Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
Activities report of the Netherlands Organization for Applied Scientific Research (TNO)
[ETN-93-93339] 10 p3226 N93-28317
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-007] 11 p3353 N93-28635
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-006] 11 p3353 N93-28636
Applied research in America
[DE93-011725] 11 p3625 N93-28646
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-010] 11 p3353 N93-28674
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-008] 11 p3353 N93-28675
Advanced Earth-to-orbit propulsion technology information, dissemination and research
[NASA-CR-192561] 11 p3287 N93-28680
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-005] 11 p3490 N93-28683
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-027] 11 p3490 N93-28684
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-003] 11 p3353 N93-28691
Productivity measurement in science and technology contracting
[AD-A262077] 11 p3609 N93-28985
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-008] 11 p3322 N93-29012
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-007] 11 p3322 N93-29013
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-001] 11 p3274 N93-29014
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-009] 11 p3322 N93-29015
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-012] 11 p3296 N93-29016
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-013] 11 p3296 N93-29017
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-016] 11 p3296 N93-29018
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-014] 11 p3322 N93-29019
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-001] 11 p3296 N93-29021
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
SIAM Conference on Applications of Dynamical Systems
[DE93-007969] 11 p3548 N93-29057
JPRS report: Science and technology. Central Eurasia: Earth science
[JPRS-UES-93-003] 11 p3456 N93-29089
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-004] 11 p3354 N93-29090
Applied Information Systems Research Program Workshop
[NASA-TM-108773] 11 p3613 N93-29222
NASA SBIR abstracts of 1991 phase 1 projects
[NASA-TM-108240] 11 p3609 N93-29323
Advanced Construction Technology Center research
[AD-A263654] 11 p3432 N93-29390
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
Electronics research at the University of Texas at Austin. Appendix: JSEP sponsored publications
[AD-A262993] 11 p3409 N93-29485
LDEF: 69 Months in Space. Part 1: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-1] 11 p3660 N93-29621
Defense conversion: Redirecting research and development
[OTA-ITE-552] 11 p3610 N93-29649
Computer systems laboratory
[PB93-181873] 11 p3521 N93-29662
NSF Tokyo reports: Japanese R and D projects on micro- and nanofabrication and related basic research projects
[PB93-181261] 11 p3410 N93-29671
LDEF archival system plan 11 p3624 N93-29704
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
Center for the Study of Intelligent Control Systems (Fellowships)
[AD-A263604] 11 p3543 N93-29917
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
Development of an antenna measurement facility operating in the 2 GHz - 100 GHz frequency range 11 p3369 N93-30306
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-003] 11 p3327 N93-30623
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-002] 11 p3456 N93-30624
How to compete for NASA contracts
[NASA-TM-109238] 11 p3610 N93-30644
Rotorcraft master plan 11 p3236 N93-30677
White House/OSTP perspective 11 p3625 N93-30696
Technology transfer within the government 11 p3627 N93-30711
NASP technology transfer 11 p3627 N93-30713
Robotic technology evolution and transfer 11 p3627 N93-30714
Strategic directions and mechanisms in technology transfer 11 p3628 N93-30720
NASA space research and technology overview (ITP) 11 p3628 N93-30722
Space research and technology overview 11 p3628 N93-30723
A research experiment on facilitation and formation of joint research and development programs between government, industry, and universities: Overview, preliminary findings, and observations 11 p3628 N93-30725
Scientific research abstracts in the Republic of China, 1991 (science and technology) 11 p3670 N93-30911
Research, Development, Test and Evaluation (R, D, T, and E) programs (R-1), Department of Defense budget for fiscal year 1994
[PB93-169878] 11 p3611 N93-30936
Technology transfer: Potential of BMFT concept for hypersonics
[MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045
End users: New products and services 12 p3837 N93-31220
NASA aerospace pyrotechnically actuated systems: Program plan
[NASA-TM-109226] 12 p3712 N93-31308
Modernization and new technologies: Coping with the information explosion
[NASA-TM-109410] 12 p3838 N93-31315
DIAC at TWI
[REPT-92-77] 12 p3787 N93-31472
Publication catalogue of VTT in 1991
[VTT-TIED-1340] 12 p3838 N93-31535
The Israel Space Agency 1993 12 p3883 N93-31590

RESEARCH FACILITIES

Emergency Diesel Generator reliability at Department of Energy (DOE) facilities
[DE92-011888] 01 p0091 N93-10622
An infrared free-electron laser for the Chemical Dynamics Research Laboratory
[DE92-017018] 01 p0090 N93-10864
Geographic Information System (GIS) development assistance for Nuclear Regulatory Commission (NRC) incident response capability
[DE92-017595] 01 p0176 N93-10867
An advanced combustion research facility for validating computational fluid dynamics codes
[PNR-90913] 02 p0296 N93-11017
North American radioactive beam initiatives
[DE92-019185] 02 p0443 N93-11517
Data report 92-1. Brorfelde Geomagnetic Observatory magnetic results, 1990 02 p0362 N93-11699
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
System design and radiation field characteristics of the High Flux Neutron Radiography Facility (HFNRF) at Sandia National Laboratories
[DE92-013984] 02 p0219 N93-12268
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
NSF Science and Technology Centers
[NSF-92-104] 03 p0507 N93-13712
Moon Park: A research and educational facility 03 p0519 N93-14015
Environmental assessment: OMEGA upgrade project at the Laboratory for Laser Energetics, University of Rochester
[DE92-040410] 04 p0886 N93-14907
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Real-time in-flight engine performance and health monitoring techniques for flight research application 04 p0795 N93-15169
Space Station Freedom user's guide
[NASA-TM-108105] 04 p0825 N93-15650
The Goldstein Aeronautical Engineering Research Laboratory
[AERO-REPT-9109] 05 p1053 N93-16465
The F-18 systems research aircraft facility
[NASA-TM-4433] 05 p1072 N93-16753
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
The EISCAT Svalbard (Arctic) radar 06 p1517 N93-19574
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
Overview of the NASA Dryden Flight Research Facility aeronautical flight projects testing 06 p1444 N93-19916
The world of NASA microgravity science 07 p1868 N93-20179
Structural dynamics branch research and accomplishments to FY 1992
[NASA-TM-105824] 07 p1925 N93-20368
Advanced UHV thin-film deposition facility for research in superconductivity and superconducting electronics
[AD-A259089] 07 p1889 N93-20395
Wright Laboratory research and development facilities handbook
[AD-A258746] 07 p2085 N93-20403
Safety validation test equipment operation 07 p1801 N93-20487
NASA Center update: Jet Propulsion Laboratory 07 p1963 N93-20492
Activities of the Seibersdorf Research Center
[ETN-93-92597] 07 p2103 N93-20857
Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
Development of the Aquatic Research Facility 07 p1807 N93-21100
The Wakeshield Facility: Free flyer and commercial experiment transporter programs 07 p1807 N93-21105
Goddard Space Flight Center: Decision to contract for plant operations and maintenance. Report to the Chair, Subcommittee on VA, HUD, and Independent Agencies, Committee on Appropriations, US Senate
[GAO/NSIAD-93-92] 07 p2086 N93-21357
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Capsule review of DOE research and development laboratories and field facilities
[DE93-003282] 08 p2570 N93-22402
Computational fluid dynamics: Research activities and services at NRC
[NRC-TTP-02-92] 08 p2288 N93-22456
Space Station Freedom Utilization Conference. Executive summary
[NASA-TM-108709] 08 p2193 N93-23001
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
The annual probability of an aircraft crash on the US Department of Energy reservation in Oak Ridge, Tennessee
[DE93-005171] 08 p2118 N93-23325

The tropical school for atmospheric and space sciences: An international project proposal
08 p2369 N93-23828
JEM program status 08 p2155 N93-24339
Mir 1992: Scientific program and payload
08 p2157 N93-24351
The Microgravity User Support Center (MUSC)
08 p2161 N93-24374
Microgravity Advanced Research and Support (MARS) Center update 08 p2161 N93-24375
The refined decentralized concept and development support 08 p2162 N93-24378
The USO-concept applied to a biological model experiment 08 p2162 N93-24379
User support for the Columbus precursor missions
08 p2162 N93-24380
Columbus payload requirements in human physiology
08 p2163 N93-24386
Italian payload development status for Columbus
08 p2164 N93-24392
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
Space exploration initiative candidate nuclear propulsion test facilities
[NASA-TM-105710] 09 p2622 N93-24753
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Space research in Sweden, 1990-1991
09 p2888 N93-25887
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943
Facilities 10 p2954 N93-26963
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Experimental challenges at future hadron colliders (lectures for the 1992 Saint Croix Summer School)
[DE93-008613] 10 p3140 N93-28429
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Ultraviolet free electron laser facility preliminary design report
[DE93-009360] 11 p3435 N93-28594
EnviroNET: On-line information for LDEF
11 p3624 N93-29625
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612
Technology transfer needs and experiences: The NASA Research Center perspective 11 p3626 N93-30703
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274
Instigation and processing of flight tests in DLR
12 p3675 N93-31275
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

RESEARCH MANAGEMENT

Research program in experimental and theoretical high energy physics
[DE92-016219] 01 p0156 N93-10618
Research program in elementary particle theory
[DE92-017399] 01 p0155 N93-10840
Japanese style total quality control: A first hand experience
[PNR-90909] 02 p0331 N93-11015
Exploratory Research and Development Fund, FY 1990
[DE92-017002] 02 p0489 N93-11078
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Interfacial microchemical characterization needs in surface processing
[DE92-018269] 02 p0277 N93-11672
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
Selected case studies of technology transfer from mission-oriented applied research
[DE92-018957] 02 p0481 N93-12067
Plasma properties
[DE92-018635] 02 p0455 N93-12188
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Medium energy nuclear physics research
[DE92-016972] 02 p0442 N93-12444
ONR basic research program: Summary and bibliographies, FY 1990 and 1991
[AD-A253038] 03 p0774 N93-12696
Elementary particle physics research
[DE92-019746] 03 p0702 N93-12855
Air Force Office of Scientific Research technical report summaries
[AD-A254380] 03 p0775 N93-12859
Advanced energy projects FY 1992 research summaries
[DE92-040442] 03 p0637 N93-13001
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Air Force Office of Scientific Research
[AD-A255361] 04 p1051 N93-14673
Air Force Office of Scientific Research
[AD-A255370] 04 p1051 N93-14674
Geothermal Energy and the Utility Market: The Opportunities and Challenges for Expanding Geothermal Energy in a Competitive Supply Market: Proceedings
[DE92-019090] 04 p0908 N93-15271
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
Solar thermal electric and biomass power: Program overviews, fiscal years 1990-1991
[DE92-010582] 05 p1193 N93-15850
Energy conversion and storage program
[DE93-001545] 05 p1194 N93-16034
Duke University high energy physics
[DE92-040340] 05 p1296 N93-16180
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
A Research Agenda for Scientific and Technical Information
[AGARD-AR-316] 06 p1692 N93-19796
The organization and transfer of information
06 p1692 N93-19799
Wright Laboratory research and development facilities handbook
[AD-A258746] 07 p2085 N93-20403
The 1991-2000 National Remote Sensing Program
[BCRS-91-35] 07 p1975 N93-21205
Canada's longterm space plan and ISY activities
07 p1819 N93-21284
Continuous improvement on a research and development environment
[DE93-001561] 07 p2086 N93-21304
Structural dynamics division research and technology accomplishments for FY 1992 and plans for FY 1993
[NASA-TM-107713] 08 p2109 N93-22671
The collaborative program of research in engineering sciences
[DE93-005126] 08 p2257 N93-22768
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Joint services electronics program: Appendix
[AD-A259503] 08 p2285 N93-24312
Climate Monitoring and Diagnostics Laboratory
[PB93-156388] 09 p2785 N93-25871
CRRES: Combined release and radiation effects satellite program summary
[NASA-CR-192469] 09 p2774 N93-25886
Space research in Sweden, 1990-1991
09 p2888 N93-25887
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Productivity increases in science
[DE93-009473] 10 p3109 N93-28453
Proceedings of a Workshop on Molecular Nuclear Medicine
[DE93-010828] 11 p3493 N93-28835
Summer Faculty Research Program (SFRP), volume 1
[AD-A261988] 11 p3608 N93-29440
Research and technology objectives and plans: Summary fiscal year 1991
[NASA-TM-103086] 11 p3660 N93-29452
AFOSR Status Report
[AD-A264720] 11 p3670 N93-30513
Technology transfer within the NASA Goddard Space Flight Center 11 p3626 N93-30704
Technology transfer within the government
11 p3627 N93-30709
Exploration technology prioritization
11 p3629 N93-30726
The SOHO interdisciplinary science matrix
12 p3880 N93-31426
Linear algebra for signal processing
[AD-A264677] 12 p3808 N93-32017

RESEARCH PROJECTS

Gamma ray astrophysics to the year 2000. Report of the NASA Gamma Ray Program Working Group
[NASA-TM-107995] 01 p0178 N93-10067
Center for Intelligent Control Systems, Brown University component: Graduate research fellowships
[AD-A253620] 01 p0141 N93-10095
Research in particle physics beyond the standard model
[DE92-012240] 01 p0155 N93-10878
Hurricane Research Division fiscal year 1991 programs: Fiscal year 1992 projections
[PB92-138320] 02 p0367 N93-11242
Ceramic Technology Project
[DE92-018748] 02 p0266 N93-11442
Research in heavy-ion nuclear physics
[DE92-015099] 02 p0443 N93-11521
Fusion programs in applied plasma physics
[DE92-019639] 02 p0452 N93-11660
Electric and hybrid vehicle program, site operator program
[DE92-018055] 02 p0328 N93-12114
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Medium energy nuclear physics research
[DE92-016972] 02 p0442 N93-12444
LIEKKI and JALO: Combustion and fuel conversion
[DE92-540921] 02 p0349 N93-12446
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
Air Force Office of Scientific Research technical report summaries
[AD-A254380] 03 p0775 N93-12859
Research in elementary particle physics
[DE92-017869] 03 p0704 N93-13251
Plasma Science Committee (PLSC) and study on new opportunities in plasma science and technology
[DE92-019507] 03 p0716 N93-13359
Air Force Office of Scientific Research
[AD-A255331] 04 p1051 N93-14523
International Space University
04 p0808 N93-14938
Antarctic news clips - 1992
[NSF-92-83] 04 p0916 N93-15080
Computation and graphics in mathematical research
[DE92-040652] 05 p1235 N93-16089
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Activities of the PTT — the Netherlands Post, Telephone, and Telegraph (PTT)
[ISBN-90-72125-27-4] 05 p1140 N93-17398
Research in particle physics
[DE92-041135] 05 p1293 N93-17475
High energy physics research
[DE93-001793] 05 p1299 N93-17482
Research in elementary particle physics
[DE93-003153] 05 p1294 N93-17488
The study of multi-institutional collaborations in high-energy physics
[DE93-002337] 05 p1300 N93-17580
NASA/USRA advanced design program activity, 1991-1992
[NASA-CR-192063] 05 p1135 N93-17778
Global Change Research Program: A component of the US Global Change Research Program. 1993 research opportunities
[NSF-92-77] 06 p1572 N93-18319
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457

Review of recent work on MPD thrusters at MIT
06 p1666 N93-18641
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Discussions on the organizational outline and suggested institutional guidelines for the INPE
[INPE-5406-RPQ/660] 06 p1684 N93-19642
The 1992 Research/Technology report
[NASA-TM-105924] 07 p1759 N93-20902
Predicting our weather: A strategic plan for the US Weather Research Program
[PB93-101277] 07 p2013 N93-21293
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
Federal plan for meteorological services and supporting research, FY 1993
[PB92-233188] 07 p2014 N93-21502
NASA SBIR abstracts of 1990 phase 1 projects
[NASA-TM-108145] 07 p2087 N93-21794
Midwest Superconductivity Consortium
[DE93-006146] 08 p2276 N93-22054
Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080
Computational fluid dynamics: Research activities and services at NRC
[NRC-TTP-02-92] 08 p2288 N93-22456
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Megaprojects in the sciences
[PB93-140002] 08 p2475 N93-24308
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
NASA Microgravity Science and Applications Program
[NASA-TM-108775] 09 p2663 N93-25194
CRRES: Combined release and radiation effects satellite program summary
[NASA-CR-192469] 09 p2774 N93-25886
The Center of Excellence for Hypersonics Training and Research at the University of Texas at Austin
[NASA-CR-193070] 10 p2930 N93-27126
Workshop on Harmonic Oscillators
[NASA-CP-3197] 10 p3141 N93-27311
NASA Small Business Innovation Research Program. Composite List of Projects, 1983 to 1989
[NASA-TM-104991] 10 p3164 N93-27639
Summer research program (1992). Graduate student
[AD-A261971] 10 p3163 N93-28223
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961
Summer Faculty Research Program (SFRP), volume 1
[AD-A261988] 11 p3608 N93-29440
Advanced NDE technology program
[AD-A262008] 11 p3449 N93-29443
High-altitude reconnaissance aircraft
11 p3227 N93-29713
Project summary 11 p3227 N93-29714
Conceptual design of a two-stage-to-orbit vehicle
11 p3228 N93-29716
The design of two-stage-to-orbit vehicles
11 p3228 N93-29719
Design of a turbofan powered regional transport aircraft 11 p3228 N93-29721
Solar powered multipurpose remotely powered aircraft
11 p3229 N93-29722
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
The 1990/1991 project summaries
11 p3229 N93-29725
Design, building, and testing of the postlanding systems for the assured crew return vehicle
11 p3229 N93-29726
Earth to lunar CELSS evolution
11 p3229 N93-29727
Design of biomass management systems and components for closed loop life support systems
11 p3230 N93-29728
Lunar lander ground support system
11 p3230 N93-29729
The 1990-1991 project summaries
11 p3230 N93-29730
The 1990-1991 project summaries
11 p3230 N93-29731
Solar energy emplacement developer
11 p3230 N93-29732
Exercise/recreation facility for a lunar or Mars analog
11 p3230 N93-29733
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736
Walking robot: A design project for undergraduate students 11 p3231 N93-29737
Project Copernicus: An Earth observing system
11 p3231 N93-29738
Project MEDSAT 11 p3231 N93-29739
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
Mars integrated transportation system multistage Mars mission 11 p3232 N93-29741
Single-stage Mars mission 11 p3232 N93-29742
Multipurpose satellite bus (MPS)
11 p3232 N93-29743
Project WISH: The Emerald City
11 p3232 N93-29744
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745
Mars sample return mission: Two alternate scenarios
11 p3233 N93-29746
Mars habitat 11 p3233 N93-29747
The lightcraft project 11 p3233 N93-29749
ASPEC: Solar power satellite
11 p3233 N93-29750
B and T: Lunar landers 11 p3234 N93-29751
Spacely's rockets: Personnel launch system/family of heavy lift launch vehicles 11 p3234 N93-29752
RS Landers: Lunar lander 11 p3234 N93-29753
SPECS: Orbital debris removal
11 p3234 N93-29754
The 1990-1991 project summaries
11 p3234 N93-29755
Mars Aquarius Mission and Titan Explorer
11 p3235 N93-29756
Thermion: Verification of a thermionic heat pipe in microgravity 11 p3235 N93-29757
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759
GENESIS 2: Advanced lunar outpost
11 p3235 N93-29760
Rotational fluid flow experiment
11 p3235 N93-29761
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
AFOSR Status Report
[AD-A264720] 11 p3670 N93-30513
The Israel Space Agency 1993
12 p3883 N93-31590
Targets for Space-Based Interferometry
[ESA-SP-354] 12 p3844 N93-31750
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917
The 1992 Langley Aerospace Research Summer Scholars (LARSS) program
[NASA-CR-193371] 12 p3833 N93-32229

RESEARCH VEHICLES
NT X-30 VEHICLE
A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft
[NASA-TM-104261] 02 p0202 N93-12353
Lunar surface rovers 05 p1390 N93-17262
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Overview of the NASA Dryden Flight Research Facility aeronautical flight projects testing
06 p1444 N93-19916
Orbit re-entry experiment vehicle development
07 p1792 N93-20432
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Advanced Transport Operating System (ATOPS) Flight Management/Flight Controls (FM/FC) software description
[NASA-CR-191457] 11 p3250 N93-28621
STRV1-b flight experiment 11 p3265 N93-28723
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
A real-time, hardware-in-the-loop simulation of an unmanned aerial research vehicle
[AD-A262477] 11 p3248 N93-29409
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649

RESERVES
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Helium resources of the United States, 1991
[PB93-189652] 12 p3743 N93-31116

RESERVOIRS
Preliminary reservoir engineering studies of the Miravalles geothermal field, Costa Rica
[DE93-000631] 05 p1210 N93-17193
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872

RESIDENTIAL AREAS
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193

RESIDUAL STRENGTH
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
Allowable compression strength for CFRP-components of fighter aircraft determined by CAI-test
07 p1844 N93-21531
Numerical determination of the residual strength of battle damaged composite plates 07 p1844 N93-21533
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use
07 p1844 N93-21534
Comparison of impact results for several polymeric composites over a wide range of low impact velocities
11 p3304 N93-30848
Progressive failure methodologies for predicting residual strength and life of laminated composites
11 p3307 N93-30866

RESIDUAL STRESS
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Neutron diffraction residual stress studies for aero-engine component applications
[PNR-90908] 02 p0334 N93-11014
Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
The dressing of resin bonded diamond grinding wheels
[PNR-90965] 02 p0264 N93-11086
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
Orientation, stress, and density distributions in injection-moulded amorphous polymers determined by optical techniques
[ETN-92-92271] 02 p0269 N93-11983
Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching
02 p0269 N93-11987
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy
[AD-A255059] 02 p0342 N93-12467
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model
03 p0629 N93-13811
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures
03 p0631 N93-13947
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074

Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Method of characterizing residual stress in ferromagnetic materials using a pulse histogram of acoustic emission signals
[NASA-CASE-LAR-14239-1] 04 p0845 N93-14705
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
The stress development during filament winding of thick cylinders
[AD-A255765] 04 p0901 N93-15066
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Damage mechanisms and constitutive relations for cracked UD-layers in crossply laminates 05 p1080 N93-15742
Residual stresses in welds and effect on crack growth prediction 05 p1082 N93-15758
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
Method and apparatus for determination of material residual stress
[NASA-CASE-GSC-13451-1] 07 p1921 N93-20118
Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
A comment on the role of machining induced residual stresses on fatigue crack initiation 07 p1949 N93-21334
Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
Residual stress measurements in continuous fiber titanium matrix composites
[DE93-003733] 08 p2232 N93-23686
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
High reliability residual compressive stress processes. State-of-the-art assessment
[PB93-127751] 08 p2331 N93-24207
Internal stresses and the cyclic deformation of an aluminum matrix composite 09 p2650 N93-25436
A three-dimensional model for the residual stresses in a unidirectional composite plate 09 p2728 N93-25825
Experimental studies of stress management by optical fluorescence
[AD-A261539] 09 p2730 N93-26362
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
Fracture of glass 11 p3293 N93-30969

RESIDUES
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247
Role of advanced technology within a broad security approach 07 p1765 N93-21860
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Hypervelocity impact survivability experiments for carbonaceous impactors 11 p3283 N93-29364
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps 11 p3283 N93-29369
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Interplanetary meteoroid debris in LDEF metal craters 11 p3638 N93-29372
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces 11 p3638 N93-29378
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370

RESIN MATRIX COMPOSITES
NT BORON-EPOXY COMPOSITES
NT CARBON-PHENOLIC COMPOSITES
NT GRAPHITE-EPOXY COMPOSITES
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Mechanics of composite materials for spacecraft
[AD-A255380] 04 p0831 N93-14550
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
An evaluation of composites fabricated from powder epoxy towpreg 04 p0832 N93-14745
Flow behavior in liquid molding 04 p0833 N93-14747
Structural study of thermohardening matrices: Deformation of composite matrices in relation to their molecular structure
[ONERA-RT-12/3521-M] 04 p0836 N93-15253
Polymer infiltration studies
[NASA-CR-191652] 04 p0852 N93-15431
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
A literature survey on the fatigue behaviour of hybrid composites
[NLR-TP-91345-U] 05 p1099 N93-17541
SEP high performance composite materials: More than a job... a vocation
[DS-2134] 05 p1099 N93-17747
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Thermoplastic composites 07 p1845 N93-20625
Influence of reinforcing fibers on the capacity for resistance to impact load, of composite materials
[MBB-FE-202-S-PUB-0496] 07 p1834 N93-21055
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Edge delamination of composite laminates 07 p1842 N93-21519
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
The characterization of impact properties of composites 08 p2213 N93-23945
Damage in laminated composites due to low velocity impact 08 p2213 N93-23947
A process model for control of resin volume fraction in filament wound composite laminates 08 p2213 N93-23948
Inelastic behavior of thermoplastic composites 09 p2636 N93-25674
Damage and failure analysis on continuous fiber-reinforced polymer composites 09 p2637 N93-25716
A new class of high strength molding resins, phase 1
[AD-A262691] 10 p3005 N93-28117
The effects of long-duration space exposure on the mechanical properties of some carbon-reinforced resin matrix composites 10 p2993 N93-28266
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984
Mechanical properties of composite materials 11 p3290 N93-30951
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645

RESIN TRANSFER MOLDING
Flow behavior in liquid molding 04 p0833 N93-14747
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603

RESINS
NT ACRYLIC RESINS
NT EPOXY RESINS
NT ION EXCHANGE RESINS
NT KEVLAR (TRADEMARK)
NT NYLON (TRADEMARK)
NT PEEK
NT PHENOLIC RESINS
NT POLYAMIDE RESINS
NT POLYETHER RESINS
NT POLYIMIDE RESINS
NT POLYMETHYL METHACRYLATE
NT POLYURETHANE RESINS
NT SILICONE RESINS
NT SYNTHETIC RESINS
NT THERMOPLASTIC RESINS
NT THERMOSETTING RESINS
Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
Resin transfer molding: An answer to the problem of the industrialization of composites. Application to nacelles and thrust reverse parts
[DS-2024] 08 p2208 N93-22603
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
An investigation of stereolithography as a means of prototyping from a cad database
[AD-A263410] 11 p3613 N93-29210
Resin transfer molding for advanced composite primary aircraft structures 11 p3301 N93-30438
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842

Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials
11 p3303 N93-30845
Micromechanics of fatigue in woven and stitched composites
11 p3304 N93-30850
Development of stitching reinforcement for transport wing panels
11 p3304 N93-30852
Development of resins for composites by resin transfer molding
11 p3305 N93-30853
Advanced fiber/matrix material systems
11 p3305 N93-30854
Mechanical and analytical screening of braided composites for transport fuselage applications
11 p3305 N93-30855

RESISTANCE HEATING
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990
06 p1733 N93-19589
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Evaluation of resistively heated fuel injection technology to reduce cold start emissions and assist starting/driveaway of a methanol-fueled vehicle
[PB93-144350] 08 p2313 N93-22901

RESISTANCE THERMOMETERS
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461

RESISTIVITY
U ELECTRICAL RESISTIVITY

RESISTOJET ENGINES
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694
Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194

RESISTOJETS
U RESISTOJET ENGINES

RESISTORS
NT THERMISTORS
High-frequency LSI contactor
[DE92-017285] 02 p0292 N93-11916
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Microwave interaction with plasmas
[AD-A258044] 05 p1313 N93-17705
Review on surface mounting components (wire wound chip resistors) development 07 p1797 N93-20459
NIST mesurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
Investigation into the common mode rejection ratio of the physiological signal conditioner circuit
09 p2794 N93-26073
Affecting factors to the electrical properties of RuO2 thick-film resistors
[DE93-768332] 12 p3721 N93-32055

RESOLUTION
NT ANGULAR RESOLUTION
NT HIGH RESOLUTION
NT IMAGE RESOLUTION
NT RADAR RESOLUTION
NT RADIOMETRIC RESOLUTION
NT SPATIAL RESOLUTION
NT SPECTRAL RESOLUTION
NT TEMPORAL RESOLUTION
New kinematic functions for redundancy resolution using configuration control
[NASA-CASE-NPO-18608-1-CU]
05 p1261 N93-17275
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599
Innovative applications of repeated satellite SAR-surveys 08 p2349 N93-23541
An investigation of resolution as encountered in various chromatographic operational modes
[AD-A262883] 11 p3312 N93-29510
Generic modal resolution
[REPT-92-90] 12 p3807 N93-31635

RESOLVERS
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698

RESOLVING POWER
U RESOLUTION

RESONANCE
NT BARYON RESONANCE
NT CYCLOTRON RESONANCE
NT ELECTRON PARAMAGNETIC RESONANCE
NT FERROMAGNETIC RESONANCE
NT MAGNETIC RESONANCE
NT MICROWAVE RESONANCE
NT NUCLEAR MAGNETIC RESONANCE
NT NUCLEAR QUADRUPOLE RESONANCE
NT OPTICAL RESONANCE
NT ORBITAL RESONANCES (CELESTIAL MECHANICS)
NT PARAMAGNETIC RESONANCE
NT PLASMA RESONANCE
NT RESONANT VIBRATION
NT SPIN RESONANCE
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
State-resolved reaction dynamics
[AD-A254291] 02 p0436 N93-11196
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Parameter studies of helium-neon lasers at 543 nm
03 p0606 N93-13747
Resonance studies of artificial earth satellites
03 p0523 N93-14037
Resonance absorption of MHD surface waves with applications to the solar atmosphere
04 p1048 N93-14157
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
The effect of secular resonances in the asteroid region between 2.1 and 2.4 AU 06 p1706 N93-19161
Long-term evolution of 1991 DA: A dynamically evolved extinct Halley-type comet 06 p1707 N93-19166
Asteroid-type orbit evolution near the 5:2 resonance
06 p1708 N93-19171
Asteroid proper elements and secular resonances
06 p1710 N93-19186
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids
[DE93-005450] 08 p2503 N93-22748
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155
Pressure dependence of conductivity
[DE93-008466] 09 p2687 N93-25113
Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Evaluation of integrated tuning elements with SIS devices 10 p3018 N93-27770
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation
[AD-A262237] 10 p3130 N93-27933
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Aerosol particle analysis by Raman scattering technique
[DE93-005587] 11 p3309 N93-28880
An operator method to study some resonance boundary value problems in elasticity theory
[REPT-92-84] 12 p3740 N93-31490
Resonance and near-resonance for a nonlinear wave equation
[REPT-92-92] 12 p3814 N93-31633
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310

RESONANCE CHARGE EXCHANGE
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876

RESONANCE FLUORESCENCE
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336
Two-photon cooperative cascade superfluorescence
[AD-A255690] 03 p0608 N93-14023
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra
04 p1017 N93-14230
Remote measurement of planetary magnetic fields by the Hanle effect 11 p3645 N93-28793

RESONANCE LINES
The possibilities of observing plasma and gyro lines with the EISCAT polar cap radar 06 p1724 N93-19534
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535
Photoelectron enhanced plasma-line intensities at angles with the geomagnetic field as measured by EISCAT 06 p1724 N93-19536
Tristatic observations of natural plasma lines with the EISCAT UHF radar 06 p1725 N93-19537

RESONANCE RADIATION
U RESONANCE FLUORESCENCE

RESONANCE SCATTERING
Resonance electron scattering by adsorbed molecules: (sigma)* resonance energy versus bond length
[DE93-000445] 05 p1292 N93-17373
Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564
Resonance electron scattering by O2 monolayers on graphites: Reinterpreted
[AD-A261851] 09 p2850 N93-26287
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966

RESONANT CAVITIES
U CAVITY RESONATORS

RESONANT FREQUENCIES
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
An experimental investigation into flow induced acoustic resonances in an annular cascade
[PNR-90959] 02 p0433 N93-11322
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Drop oscillation and mass transfer in alternating electric fields
[DE93-003595] 05 p1149 N93-17086
Experimental study of the selective properties of coaxial resonators
[INPE-5375-PRE/1748] 06 p1522 N93-19740
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
Resonant response analysis of a high speed gear
07 p1917 N93-20662
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673

Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Natural frequencies and response of spinning liquid column with partially sliding contact line [LRT-WE-9-FB-24-1991] 07 p1903 N93-21298
Liquid oscillations under strong surface tension in a circular cylindrical container [LRT-WE-9-FB-26-1991] 07 p1904 N93-21953
Modal identification experiment 08 p2188 N93-22635
Oscillations of finite liquid columns 08 p2250 N93-22855
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1 [DE93-005382] 08 p2325 N93-22975
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry [AD-A260119] 08 p2329 N93-23700
Accurate evaluation of the real and imaginary material constants for a piezoelectric resonator in the radial mode [DREA-CR-91-451] 08 p2508 N93-23727
The measurement of the resonant frequency of quartz crystal units: An ongoing saga 09 p2833 N93-24996
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020
Trapped energy quartz crystal resonator on wedge-shaped plate 09 p2837 N93-25022
Stability of nonlinear phase motion from the study of oscillator mappings 09 p2693 N93-25034
Controlling an optical frequency by a single ion 09 p2841 N93-25051
Identification and control of lightly damped, large space structures: An experimental evaluation 09 p2616 N93-25351
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data [AD-A262363] 10 p2942 N93-27692
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028
One lateral mode isotropic rotor response to nonsynchronous excitation 12 p3738 N93-32276

RESONANT TUNNELING
Optimization of resonant interband tunnel devices [AD-A252401] 01 p0168 N93-10637
Physics and technology of resonant-tunneling devices [AD-A255233] 03 p0573 N93-13837
Quantum chaos without classical counterpart [PREPRINT-830] 05 p1331 N93-17215
Resonant tunneling through chemisorbed halogen atoms on Ag(111) [AD-A261794] 09 p2868 N93-26254
A quasioptical resonant-tunneling-diode oscillator operating above 200 GHz 10 p3017 N93-27764
Negative Differential Resistance (NDR) frequency conversion with gain 10 p3017 N93-27766
Resonant tunneling diodes as sources for millimeter and submillimeter wavelengths 10 p3018 N93-27772
Simulation of electron transport in quantum well devices 10 p3019 N93-27773

RESONANT VIBRATION
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials 01 p0045 N93-10470
Vibration of orthotropic cylindrical shell panels with arbitrary supported curved edges 01 p0045 N93-10471
Flexural vibration of beams with varying section properties 01 p0057 N93-10531
Natural vibrations of multilayered doubly curved shells 01 p0057 N93-10532
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
The vibrations of annular discs: A comparison of experimental and two analytical techniques 01 p0058 N93-10536
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Numerical considerations for structural system identification from modal information 01 p0063 N93-10564
Dynamic control modification techniques in teleoperation of a flexible manipulator [NASA-CR-190984] 03 p0610 N93-12904
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
Add-on damping treatment for the F-15 upper-outer wing skin [AD-A258470] 06 p1438 N93-18248
High speed thin plate fatigue crack monitor [NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329
Elimination of resonance with a switching support 07 p1933 N93-20664
Solution of quadratic distributed control problems by optimization methods [ETN-93-93409] 07 p2040 N93-21303
Damping measurements from an operating wind turbine: Preliminary results and procedures [DE93-005357] 08 p2377 N93-22873
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1 [DE93-005382] 08 p2325 N93-22975
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198

RESONATORS
NT CAVITY RESONATORS
NT OPTICAL RESONATORS
NT SUPERCONDUCTING CAVITY RESONATORS
Quantum 1/f noise in high technology applications including ultrasmall structures and devices [AD-A253922] 01 p0074 N93-10751
High Temperature Superconductivity Space Experiment (HTSSE) [AD-A253119] 02 p0288 N93-11239
Dynamics and response of polymer-coated acoustic devices [DE92-014289] 02 p0433 N93-11523
Quartz crystal resonators and oscillators for frequency control and timing applications: A tutorial, revision 5.2 [AD-A254892] 02 p0469 N93-12283
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3 [NASA-TM-105890] 02 p0469 N93-12325
Introduction to quartz frequency standards, revision 1 [AD-A256373] 04 p0870 N93-15330
Nonlinear optical studies of resonant systems [AD-A257001] 05 p1302 N93-16235
Kink-assisted mode hopping in a surface wave resonator [AD-A256314] 05 p1207 N93-16264
High efficiency UHF oscillator for portable battery-powered applications [DE92-040961] 05 p1150 N93-17353
Self-collimated unstable resonator semiconductor laser [NASA-CASE-NPO-18386-1-CU] 06 p1540 N93-18277
The resonator handbook [NASA-CR-192217] 07 p1894 N93-21559
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems 08 p2287 N93-22179
Pyroshock simulation for satellite components using a tunable resonant fixture [DE93-005338] 08 p2322 N93-22500
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise 09 p2693 N93-24982
Miniature optically-pumped cesium beam resonator 09 p2833 N93-24990
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator 09 p2833 N93-24991
Long term drift and gamma-irradiation effect 09 p2833 N93-24992
Weak magnetic field sensitivity of quartz crystal oscillators 09 p2833 N93-24993
Synchrotron radiation X ray topography study of lateral field resonators 09 p2833 N93-24994
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012
Comparison of energy trapping resonators and filters using the AT cut of quartz, berlinite and gallium phosphate 09 p2836 N93-25013
Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020
Controlled dissolution of a piezoelectric material berlinite (AlPO4) 09 p2840 N93-25043
Oscillators for mobile GPS receivers 09 p2694 N93-25055
Microwave interrogation frequency noise and clock frequency stability: Experimental results 09 p2842 N93-25056
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards 09 p2694 N93-25066
Aberration correction of unstable resonators [NASA-CASE-NPO-18662-1-CU] 10 p3148 N93-28428
Investigation of thermoacoustic muffler [AD-A262009] 11 p3562 N93-29392

RESOURCE ALLOCATION
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
JIGSAW: Preference-directed, co-operative scheduling 06 p1639 N93-18689
Constraint monitoring in TOSCA 06 p1639 N93-18693
Estimating spares requirements for Space Station Freedom using the M-SPARE model [AD-A260878] 09 p2617 N93-25630
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
Protocols for distributive scheduling 12 p3835 N93-32129
The MICRO-BOSS scheduling system: Current status and future efforts 12 p3835 N93-32133

RESOURCES
NT AQUIFERS
NT COAL
NT CRUDE OIL
NT EARTH RESOURCES
NT EXTRATERRESTRIAL RESOURCES
NT FORESTS
NT FOSSIL FUELS
NT GEOTHERMAL RESOURCES
NT GEYSERS
NT GLACIERS
NT ICEBERGS
NT LAND ICE
NT LUNAR RESOURCES
NT MARINE RESOURCES
NT NATURAL GAS
NT OIL FIELDS
NT RAIN FORESTS
NT RANGE RESOURCES
NT UNDERWATER RESOURCES
NT WATER RESOURCES
Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector [AD-A247266] 02 p0475 N93-11465

RESOURCES MANAGEMENT
NT FOREST MANAGEMENT
NT LAND MANAGEMENT
Principles of information resource management: A foundation for the future [AD-A254447] 03 p0733 N93-12597
Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823
Trans-cockpit authority gradient in Navy/Marine aircraft mishaps 04 p0786 N93-15016
Enhanced Aeronautical Resource Management training alternatives 04 p0786 N93-15019
Taxonomy of flight variables 04 p0787 N93-15022
Information technologies for global resources management and environmental assessment [DE92-041107] 04 p0906 N93-15442
Geothermal energy survey and technology [DE93-716356] 05 p1193 N93-15903
Cockpit resource management proficiency as a factor of primary flight training [AD-A256995] 05 p1060 N93-16262
Future directions: Integrated resource planning [DE92-040867] 05 p1197 N93-17208
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual [AD-A257478] 05 p1205 N93-17663
Real-time contingency handling in MAESTRO 06 p1638 N93-18683
Corporate information management and business process improvement under the unit cost program: An analysis of a system for the Air Force Institute of Technology [AD-A258984] 06 p1687 N93-19098
Vacuum deposition of copper on Type 304L stainless steel [DE93-002704] 06 p1489 N93-19614
The next generation female in cockpit: Do we need a new approach to cockpit resource management (CRM)? 06 p1430 N93-19704

Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038
Public Access: A How To Guide
[PB93-111029] 07 p1990 N93-21378
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
The 6th Conference Proceedings of the Pacific OCS Region Information Transfer Meeting
[PB93-119600] 07 p1992 N93-21684
Information integration for environmental monitoring and assessment: An annotated bibliography
[PB92-227461] 07 p1993 N93-21784
Aircraft accident report: Air Transport International, Inc., flight 805, Douglas DC-8-63, N794AL. Loss of control and crash, Swanton, Ohio, 15 February 1992
[PB92-910406] 08 p2117 N93-23086
International cooperation and commitments in the ISY and beyond 08 p2154 N93-23164
Application of remote sensing and GIS. Technology to natural resources management: Selecting rice fields in Vietnam 08 p2353 N93-23569
Integration of remote sensing and GIS data for a multiscale study of the Po river basin 08 p2353 N93-23570
Status report on renewable energy in the States
[DE93-000032] 08 p2381 N93-23671
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries 09 p2743 N93-24808
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services 09 p2743 N93-24809
Remote sensing in hydrology and water management 09 p2744 N93-24816
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Aerial photographic sampling for statewide resource inventory 09 p2755 N93-25441
Department of Energy: Better information resources management needed to accomplish missions. Report to the Secretary of Energy
[GAO/IMTEC-92-53] 09 p2882 N93-26096
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Scheduling data transfers in parallel computers and communications systems 12 p3836 N93-31132
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049

RESPIRATION
Metabolic factors influencing myocardial recovery from acidosis (CiC3)
[AD-A252376] 01 p0132 N93-10796
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951
The production and use of aeroponically grown inocula of VAM fungi in the native plant nursery
[PB92-204973] 04 p0933 N93-15208
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Improved inhalation technology for setting safe exposure levels for workplace chemicals 08 p2423 N93-22164
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757

RESPIRATORS
Physiological effects of positive pressure ventilation
[AD-A254809] 03 p0674 N93-12751
Evaluation and optimization of a flexible filtration system for respiratory protection system 21
[AD-A262467] 11 p3493 N93-28758

RESPIRATORY DISEASES
NT ASTHMA
NT EMPHYSEMA
NT TUBERCULOSIS
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine 02 p0382 N93-11311
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting 02 p0382 N93-11312
Phadiatop: A screening test for inhalant allergy 02 p0383 N93-11313
In vivo and in vitro diagnosis of allergic respiratory disease during screening procedures in the Italian Navy: Comparative evaluation of a recent quantitative automatized enzyme immunoassay method to dose specific IgE 02 p0383 N93-11314
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
Allergic and nonallergic rhinitis in Greek pilots 02 p0383 N93-11317
Evaluation of NO(x)-induced toxicity
[AD-A261034] 10 p3084 N93-28122

RESPIRATORY PHYSIOLOGY
Asthma in aircrew: Assessment, treatment and disposition 02 p0383 N93-11315
Cardiopulmonary discipline science plan
[NASA-TM-108040] 06 p1599 N93-19648
Respiratory response to varying degrees of tilt and lower body negative pressure 07 p1809 N93-21114

RESPIRATORY SYSTEM
NT ALVEOLI
NT BRONCHI
NT LUNGS
NT NOSE (ANATOMY)
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21)
[AD-A253393] 01 p0133 N93-10217
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21)
[AD-A253395] 01 p0091 N93-10290
A linear, time-varying simulation of the respiratory tract system
[DE93-004515] 08 p2421 N93-24009
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Evaluation of test methods and requirements for respiratory protection systems 21
[AD-A262466] 11 p3501 N93-28757
Evaluation and optimization of a flexible filtration system for respiratory protection system 21
[AD-A262467] 11 p3493 N93-28758

RESPONDERS
U TRANSPONDERS

RESPONSE BIAS
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229

RESPONSE TIME (COMPUTERS)
Intelligent data management for real-time spacecraft monitoring 02 p0394 N93-11936
A methodology for the solution of nonlinear two-point boundary value inverse problems in physics and engineering 03 p0697 N93-13363
Polynomial-time algorithms for single-machine bicriteria scheduling
[MEMO-COSOR-92-21] 10 p3093 N93-27248
Context switch time scalability: Benchmark results
[PB93-181832] 11 p3539 N93-29661
Timing analysis of real-time systems
[REPT-92-060] 12 p3803 N93-31251

RESPONSES
NT DYNAMIC RESPONSE
NT MODAL RESPONSE
NT PHYSIOLOGICAL RESPONSES
NT TRANSIENT RESPONSE
Use of the program ANISN to calculate response functions for a Bonner sphere set with a He-3 detector
[NPL-RSA(EXT)-31] 02 p0316 N93-11411
Effect of design selection on response surface performance
[NASA-CR-192275] 07 p2038 N93-20895

REST
NT BED REST

RESTORATION
Electrical resistance tomography used in environmental restoration
[DE92-018003] 01 p0103 N93-10763
Environmental restoration project configuration control
[DE92-017223] 02 p0356 N93-12496
An application of exponential neural networks to event-train recognition
[AD-A254948] 03 p0690 N93-12548
Report on environmental requirements and priorities
[PB92-208198] 07 p1989 N93-21028
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829

RESTRAINTS
U CONSTRAINTS

RESTRICTIONS
U CONSTRICTIONS

RESUSCITATION
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

RETAINING
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842

RETARDANTS
NT FLAME RETARDANTS

RETARDING
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679

RETARDING ION MASS SPECTROMETERS
U MASS SPECTROMETERS

RETENTION (PSYCHOLOGY)
Long term memory for different types of classroom knowledge
[AD-A255235] 04 p0999 N93-14526

RETINA
NT FOVEA
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Silicon vision: Elementary functions to be implemented on electronic retinas 03 p0692 N93-13242
Analysis of retinal function following laser irradiation
[AD-A255649] 04 p0933 N93-14163
Neural network retinal model real time implementation
[AD-A255652] 04 p0934 N93-14210
Retinal modeling: Segmenting motion from spatio-temporal inputs using neural networks
[AD-A258854] 06 p1599 N93-19369
Multidimensional signal coding in the visual system
[AD-A259836] 08 p2488 N93-23696
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
Receptoral and neural aliasing
[AD-A261438] 09 p2799 N93-26489
Image enhancement using an analog device neural network 11 p3376 N93-30346
Analysis of visual loss from retinal lesions
[AD-A264692] 11 p3496 N93-30494
A simple computational model of center-surround receptive fields in the retina
[AD-A264723] 11 p3496 N93-30515
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
Photoreceptors regulating circadian behavior: A mouse model
[AD-A264881] 11 p3497 N93-30908
Investigation of laser-induced retinal damage
[AD-A264096] 12 p3772 N93-31094

RETINAL IMAGES
Retinal information processing for minimum laser lesion detection and cumulative damage
[AD-A259195] 07 p2023 N93-20563
Modelling and simulation of human retinal vision processing 11 p3363 N93-30269
RETRACTABLE EQUIPMENT
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288
RETRACTABLE LANDING GEAR
U LANDING GEAR
U RETRACTABLE EQUIPMENT
RETRIEVAL
NT DATA RETRIEVAL
NT INFORMATION RETRIEVAL
NT PAYLOAD RETRIEVAL (STS)
RETROFITTING
Retrofitting of GPS into existing navigation suites 08 p2120 N93-22788
RETROREFLECTION
Multiperiod-grating surface-emitting lasers
[NASA-CASE-NPO-17763-1-CU] 04 p0885 N93-14703
Optical phase measuring sensors for automated rendezvous and capture 08 p2146 N93-22290
RETROREFLECTORS
Video guidance sensor 07 p1812 N93-21409
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
Approach range and velocity determination using laser sensors and retroreflector targets 08 p2147 N93-22297
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
RETURN TO EARTH SPACE FLIGHT
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Design, building, and testing of the postlanding systems for the assured crew return vehicle 11 p3229 N93-29726
REUSABLE HEAT SHIELDING
Reusable thermal protection system development: A prospective 02 p0227 N93-12448
Predicted and tested performance of durable TPS 02 p0228 N93-12454
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
Reusable Reentry Satellite (RRS): Thermal control trade study
[NASA-CR-186528] 05 p1087 N93-16719
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
REUSABLE LAUNCH VEHICLES
NT SINGLE STAGE TO ORBIT VEHICLES
Thermal protection systems for all-weather reusable launch vehicles 08 p2176 N93-22109
Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration
[NASA-TM-4439] 08 p2108 N93-22558
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle
[NASA-TP-3335] 10 p2955 N93-27016
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
Conceptual study of fly-back booster 10 p2950 N93-28026
Fly-back booster 10 p2950 N93-28027
Conceptual study of fly-back booster 10 p2950 N93-28028
ASUR 11 p3228 N93-29720
Spacely's rockets: Personnel launch system/family of heavy lift launch vehicles 11 p3234 N93-29752
REUSABLE ROCKET ENGINES
Space Transportation Booster Engine Configuration Study. Volume 3: Program Cost estimates and work breakdown structure and WBS dictionary
[NASA-CR-184458] 02 p0233 N93-12088
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Space Shuttle: Status of advanced solid rocket motor program. Report to the Chair, Subcommittee on Government Activities and Transportation, Committee on Government Operations, House of Representatives
[GAO/NSIAD-93-26] 07 p1829 N93-20293
NTRE extended life feasibility assessment 10 p2977 N93-26921
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center 12 p3696 N93-31574
Constitutive and damage material modeling in a high pressure hydrogen environment 12 p3696 N93-31577
REUSABLE SPACECRAFT
NT AEROSPACE PLANES
NT ATLANTIS (ORBITER)
NT BURAN SPACE SHUTTLE
NT CHALLENGER (ORBITER)
NT COLUMBIA (ORBITER)
NT DISCOVERY (ORBITER)
NT ENDEAVOUR (ORBITER)
NT HERMES MANNED SPACEPLANE
NT SINGLE STAGE TO ORBIT VEHICLES
NT SPACE SHUTTLE ORBITERS
NT SPACE SHUTTLES
NT X-30 VEHICLE
Development trends in space transportation systems: From Hermes to Saenger
[MBB-UK-0146-91-PUB] 02 p0223 N93-11007
Reusable thermal protection system development: A prospective 02 p0227 N93-12448
Reusable Reentry Satellite (RRS) system design study
[NASA-CR-187897] 04 p0817 N93-14733
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study
[NASA-CR-188583] 04 p0824 N93-15629
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630
Vehicle/payload interface specification for the reusable reentry satellite
[NASA-CR-187883] 04 p0824 N93-15631
System specification for the reusable reentry satellite
[NASA-CR-187882] 04 p0824 N93-15632
Reusable Reentry Satellite (RRS): Recovery tradeoff study
[NASA-CR-186396] 04 p0825 N93-15658
Outline for reusable reentry satellite system specification, volumes 1 - volume 9
[NASA-CR-185958] 05 p1086 N93-15791
Reusable Reentry Satellite (RRS): Launch tradeoff study
[NASA-CR-186395] 05 p1086 N93-15803
Reusable Reentry Satellite (RRS): Configuration trade study
[NASA-CR-187772] 05 p1086 N93-15804
Experiment module/support module interface specification for the reusable reentry satellite
[NASA-CR-187885] 05 p1086 N93-15805
Reusable Reentry Satellite (RRS): Thermal control trade study
[NASA-CR-186528] 05 p1087 N93-16719
Reusable Reentry Satellite (RRS): Propulsion system trade study
[NASA-CR-186527] 05 p1087 N93-16720
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Future space transportation systems. Part 1: Safety aspects. Part 2: Technical aspects
[MBB-UK-0180-90-PUB-PT-1-2] 07 p1821 N93-20847
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Reusable reentry satellite system specification. Volume 1-9
[NASA-CR-192969] 08 p2196 N93-24543
Manned engineering test satellites 10 p2948 N93-28016
Retrievable payload carrier, next generation Long Duration Exposure Facility: Update 1992 11 p3283 N93-29705
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
RS Landers: Lunar lander 11 p3234 N93-29753
REUSE
NT SOFTWARE REUSE
REVERBERATION
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
REVERBERATION CHAMBERS
The use of reverberant-room acoustic testing for spacecraft structures and their payloads 05 p1085 N93-15786
REVERSE ENGINEERING
Reengineering using a data abstraction based specification language
[AD-A254726] 02 p0414 N93-12341
Re-engineering software systems in the Department of Defense using integrated computer aided software engineering tools
[AD-A257500] 06 p1617 N93-17905
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
Automated program recognition by graph parsing
[AD-A259609] 08 p2441 N93-24125
The theory of interface slicing
[NASA-CR-193108] 10 p3104 N93-28320
Software engineering 12 p3794 N93-32154
REVERSE FIELD PINCH
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535
Measurement of current density fluctuations and ambipolar particle flux due to magnetic fluctuations in MST
[DE92-041013] 03 p0713 N93-12878
Anomalous ion heating and superthermal electrons in the MST reversed-field pinch
[DE92-041011] 03 p0713 N93-12882
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Theoretical reversed field pinch and tokamak studies
[DE93-002775] 05 p1312 N93-17085
Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602
The fluctuation induced Hall effect
[DE93-010130] 11 p3585 N93-28912
REVERSE OSMOSIS
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423
REVERSE TIME
U REACTION TIME
REVERSED FLOW
Combined forced and free convection in a curved duct 10 p2937 N93-27461
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
REVERSING
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906
REVIEWING
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Accidents and errors: A review of recent UK Army Air Corps accidents 06 p1429 N93-19701
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on advanced spacecraft 07 p1789 N93-20411
Research on GPS utilization in space 07 p1780 N93-20453
Survey and review on adhesives 07 p1799 N93-20475

Japanese space activities 07 p1976 N93-21274
Overview of ISY plan 08 p2334 N93-22120
Sandia combustion research technical review, 1992 [DE93-006399] 08 p2220 N93-23027
Study of miniature and microminiature satellite technology 10 p2949 N93-28022

REVISIONS
Artificial neural network system for memory modification [AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks [AD-D015356] 01 p0143 N93-10959
CAESAR development plan 1992-1995 [BCRS-92-17] 11 p3463 N93-31009

REVOLUTION (MOTION)
U REVOLVING

REVOLVING
GJOIN: A program for merging two or more GENESIS databases [DE93-007709] 08 p2523 N93-22914
Navier-Stokes computations for kinetic energy projectiles in steady coning motion: A predictive capability for pitch damping [AD-A264111] 12 p3726 N93-32028

REYNOLDS EQUATION
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows [NASA-CR-184441] 02 p0305 N93-12082
Elastohydrodynamic lubrication of multilayered elastic solids 10 p3053 N93-28413

REYNOLDS LAW
U REYNOLDS EQUATION

REYNOLDS NUMBER
NT HIGH REYNOLDS NUMBER
NT LOW REYNOLDS NUMBER
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation [NASA-TM-4361] 01 p0002 N93-10071
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow [AD-A253617] 01 p0079 N93-10094
Turbulence measurements of high shear flow fields in a turbomachine seal configuration 01 p0093 N93-10893
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements [NASA-TM-105847] 02 p0300 N93-11529
Leading edge film cooking heat transfer including the effect of mainstream turbulence 02 p0199 N93-11886
Compressible mixing layers with and without particles [AD-A254854] 02 p0308 N93-12435
Bubble dissolving in turbulent pipe flow [AD-A252927] 02 p0308 N93-12462
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Parametric study of air sampling cyclones 04 p0779 N93-14173
Turbulence modeling for combustion flows 04 p0840 N93-14620
User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel [NASA-TM-105626] 04 p0804 N93-15498
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Effect of Reynolds number on the standards of a simplified anemoclinometric probe [IMFL-91-31] 05 p1056 N93-17542
Lift and drag forces on droplets and particles in wall-bounded shear flows [DE93-002678] 05 p1165 N93-17761
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade [AD-A257855] 06 p1527 N93-18305
Parabolized Navier-Stokes methods for hypersonic flows 06 p1529 N93-18565
An experimental investigation of a finite circulation control wing [AD-A259044] 06 p1440 N93-18896
A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet [DE93-005251] 08 p2293 N93-23300
Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation [NASA-TM-4441] 10 p2928 N93-27005
Reynolds and Mach number effects on multielement airfoils 10 p2934 N93-27446
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions 11 p3253 N93-29933
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Turbulence characteristics of an axisymmetric reacting flow [NASA-CR-4110] 11 p3242 N93-30373
Effects of buoyancy on gas jet diffusion flames [NASA-CR-191109] 11 p3352 N93-31031
Reynolds number influences in aeronautics [NASA-TM-107730] 12 p3673 N93-31732
Effects of an aft facing step on the surface of a laminar flow glider wing [NASA-CR-193302] 12 p3673 N93-31855

REYNOLDS STRESS
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
On the prediction of turbulent secondary flows [NASA-CR-189722] 03 p0575 N93-12717
Wave drag in the atmospheric boundary layer 04 p0915 N93-14873
Center for Modeling of Turbulence and Transition (CMOTT): Research Briefs, 1992 [NASA-TM-105834] 05 p1152 N93-15792
Turbulence modeling and experiments 05 p1153 N93-15796
Renormalization group methods for the Reynolds stress transport equations 05 p1154 N93-15800
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator [DE93-001204] 05 p1308 N93-16152
A realizable Reynolds stress algebraic equation model [NASA-TM-105993] 05 p1055 N93-16596
Critical assessment of Reynolds stress turbulence models using homogeneous flows [NASA-TM-105954] 05 p1159 N93-16703
Collaborative testing of turbulence models [AD-A260277] 08 p2298 N93-24259
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient [NASA-TM-102211] 08 p2300 N93-24541
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
Large eddy simulations of shockwave passage through turbulence [DE92-019503] 11 p3419 N93-29050
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step [NASA-TM-106173] 12 p3809 N93-32200

RHENIUM
Low thrust chemical rocket technology [NASA-TM-105927] 04 p0827 N93-15572
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies [DE93-002557] 06 p1484 N93-19485
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket [NASA-CR-191014] 07 p1829 N93-20114
Fundamental aspects of metal joining: The study of strong interfaces [AD-A261293] 09 p2653 N93-26304

RHENIUM ALLOYS
New developments in the 'ab initio' determination of transition metal alloy phase diagrams [DE93-002540] 07 p1856 N93-21488

RHEOLOGY
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
Simple shearing flow of a 3D foam [DE92-011151] 01 p0036 N93-10399
Chronorheological characterization of elastomers 01 p0046 N93-10476
The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Preliminary investigations of metal liquid-like films and coatings derived from them [AD-A255477] 04 p0849 N93-14489
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder [AD-A259270] 07 p1901 N93-20599
Effect of surface active materials on bubble dynamics in two-phase flow [AD-A259340] 07 p1902 N93-21264
Performance study of the rheometrics melt flow monitor for real-time rheological characterization [NRC-34372] 08 p2241 N93-24290
Dynamic test apparatus for electro-rheological fluids [AD-D015632] 09 p2643 N93-25284
Rheology of YBa2Cu3O(7-x) precursors [DE93-007285] 09 p2863 N93-25362
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar 09 p2789 N93-25558
Finite element methods for non-Newtonian flows [DE93-006458] 10 p3042 N93-28149
Composition dependence of fluid thermophysical properties: Theory and modeling [DE93-011119] 10 p2996 N93-28352
Macrostatistical hydrodynamics [DE93-012289] 11 p3417 N93-28751
The XNOVAKTC rheological model [AD-A263298] 11 p3342 N93-29762
Wetting and dispersion in ceramic/polymer melt injection molding systems [DE93-013240] 11 p3338 N93-30601
Physical chemical studies on molecular composite compositions [AD-A264834] 11 p3339 N93-30898

RHEOMETERS
Performance study of the rheometrics melt flow monitor for real-time rheological characterization [NRC-34372] 08 p2241 N93-24290

RHO-MESONS
Semi-leptonic decays of D-mesons in lattice QCD [PREPRINT-808] 07 p2062 N93-20905

RHODAMINE
Ultrasensitive detection of single molecules in flowing sample streams by laser-induced fluorescence [DE93-005457] 08 p2482 N93-23244
Pulsed laser photoacoustic spectrometer for study of solid materials [DE93-605290] 11 p3441 N93-31023

RHODE ISLAND
Rhode Island hurricanes and tropical storms: A fifty-six year summary, 1936-1991 [PB93-162006] 11 p3481 N93-29198

RHODIUM
Metalloradical and electrophilic activation of methane [PB93-123693] 07 p1851 N93-21813
Availability of platinum and platinum-group metals [PB93-189496] 12 p3743 N93-31115

RHODIUM ALLOYS
The direct Monte Carlo method for calculating alloy phases [DE93-000436] 05 p1113 N93-16450
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use [AD-A261112] 07 p1786 N93-21316

RHODIUM COMPOUNDS
Catalytic hydrogenation of carbon monoxide [DE92-014729] 02 p0253 N93-12428

RHOMBOHEDRONS
The synthesis and structural characterization of novel transition metal fluorides [DE93-002551] 06 p1673 N93-18412

RHYTHM (BIOLOGY)
NT CIRCADIAN RHYTHMS
Effectiveness of birthdate biorhythm theory on flight accidents 06 p1431 N93-19710
The effects of an antijet lag diet 12 p3781 N93-32263

RIBBONS
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Polymer infiltration studies [NASA-CR-191652] 04 p0852 N93-15431
Melt spinning of intermetallic alloys: Heat transfer and microstructure [AD-A257455] 05 p1109 N93-15877
Microstructural control of complex alloys 06 p1490 N93-18485
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon [DE93-001924] 06 p1674 N93-18619
Spin dependent photocurrents in ribbon solar cells [DE93-002486] 06 p1572 N93-19623
Microsecond ribbon relativistic electron beam in a plane undulator and generation of microwave radiation [DE93-605693] 11 p3400 N93-30993

RIBLETS
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
Development of wall turbulence structure
05 p1162 N93-16824
Drag reduction mechanism and coherent structure in near wall turbulence with riblets
05 p1162 N93-16827
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface
09 p2705 N93-25746
Flow control of low heat load turbine airfoils
[AD-A260941] 09 p2595 N93-26219
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
Study of pipe friction reduction materials for gas transportation.
[PB93-189181] 12 p3724 N93-31438
RIBONUCLEIC ACIDS
Mechanisms of microwave induced damage in biologic materials
[AD-A255799] 04 p0933 N93-14648
Characterization and classification of strains of Francisella tularensis isolated in the central Asian focus of the Soviet Union and in Japan
[FOA-B-40421-4.4] 10 p3082 N93-28200
Use of RNA hybridization in the diagnosis of a case of ulceroglandular tularemia
[FOA-B-40422-4.4] 10 p3083 N93-28212
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934
Mechanisms of microwave induced damage in biologic materials
[AD-A264415] 12 p3772 N93-32035
RIBS (SUPPORTS)
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners
02 p0434 N93-11884
The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128
Segmented composite cylinder assembly
[AD-D015603] 07 p1831 N93-20015
Enhanced heat transfer in ribbed ducts using vortex generators
[PB93-114320] 07 p1902 N93-21219
RICCATI EQUATION
On the inverse scattering problem for the Helmholtz equation in one dimension
[AD-A253130] 02 p0434 N93-11526
Solutions of the ARE in terms of the Hamiltonian for Riesz-spectral systems
[MEMO-1054] 10 p3119 N93-28002
Equivalent conditions for the solvability of the infinite-dimensional LQ-problem with unbounded input and output operators
[W-9209] 10 p3121 N93-28138
Necessary and sufficient conditions for J-spectral factorizations with a J-lossless property for infinite-dimensional systems in continuous and discrete time
[W-9217] 12 p3798 N93-31512
Analytic system problems and J-lossless factorization for infinite-dimensional linear systems
[W-9218] 12 p3798 N93-31513
Robust stabilization of infinite-dimensional systems with respect to coprime factor perturbations
[W-9220] 12 p3805 N93-31514
H infinity-control with measurement-feedback for Pritchard-Salamon system
[W-9211] 12 p3799 N93-31628
RICE
Effects of UV-B and global climate change on rice
[PB93-135622] 08 p2388 N93-23874
RICHARDSON NUMBER
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106
RICHARDSON-DUSHMAN EQUATION
U TEMPERATURE EFFECTS
U THERMIONIC EMISSION
RIDGES
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales
04 p1034 N93-14343
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811
RIDING QUALITY
Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928
The Ultra Light Aircraft Testing
[NASA-CR-193043] 11 p3249 N93-29774
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192
RIEMANN INTEGRAL
U MEASURE AND INTEGRATION
RIEMANN MANIFOLD
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model
[PREPRINT-855] 05 p1330 N93-16961
Combinatorial and topological phase structure of non-perturbative n-dimensional quantum gravity
[PREPRINT-861] 05 p1331 N93-17224
Self-similar fluid dynamic limits for the Broadwell system
[AD-A257950] 06 p1527 N93-18215
On the origin of SL(nC) current algebra in generalized two dimensional gravity
[PREPRINT-818] 07 p2055 N93-21180
Commutative diagrams and tensor calculus in Riemann spaces
[SSCL-PREPRINT-741] 10 p3122 N93-28195
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations
11 p3428 N93-30902
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
Superconformal structures and holomorphic 1/2-superdifferentials on N = 1 super Riemann surfaces
[DE93-604133] 11 p3558 N93-30989
On the scalar curvature of self-dual manifolds
[DE93-608194] 12 p3804 N93-31306
RIEMANN PROBLEM
U CAUCHY PROBLEM
RIEMANN SPACE
U RIEMANN MANIFOLD
RIEMANN SPHERE
U RIEMANN MANIFOLD
RIESZ THEOREM
Solutions of the ARE in terms of the Hamiltonian for Riesz-spectral systems
[MEMO-1054] 10 p3119 N93-28002
RIFT VALLEYS
U VALLEYS
RIFTS
U GEOLOGICAL FAULTS
RIGGING
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
RIGID BODIES
U RIGID STRUCTURES
RIGID ROTORS
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Stability of elastically tailored rotor blades
04 p0791 N93-14828
RIGID ROTORS (PLASMA PHYSICS)
NT PLASMA PHYSICS
RIGID STRUCTURES
NT RIGID ROTORS
NT RIGID WINGS
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids
01 p0064 N93-10568
Sound propagation over rigid porous layers
02 p0432 N93-11179
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
Numerical study of advanced rotor blades
02 p0199 N93-11899
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities
03 p0501 N93-13807
Dynamics and control of a rigid/flexible manipulator
04 p0890 N93-14684
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
Numerical investigation of the Earth's rotation during a complete precession cycle 06 p1580 N93-18965
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Comparison of the efficiency of the various methods for rigid-body displacement analyses
07 p1941 N93-20709
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
Development of a non-linear simulation for generic hypersonic vehicles - ASUHS1
[NASA-CR-192710] 07 p1783 N93-22003
Dynamic response and stability of semi-rigid frames
08 p2327 N93-23199
First European tri-service advanced materials workshop: Compressive strength in rigid-rod polymers
[AD-A259997] 08 p2242 N93-24300
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU]
08 p2169 N93-24598
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100
Nonholonomic geometry, mechanics and control
09 p2724 N93-25270
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
Gravity referenced elevation encoder development
11 p3385 N93-29592
Attitude stabilization of a rigid spacecraft using gas jet actuators operating in a failure mode
11 p3280 N93-29992
Planar reorientation of a free-free beam in space using embedded electromechanical actuators
11 p3280 N93-29993
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013
RIGID WINGS
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
RIGIDITY
Development of an experimental method to determine the axial rigidity of a strut-node joint
11 p3290 N93-30950
RILLS
U VALLEYS
RIMS
Wheels for wheelchairs and the like
[NASA-CASE-MFS-28632-1] 05 p1228 N93-17042

RING CURRENTS
Ion radial diffusion in an electrostatic impulse model for stormtime ring current formation
[NASA-CR-190941] 03 p0705 N93-12715
Ring current oxygen interaction with micropulsations 03 p0651 N93-13149
Interaction of energetic ring current protons with magnetospheric hydromagnetic waves 03 p0718 N93-13750
Investigation of ring current/storm dynamics: Preliminary results
[AD-A256704] 05 p1207 N93-16155
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214

RING GALAXIES
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
Models of the Cartwheel ring galaxy: Spokes and starbursts 10 p3190 N93-26823
Spokes in ring galaxies 10 p3202 N93-26885

RING LASERS
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum 04 p0884 N93-14141
Multiple element ring laser
[AD-D015471] 05 p1173 N93-16469
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298
An active solid state ring laser gyroscope 09 p2709 N93-25291
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging 09 p2713 N93-25389
Applications of inertial-sensor high-inheritance instruments to DSN precision antenna pointing 09 p2621 N93-26112

RING STRUCTURES
NT RING WINGS
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
The vibrations of annular discs: A comparison of experimental and two analytical techniques 01 p0058 N93-10536
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
High torque capable, self locking, vibration isolating flexible shaft coupling statement of government interest
[AD-D015501] 05 p1178 N93-16583
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
BRST cohomology ring in 2D gravity coupled to minimal models
[DE93-608192] 12 p3757 N93-31305

RING WINGS
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214

RIOMETERS
JARE data reports no. 176 (Ionosphere 47). Riometer records of 30 MHz cosmic noise at Syowa Station, Antarctica in 1990 03 p0772 N93-13255

RIPPLES
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives 06 p1507 N93-18917
Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996

RISERS
Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359

RISK
Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
The program plan: An overview of the development and implementation of the International Asteroid Mission 03 p0514 N93-13553
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
Aviation accidents, incidents, and violations: Psychological predictors among US pilots 04 p0783 N93-14693
Measuring risk in single-engine and twin-engine helicopters 04 p0787 N93-15025
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
A seismic risk for the lunar base
[CONTRIB-769] 05 p1396 N93-17439
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach 06 p1588 N93-19411
Pre-flight risk assessment in Emergency Medical Service (EMS) helicopters 06 p1428 N93-19692
Fires on board aircraft: Toxicological risk in flight 06 p1428 N93-19694
Software development risk: Opportunity, not problem
[AD-A258743] 07 p2032 N93-20402
Failure environment analysis tool applications 08 p2322 N93-22170
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Insurance cover for space ventures 08 p2344 N93-23510
The space debris environment for remote sensing satellites 08 p2199 N93-23809
An introductory guide to uncertainty analysis in environmental and health risk assessment
[DE93-002873] 09 p2760 N93-24676
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map 09 p2743 N93-24807
A prototype system for forest fire prevention and control 09 p2749 N93-24844
A procedure for defining lightning risk to air vehicles 09 p2583 N93-24885
Environmental risks and future generations: Criteria for public policy
[DE93-004691] 09 p2764 N93-25443
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
On the estimation of risk associated with an attenuation prediction 09 p2683 N93-26469
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730
Life insurance risk assessment using a fuzzy logic expert system 11 p3520 N93-29585
Steps required in the pursuit of quantitative risk management processes for high pressure systems
[DE93-007586] 11 p3378 N93-30508
Uses of risk importance measures
[VTT-TIED-1245] 11 p3378 N93-30581
Cardiovascular Risk Factors (CVRF) in Spanish pilots with coronary artery disease demonstrated by angiographic studies 12 p3775 N93-32253
Results and management of pathological lipoprotein concentrations and other cardiovascular risk factors in military pilots of the German Federal Armed Forces 12 p3775 N93-32254

RIVER BASINS
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
Integration of remote sensing and GIS data for a multiscale study of the Po river basin 08 p2353 N93-23570

RIVERS
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511
Development of an airborne MMW FM-CW radar for mapping river ice
[AD-A262655] 11 p3379 N93-28588

RIVETED JOINTS
Multiple-site-damage fatigue of riveted joints
[LR-679] 05 p1185 N93-16285

RNA
U RIBONUCLEIC ACIDS

ROADS
NT HIGHWAYS
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
European Road Database: Activities within the ATKIS 12 p3744 N93-31257
Digital reading of road network data in developing a cartographic information system 12 p3744 N93-31259
Geographical and topographical data from satellite images used in developing a digital road topology database 12 p3745 N93-31266
The use of digital road data by a navigation system 12 p3678 N93-31269

ROASTING
Production of ultrafine, high-purity ceramic powders using the US Bureau of Mines developed turbomill 09 p2659 N93-25585

ROBOT ARMS
EXOS research on master controllers for robotic devices 02 p0399 N93-11957
A new scheme of force reflecting control 02 p0399 N93-11960
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Research and development at ORNL/CESAR towards cooperating robotic systems for hazardous environments 02 p0331 N93-11979
A fundamental study of the effect of gravity on the static and dynamic behavior of robots 03 p0610 N93-12760
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Robust control of uncertain aerospace and mechanical systems with unmodelled flexibilities: A singular perturbation approach 03 p0691 N93-13129
Optimal coordination of robotic systems with redundancy 03 p0693 N93-13336
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 03 p0614 N93-13452
Enhanced accuracy for closed-loop robot 03 p0617 N93-13808
Near-minimum-time control of a flexible arm 03 p0695 N93-14039
A collision avoidance algorithm for the mobile robot and the robot manipulator in multi-robot system 03 p0618 N93-14094
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
Force and position control of robot manipulators: Learning and repetitive control approach 04 p0888 N93-14473
Dynamics and control of a rigid/flexible manipulator 04 p0890 N93-14684
Optimal and robust control of robot manipulators 04 p0890 N93-14685
Driven shielding capacitive proximity sensor
[NASA-CASE-GSC-13377-1] 04 p0962 N93-14701

Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Dynamics and control of flexible arm robots [ISBN-0-315-69011-9] 04 p0892 N93-15150
Jointed assembly actuated by fluid pressure [AD-D015383] 04 p0893 N93-15248
Redundancy control of robots by constrained optimization [F-3-7] 04 p0950 N93-15307
Stereo vision controlled bilateral telerobotic remote assembly station [AD-A257113] 05 p1302 N93-16120
Parameter identification and adaptive control of cooperating robots [AD-A256984] 05 p1259 N93-16256
A Petri net controller for distributed hierarchical systems [NASA-CR-191862] 05 p1276 N93-16675
An analysis of temperature-induced errors for an ultrasound distance measuring system [NASA-CR-191859] 05 p1282 N93-16676
Automatic tuning for a teleoperated arm controller [DE93-001647] 05 p1179 N93-17481
Predesign of a simulator for inverse robot kinematics [NLR-TP-91098-U] 05 p1180 N93-17583
Force override rate controller for remote actuation [AD-A257631] 05 p1180 N93-17718
Design and control of a space based two link manipulator with Lyapunov based control laws [AD-A257568] 06 p1543 N93-17938
Model reference adaptive control of robots [NASA-CR-191871] 06 p1632 N93-18377
Capaciflector-based virtual force control and centering [NASA-CR-191805] 06 p1520 N93-18764
Adaptive control of robotic manipulators 06 p1640 N93-19031
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle 06 p1552 N93-19463
Research on space robot technology 07 p1794 N93-20440
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Polynomial solution of the direct geometric problem of a parallel spherical manipulator 07 p1918 N93-20718
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator [NASA-CR-192756] 07 p2048 N93-21306
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
Autonomus obstacle avoidance using visual fixation and looming [PB93-146660] 08 p2459 N93-23442
A capacitance-based proximity sensor for whole arm obstacle avoidance [DE93-006773] 08 p2463 N93-24331
Reliable vision-guided grasping [NASA-CR-193197] 08 p2464 N93-24603
A control structure for fault-tolerant operation of robotic manipulators [DE93-005783] 09 p2717 N93-25413
Parametric motion control of robotic arms: A biologically based approach using neural networks 09 p2822 N93-25964
Interaction dynamics and control for orbital assembly 09 p2669 N93-26407
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Neural self-tuning adaptive control of non-minimum phase system [NASA-CR-193109] 10 p3109 N93-27109
Adaptive control strategies for flexible robotic arm [NASA-CR-193111] 10 p3050 N93-27159
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
Extended task space control for robotic manipulators [NASA-CASE-NPO-18902-1-CU] 10 p3052 N93-28129
Parallel manipulators. Part 5: Determination of the workspace for a constant orientation [INRIA-RR-1645] 10 p3053 N93-28439
A portable modular architecture for robotic manipulator control [DE93-010819] 11 p3444 N93-29254
Some results on feedback stabilization of a one-link flexible arm [INRIA-RR-1682] 11 p3543 N93-30116
Trajectory generation for dual-arm robots using artificial impedance approach 11 p3370 N93-30310
Robot arm with positional absolute encoded joints 11 p3370 N93-30312
Characterisation and control of a flexible robot subject to torque ripple [OUEL-1952/92] 12 p3734 N93-31156
Sensitivity analysis of coupled bending and torsional vibrations in flexible robot arms [MEMO-1088] 12 p3735 N93-31526
Automated assembly of large space structures using an expert system executive 12 p3690 N93-32102
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development 12 p3784 N93-32112
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
Constrained motion models for insertion/extraction operations applied to the Hermes robot arm: A feasibility study [NLR-TP-91485-U] 12 p3736 N93-32204
Ground Robotic Hand Applications for the Space Program study (GRASP) [NASA-CR-193571] 12 p3737 N93-32235

ROBOT CONTROL

Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
The adaptive neuron model: An architecture for the rapid learning of nonlinear topological transformations [NASA-CASE-NPO-18579-1-CU] 02 p0420 N93-11174
Terminal slider control of nonlinear robotic systems [NASA-CASE-NPO-18584-1-CU] 02 p0324 N93-11177
Numerical analysis of right-half plane zeros for a single-link manipulator [NASA-CR-190966] 02 p0426 N93-11547
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Contact detection and contact motion for error recovery in the presence of uncertainties 02 p0398 N93-11956
EXOS research on master controllers for robotic devices 02 p0399 N93-11957
A new scheme of force reflecting control 02 p0399 N93-11960
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair 02 p0400 N93-11965
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks 02 p0330 N93-11967
Advanced mechanisms for robotics 02 p0330 N93-11969
An integrated dexterous robotic testbed for space applications 02 p0330 N93-11972
Space Station robotics planning tools 02 p0331 N93-11975
Research and development at ORNL/CESAR towards cooperating robotic systems for hazardous environments 02 p0331 N93-11979
KC-135 materials handling robotics [NASA-CR-184430] 02 p0328 N93-11992
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems [DE92-013661] 02 p0421 N93-12138
A vision-based end-point control for a two-link flexible manipulator [NASA-CR-190967] 02 p0330 N93-12521
Application of concurrent engineering methods to the design of an autonomous aerial robot [AD-A254968] 03 p0609 N93-12555
Manipulation strategies for massive space payloads [NASA-CR-190844] 03 p0611 N93-12952
Numerical analysis of nonminimum phase zero for nonuniform link design 03 p0611 N93-12953
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
The ROMPS robot in HitchHiker 03 p0511 N93-13179
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
Robot welding process control [NASA-CR-184428] 03 p0614 N93-13436
Automatic programming of arc welding robots 03 p0616 N93-13720
A unified approach to the analysis and design of manipulator systems with environmental contact 03 p0573 N93-13805
Automation and robotics considerations for a lunar base 03 p0619 N93-14006
Near-minimum-time control of a flexible arm 03 p0695 N93-14039
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 04 p0888 N93-14202
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Utilizing sensed incipient slip signals for grasp force control [AD-A255725] 04 p0888 N93-14434
Optimum pose measurements for kinematic parameters identification [AD-A256307] 04 p0970 N93-14443
Force and position control of robot manipulators: Learning and repetitive control approach 04 p0888 N93-14473
Real-time gaze holding in binocular robot vision [AD-A256226] 04 p0982 N93-14582
Dynamics and control of a rigid/flexible manipulator 04 p0890 N93-14684
Optimal and robust control of robot manipulators 04 p0890 N93-14685
Position and vibration control of flexible space robots 04 p0892 N93-15102
Learning position and force control for mechanical manipulators 04 p0963 N93-15147
Robust control design for uncertain nonlinear dynamic systems 04 p0964 N93-15148
Dynamics and control of flexible arm robots [ISBN-0-315-69011-9] 04 p0892 N93-15150
Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly [ITN-92-85129] 04 p0949 N93-15298
Coordinated motion control of a two-hand assembly system [F-2-8] 04 p0949 N93-15301
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques [F-3-1] 04 p0949 N93-15302
Robot learning of contact tasks [F-3-2] 04 p0949 N93-15303
Multiple robot programming using concurrent logic language [F-3-3] 04 p0950 N93-15304
Planning of continuous path robotic motions by discrete time optimization [F-3-5] 04 p0950 N93-15305
Redundancy control of robots by constrained optimization [F-3-7] 04 p0950 N93-15307
Adaptive control of a manipulator in cartesian space [F-4-2] 04 p0950 N93-15308
Knowledge-based planning [AD-A257209] 05 p1350 N93-15812
Stereo vision controlled bilateral telerobotic remote assembly station [AD-A257113] 05 p1302 N93-16120
Parameter identification and adaptive control of cooperating robots [AD-A256984] 05 p1259 N93-16256
Architectures for intelligent machines [NASA-CR-191875] 05 p1231 N93-16621
Path planning for assembly of strut-based structures [NASA-CR-191874] 05 p1260 N93-16622
A telerobotic digital controller system [NASA-CR-191799] 05 p1260 N93-16658
Implementation of robotic force control with position accommodation [NASA-CR-191850] 05 p1178 N93-16663
Investigation and modification of a commercially available tactile sensor suited for robotic applications [NASA-CR-191833] 05 p1178 N93-16665
ROMPS critical design review. Volume 1: Hardware [NASA-CR-191613] 05 p1240 N93-16673
A Petri net controller for distributed hierarchical systems [NASA-CR-191862] 05 p1276 N93-16675
An analysis of temperature-induced errors for an ultrasound distance measuring system [NASA-CR-191859] 05 p1282 N93-16676
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators [NASA-CR-191852] 05 p1261 N93-16708

TokenPasser: A petri net specification tool
[NASA-CR-191816] 05 p1241 N93-16725
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
A method for surmounting an obstacle by a robot vehicle
[NASA-CASE-NPO-18764-1-CU] 05 p1179 N93-17272
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Design requirements for force reflecting master controllers 06 p1605 N93-18035
Model reference adaptive control of robots
[NASA-CR-191871] 06 p1632 N93-18377
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Capaciflector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
Robot welding process control development task
[NASA-CR-192434] 06 p1549 N93-18851
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
Adaptive control of robotic manipulators 06 p1640 N93-19031
Voice control of a dual-arm telerobot 06 p1549 N93-19044
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
Teleprogramming: Remote site robot task execution 06 p1641 N93-19046
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
Efficient visual grasping alignment for cylinders
[NASA-CR-191863] 06 p1663 N93-19346
Nonlinear robust controller design for multi-robot systems with unknown payloads 06 p1552 N93-19462
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle 06 p1552 N93-19463
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Comparison of the efficiency of the various methods for rigid-body displacement analyses 07 p1941 N93-20709
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Modelling robot trajectory errors using time series 07 p1942 N93-20716
Structural shape optimization of robotic links 07 p1918 N93-20717
Polynomial solution of the direct geometric problem of a parallel spherical manipulator 07 p1918 N93-20718
Linear passive impedance 07 p1943 N93-20719
Grasp admittance center. A concept 07 p1918 N93-20720
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
A modular structure for the control of an autonomous mobile robot
[LAAS-92137] 07 p1915 N93-20958
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Lecture materials for the CTOS/MCS introductory course
[NASA-CR-192734] 07 p2048 N93-21308
A family of asymptotically stable control laws for flexible robots based on a passivity approach
[NASA-CR-191870] 07 p2048 N93-21354
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
A berthing and fastening strategy for orbital replacement units 07 p1814 N93-21420
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
A macro-micro robot for precise force applications 08 p2465 N93-22158
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
Autonomous vehicle motion control, approximate maps, and fuzzy logic 08 p2452 N93-22219
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
Autonomous rendezvous and capture system design 08 p2138 N93-22244
Advanced telerobotic control using neural networks 08 p2455 N93-22364
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU] 08 p2314 N93-23078
Adaptive control of a flexible manipulator 08 p2458 N93-23201
Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223
A passivity approach to controller-observer design for robots
[MEMO-1050] 08 p2459 N93-23355
Autonomus obstacle avoidance using visual fixation and looming
[PB93-146660] 08 p2459 N93-23442
Nonlinear adaptive control of electro-mechanical systems 08 p2461 N93-23716
Force distribution formulation and analysis for multiple-contact power grasp 08 p2461 N93-23718
Modeling and control of flexible manipulators 08 p2318 N93-24182
Transformational planning of reactive behavior
[AD-A260350] 08 p2463 N93-24270
The Space Robot Technology Experiment (ROTEX) on Spacelab-mission D2 08 p2164 N93-24391
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656
Using fuzzy behaviors for the outdoor navigation of a car with low-resolution sensors
[DE93-002428] 09 p2584 N93-25120
A control structure for fault-tolerant operation of robotic manipulators
[DE93-005783] 09 p2717 N93-25413
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
Real-time construction and rendering of three-dimensional occupancy maps
[DE93-007818] 09 p2756 N93-25516
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
Biped control via nonlinear dynamics 09 p2718 N93-25697
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Parametric motion control of robotic arms: A biologically based approach using neural networks 09 p2822 N93-25964
Interaction dynamics and control for orbital assembly 09 p2669 N93-26407
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Reinforcement learning for robots using neural networks
[AD-A261434] 09 p2827 N93-26487
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Adaptive control strategies for flexible robotic arm
[NASA-CR-193111] 10 p3050 N93-27159
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
Robotics technology discipline 10 p2973 N93-27864
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Parallel manipulators. Part 5: Determination of the workspace for a constant orientation
[INRIA-RR-1645] 10 p3053 N93-28439
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
Dual arm generalized compliant motion with shared control
[NASA-CASE-NPO-18738-1-CU] 11 p3443 N93-28954
An autonomous vision-based mobile robot 11 p3443 N93-29082
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
Research on reconfigurable and reliable manipulators
[DE93-010244] 11 p3444 N93-29330
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Some results on feedback stabilization of a one-link flexible arm
[INRIA-RR-1682] 11 p3543 N93-30116
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
A parallel processing system for intensive I/O 11 p3362 N93-30262
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS) 11 p3364 N93-30278
On the implementation of the BIRIS range sensor for applications in robotic control and autonomous navigation 11 p3366 N93-30286
Supervised autonomy in telerobotics 11 p3372 N93-30326
A multiprocessor architecture for realtime robot control 11 p3372 N93-30327
Drive-reinforcement learning system applications
[AD-A264514] 11 p3446 N93-30404
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization 11 p3544 N93-30893
Adaptive motion control of mobile robots 11 p3545 N93-30903

Evaluation of a solid-state gyroscope for robotics applications
[OUEL-1957/92] 12 p3728 N93-31125
A theory of planar grasp
[OUEL-1958/92] 12 p3785 N93-31126
Analysis of the compliant motion achievable with an industrial robot: Identification, feedback and design
[OUEL-1899/91] 12 p3733 N93-31150
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Supervisory autonomous local-remote control system design: Near-term and far-term applications
12 p3801 N93-32100

ROBOT DYNAMICS
Effective formulation of the dynamics of a manipulator based on the Appell equations 01 p0065 N93-10571
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
Automated multi-body system dynamics via bond graph modelling and interactive graphics
01 p0066 N93-10576
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices
01 p0066 N93-10577
Numerical analysis of right-half plane zeros for a single-link manipulator
[NASA-CR-190966] 02 p0426 N93-11547
Contact detection and contact motion for error recovery in the presence of uncertainties
02 p0398 N93-11956
EXOS research on master controllers for robotic devices 02 p0399 N93-11957
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
A fundamental study of the effect of gravity on the static and dynamic behavior of robots
03 p0610 N93-12760
Manipulation strategies for massive space payloads
[NASA-CR-190844] 03 p0611 N93-12952
The ROMPS robot in HitchHiker
03 p0511 N93-13179
End-point position control of multi-link flexible manipulator arms 03 p0613 N93-13335
Optimal coordination of robotic systems with redundancy 03 p0693 N93-13336
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Force-closure grasping with two hands
03 p0616 N93-13742
A unified approach to the analysis and design of manipulator systems with environmental contact
03 p0573 N93-13805
Enhanced accuracy for closed-loop robot
03 p0617 N93-13808
Experiments in two-cooperating-arm manipulation from a platform with unknown motion
03 p0617 N93-13931
Dynamics and control of a rigid/flexible manipulator
04 p0890 N93-14684
Position and vibration control of flexible space robots
04 p0892 N93-15102
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Dynamics and control of flexible arm robots
[ISBN-0-315-69011-9] 04 p0892 N93-15150
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
Parameter identification and adaptive control of cooperating robots
[AD-A256984] 05 p1259 N93-16256
Modelling dynamical systems with equality state-space constraints
[NLR-TP-89418-U] 05 p1259 N93-16275
Equivalent flexibility modelling for the recursive simulation of robot manipulator dynamics
[NLR-TP-89076-U] 05 p1259 N93-16291
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators
[NASA-CR-191852] 05 p1261 N93-16708
Predesign of a simulator for inverse robot kinematics
[NLR-TP-91098-U] 05 p1180 N93-17583
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Motion planning for rigid body robots
[AD-A257557] 06 p1544 N93-17980
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Inverse kinematics problem in robotics using neural networks
[NASA-TM-105869] 06 p1558 N93-18876
Adaptive control of robotic manipulators
06 p1640 N93-19031
Computational kinematics of multi-arm manipulators
06 p1549 N93-19033
Impedance control design for robot tasks involving free and contact motion 06 p1640 N93-19045
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle
06 p1552 N93-19463
Free vibrations of a flexible tapered arm attached to a compliant hub 07 p1932 N93-20660
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application
07 p1940 N93-20706
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Comparison of the efficiency of the various methods for rigid-body displacement analyses
07 p1941 N93-20709
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Modelling robot trajectory errors using time series
07 p1942 N93-20716
Polynomial solution of the direct geometric problem of a parallel spherical manipulator
07 p1918 N93-20718
Grasp admittance center. A concept
07 p1918 N93-20720
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
A modular structure for the control of an autonomous mobile robot
[LAAS-92137] 07 p1915 N93-20958
The complexity of the free space for a robot moving amidst fat obstacles
[RUU-CS-92-05] 07 p1915 N93-21171
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
US automated rendezvous and capture capabilities review. Remote umbilical system abstract
08 p2138 N93-22239
A berthing and fastening strategy for orbital replacement units 08 p2151 N93-22317
Adaptive control of a flexible manipulator
08 p2458 N93-23201
Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223
Time optimal paths for high speed maneuvering
[DE93-006251] 08 p2458 N93-23338
Localization and positioning using combinations of model views
[AD-A259734] 08 p2460 N93-23472
Kinematics and dynamics of robotic systems with multiple closed loops 08 p2318 N93-24218
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
Biped control via nonlinear dynamics
09 p2718 N93-25697
The induction of elastic fine motion in robotic grasps
09 p2718 N93-25727
A surface integral algorithm for the motion planning of nonholonomic mechanical systems
[AD-A261746] 09 p2720 N93-26249
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
EVA and telerobot interaction
10 p2967 N93-27792
The complexity of the free space for motion planning amidst fat obstacles
[RUU-CS-92-31] 10 p3102 N93-28106
A random approach to motion planning
[RUU-CS-92-32] 10 p3110 N93-28107
Dual arm generalized compliant motion with shared control
[NASA-CASE-NPO-18738-1-CU]
11 p3443 N93-28954
An autonomous vision-based mobile robot
11 p3443 N93-29082
Lunar rovers and local positioning system
11 p3277 N93-29119
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
Walking robot: A design project for undergraduate students 11 p3231 N93-29737
Optimal geometric design of robots for environments with obstacles 11 p3445 N93-30149
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Trajectory generation for dual-arm robots using artificial impedance approach 11 p3370 N93-30310
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Adaptive motion control of mobile robots
11 p3545 N93-30903
Analysis of the compliant motion achievable with an industrial robot: Identification, feedback and design
[OUEL-1899/91] 12 p3733 N93-31150
Characterisation and control of a flexible robot subject to torque ripple
[OUEL-1952/92] 12 p3734 N93-31156
Constrained motion models for insertion/extraction operations applied to the Hermes robot arm: A feasibility study
[NLR-TP-91485-U] 12 p3736 N93-32204

ROBOT FINGERS
U END EFFECTORS

ROBOT HANDS
U END EFFECTORS

ROBOT MOTION
U ROBOT DYNAMICS

ROBOT SENSORS
NT TACTILE SENSORS (ROBOTICS)
NT TORQUE SENSORS (ROBOTICS)
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
Sensing and interpretation of 3-D shape and motion
03 p0692 N93-13240
Silicon vision: Elementary functions to be implemented on electronic retinas 03 p0692 N93-13242
Machine perception exploiting high-level spatio-temporal models 03 p0693 N93-13244
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Robot learning of contact tasks
[F-3-2] 04 p0949 N93-15303
Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
Parameter identification and adaptive control of cooperating robots
[AD-A256984] 05 p1259 N93-16256
Investigation and modification of a commercially available tactile sensor suited for robotic applications
[NASA-CR-191833] 05 p1178 N93-16665
Development of techniques required for the application of a laser to three dimensional visual sensing
[NASA-CR-191855] 05 p1174 N93-16706
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Capaciflector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
A capacitance-based proximity sensor for whole arm obstacle avoidance
[DE93-006773] 08 p2463 N93-24331
The Space Robot Technology Experiment (ROTEX) on Spacelab-mission D2 08 p2164 N93-24391
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Using fuzzy behaviors for the outdoor navigation of a car with low-resolution sensors
[DE93-002428] 09 p2584 N93-25120
Robotics technology discipline
10 p2973 N93-27864

A modular head/eye platform for real-time reactive vision
[OUEL-1941/92] 11 p3505 N93-28897
Dual arm generalized compliant motion with shared control
[NASA-CASE-NPO-18738-1-CU] 11 p3443 N93-28954
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
A testbed for autonomous reflexive grasping
[AD-A264557] 11 p3446 N93-30384
Evaluation of a solid-state gyroscope for robotics applications
[OUEL-1957/92] 12 p3728 N93-31125
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Sensor fusion for assured vision in space applications 12 p3824 N93-32105
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125

ROBOTICS
NT TELEROBOTICS
Artificial intelligence technical paper abstracts, 1991
[AD-A253340] 01 p0141 N93-10269
Modelling and control of robotic arms fabricated from orthotropic materials 01 p0065 N93-10572
A derivation for the kinematic equations of flexible robots with appropriate transformation matrices 01 p0066 N93-10577
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
Object recognition with a robot hand 02 p0420 N93-11457
RATLER: Robotic All-Terrain Lunar Exploration Rover
[DE92-019295] 02 p0487 N93-11502
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11958
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
Automation and robotics for COLUMBUS: An implementation concept for the free flying laboratory (MTFF) 02 p0331 N93-11974
Space Station robotics planning tools 02 p0331 N93-11975
Role of automation in the ACRV operations 02 p0230 N93-11977
Decision rules for spaceborne operations planning 02 p0403 N93-11978
Research and development at ORNL/CESAR towards cooperating robotic systems for hazardous environments 02 p0331 N93-11979
Automated resupply of consumables: Enhancement of space commercialization opportunities 02 p0403 N93-11980
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
G-133: A soft x ray solar telescope 03 p0510 N93-13171
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Building and using scene representations in image understanding 03 p0692 N93-13241
Machine perception exploiting high-level spatio-temporal models 03 p0693 N93-13244
Space robotics: Recent accomplishments and opportunities for future research
[NASA-TM-107675] 03 p0694 N93-13442
Design, construction, and control of a two degree-of-freedom electric direct-drive human power amplifier 03 p0678 N93-13486
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
Nonholonomic motion of free-flying space robots 03 p0615 N93-13638
Automatic programming of arc welding robots 03 p0616 N93-13720
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Dexterous grasp and manipulation 03 p0618 N93-14075
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443
An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A255433] 04 p0962 N93-14551
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606
Work attachment mechanism/work attachment fixture
[NASA-CASE-GSC-13430-1] 04 p0890 N93-14712
Sensor-based driving of a car with fuzzy inferencing VLSI chips and boards
[DE92-017819] 04 p0963 N93-14818
An active tactile perception system 04 p0805 N93-14926
A robotic planning system 04 p0810 N93-14949
A concept for a supervised autonomous robot 04 p0810 N93-14950
Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly
[ITN-92-85129] 04 p0949 N93-15298
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300
Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
Robot learning of contact tasks
[F-3-2] 04 p0949 N93-15303
Multiple robot programming using concurrent logic language
[F-3-3] 04 p0950 N93-15304
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328
Architectures for intelligent machines
[NASA-CR-191875] 05 p1231 N93-16621
ROMPS critical design review. Volume 2: Robot module design documentation
[NASA-CR-191614] 05 p1240 N93-16642
Recognition of fiducial marks applied to robotic systems
[NASA-CR-191857] 05 p1168 N93-16659
Calibration of the Aronson 6-DOF robotic platform
[NASA-CR-191856] 05 p1087 N93-16661
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Investigation and modification of a commercially available tactile sensor suited for robotic applications
[NASA-CR-191833] 05 p1178 N93-16665
Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677
Model based estimation of image depth and displacement
[NASA-CR-191815] 05 p1241 N93-16678
Development of techniques required for the application of a laser to three dimensional visual sensing
[NASA-CR-191855] 05 p1174 N93-16706
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Robotic lunar rover technologies and SEI supporting technologies at Sandia National Laboratories 05 p1389 N93-17255
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space 05 p1181 N93-17284
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326
Mobile manipulator configuration optimization using evolutionary programming
[DE92-041307] 05 p1261 N93-17369
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
FLARE: The Far Side Lunar Research Expedition. A design of a far side lunar observatory
[NASA-CR-192029] 06 p1695 N93-18163
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288
ORCCAD: Towards an open robot controller computer aided design system
[INRIA-RR-1396] 06 p1621 N93-18519
Formulation and error analysis for a generalized image point correspondence algorithm
[NASA-CR-192005] 06 p1621 N93-18570
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
Estimation of angular velocity and acceleration from shaft encoder measurements
[INRIA-RR-1436] 06 p1633 N93-18633
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms 06 p1465 N93-18839
Inverse kinematics problem in robotics using neural networks
[NASA-TM-105869] 06 p1558 N93-18876
CSI related dynamics and control issues in space robotics 06 p1467 N93-18929
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
A computer architecture for intelligent machines
[NASA-CR-191861] 06 p1614 N93-19347
A safety-based decision making architecture for autonomous systems
[NASA-CR-191864] 06 p1641 N93-19362
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Research on space robot technology 07 p1794 N93-20440
The ARK (Autonomous Robot for a Known environment) project 07 p1917 N93-20621
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application 07 p1940 N93-20706
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Stabilization of kinematical constraints for open multibody chains 07 p1942 N93-20714
Structural shape optimization of robotic links 07 p1918 N93-20717
Linear passive impedance 07 p1943 N93-20719
Grasp admittance center. A concept 07 p1918 N93-20720
On identification of hydraulic compliance using a genetic algorithm 07 p1918 N93-20721
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 8: Aerothermodynamics Automation and Robotics (A/R) systems sensors, high-temperature superconductivity
[NASA-TM-108655] 07 p2085 N93-20775
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation
[NASA-CR-192619] 07 p1892 N93-20910

Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
Intelligent processing equipment within the Environmental Protection Agency
[PB92-217330] 07 p1989 N93-21011
CTOS course
[NASA-CR-191866] 07 p2047 N93-21204
Command generator tracker based direct model reference adaptive control of a PUMA 560 manipulator
[NASA-CR-192756] 07 p2048 N93-21306
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Lecture materials for the CTOS/MCS introductory course
[NASA-CR-192734] 07 p2048 N93-21308
The M68HC11 gripper controller electronics
[NASA-CR-192732] 07 p1893 N93-21309
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
A berthing and fastening strategy for orbital replacement units 07 p1814 N93-21420
Intelligent systems technology infrastructure for integrated systems 07 p1815 N93-21424
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy
[NASA-TM-103992] 07 p2027 N93-21807
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
Robot friendly probe and socket assembly
[NASA-CASE-MSC-22028-1] 07 p1917 N93-22007
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
Sensor-based whole-arm obstacle avoidance utilizing ASIC technology
[DE93-003602] 08 p2279 N93-22819
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. Economy
[NASA-TM-103895] 08 p2430 N93-23240
A passivity approach to controller-observer design for robots
[MEMO-1050] 08 p2459 N93-23355
Activities report 1990: Projects and services of the Research Department
[ETN-93-93692] 08 p2571 N93-23426
Space Station Freedom automation and robotics: An assessment of the potential for increased productivity
[NASA-TM-108714] 08 p2195 N93-24149
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension 08 p2318 N93-24184
Kinematics and dynamics of robotic systems with multiple closed loops 08 p2318 N93-24218
The strategic role of automation and robotics for Columbus utilization 08 p2164 N93-24389
Columbus automation testbed: A tool for users 08 p2164 N93-24390
The Space Robot Technology Experiment (ROTEX) on Spacelab-mission D2 08 p2164 N93-24391
Activities of the Institute for Information Technology
[NRC-35023] 08 p2571 N93-24648
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Probabilistic analysis of manipulation tasks: A research agenda
[DE93-000713] 09 p2827 N93-25103
Nonholonomic geometry, mechanics and control 09 p2724 N93-25270
Prototype PC user interface
[DE93-008008] 09 p2809 N93-25303
A control structure for fault-tolerant operation of robotic manipulators
[DE93-005783] 09 p2717 N93-25413
Numerical kinematic transformation calculations for a parallel link manipulator
[DE93-005778] 09 p2718 N93-25449
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
A virtual environment for manufacturing systems
[AD-A260813] 09 p2810 N93-25699
Analysis and design of a novel robotic finger-tip sensor for adaptive grasping 09 p2719 N93-25745
Passivity motivated controller design for flexible structures
[AD-A261122] 09 p2719 N93-25771
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
Knowledge-based control for robot self-localization 09 p2822 N93-25963
An autonomous satellite architecture integrating deliberative reasoning and behavioural intelligence 09 p2823 N93-25970
NASA Center for Intelligent Robotic Systems for Space Exploration
[NASA-CR-193208] 09 p2826 N93-25986
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Automation and robotics human performance
[NASA-CR-193049] 09 p2802 N93-26153
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Propellant production and useful materials: Hardware data from components and the systems 10 p3009 N93-26675
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Mobile robot navigation using qualitative reasoning
[DE93-008277] 10 p3109 N93-27104
Technology for Space Station Evolution. Volume 4: Power Systems/Propulsion/Robotics
[NASA-TM-108727] 10 p2968 N93-27803
The mobile servicing system 10 p2970 N93-27821
Agent-independent planning 10 p2970 N93-27822
Automated assembly of large space structures 10 p2971 N93-27842
Robotics technology discipline 10 p2973 N93-27864
Return to the Moon: Lunar robotic science missions 10 p3211 N93-27958
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover
[DE93-008340] 10 p3052 N93-28152
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Rapid Thermal Processing (RTP) of semiconductors in space
[NASA-CR-193110] 10 p3009 N93-28408
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686
Workshop on Advanced Technologies for Planetary Instruments, part 1
[NASA-CR-193015] 11 p3639 N93-28764
Gamma ray/neutron spectrometers for planetary elemental mapping 11 p3647 N93-28807
Robotics and artificial intelligence for hazardous environments
[DE93-008271] 11 p3541 N93-29047
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU] 11 p3521 N93-29608
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
Walking robot: A design project for undergraduate students 11 p3231 N93-29737
Development of neural network architectures for self-organizing pattern recognition and robotics
[AD-A264831] 11 p3543 N93-29791
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
A closed-form formula for the manipulator regressor 11 p3355 N93-30218
An artificial neural network model for periodic trajectory generation 11 p3356 N93-30225
An expert system for identification of the task status from tactile sensor data 11 p3368 N93-30300
A functional system architecture for fully autonomous robot 11 p3370 N93-30311
Drive-reinforcement learning system applications
[AD-A264514] 11 p3446 N93-30404
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Robotic technology evolution and transfer 11 p3627 N93-30714
Evaluation of a solid-state gyroscope for robotics applications
[OUEL-1957/92] 12 p3728 N93-31125
A theory of planar grasp
[OUEL-1958/92] 12 p3785 N93-31126
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-1] 12 p3734 N93-31317
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Striped tape arrays 12 p3730 N93-31970
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103
RATLER: Robotic All-Terrain Lunar Exploration Rover 12 p3737 N93-32117
JSC flight experiment recommendation in support of Space Station robotic operations 12 p3691 N93-32121
RACE pulls for shared control 12 p3686 N93-32122
Automated Assembly Center (AAC) 12 p3686 N93-32123
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125

ROBOTS
Optimal robot trajectory planning 01 p0065 N93-10570
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU] 02 p0324 N93-11177
ALECSYS and the AutonoMouse: Learning to control a real robot by distributed classifier systems
[REPT-92-011] 02 p0420 N93-11227
RATLER: Robotic All-Terrain Lunar Exploration Rover
[DE92-019295] 02 p0487 N93-11502
Numerical analysis of right-half plane zeros for a single-link manipulator
[NASA-CR-190966] 02 p0426 N93-11547
Research on a reconfigurable modular manipulator system
[DE92-018943] 02 p0327 N93-11865
Fuzzy logic control of telerobot manipulators 02 p0399 N93-11959
Fault detection and fault tolerance in robotics 02 p0330 N93-11961
Advanced mechanisms for robotics 02 p0330 N93-11969
Remote systems development 02 p0330 N93-11971
Decision rules for spaceborne operations planning 02 p0403 N93-11978
Computational nonlinear control
[AD-A253547] 02 p0422 N93-12258
A vision-based end-point control for a two-link flexible manipulator
[NASA-CR-190967] 02 p0330 N93-12521
Application of concurrent engineering methods to the design of an autonomous aerial robot
[AD-A254968] 03 p0609 N93-12555
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
A fundamental study of the effect of gravity on the static and dynamic behavior of robots 03 p0610 N93-12760
Journal of Research of the National Institute of Standards and Technology, May-June 1992, volume 97, number 3
[PB92-217637] 03 p0698 N93-12805

Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
The ROMPS robot in HitchHiker 03 p0511 N93-13179
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
Design, construction and demonstration of modular, reconfigurable robots 03 p0613 N93-13329
Control of a very flexible robot in gravity 03 p0615 N93-13541
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Manipulation strategies for redundant manipulators 04 p0960 N93-14203
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
An iconic position estimator for a 2-D laser rangefinder
[AD-A255523] 04 p0885 N93-14568
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Position and vibration control of flexible space robots 04 p0892 N93-15102
Proceedings of the International Conference on CAD/CAM and AMT. Volume 3: IFIP (International Federation of Information Processing)/Robotics: International Sessions on Robots and Assembly
[ITN-92-85129] 04 p0949 N93-15298
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
ATL Products Division's entries into the computer mass storage marketplace 05 p1354 N93-16328
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
Path planning for assembly of strut-based structures
[NASA-CR-191874] 05 p1260 N93-16622
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-002735] 05 p1178 N93-16920
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
A method for surmounting an obstacle by a robot vehicle
[NASA-CASE-NPO-18764-1-CU] 05 p1179 N93-17272
The roles of humans and robots as field geologists on the Moon 05 p1397 N93-17450
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
Double-V block fingers with cruciform recess
[NASA-CASE-GSC-13356-2] 05 p1180 N93-17625
Time-varying feedback stabilization of nonholonomic car-like mobile robots
[INRIA-RR-1515] 06 p1631 N93-17837
Motion planning for rigid body robots
[AD-A257557] 06 p1544 N93-17980
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Capacitflector-based virtual force control and centering
[NASA-CR-191805] 06 p1520 N93-18764
Future scientific exploration of Taurus-Littrow 06 p1739 N93-18814
Computational kinematics of multi-arm manipulators 06 p1549 N93-19033
Voice control of a dual-arm telerobot 06 p1549 N93-19044
Kinematic analysis of the ARID manipulator 06 p1552 N93-19393
Calibration of the ARID robot 06 p1552 N93-19394
ARID relative calibration experimental data and analysis 06 p1552 N93-19395
Redundant drive current imbalance problem of the Automatic Radiator Inspection Device (ARID) 06 p1552 N93-19398
Nonlinear robust controller design for multi-robot systems with unknown payloads 06 p1552 N93-19462
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
Case-based reasoning for real-time problem solving
[AD-A258697] 06 p1641 N93-19865
A prototype novel sensor for autonomous, space based robots, phase 2
[NASA-CR-191344] 07 p1913 N93-19978
Structural shape optimization of robotic links 07 p1918 N93-20717
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Testing of ROMPS robot mechanical interfaces and compliant device
[NASA-CR-192617] 07 p1915 N93-20918
Robot friendly probe and socket assembly
[NASA-CASE-MSC-22028-1] 07 p1917 N93-22007
A macro-micro robot for precise force applications 08 p2465 N93-22158
A fault-tolerant intelligent robotic control system 08 p2465 N93-22159
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22892
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU] 08 p2314 N93-23078
Petri net controllers for distributed robotic systems
[NASA-CR-193196] 08 p2320 N93-24658
Using neural networks and Dyna algorithm for integrated planning, reacting and learning in systems
[NASA-CR-193018] 09 p2817 N93-24743
Initial experiments with a myoelectric-based muscle sensor
[DE92-016034] 09 p2799 N93-25099
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100
Probabilistic analysis of manipulation tasks: A research agenda
[DE93-000713] 09 p2827 N93-25103
Real-time construction of three-dimensional occupancy maps
[DE93-001645] 09 p2756 N93-25505
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
Knowledge-based control for robot self-localization 09 p2822 N93-25963
Parametric motion control of robotic arms: A biologically based approach using neural networks 09 p2822 N93-25964
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Robust control of robots using only position measurements
[MEMO-1073] 10 p3110 N93-28092
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
A virtual environment for manufacturing systems
[AD-A263128] 11 p3528 N93-29473
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
Input relegation control for gross motion of a kinematically redundant manipulator
[DE93-005301] 11 p3446 N93-30210
Analysis and simulation of a two degrees-of-freedom one-link flexible forearm 11 p3361 N93-30261
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS) 11 p3364 N93-30278
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-1] 12 p3734 N93-31317
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844
Intelligent security assessment for a mobile robot
[AD-A265003] 12 p3799 N93-32078
An iconic programming language for sensor-based robots 12 p3793 N93-32098
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development 12 p3784 N93-32112
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118
JSC flight experiment recommendation in support of Space Station robotic operations 12 p3691 N93-32121
Automated Assembly Center (AAC) 12 p3686 N93-32123
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124
Robust stability of second-order systems
[NASA-CR-193624] 12 p3809 N93-32373

ROBUSTNESS (MATHEMATICS)

Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
An advancing front Delaunay triangulation algorithm designed for robustness
[NASA-CR-189719] 02 p0416 N93-12400
Research in statistical inference
[AD-A252928] 02 p0429 N93-12429
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
Performance and stability robustness for uncertain linear systems: A quadratic approach
[LAAS-92199] 05 p1271 N93-17494
Control law synthesis for large flexible spacecraft
[NLR-TP-91155-U] 05 p1088 N93-17539
Design of robust suboptimal controllers for a generalized quadratic criterion
[AD-A257746] 05 p1069 N93-17670
Robust control with structured perturbations
[NASA-CR-192195] 06 p1633 N93-18579
Robust control of systems with real parameter uncertainty and unmodelled dynamics
[NASA-CR-192008] 06 p1633 N93-18582
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
Robust stability of second-order systems
[NASA-CR-192246] 06 p1647 N93-18871
Average-cost based robust structural control 06 p1469 N93-18939
Helicopter flight control system design using the linear quadratic regulator for robust eigenstructure assignment
[AD-A258904] 06 p1451 N93-19351
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft 06 p1610 N93-19772
Reliability study of the NiH2 strain gage 07 p1908 N93-20515
SSG 4.120: Non-linear adjustment 07 p1973 N93-20986
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644

Multi-window registration algorithm for automatic detection and tracking of moving targets
08 p2255 N93-22022
Image based tracking approaches to AR/C at the Johnson Space Center 08 p2140 N93-22256
Robustness
[NASA-TP-3336] 08 p2181 N93-22458
Synthesis of robust controllers
08 p2107 N93-22573
Identification for robust control: What is the best approach?
[MEMT-16] 08 p2458 N93-23060
The robustness of feed-forward neural networks: A preliminary investigation 08 p2461 N93-23717
On positive invariance and constrained control of linear multivariable systems
[LAAS-92223] 08 p2462 N93-23862
Robust controls with structured perturbations
[NASA-CR-192956] 09 p2817 N93-24757
On the robustness of Herlihy's hierarchy
[NASA-CR-193002] 09 p2808 N93-25107
How to control if even experts are not sure: Robust fuzzy control
[NASA-TM-108745] 09 p2818 N93-25142
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
Parametric stability margin for multilinear interval control systems
[NASA-CR-192892] 09 p2819 N93-25296
The WorkPlace distributed processing environment
09 p2825 N93-25977
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs
09 p2670 N93-26063
Develop margin philosophy to attain robustness
[MCR-92-5005] 09 p2610 N93-26182
Robustness enhancement of neurocontroller and state estimator
[NASA-TM-106028] 10 p2946 N93-26907
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947
Mixed H2/H infinity control in a stochastic framework
[MEMO-COSOR-92-13] 10 p3109 N93-27232
Subset selection: Robustness and imprecise selection
[MEMO-COSOR-92-10] 10 p3124 N93-27279
The Middeck Active Control Experiment (MACE): Identification for robust control 10 p3059 N93-27898
Sensor and actuator technology development
10 p3047 N93-27900
Robust control of robots using only position measurements
[MEMO-1073] 10 p3110 N93-28092
Robust control for uncertain structures
10 p3061 N93-28174
Cost averaging techniques for robust control of flexible structural systems 10 p3061 N93-28175
Study on various problems in statistical planning and inference
[AD-A262484] 11 p3554 N93-29411
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3261 N93-30142
Robust control via H-infinity optimization
11 p3354 N93-30216
A robust model for finding optimal evolutionary trees
[DE93-010682] 11 p3491 N93-30483
Robust stabilization of infinite-dimensional systems with respect to coprime factor perturbations
[W-9220] 12 p3805 N93-31514
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008
Set-membership identification for robust control design
[AD-A265669] 12 p3800 N93-32197

ROCK INTRUSIONS
NT BATHOLITHS
Sudbury project (University of Muenster-Ontario Geological Survey): Sr-Nd in heterolithic breccias and gabbroic dikes 01 p0107 N93-10123
Breccia dikes from the Beaverhead Impact structure, southwest Montana 01 p0110 N93-10137
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356

ROCK MECHANICS
Cyclic behavior modelling
[ECL-92-09] 07 p1920 N93-20060
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865

ROCKET BOOSTERS
U BOOSTER ROCKET ENGINES

ROCKET CHAMBERS
U THRUST CHAMBERS

ROCKET ENGINE CASES
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
ASRM case insulation design and development
[NASA-CR-191947] 05 p1090 N93-16605
Post-impact behavior of composite solid rocket motor cases 05 p1095 N93-17299
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
Reliability of solid rocket motor cases and nozzles
08 p2176 N93-22103
Ultrasonic inspection of filament wound graphite epoxy cylinders
[AD-A260361] 08 p2321 N93-24173
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix B: Case, seals, and joints PFORs
[NASA-CR-192564] 11 p3272 N93-30619

ROCKET ENGINE CONTROL
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089

ROCKET ENGINE DESIGN
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
LAM actuated propellant flow control device
01 p0018 N93-10017
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Test program to provide validation data for the Rocket Combustor Interactive Design (ROCCID) code
02 p0247 N93-11450
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
An overview of reliability growth models and their potential use for NASA applications
[NASA-TP-3309] 04 p0895 N93-15433
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences
05 p1165 N93-17289
Modeling for health monitoring and control with applications to the Space Transportation Main Engine
05 p1095 N93-17298
Conceptual design of a high thrust Vulcain-derived low-cost rocket engine
[ETN-93-93018] 06 p1472 N93-18144
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
MPD thruster technology 06 p1666 N93-18639
Review of recent work on MPD thrusters at MIT
06 p1666 N93-18641
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Research on advanced transportation systems
07 p1789 N93-20414
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Solid rocket motors 08 p2174 N93-22094
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting
[NASA-CR-192515] 09 p2614 N93-26152
Requirements management and control
10 p2977 N93-26916
Rover/NERVA-derived near-term nuclear propulsion
10 p2977 N93-26918
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
NTRE extended life feasibility assessment
10 p2977 N93-26921
Engine management during NTRE start up
10 p2980 N93-26953
Rocketdyne/Westinghouse nuclear thermal rocket engine modeling 10 p2980 N93-26955
Nuclear Engine System Simulation (NESS) version 2.0
10 p2981 N93-26958
Next generation system modeling of NTR systems
10 p2981 N93-26961
Rocket engine numerical simulator
10 p2981 N93-26962
Reliability studies of integrated modular engine system designs
[NASA-TM-106178] 10 p2984 N93-27022
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 2: Appendices
[NASA-CR-191059-VOL-2] 10 p2986 N93-27532
LOX/hydrocarbon rocket engine analytical design methodology development and validation. Volume 1: Executive summary and technical narrative
[NASA-CR-191058-VOL-1] 10 p2987 N93-27535

ROCKET ENGINES
NT ADVANCED SOLID ROCKET MOTOR (STS)
NT ARC JET ENGINES
NT BOOSTER ROCKET ENGINES
NT DUCTED ROCKET ENGINES
NT ELECTRIC ROCKET ENGINES
NT HYBRID PROPELLANT ROCKET ENGINES
NT HYDRAZINE ENGINES
NT HYDROGEN OXYGEN ENGINES
NT ION ENGINES
NT LIQUID PROPELLANT ROCKET ENGINES
NT NUCLEAR ENGINE FOR ROCKET VEHICLES
NT NUCLEAR ROCKET ENGINES
NT ORBIT MANEUVERING ENGINE (SPACE SHUTTLE)
NT OXYGEN-HYDROCARBON ROCKET ENGINES
NT RESISTOJET ENGINES
NT REUSABLE ROCKET ENGINES
NT SOLID PROPELLANT ROCKET ENGINES
NT SPACE SHUTTLE BOOSTERS
NT SPACE SHUTTLE MAIN ENGINE
NT UPPER STAGE ROCKET ENGINES
Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Operationally efficient space-based integrated propulsion module 01 p0022 N93-10035
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 2: Reliability and failure analyses of 2-D carbon-carbon structural components
[AD-A257460] 05 p1089 N93-15838

A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
Performance and heat transfer characteristics of a carbon monoxide/oxygen rocket engine
[NASA-TM-105897] 06 p1474 N93-18878
What is the progress in propulsion?
06 p1404 N93-19006
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
Measurement of droplet vaporization rate enhancement caused by acoustic disturbances
09 p2626 N93-26015
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214
Los Alamos research in nozzle based coaxial plasma thrusters 10 p2983 N93-26981
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27586
Space Station propulsion integrated propulsion test article 10 p2970 N93-27818
Qualitative model-based diagnostics for rocket systems
[NASA-TM-106234] 10 p2956 N93-28052
Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300
Advanced transportation system studies. Alternate propulsion subsystem concepts: Propulsion database
[NASA-CR-192545] 10 p2987 N93-28325
Hybrid bearings for turbopumps and the like
[NASA-CASE-MFS-28491-1] 10 p3052 N93-28326
A new facility for advanced rocket propulsion research
[NASA-TM-106193] 11 p3270 N93-28696
Altitude compensating ablative stiffening band for rocket motor nozzles
[NASA-CASE-MFS-28728-1] 11 p3288 N93-28950
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring
11 p3289 N93-29570
Conceptual design of a two-stage-to-orbit vehicle
11 p3228 N93-29716
Liquid fuel injection elements for rocket engines
[NASA-CASE-MFS-28547-1] 11 p3289 N93-29847
Rocketdyne PSAM: In-house enhancement/application 12 p3694 N93-31566
The PIT MkV pulsed inductive thruster
[NASA-CR-191155] 12 p3698 N93-32353

ROCKET EXHAUST

Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Planar laser-induced fluorescence imaging of OH in the exhaust of a bi-propellant thruster
03 p0602 N93-13686
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Plume: Instructions for use and description of a missile plume visibility program
[AD-A258201] 06 p1473 N93-18201
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Propulsion diagnostics 06 p1475 N93-18482
Trends in middle-atmosphere ozone
06 p1575 N93-18500
Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Base heating methodology improvements, volume 1
[NASA-CR-192455] 08 p2202 N93-22350
User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962
Preliminary base heating environments for a generalized ALS LO2/LH2 launch vehicle, appendix 1 and 2
[NASA-CR-192456] 08 p2203 N93-22963
Terminology and assessment methods of solid propellant rocket exhaust signatures
[AGARD-AR-287] 08 p2204 N93-22998
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
An experimental study of under-expanded jets
09 p2577 N93-25467
Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
The Ultraviolet Plume Instrument (UVPI)
11 p3285 N93-28784
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
OPAD 1991 12 p3693 N93-31559
Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

ROCKET FLIGHT

Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083

ROCKET LAUNCHING

NT LIFTOFF (LAUNCHING)
NT LUNAR LAUNCH
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
The world wide launching campaign for student rockets experimental payloads 08 p2368 N93-23820
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832

ROCKET LININGS

Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303

ROCKET MOTOR CASES

U ROCKET ENGINE CASES

ROCKET NOZZLES

The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
Facility for cold flow testing of solid rocket motor models 01 p0011 N93-10021
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
Calculation of nozzle/aftbody flowfield interactions
02 p0302 N93-11722
Thruster sealing system and apparatus
[NASA-CASE-MSC-21898-1] 04 p0890 N93-14702
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 1: Experimental determination of mechanical properties for a carbon-carbon composite
[AD-A257459] 05 p1090 N93-16010
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Analysis of film cooling in rocket nozzles
[NASA-CR-192003] 06 p1473 N93-18518
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
NLS cycle 1 and NLS 2 base heating technical notes. Appendix 3: Preliminary cycle 1 NLS base heating environments. Cycle 1 NLS base heating environments. NLS 2 650K STME base heating environments
[NASA-CR-192454] 08 p2202 N93-22012
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
Nuclear thermal propulsion technology overview
10 p2978 N93-26927
Probabilistic structural analysis for nuclear thermal propulsion 10 p2979 N93-26931
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
Altitude compensating ablative stiffening band for rocket motor nozzles
[NASA-CASE-MFS-28728-1] 11 p3288 N93-28950
Postflight hardware evaluation 360T025 (RSRM-25, STS-46)
[NASA-CR-192562] 11 p3272 N93-30617
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix A: Insulation PFORs
[NASA-CR-192563] 11 p3272 N93-30618
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix C: Nozzle PFORs
[NASA-CR-192565] 11 p3272 N93-30620
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix D: Nozzle postfire data
[NASA-CR-192580] 11 p3289 N93-30648

ROCKET OXIDIZERS

Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089

ROCKET PLANES

NT X-15 AIRCRAFT

ROCKET PROPELLANT TANKS

U PROPELLANT TANKS

ROCKET PROPELLANTS

NT CRYOGENIC ROCKET PROPELLANTS
NT DOUBLE BASE ROCKET PROPELLANTS
NT GASEOUS ROCKET PROPELLANTS
NT HYPERGOLIC ROCKET PROPELLANTS
NT LIQUID ROCKET PROPELLANTS
NT METAL PROPELLANTS
NT MONOPROPELLANTS
NT NITRAMINE PROPELLANTS
NT RP-1 ROCKET PROPELLANTS
NT SLURRY PROPELLANTS
NT SOLID ROCKET PROPELLANTS
NT TATB
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
Research on advanced transportation systems
07 p1789 N93-20414
Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614

Near Earth object fuels (neo-fuels): Discovery, prospecting and use
[DE93-005185] 09 p2892 N93-25164
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Flow instability in particle-bed nuclear reactors 10 p2979 N93-26934
SNTP propellant management system 10 p2979 N93-26937
Benefits of in situ propellant utilization for a Mars sample return mission
[NASA-TM-106243] 11 p3341 N93-28695
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
The PIT MkV pulsed inductive thruster
[NASA-CR-191155] 12 p3698 N93-32353

ROCKET SONDES
U SOUNDING ROCKETS

ROCKET SOUNDING
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
Chemical Release and Radiation Effects Satellite (CRRES) program archiving and Puerto Rican sounding rocket campaign
[NASA-CR-184503] 06 p1579 N93-18773
Interpretation of measurements from the quadrupole probe on the NEED-2 rocket
[FFI-92/7016] 08 p2398 N93-24081

ROCKET TEST FACILITIES
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
Space chemical propulsion test facilities at NASA Lewis Research Center
[NASA-TM-106050] 08 p2204 N93-23405
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets 10 p2954 N93-26966
Kauai Test Facility CDX rocket operation environmental assessment, Sandia National Laboratories, Albuquerque, New Mexico
[DE93-005491] 10 p3070 N93-28300

ROCKET THRUST
Examination of various turbulence models for application in liquid rocket thrust chambers
[NASA-CR-184406] 02 p0233 N93-12009
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
H2 arcjet performance mapping program
[NASA-CR-191073] 07 p1828 N93-20064
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382

ROCKET VEHICLES
NT AGENA ROCKET VEHICLES
NT ARIANE LAUNCH VEHICLE
NT ATLAS LAUNCH VEHICLES
NT CENTAUR LAUNCH VEHICLE
NT HOVERING ROCKET VEHICLES
NT MULTISTAGE ROCKET VEHICLES
NT PEGASUS AIR-LAUNCHED BOOSTER
NT SATURN 5 LAUNCH VEHICLES
NT SOUNDING ROCKETS
NT TITAN LAUNCH VEHICLES
NT TITAN 4 LAUNCH VEHICLE
NT X-15 AIRCRAFT
Methods of guidance flight dynamics
[AD-A254248] 01 p0010 N93-10704
Development trends in space transportation systems: From Hermes to Saenger
[MBB-UK-0146-91-PUB] 02 p0223 N93-11007
The world wide launching campaign for student rockets experimental payloads 08 p2368 N93-23820
Lunar NTR vehicle design and operations study 10 p2978 N93-26922

ROCKET-BORNE INSTRUMENTS
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189
Plasma diagnostics by antenna impedance measurements 11 p3400 N93-28820
Aerospace payload design and development
[AD-A264502] 11 p3289 N93-30402
Underneath coronal loops: MSDP observations coordinated with SERTS 4 and NIXT flights 12 p3876 N93-31397

ROCKS
NT ANORTHOSITE
NT BALTIC SHIELD (EUROPE)
NT BASALT
NT BATHOLITHS
NT BEDROCK
NT BRECCIA
NT COAL
NT DUNITE
NT GABBRO
NT GNEISS
NT GRANITE
NT IGNEOUS ROCKS
NT KREEP
NT LUNAR ROCKS
NT METAMORPHIC ROCKS
NT PERIDOTITE
NT REGOLITH
NT SANDSTONES
NT SEDIMENTARY ROCKS
NT SHALES
NT SHATTER CONES
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
Deep penetration into frictional ductile and brittle materials
[PB92-205566] 02 p0338 N93-11903
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

ROCKY MOUNTAINS (NORTH AMERICA)
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies 05 p1214 N93-16507
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724

RODENTS
NT MICE
NT RATS
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630
Cytokines and immune surveillance in humans
[NASA-CR-192728] 08 p2447 N93-22828

RODS
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
Preloaded latching device
[NASA-CASE-MSC-21730-1] 03 p0614 N93-13417
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Forced vibration of non-selfadjoint elastic systems 07 p1934 N93-20668
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
Design of flexible rods with embedded SMA actuators
[AD-A260742] 09 p2729 N93-25846
Variational theory of motion of curved, twisted and extensible elastic rods
[AD-A261028] 09 p2729 N93-25941
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Integrated approaches to parallelism in optimization and solution of inverse problems
[AD-A262259] 11 p3452 N93-29349

ROENTGEN SATELLITE
U ROSAT MISSION

ROGALLO WINGS
U FLEXIBLE WINGS
U FOLDING STRUCTURES

ROLL
An experimental and computational investigation of slender wings undergoing wing rock 03 p0505 N93-13915
Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation 06 p1443 N93-19909
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence 10 p2927 N93-27220
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498

ROLL CONTROL
U LATERAL CONTROL

ROLL FORMING
Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972

ROLLER BEARINGS
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
Hybrid bearings for turbopumps and the like
[NASA-CASE-MFS-28491-1] 10 p3052 N93-28326
Cryogenic magnetic bearing
[AD-A264716] 11 p3446 N93-30512

ROLLERS
Minimum size of disc cams with radial translating roller followers
[ESDU-92005] 06 p1544 N93-17998
Blending profiles of disc cams with radial translating roller followers. Part 1: To reduce segment angle, reduce reference circle radius or increase follower lift
[ESDU-92014] 06 p1545 N93-18041
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
Thermal plastic strain fatigue life of the roll 07 p1924 N93-20354

ROLLING CONTACT LOADS
The contact mechanical nonlinearities of a mathematical model of a railway wheel rolling over corrugated rail
[ILR-MITT-266(1991)] 11 p3454 N93-31015
The steady-state tangential contact problem for a falling drop type of contact area on corrugated rail by simplified theory of rolling contact
[ILR-MITT-267(1991)] 11 p3455 N93-31016
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508

ROLLING MOMENTS
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite 10 p2925 N93-27203
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068

ROLLUP SOLAR ARRAYS
U SOLAR ARRAYS

ROM DEVICES
U READ-ONLY MEMORY DEVICES

ROOFS
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106

ROOM TEMPERATURE
Rate constants for reactions of hydrazine fuels with O(P-3)
[AD-A252813] 01 p0042 N93-10336

Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
Initial performance of Los Alamos Advanced Free Electron Laser
[DE92-040214] 03 p0605 N93-13507
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU]
05 p1150 N93-17278
Development of magnetostrictive active members for control of space structures
[NASA-CR-190846] 06 p1460 N93-18322
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Crack propagation in NiAl and FeAl
[DE93-007244] 10 p3061 N93-28313
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436

ROOMS
NT CLEAN ROOMS
Applications of CFD and visualization techniques
03 p0584 N93-13386
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169

ROOT-MEAN-SQUARE ERRORS
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
Hierarchical Poisson disk sampling distributions
04 p0954 N93-15545
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844

ROOTS OF EQUATIONS
The Weyl method for simultaneous calculation of polynomial roots (first part)
[RR-881-M] 07 p2055 N93-21169
Zero-crossing rate of some non-Gaussian processes
11 p3360 N93-30254
The nth roots with Hilbert-Schmidt defect operator of normal contractions
[DE93-608163] 12 p3803 N93-31288

ROSAT MISSION
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
Rosat deep surveys 02 p0482 N93-11474
X ray morphology of clusters of galaxies
02 p0482 N93-11475
Morphology and physics of supernova remnants
02 p0482 N93-11476
Stars in the Rosat all-sky survey
02 p0482 N93-11477
Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272
The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496
[NASA-CR-191240] 03 p0743 N93-13352
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
ROSAT all-sky survey on the Einstein EMSS sample
[NASA-CR-191627] 04 p1013 N93-15340
X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095
Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background
05 p1368 N93-17112
UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data
05 p1368 N93-17113
ROSAT observations of AGN
05 p1361 N93-17116
ROSAT-IUE All Sky Survey (RIASS): First results on active galaxies 05 p1369 N93-17117
Multifrequency observations of ROSAT selected radio sources 05 p1361 N93-17118
The quasar 1821+643 during the ROSAT survey
05 p1361 N93-17119
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
ROSAT and multi-wavelength observations of 3C 371
05 p1361 N93-17121
A deep ROSAT observation of the highly variable AGN 1E1403+5439 or ROSAT non-detection of the weak AGN 1E1403+5439 05 p1361 N93-17122
Time variability of extragalactic sources in the ecliptic pole regions 05 p1370 N93-17123
A comparative study of soft x ray QSO spectra
05 p1361 N93-17124
Spectra of radio-loud quasars observed in the ROSAT/XRT all sky survey 05 p1361 N93-17125
X ray spectra of bright BL Lacertae objects observed with ROSAT 05 p1361 N93-17126
Preliminary results on ROSAT observations of the Blazar PKS 0537-441 05 p1362 N93-17127
ROSAT x ray spectra of quasars with a range of continuum properties and redshift
05 p1362 N93-17128
Preliminary results on the properties of the EMSS AGN's as derived from the ROSAT all sky survey
05 p1362 N93-17129
Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130
Preliminary results from the ROSAT WFC all sky survey: A sample of low galactic column density AGN's
05 p1362 N93-17131
Initial results from a ROSAT deep survey in Lynx
05 p1362 N93-17132
ROSAT all sky survey observations of IRAS galaxies
05 p1362 N93-17133
A new look at radio/x ray correlations
05 p1362 N93-17136
ROSAT deep surveys 05 p1362 N93-17145
The ROSAT autocorrelation function of the x ray background 05 p1374 N93-17152
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
Imaging the Nearby Seyfert 2 Galaxy NGC 1068, and Spectrum and Variability of Geminga
[NASA-CR-191905] 05 p1360 N93-17401
A ROSAT high resolution x ray image of NGC 1068
05 p1360 N93-17402
Soft x ray properties of the Geminga pulsar
05 p1360 N93-17403
ROSAT in-orbit attitude measurement recovery
[MBB-UK-0168-92-PUB] 05 p1088 N93-17629
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
The ROSAT all-sky x ray survey
08 p2533 N93-23880
ROSAT observations of supernova remnants and the interstellar medium 08 p2534 N93-23884
X ray morphology and the mass of clusters of galaxies
08 p2534 N93-23887
ROSAT observations of active galactic nuclei
08 p2534 N93-23888
Observation of the extragalactic x ray background
08 p2535 N93-23892
IRAS galaxies in the ROSAT survey
08 p2536 N93-23897
Extragalactic radio sources in the ROSAT survey
08 p2536 N93-23899
Soft x ray emission from supergiant x ray binaries detected on the ROSAT all-sky survey
08 p2537 N93-23907
The ROSAT archive 08 p2538 N93-23915
ROSAT: The German x ray satellite nearly two years in orbit 08 p2538 N93-23916
Design and in orbit performance of the ROSAT PSPC
08 p2539 N93-23923
The ROSAT standard analysis software system
08 p2445 N93-23930
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139
ROSAT detection of stellar x ray sources in the old open cluster M67
[MPE-PREPRINT-230] 11 p3631 N93-30578
ROSAT observations of quasar 3C 273
[ETN-93-94202] 12 p3844 N93-31049

ROSIN
Aqueous cleaning of flux residue from solder joints
[KCP-613-4803] 09 p2652 N93-26208

ROSS ICE SHELF
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
The First Annual West Antarctic Ice Sheet (WAIS) Science Workshop
[NASA-CP-3222] 12 p3758 N93-31878
Reconstruction of late Wisconsinan Ice Sheet and sea-level implications 12 p3758 N93-31879
Lithology and chronology of ice-sheet fluctuations (magnetic susceptibility of cores from the western Ross Sea) 12 p3759 N93-31880
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889
Sensible and latent heat flux estimates in Antarctica
12 p3763 N93-31902
Surface winds over West Antarctica
12 p3763 N93-31903

ROSSBY WAVES
U PLANETARY WAVES

ROTARY DRIVES
U MECHANICAL DRIVES

ROTARY STABILITY
NT GYROSCOPIC STABILITY
AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910
Stability of the fluid-fluid interphase in rotating systems subjected to different gravitational intensities
07 p1805 N93-21087
Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

ROTARY WING AIRCRAFT
NT AH-64 HELICOPTER
NT BO-105 HELICOPTER
NT CH-47 HELICOPTER
NT H-53 HELICOPTER
NT H-60 HELICOPTER
NT HELICOPTERS
NT MILITARY HELICOPTERS
NT OH-58 HELICOPTER
NT TILT ROTOR AIRCRAFT
NT UH-60A HELICOPTER
NT V-22 AIRCRAFT
NT XV-15 AIRCRAFT
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323
Rotorcraft health and usage monitoring systems: A literature survey
[DOT/FAA/RD-91/6] 02 p0206 N93-11461
A theory for the analysis of rotorcraft operating in atmospheric turbulence 02 p0207 N93-11725
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities
[AD-A256921] 05 p1060 N93-16186
Developing a control system for ARES 2
05 p1069 N93-16769
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Numerical investigation of performance degradation of wings and rotors due to icing
[NASA-CR-192233] 06 p1440 N93-18783
Flexible rotorcraft system dynamics with time-variant contact conditions 06 p1441 N93-19034
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
A Government/Industry Summary of the Design Analysis Methods for Vibrations (DAMVIBS) Program
[NASA-CP-10114] 07 p1782 N93-21310
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: A government overview
07 p1782 N93-21311
A teleoperated unmanned rotorcraft flight test technique 08 p2132 N93-22369
Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191057] 08 p2311 N93-22466
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation
09 p2574 N93-24756

Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Image-based ranging and guidance for rotorcraft [NASA-CR-177608] 09 p2586 N93-26549
Robust crossfeed design for hovering rotorcraft [NASA-CR-193107] 10 p2942 N93-27241
Chaos in mechanical systems with especial reference to rotorcraft and missiles [AD-A263703] 11 p3604 N93-29384
Rotorcraft master plan 11 p3236 N93-30677
Determining the transferability of flight simulator data 11 p3237 N93-30685
Frequency-response techniques for documentation and improvement of rotorcraft simulators 11 p3237 N93-30689
Bandwidth and SIMDUCE as simulator fidelity criteria 11 p3238 N93-30690
Methodology development for evaluation of selective-fidelity rotorcraft simulation 11 p3238 N93-30691

ROTARY WINGS
NT BEARINGLESS ROTORS
NT LIFTING ROTORS
NT RIGID ROTORS
NT TILTING ROTORS
Numerical study of advanced rotor blades 02 p0199 N93-11899
Studies of a flat wake rotor theory [NASA-CR-190936] 02 p0201 N93-12343
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
Stability of elastically tailored rotor blades 04 p0791 N93-14828
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
Helicopter installations: From motor to rotor [LR-675] 05 p1061 N93-16345
RPH preliminary design, trend analysis and initial analysis of the NPS hummingbird [AD-A257854] 06 p1439 N93-18304
Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis [NASA-CR-177611] 08 p2113 N93-24058
Stability of elastically tailored rotor systems [AD-A260550] 08 p2132 N93-24241
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane [NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane [NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane [NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane [NASA-TM-102644] 08 p2116 N93-24528
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40 [NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35 [NASA-TM-101598] 08 p2116 N93-24540
An aeroelastic model structure investigation for a manned real-time rotorcraft simulation 09 p2574 N93-24756
Rotor design optimization using a free wake analysis [NASA-CR-177612] 09 p2575 N93-25075
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
An integrated finite-state model for rotor deformation, nonlinear airloads, inflow, and trim 09 p2588 N93-25538
Structural dynamic analysis of bearingless rotor blade 09 p2590 N93-25719
Unsteady airfoil flow solutions on moving zonal grids [AD-A261925] 09 p2582 N93-26198
Helicopter forced response vibration analysis method RTVIB20 [AD-A261809] 09 p2597 N93-26260
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450
A passive infrared ice detection technique for helicopter applications [NASA-CR-193187] 11 p3244 N93-29152
Flow visualization on helicopter blades using acenaphthen [ESA-TT-1255] 11 p3422 N93-29273
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade [NASA-TM-4264] 11 p3240 N93-29450
Computation of far-field helicopter rotor tone noise [ONERA-P-1990-5] 11 p3562 N93-30110
Helicopter simulation: An aircrew training and qualification perspective 11 p3236 N93-30676

ROTATING
U ROTATION

ROTATING BODIES
NT BEARINGLESS ROTORS
NT COMPRESSOR ROTORS
NT FLYWHEELS
NT HELICOPTER TAIL ROTORS
NT IMPELLERS
NT LIFTING ROTORS
NT PUMP IMPELLERS
NT RIGID ROTORS
NT ROTARY WINGS
NT ROTATING CYLINDERS
NT ROTATING DISKS
NT ROTATING SPHERES
NT ROTORS
NT TILTING ROTORS
NT TURBINE WHEELS
On the gravitational potential of two arbitrary rotating bodies with applications to the Earth-Moon system 01 p0179 N93-10303
An experimental technique for performing 3-D LDA measurements inside whirling annular seals 01 p0093 N93-10894
In-plane strain measurement on high speed rotating components using pulsed laser ESPI [PNR-90975] 02 p0315 N93-11064
The prediction of convective heat transfer in rotating square ducts [PNR-90985] 02 p0296 N93-11067
In-plane ESPI measurements in hostile environments [PNR-90919] 02 p0309 N93-11320
Inverse Synthetic Aperture Radar 03 p0564 N93-13058
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
Spin vector and shape of 532 Herculina 06 p1711 N93-19193
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
Vibration of a multi-guided rotating string 07 p1934 N93-20672
Comparison of the efficiency of the various methods for rigid-body displacement analyses 07 p1941 N93-20709
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Neural networks for the monitoring of rotating machinery [DE93-003549] 08 p2464 N93-24503
Simulation study of MHD dynamo: Convection in a rotating spherical shell [NIFS-207] 09 p2860 N93-25356
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
A continuum code investigation of stress integration using exact and approximate material rotation [DE93-001892] 11 p3454 N93-31013

ROTATING CYLINDERS
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility [DE92-008480] 02 p0303 N93-11843
Regular and chaotic mixing of viscous fluids in eccentric rotating cylinders 02 p0305 N93-12157
Instabilities and patterns in Taylor-Couette flow 03 p0593 N93-13965
Experimental investigation of the aerodynamics of independently rotating cylindrical shells [AD-A258917] 06 p1417 N93-19340
Thermal convection in rotating systems and the band structure of the major planets 08 p2164 N93-24393
Three-dimensional turbulent boundary layer flow over a spinning cylinder [NASA-TM-102240] 08 p2300 N93-24533
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control [NASA-CR-191442] 10 p3037 N93-27008
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213

ROTATING DISKS
Axisymmetric vibrations of rotating circular plates using characteristic orthogonal polynomials 01 p0045 N93-10470
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs 01 p0010 N93-10539
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements [PNR-90935] 02 p0244 N93-11035
An experimental investigation of the three-dimensional boundary layer on a rotating disk 03 p0589 N93-13806
A new parameter for predicting crossflow instability 05 p1162 N93-16828
Fatigue criterion to system design, life and reliability: A primer [NASA-TM-106022] 08 p2328 N93-23406
Flow between finite rotating disks and its linear stability 09 p2705 N93-25747
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
Heat Transfer and Cooling in Gas Turbines [AGARD-CP-527] 11 p3252 N93-29926
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Flow and heat transfer between gas-turbine discs 11 p3256 N93-29950
Dioxygen reduction in various acid electrolytes [AD-A263564] 11 p3317 N93-30664

ROTATING ELECTRICAL MACHINES
Monitoring of vibrating machinery using artificial neural networks [DE93-003566] 07 p2050 N93-21848

ROTATING ENVIRONMENTS
Magnetic Suspension Technology Workshop [NASA-CP-3202] 10 p2959 N93-27554
Rotational speed control 12 p3689 N93-31457

ROTATING FLUIDS
NT ROTATING LIQUIDS
Investigations into swirling flows of Newtonian and non-Newtonian fluids [AD-A253298] 01 p0082 N93-10696
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows [NASA-CR-184441] 02 p0305 N93-12082
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 1 [CTN-93-60610] 05 p1157 N93-16425
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 3 [CTN-93-60611] 05 p1158 N93-16544
Response of a rotating anchored finite annular liquid layer to axial excitation [LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Marangoni-convection in a rotating liquid container [LRT-WE-9-FB-14-1991] 05 p1164 N93-17552
The acquisition of velocity fields via the automatic analysis of motion, exemplarily demonstrated in a rotating fluid [MPIS-102/1991] 07 p1902 N93-21023
Stability of the fluid-fluid interphase in rotating systems subjected to different gravitational intensities 07 p1805 N93-21087
Natural frequencies and response of spinning liquid column with partially sliding contact line [LRT-WE-9-FB-24-1991] 07 p1903 N93-21298
On the nonlinear interfacial instability of rotating core-annular flow [NASA-CR-191432] 08 p2289 N93-22811
Heat transfer in rotating serpentine passages with selected model orientation for smooth or skewed trip walls [NASA-TM-106126] 09 p2667 N93-25177
Analysis of unsteady wave processes in a rotating channel [NASA-CR-191154] 11 p3251 N93-28617
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952

ROTATING GENERATORS
NT DYNAMOMETERS
NT TURBOGENERATORS

ROTATING LIQUIDS
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899

Asymmetric natural damped frequencies of a rotating infinitely long viscous liquid column
[LRT-WE-9-FB-23-1991] 04 p0878 N93-15120
Marangoni convection in a spinning liquid column
[LRT-WE-9-FB-13-1991] 08 p2289 N93-22678
Zero sound experiments in superfluid He3
[ISBN-951-22-0841-5] 08 p2476 N93-23005
Liquid Motion in a rotating tank Experiment (LME)
11 p3264 N93-28710

ROTATING MATTER
Neutron stars, strange stars, and the nuclear equation of state
[DE93-004704] 08 p2550 N93-23952

ROTATING PLASMAS
Large orbit magnetic confinement systems for advanced fusion fuels
[DE92-016218] 01 p0162 N93-10617
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Tokamak turbulence in self-regulated differentially rotating flow and L-H transition dynamics
[DE93-000443] 05 p1310 N93-16451
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
Model of a rotating magnetic cloud
12 p3857 N93-31707

ROTATING SHAFTS
NT TURBOSHAFTS
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Turbulence measurements of high shear flow fields in a turbomachine seal configuration
01 p0093 N93-10893
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
A method of continuous coordinate condensation
07 p1932 N93-20657
Elimination of resonance with a switching support
07 p1933 N93-20664
Magnetic suspension characteristics of electromagnetic actuators 10 p2960 N93-27561
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft 11 p3255 N93-29946
Vibration localization in rotating shafts
11 p3454 N93-30626
Perturbation technique for identification of the lowest modes of rotors with fluid interaction
12 p3738 N93-32277
Vibrational diagnostics of rotating machinery malfunctions 12 p3738 N93-32278
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

ROTATING SPHERES
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843

ROTATING STALLS
Rotating stall inception in fans of low hub-tip ratio
04 p0779 N93-14479
Stall in axial flow aero engine compressors
06 p1530 N93-18723
Stall and surge in axial flow compressors
06 p1530 N93-18724
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor
06 p1531 N93-18727
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
Axial Flow Compressors, volume 2
[VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field
06 p1531 N93-18732
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
Characterization of stall inception in high-speed single-stage compressors
[AD-A258973] 06 p1449 N93-19093
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335

ROTATING VEHICLES
U ROTATING BODIES
U VEHICLES

ROTATION
NT COROTATION
NT COUNTER ROTATION
NT EARTH ROTATION
NT MOLECULAR ROTATION
NT MUON SPIN ROTATION
NT PLANETARY ROTATION
NT SATELLITE ROTATION
NT SOLAR ROTATION
NT STELLAR ROTATION
Effect of mounting offset on the dynamics of deploying flexible appendages 01 p0054 N93-10520
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
The neurochemical and neuropharmacological basis of motion sickness
[NASA-CR-190957] 03 p0675 N93-13061
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere
03 p0666 N93-13786
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469
The formation of giant molecular clouds
04 p1021 N93-15086
An investigation into the role of moist, vertical drafts in the rotational development of storms
04 p0923 N93-15087
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
ARCBALL: A user interface for specifying three-dimensional orientation using a mouse
04 p0955 N93-15551
A systematic approach for the DRSS IOL APM design
05 p1081 N93-15753
From the rotation group to the Poincare group
[DE93-000864] 05 p1279 N93-17386
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989
Spin vectors of asteroids 21 Lutetia, 196 Philomela, 250 Bettina, 337 Devosa, and 804 Hispania
06 p1713 N93-19211
Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216
On LAM's and SAM's for Halley's rotation
06 p1714 N93-19221
Rotation of split cometary nuclei
06 p1719 N93-19258
Flow and heat transfer characteristics of orthogonally rotating channel 06 p1413 N93-19303
Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
Method and apparatus for controlling internal rotation of principal axes in fabrication of birefringent fibers
[AD-D015611] 07 p2067 N93-20397
The linear invariants of the composition of two rotations 07 p1941 N93-20711
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU]
08 p2169 N93-24598
Turbine turbobrake systems 09 p2717 N93-25268
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Variational theory of motion of curved, twisted and extensible elastic rods
[AD-A261028] 09 p2729 N93-25941
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
Optimization method in nonlinear analysis of a circular rotating cluster package 10 p2926 N93-27213
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers
11 p3642 N93-28777
A Monte Carlo study of the raw and normal varimax rotation criterion in factor analysis
[AD-A262516] 11 p3554 N93-28844
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels
11 p3255 N93-29942
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases
11 p3255 N93-29943
Heat transfer and leakage in high-speed rotating stepped labyrinth seals 11 p3256 N93-29951
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Turntable mechanism
[NASA-CASE-MFS-28522-1] 12 p3734 N93-31313
Differential small displacements and rotation extensions in three dimensional coordinate systems
[SER-B-295] 12 p3804 N93-31338

ROTATIONAL FLOW
U FLUID FLOW
U VORTICES

ROTATIONAL SPECTRA
High resolution molecular spectroscopy of atmospheric species
[AD-A254360] 03 p0650 N93-12946
Free radical and overtone spectroscopy
[NASA-CR-192136] 07 p1850 N93-21555
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
CO deficiency in galaxies of the Fornax cluster?
10 p3185 N93-26791
Molecular gas temperature and density in spiral galaxies 10 p3185 N93-26792
Molecular clouds in the centers of galaxies: Constraints from HCN and CO-13 line emission
10 p3188 N93-26806
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405

ROTOR AERODYNAMICS
Radial turbine cooling 01 p0078 N93-10061
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Harmonic analysis of the aerodynamic forces on a Darrieus rotor 01 p0006 N93-10551
LDV Measurements of unsteady flow fields in radial turbine
[AD-A253592] 01 p0004 N93-10648
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Dynamic stall effects on hingeless rotor stability with experimental correlation 03 p0492 N93-13010
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
Rotating stall inception in fans of low hub-tip ratio
04 p0779 N93-14479
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
Finite-state inflow applied to aeroelastic flutter of fixed and rotating wings 04 p0802 N93-14830
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Developing a control system for ARES 2
05 p1069 N93-16769
Mean flow interactions of a counter-rotating propeller
07 p1899 N93-20289
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Rotor design optimization using a free wake analysis
[NASA-CR-177612] 09 p2575 N93-25075
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
Flow control of low heat load turbine airfoils
[AD-A260941] 09 p2595 N93-26219
The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239
Dynamic System Coupler Program (DYSCO 4.1). Volume 1: Theoretical manual
[AD-B131156L] 10 p3098 N93-27531
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586

ROTOR BLADES
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Numerical study of advanced rotor blades 02 p0199 N93-11899
Radial turbine cooling
[NASA-TM-105658] 03 p0492 N93-13292
The use of cross-section warping functions in composite rotor blade analysis
[NASA-CR-191772] 05 p1186 N93-16946
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569
Optimum Design of High Speed Prop-Rotors
[NASA-CR-190915] 06 p1437 N93-18064
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153

ROTOR BLADES (TURBOMACHINERY)
An inverse design method for radial turbomachines 01 p0078 N93-10057
Structural analysis: Fatigue life assessment 01 p0078 N93-10062
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426
Endwall flows and blading design for axial flow compressors 06 p1531 N93-18730
Axial Flow Compressors, volume 2
[VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Performance of controlled diffusion blades 06 p1532 N93-18735
Analytic formulation of unsteady profile aerodynamics and its application to simulation of rotors
[ESA-TT-1244] 07 p1762 N93-21659
Blade Assessment for Ice Impact (BLASIM). User's manual, version 1.0
[NASA-CR-191075] 08 p2331 N93-24102
Magnetic bearings: Fifty years of progress 10 p2959 N93-27556
Digital control of magnetic bearings supporting a multimass flexible rotor 10 p2959 N93-27558
A conventional point of view on active magnetic bearings 10 p2961 N93-27568
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines
[DLR-FB-92-17] 12 p3700 N93-31461
Vibration and Rotor Dynamics
[VKI-LS-1992-06] 12 p3741 N93-32270
Basic structural dynamics 12 p3741 N93-32271
Structural dynamic characteristics of individual blades 12 p3683 N93-32272
Structural dynamic charactertistics of bladed assemblies 12 p3683 N93-32273
Vibration analysis in turbomachines 12 p3683 N93-32274
Transmission of sound through a rotor
[NLR-TP-92014-U] 12 p3683 N93-32386

ROTOR BODY INTERACTIONS
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
Developing a control system for ARES 2 05 p1069 N93-16769
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Perturbation technique for identification of the lowest modes of rotors with fluid interaction 12 p3738 N93-32277

ROTOR DISKS
U TURBINE WHEELS

ROTOR DYNAMICS
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
Optimum Design of High Speed Prop-Rotors
[NASA-CR-190915] 06 p1437 N93-18064
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426
Analytic formulation of unsteady profile aerodynamics and its application to simulation of rotors
[ESA-TT-1244] 07 p1762 N93-21659
Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Active magnetic bearings applied to industrial compressors 10 p2961 N93-27570
The influence of variable flow velocity on unsteady airfoil behavior
[DLR-FB-92-22] 12 p3672 N93-31320
Vibration and Rotor Dynamics
[VKI-LS-1992-06] 12 p3741 N93-32270
Structural dynamic characteristics of individual blades 12 p3683 N93-32272
Structural dynamic charactertistics of bladed assemblies 12 p3683 N93-32273
Vibration analysis in turbomachines 12 p3683 N93-32274
Excitation by flows in seals and clearances. Part 1: Introduction: Fluid-structure-interactions in rotordynamics. Part 2: Identification of rotordynamic coefficients of annular seals 12 p3738 N93-32275
One lateral mode isotropic rotor response to nonsynchronous excitation 12 p3738 N93-32276
Perturbation technique for identification of the lowest modes of rotors with fluid interaction 12 p3738 N93-32277
Vibrational diagnostics of rotating machinery malfunctions 12 p3738 N93-32278

ROTOR HUBS
U ROTORS

ROTOR LIFT
Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade
[NASA-TM-4264] 11 p3240 N93-29450
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197

ROTOR SPEED
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
An exploratory investigation of the flight dynamics effects of rotor rpm variations and rotor state feedback in hover
[NASA-TM-103968] 06 p1451 N93-19380

ROTORCRAFT
U ROTARY WING AIRCRAFT

ROTORCRAFT AIRCRAFT
Recent advances in multidisciplinary optimization of rotorcraft
[NASA-TM-107665] 02 p0206 N93-10968
Robust crossfeed design for hovering rotorcraft
[NASA-CR-193107] 10 p2942 N93-27241
An integrated optimum design approach for high speed prop-rotors including acoustic constraints
[NASA-CR-193222] 11 p3248 N93-29153
Design and implementation of fuzzy logic controllers
[NASA-CR-193268] 12 p3784 N93-31649

ROTORDYNAMICS
U ROTOR DYNAMICS

ROTORS
NT BEARINGLESS ROTORS
NT COMPRESSOR ROTORS
NT FLYWHEELS
NT HELICOPTER TAIL ROTORS
NT IMPELLERS
NT LIFTING ROTORS
NT PUMP IMPELLERS
NT RIGID ROTORS
NT ROTARY WINGS
NT TILTING ROTORS
NT TURBINE WHEELS
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
An experimental and a theoretical investigation of rotor pitch damping using a model rotor 01 p0008 N93-10322
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Rotating stall inception in fans of low hub-tip ratio 04 p0779 N93-14479
Onboard System Evaluation of Rotors Vibration, Engines (OBSERVE) monitoring system
[AD-A255366] 04 p0792 N93-15227
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Brush seal bristle flexure and hard-rub characteristics
[NASA-TM-105864] 06 p1547 N93-18321
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Mass loaded composite rotor for vibro-acoustic application
[AD-D015604] 07 p1831 N93-20016
Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696
The influence of the rotor test facilities ROTEST and ROTOS on the rotor inflow
[DLR-MITT-91-16] 07 p1785 N93-21173
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013

Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
Stability of elastically tailored rotor systems
[AD-A260550] 08 p2132 N93-24241
Variable-speed generators with flux weakening 09 p2694 N93-25599
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
Brush seal low surface speed hard-rub characteristics
[NASA-TM-106169] 10 p3039 N93-27132
Experimental evaluation of a cooled radial-inflow turbine
[NASA-TM-106230] 11 p3251 N93-28697
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Robust control of intelligent rotor
[AD-A263707] 11 p3259 N93-29985
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

ROUGHNESS
NT SURFACE ROUGHNESS

ROUTES
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
A genetic algorithm for search route planning
[AD-A254894] 02 p0414 N93-12284
Scheduling of an aircraft fleet 06 p1635 N93-18665
An investigation of discovery-based learning in the route planning domain
[AD-A259141] 07 p1780 N93-20560
Effect of personal and situational variables on noise annoyance: With special reference to implications for en route noise
[NASA-CR-189676] 07 p2060 N93-21317
Solution to a multicriteria aircraft routing problem utilizing parallel search techniques
[AD-A259293] 08 p2119 N93-22398
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592
A preliminary empirical evaluation of virtual reality as an instructional medium for visual-spatial tasks 12 p3784 N93-32151

ROVER PROJECT
Extended mission/lunar rover, executive summary
[NASA-CR-192017] 06 p1547 N93-18162

ROVING VEHICLES
NT LUNAR ROVING VEHICLES
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle 08 p2451 N93-22217
Knowledge-based vision techniques for the autonomous land vehicle program
[AD-A259801] 08 p2459 N93-23457
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Outline of Mars explorer system 10 p2953 N93-28048
Mars sample return mission: Two alternate scenarios 11 p3233 N93-29746
Planetary rover developments at JPL 12 p3737 N93-32115

RP-1 ROCKET PROPELLANTS
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

RPV
U REMOTELY PILOTED VEHICLES

RS CODES
U REED-SOLOMON CODES

RTM (COMPOSITE MATERIALS)
U RESIN TRANSFER MOLDING

RUBBER
NT ELASTOMERS
NT LATEX
NT VITON RUBBER (TRADEMARK)
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
Reversion studies of natural and guayule rubbers
[AD-A257501] 06 p1491 N93-17906
Method and apparatus for cleaning rubber deposits from airport runways and roadways
[NASA-CASE-LAR-14483-1] 08 p2256 N93-22035
Elastomer compound developed for high wear applications 09 p2659 N93-25607
Dynamic hardness tester and cure meter 09 p2711 N93-25608
APU diaphragm testing. Test plan
[NASA-TM-108251] 11 p3271 N93-29387
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795

RUBIDIUM
NT RUBIDIUM ISOTOPES
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Matter-wave interferometry with laser cooled atoms
[AD-A254000] 01 p0089 N93-10720
Matter-wave interferometry with laser cooled atoms
[AD-A253999] 02 p0316 N93-11737
Demonstration of a neon-like rubidium x ray laser
[DE92-019576] 03 p0606 N93-13653
Frequency shifts in a rubidium frequency standard due to coupling to another standard
[AD-A256232] 04 p0972 N93-15243
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Chaotic dynamics of atoms 06 p1659 N93-18491
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
Experiments on a diode-laser-pumped Rb-87 maser 09 p2716 N93-25030
High resolution digital synthesizer for a Rb frequency standard 09 p2694 N93-25057
Line inhomogeneity effects and power shift in miniaturized rubidium frequency standards 09 p2694 N93-25066
Fundamental characteristics of a laser-diode-pumped rubidium maser with an external feedback loop 09 p2716 N93-25068
Local order and concentration fluctuations in K-Pb and Rb-Pb alloys
[DE93-606725] 12 p3704 N93-31093

RUBIDIUM ISOTOPES
Isotopically selective detection of rubidium in krypton
[ETN-93-94051] 12 p3703 N93-31630

RUBY
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327

RUBY LASERS
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327

RULES
NT FLIGHT RULES
NT INSTRUMENT FLIGHT RULES
NT SUM RULES
NT VISUAL FLIGHT RULES
Geometrical concepts about learning rules in networks with binary and ternary output functions
[REPT-92-020] 02 p0411 N93-11592
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition
[DE92-556729] 05 p1114 N93-16649
Modal derivation rules
[ML-91-07] 05 p1274 N93-17784
Automatic rule generation for high-level vision 11 p3511 N93-29526
A model for amalgamation in group decision making 11 p3513 N93-29540
Determining rules for closing customer service centers: A public utility company's fuzzy decision 11 p3516 N93-29561
Comparison between the performance of two classes of fuzzy controllers 11 p3517 N93-29566
Inference in fuzzy rule bases with conflicting evidence 11 p3519 N93-29583
Turning SOS rules into equations
[CWI-CS-R9218] 11 p3532 N93-30017
Deriving incremental production rules for deductive data
[REPT-92-081] 12 p3787 N93-31466

RUN TIME (COMPUTERS)
An adaptive differencing scheme for elliptic flows 02 p0297 N93-11197
Dynamic programming on a ring of processors 02 p0410 N93-11479
Monitoring and controlling distributed applications using Lomita (position paper)
[NASA-CR-190971] 03 p0687 N93-13695
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Upgrade the University of Wisconsin volume imaging lidar
[AD-A255476] 04 p0885 N93-14497
A massively distributed parallel genetic algorithm
[AD-A256617] 04 p0959 N93-15407
General-purpose automation programming: A case study on using a graphic language
[DE92-001071] 05 p1238 N93-16447
ADIFOR: A FORTRAN system for portable automatic differentiation
[DE92-040743] 05 p1239 N93-16588
Acceleration of FDNS flow simulations using initial flowfields generated with a parabolized Navier-Stokes method 05 p1165 N93-17329
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Randomization yields simple O(n log* n) algorithms for difficult Omega(n) problems
[INRIA-RR-1412] 06 p1621 N93-18455
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Stochastic scheduling with variable profile and precedence constraints
[INRIA-RR-1525] 07 p2059 N93-21396
Set based program analysis
[AD-A260979] 09 p2806 N93-25841
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Processor-management in distributed systems with a compute-intensive workload
[REPT-92-52] 12 p3787 N93-31486
Primal-dual algorithms for linear programming based on the logarithmic barrier method
[REPT-92-104] 12 p3790 N93-31659

RUNGE-KUTTA METHOD
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics 01 p0003 N93-10306
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341
Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations 05 p1154 N93-15802
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Digital simulation and discrete modelling of a chaotic system
[RR-447] 05 p1279 N93-16561
Improved shock-capturing of Jameson's scheme for the Navier-Stokes equations
[MEMO-1041] 05 p1163 N93-16842

Parallel step-by-step methods
[CWI-NM-R9116] 05 p1256 N93-17545
Parallel-iterated Runge-Kutta methods for stiff ordinary differential equations
[CWI-NM-R9117] 05 p1257 N93-17549
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Analysis of a multistep Jacobi multigrid method for solving the Euler equations
[INRIA-RR-1506] 06 p1644 N93-17879
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis. Computer program user's manual
[NASA-CR-187125] 07 p1784 N93-20583
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
IMP: A performance code 08 p2139 N93-22245
Stability of parallel Volterra-Runge-Kutta methods
[CWI-NM-R9207] 10 p3106 N93-27304
A-stable diagonally implicit Runge-Kutta-Nystrom methods for parallel computers
[CWI-NM-R9208] 10 p3107 N93-27375
Time-step enlargement for Runge-Kutta integration algorithms by implicit smoothing
[NLR-TP-91229-U] 10 p3096 N93-27394
Note on the performance of direct and indirect Runge-Kutta-Nystroem methods
[CWI-NM-R9214] 10 p3120 N93-28082
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472
Solution of Euler equations for forebody-inlet ensemble of aircraft at high angle of attack
[AD-A263905] 11 p3240 N93-29862
The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919
Roe's scheme and the MUSCL technique for the Navier-Stokes equations
[MEMO-1090] 12 p3725 N93-31527
Explicit, high-order Runge-Kutta-Nystroem methods for parallel computers
[CWI-NM-R9219] 12 p3796 N93-32395
Parallel block predictor-corrector methods of Runge-Kutta type
[CWI-NM-R9220] 12 p3797 N93-32396

RUNOFFS
U DRAINAGE

RUNWAYS
Upgrade Precision Runway Monitor (PRM) Operational Test and Evaluation (OT/E) test plan
[DOT/FAA/CT-TN92/13] 02 p0217 N93-11616
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Limited production Precision Runway Monitor (PRM) master test plan
[DOT/FAA/CT-TN92/23] 03 p0506 N93-12899
Prototype stop bar system evaluation at John F. Kennedy International Airport
[AD-A258667] 03 p0506 N93-12902
A NASPAC-based analysis of the delay and cost effects of the Dallas/Fort Worth metroplex plan
[DOT/FAA/CT-TN92/21] 03 p0507 N93-13447
Unified Airport Design and Analysis Concepts Workshop
[DOT/FAA/RD-92/17] 05 p1069 N93-16309
State of the art of airport pavement analysis and design 05 p1070 N93-16310
Development of user guidelines for a three-dimensional finite element pavement model 05 p1070 N93-16311
Micro mechanical behavior of pavements 05 p1070 N93-16312
Federal Aviation Administration pavement modeling 05 p1071 N93-16315
An experimental examination of the thermal and acoustic environments on runway joint seals
[AD-A257965] 05 p1073 N93-17734
A method for estimating future runway capacity of German airports for single runway systems
[DLR-FB-91-38] 08 p2132 N93-22666
Scene correlation for INS aiding in flight-test systems: Runway-referenced flight-tests with on-board sensors only 08 p2121 N93-22792
Soft-ground arresting system for commercial aircraft
[DOT/FAA/CT-TN93/4] 08 p2133 N93-22797
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
Geogrid reinforced base courses for flexible pavements for light aircraft: Test section construction, behavior under traffic, laboratory tests, and design criteria
[DOT/FAA/RD-92/25] 08 p2134 N93-23128
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
Multipath runway exits and taxiways
[DOT/FAA/CT-92/19] 08 p2134 N93-23217
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741
Runway Visual Range (RVR) Operational Test and Evaluation (OT&E) integration and OT&E operational test report
[DOT/FAA/CT-TN92/37] 09 p2584 N93-25243
The dependent converging instrument approach procedure: An analysis of its safety and applicability
[DOE/FAA/RD-93/6] 09 p2585 N93-25456
Expedient repair of structural facilities
[AD-A260727] 09 p2598 N93-25656
Protection of taxiing traffic in airports through mode S secondary radar technology
[ETN-93-93455] 10 p2941 N93-26206
Two simulation studies of precision runway monitoring of independent approaches to closely spaced parallel runways
[AD-A263433] 11 p3261 N93-29815
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

RUPTURING
Pressure vessel burst test program
[AD-A253708] 02 p0334 N93-11080
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127

RUSTING
Rust transformation/rust compatible primers 08 p2244 N93-22182

RUTHENIUM
First-principles studies of phase stability and the structural and dynamical properties of metal hydrides
[DE92-040855] 05 p1104 N93-16589
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998

RUTHENIUM COMPOUNDS
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001681] 05 p1290 N93-17033
The ground and excited state electronic structures of ruthenium quinones and related species
[AD-A259940] 08 p2223 N93-24155

RUTILE
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Role of oxygen vacancies in anodic TiO2 thin films
[DE92-642137] 11 p3602 N93-31027

RYDBERG SERIES
Photoionization experiments by multistage excitation in the zone of the second ionization threshold of CuI
[ETN-93-92569] 07 p2062 N93-20883

S

S BAND
U SUPERHIGH FREQUENCIES
U ULTRAHIGH FREQUENCIES

S MATRIX THEORY
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems
[AD-A253186] 01 p0158 N93-10445
Limitations of multiple feeds in a polarimetric-radar compact range
[DE92-017526] 02 p0284 N93-12101
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670

S WAVES
NT SH WAVES
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3] 04 p0875 N93-14689
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
Attenuation and source studies in Northern Eurasia
[AD-A259323] 07 p2000 N93-21700
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Jet mixer noise suppressor using acoustic feedback
[NASA-CASE-LEW-15170-1] 11 p3561 N93-28952
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865

S-A-W DEVICES
U SURFACE ACOUSTIC WAVE DEVICES

S-N DIAGRAMS
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
Probabilistic assessment of machine parts from Kymenite, austempered ductile iron 07 p1923 N93-20341
Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349
Spectrum fatigue data in comparison to design curves in the long life regime 07 p1948 N93-21324
Fatigue life prediction for 6261-T6 aluminium alloy I-beams with welded cover plates 07 p1949 N93-21328
Fatigue of old metallic railroad bridges 07 p1949 N93-21330

S-18 SATELLITE
U OAO

SAAB AIRCRAFT
Modal measurements and propeller field excitation on acoustic full scale mockup of SAAB 340 aircraft
[FFA-TN-1992-08] 12 p3815 N93-31051

SABOT PROJECTILES
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator 10 p2985 N93-27138
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
Numerical simulations of reactive flows in ram accelerators 10 p2986 N93-27140

SACCADIC EYE MOVEMENTS
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Air traffic control visual scanning
[DOT/FAA/CT-TN92/16] 01 p0007 N93-10459

Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Multimodal interactions in sensory-motor processing
[AD-A255780] 04 p0938 N93-15067
Eye movements and visual information processing
[AD-A259955] 08 p2425 N93-24297

SACCHARIDES
U CARBOHYDRATES

SADDLE POINTS
Number of saddle points of the energy surface in SK spin-glass
[SSCL-PREPRINT-726] 10 p3134 N93-28099

SAFETY
NT AEROSPACE SAFETY
NT AIRCRAFT SAFETY
NT FLIGHT SAFETY
NT INDUSTRIAL SAFETY
NT RANGE SAFETY
NT REACTOR SAFETY
Generic Propellant Transfer Unit
01 p0011 N93-10046
Computational fluid dynamics capability for internally carried store separation
[AD-A253671] 01 p0079 N93-10297
US Antarctic program. Personnel manual, 1992
[NSF-92-63] 03 p0731 N93-12637
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Emergency egress requirements for caution and warning, logistics, maintenance, and assembly stage MB-6 of Space Station Freedom 05 p1089 N93-17323
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Flame-front kinetics 06 p1485 N93-18481
The Mini-Mast CSI testbed: Lessons learned
06 p1461 N93-18819
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Upper interior head protection. Volume 1. The development of a research test procedure
[PB93-113769] 07 p2026 N93-21537
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 2: Appendices
[PB92-224674] 07 p1916 N93-21714
Safety of high speed magnetic levitation transportation systems. Magnetic field testing of the TR07 Maglev vehicle and system. Volume 1: Analysis
[PB92-224666] 07 p1916 N93-21715
Radiological safety aspects of TNA deployment
07 p1770 N93-21893
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
Safety and performance of a long life lithium-thionyl chloride battery
[DE93-005348] 08 p2279 N93-22821
Practical problems related to flammability and combustion in space 08 p2226 N93-22839
Sneak analysis applied to process systems
[DE93-752866] 08 p2257 N93-22970
FY 1991 safety program status report
[NASA-TM-108707] 08 p2257 N93-23136
Maritime satellite communication and navigation
08 p2275 N93-23508
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
The 111th Meeting for Research of Safety Engineering
[DE93-753679] 08 p2388 N93-24046
Improved performance and safety for high energy batteries through use of hazard anticipation and capacity prediction 09 p2694 N93-25582
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
Development of a concept for a national construction industry health and safety data base
[PB93-159325] 09 p2884 N93-26568
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Materials reliability. Technical activities, 1992. (NAS-NRC Assessment Panel, 13-14 May 1993)
[PB93-173466] 10 p3055 N93-27398
Gene transcription and electromagnetic fields
[DE93-010854] 11 p3490 N93-28848
Weakly nonlinear dynamics of near-CJ detonation waves
[DE93-007344] 11 p3424 N93-29836
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
Uses of risk importance measures
[VTT-TIED-1245] 11 p3378 N93-30581
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964
Environment and safety research
[PB93-188860] 12 p3751 N93-31142
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545
Maglev guideway and route integrity requirements
[PB93-154870] 12 p3736 N93-32086
A PC-based simulation of the National Transonic Facility's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224

SAFETY DEVICES
NT ABORT APPARATUS
NT AIR BAG RESTRAINT DEVICES
NT EJECTION SEATS
NT HELMETS
An autonomous vehicle: Constrained test and evaluation
[PB92-205608] 02 p0325 N93-11427
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
Valve lock
[NASA-CASE-MFS-29764-1] 06 p1550 N93-19049
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
NASA pyrotechnically actuated systems program
07 p1863 N93-20133
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Proposed system safety design and test requirements for the microlaser ordnance system
07 p1864 N93-20144
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145
Safety and arming system for tube launched projectile
[AD-D015557] 07 p1889 N93-20307
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
The challenge of biodetection for screening persons carrying explosives 07 p1776 N93-21931
A novel approach to design optimization of nuclear-based explosive detection systems
07 p1777 N93-21935
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Launch pad lightning protection enhancement by induced streamers 09 p2609 N93-24876
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Zoning of aircraft: A review of the definitions
09 p2583 N93-24880
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Comparison of the damage for various types of fibre reinforced composites due to different lightning test standards (MIL-STD-1757A, German military VG-standard 96903) 09 p2642 N93-24891
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968

SAFETY FACTORS
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate
02 p0381 N93-11306
Recent lessons on the safety and effectiveness of malaria chemoprophylaxis in a non-immune population
02 p0381 N93-11307
Epidemiologic view of allergic diseases in North America: Implications for aerospace medicine
02 p0382 N93-11311
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Booster explosive rings
[AD-D015375] 03 p0556 N93-13471
Reliability analysis of External Tank Attack Ring (ETA)
05 p1182 N93-17322
Developing a safe on-orbit cryogenic depot
05 p1393 N93-17426
Rocket engine monitoring system: Application to the Vulcain engine
[ETN-93-93016] 06 p1472 N93-18078
Proposed system safety design and test requirements for the microlaser ordnance system
07 p1864 N93-20144
Laser diode initiated detonators for space applications
07 p1865 N93-20147
Safety validation test equipment operation
07 p1801 N93-20487
Review on safety validation test
07 p1802 N93-20488
Solid rocket motors 08 p2174 N93-22094
Improved inhalation technology for setting safe exposure levels for workplace chemicals
08 p2423 N93-22164
Often overlooked electrical hazards common in many lasers
[DE93-003856] 08 p2307 N93-22430
The dependent converging instrument approach procedure: An analysis of its safety and applicability
[DOE/FAA/RD-93/6] 09 p2585 N93-25456
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report
10 p2983 N93-26976
Energetic material response to abnormal environments 11 p3350 N93-30095
Solving a product safety problem using a recycled high density polyethylene container 11 p3292 N93-30964

SAFETY MANAGEMENT
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Lightning threat warning system at the Tonopah Test Range
[DE92-040444] 02 p0221 N93-11631
Radiological information management system (RadIMS)
[DE92-017221] 02 p0480 N93-12495
Lecture notes for criticality safety
[DE92-016009] 03 p0701 N93-12832
Verification and validation of TMAP4
[DE92-019684] 03 p0539 N93-13616
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
Aviation safety research at the National Institute for Aviation Research Wichita State University: A report to the FAA Technical Center
[NIAR-92-2] 05 p1058 N93-16455
Special investigation report: Flight attendant training and performance during emergency situations
[PB92-917006] 05 p1058 N93-16834
FY 1991 safety program status report
[NASA-TM-108707] 08 p2257 N93-23136

Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Mission design considerations for nuclear risk mitigation 10 p2978 N93-26923
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
Steps required in the pursuit of quantitative risk management processes for high pressure systems
[DE93-007586] 11 p3378 N93-30508
Near miss reporting in the chemical process industry
[ISBN-9-03-860181-6] 12 p3714 N93-31539
Applying MORT maintenance safety analysis in Finnish industry
[VTT-TIED-1332] 12 p3714 N93-31545

SAGE SATELLITE
Ozone and temperature trends 02 p0350 N93-11089

SAGNAC EFFECT
Prospects of two-way international time scale comparisons 09 p2832 N93-24988

SAHA EQUATIONS
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291

SAILPLANES
U GLIDERS

SAILS
NT SOLAR SAILS

SALINITY
One-dimensional transient finite difference model of an operational salinity gradient solar pond 03 p0586 N93-13400
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
Global Temperature and Salinity Pilot Project 09 p2733 N93-24924
Wrap-up session 09 p2737 N93-24940
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
C-vector derived three dimensional circulations in the farallones national marine sanctuary
[AD-A262885] 10 p3080 N93-28227
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
ESTAR: The Electronically Scanned Thinned Array Radiometer for remote sensing measurement of soil moisture and ocean salinity
[NASA-TM-4523] 12 p3747 N93-32362

SALT BEDS
Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827

SALT SPRAY TESTS
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Chromate-free corrosion resistant conversion coatings for aluminum
[DE93-009835] 11 p3336 N93-30051
Accelerated and real-time corrosion testing of aluminum-lithium alloys
[NLR-TP-91203-U] 12 p3707 N93-32385

SALTS
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
A field investigation of water and salt movement in permafrost and the active layer
[AD-A263706] 11 p3487 N93-29298

SALYUT SPACE STATION
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620

SAMARIUM
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679

SAMPLED DATA SYSTEMS
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
Sampled-data control and robust control for discrete-time systems 04 p0964 N93-15149
Computer aided analysis of nonlinear systems
[RR-446] 05 p1239 N93-16576
Numerical methods for the analysis of sampled-data systems and for the computation of system zeros 05 p1274 N93-17300
Dynamics and robust control of a sampled data system for large space structures. Volume 2: The LQG/LTR methodology for the discrete-time system and the design of reduced order robust digital controller for orbiting flexible shallow spherical shell system
[AD-A260793] 09 p2599 N93-25693
Dynamics and robust control of sampled data systems for large space structures
[AD-A264192] 11 p3281 N93-30142
Sampled-data and discrete-time H2 optimal control
[W-9222] 12 p3798 N93-31525
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231

SAMPLERS
Bayesian analysis of linear and nonlinear population models using the Gibbs sampler
[AD-A254769] 03 p0697 N93-12702
An iterative Monte Carlo method for nonconjugate bayesian analysis
[AD-A255991] 04 p0971 N93-15110
Backscatter and transmission of aerosol at UV through middle IR wavelengths
[AD-A258162] 06 p1540 N93-18008
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Future scientific exploration of Taurus-Littrow 06 p1739 N93-18814
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
Active Hydrazine Vapor Sampler (AHVS) 08 p2225 N93-22165
A wideband parallel sampling system
[ISBN-0-315-60463-8] 08 p2286 N93-24617
Mars aqueous chemistry experiment
[NASA-CR-193134] 10 p3211 N93-27604

SAMPLES
NT MARS SURFACE SAMPLES
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276

SAMPLING
NT AIR SAMPLING
NT CORE SAMPLING
NT DATA SAMPLING
NT RANDOM SAMPLING
Adequate sampling of a chaotic time series
[AD-A254170] 01 p0127 N93-10664
A fast pipelined inner product unit
[REPT-92-025] 02 p0411 N93-11594
Curve fitting and error modeling for the digitization process near the Nyquist rate
[DE92-018189] 02 p0286 N93-12417
Data acquisition applications for long duration electromagnetic launcher experiments
[AD-A254546] 03 p0519 N93-12611
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
Characterization of site geochemistry in support of environmental restoration
[DE92-017512] 03 p0641 N93-12685
Fluidic sampling
[DE92-017266] 03 p0575 N93-12761
SeaWiFS technical report series. Volume 4: An analysis of GAC sampling algorithms. A case study
[NASA-TM-104566-VOL-4] 03 p0869 N93-13382
Nonparametric bayesian bioassay including ordered polytomous response
[AD-A255990] 04 p0970 N93-15109
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Hierarchical Poisson disk sampling distributions 04 p0954 N93-15545
Earth benefits from NASA research and technology. Life sciences applications
[NASA-TM-108043] 05 p1358 N93-15712
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
Future scientific exploration of Taurus-Littrow 06 p1739 N93-18814
Model determination using predictive distributions with implementation via sampling-based methods
[AD-A258777] 06 p1650 N93-18947
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Simulation method for stationary Gaussian random functions based on the sampling theorem
[PB93-127496] 07 p2059 N93-21818
Active Hydrazine Vapor Sampler (AHVS) 08 p2225 N93-22165
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253] 08 p2195 N93-24057
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
NOAA/CMDL atmospheric methane data from shipboard flask sampling
[PB93-136489] 08 p2389 N93-24226
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
Indian Ocean analyses 09 p2733 N93-24925
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies 09 p2736 N93-24939
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Extended task space control for robotic manipulators
[NASA-CASE-NPO-18902-1-CU] 10 p3052 N93-28129

Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
Subpicosecond electrooptic sampling
[AD-A264635] 11 p3581 N93-30520
Two-stage gas measurement system
[NASA-CASE-LAR-14791-1] 12 p3729 N93-31297

SAMPLING DEVICES
U SAMPLERS

SAN ANDREAS FAULT
An investigation of extensional tectonics of southern California
[NASA-CR-191359] 05 p1209 N93-17092

SAN FRANCISCO BAY (CA)
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805

SAN JOAQUIN VALLEY (CA)
NRC Twin Otter operations in the 1991 California ozone deposition experiment
[NRC-LTR-FR-118] 08 p2383 N93-22472

SAND CASTING
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526

SANDS
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Shaly sand formation evaluation in tight gas sands using electrochemical potential measurements
[PB93-163186] 12 p3764 N93-32087

SANDSTONES
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160

SANDWICH CONSTRUCTION
U SANDWICH STRUCTURES

SANDWICH STRUCTURES
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
Core design for use with precision composite reflectors
[NASA-CASE-NPO-17858-1-CU] 04 p0832 N93-14700
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core 05 p1082 N93-15759
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material 05 p1084 N93-15779
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications 05 p1085 N93-15780
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
Buckling problems of sandwich shells
[LR-690] 05 p1185 N93-16286
Fibre reinforced plastic structures 06 p1557 N93-18752
Sandwiched structural panel having a bi-directional core structure
[NASA-CASE-MFS-28796-1] 06 p1479 N93-19022
Passive damping of a solar array
[AD-A258976] 06 p1559 N93-19096
What's a Parabeam 3D? 07 p1835 N93-21137
Fracture analysis of BMI system in presence of moisture 07 p1842 N93-21517
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
Low-velocity impact of composite sandwich plate 09 p2637 N93-25695
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Optimization of composite sandwich cover panels subjected to compressive loadings 11 p3306 N93-30862
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

SAPPHIRE
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
The adsorption of C60 and the co-adsorption of C60 and H2O on (alpha)-Al2O3 (1 -1 0 2)-(2x1)
[DE92-018002] 02 p0465 N93-12093
The sapphire Cerenkov laser 03 p0605 N93-13365
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779
High performance sapphire windows 08 p2310 N93-22198
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise 09 p2693 N93-24982
Healing of lithographically introduced flaws in glass and glass containing ceramics
[DE93-010453] 11 p3330 N93-28761

SARCOMA
U CANCER

SARSAT
Digital processing for positioning with one satellite 08 p2270 N93-23629
COSPAS-SARSAT system: Present operation and development 10 p3024 N93-26658

SAS-D
U IUE

SATAN (SENSOR)
U TERRAIN ANALYSIS

SATELLITE ALTIMETRY
Evaluation of Seasat/Geosat orbits and altimetry with application to long-term sea level changes in the North Pacific 01 p0103 N93-10847
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
On the space-time ocean current variability and its effects on the length-of-day 03 p0636 N93-14051
Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239
Ocean wave detection using satellite altimetry 04 p0906 N93-14839
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres 04 p0926 N93-14966
North-Australian tropical seas circulation study 04 p0926 N93-14968
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data 04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment 04 p0928 N93-14976
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data 04 p0928 N93-14981
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data 04 p0929 N93-14983
Ocean circulation using altimetry 04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream 04 p0929 N93-14985
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data 04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean 04 p0931 N93-14995
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data 04 p0931 N93-14997
Analysis of altimeter data jointly with seafloor electric data (vertically integrated velocity) and VCTD-yoyo data (detailed profiles of VCTD) 04 p0931 N93-14998
Precise orbit computation and sea surface modeling 04 p0813 N93-15000
Marine research using data from TOPEX/Poseidon 04 p0932 N93-15001
Global ocean circulation by altimetry 04 p0932 N93-15002
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
Satellite radar altimetry over sea ice 07 p1957 N93-21596
ERS-1 radar altimetry of ice sheets 07 p1959 N93-21606
The WAM model and ERS-1 07 p1960 N93-21609
Global validation of the wave model WAM using Geosat wave height data 07 p1965 N93-21639
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804
The comparison of satellite radar altimeter derived heights with global digital terrain model heights 08 p2355 N93-23584
Satellite altimetry 09 p2734 N93-24930
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging 09 p2713 N93-25389
Processing of altimeter data by the German ERS-1 Processing and Archiving Facility (D-PAF) 11 p3457 N93-28917
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889

SATELLITE ANTENNAS
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Proceedings of the Antenna Applications Symposium, volume 2
[AD-A253682] 01 p0068 N93-10302
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
On-orbit deployment anamolies: What can be done? 04 p0821 N93-15603
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616

Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas)
08 p2264 N93-23504
Choice of antenna geometry for microwave power transmission from solar power satellites
10 p2988 N93-27987
Status of the Canadian military Multibeam Antenna (MBA) development for EHF SATCOM
11 p3374 N93-30334
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813

SATELLITE ATMOSPHERES
NT LUNAR ATMOSPHERE
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations
04 p1022 N93-14146
Titan 06 p1592 N93-18553
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres
[NASA-CR-192145] 07 p2099 N93-21642
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Residual mean meridional circulation in titan's middle atmosphere
[PB93-162931] 09 p2898 N93-26571

SATELLITE ATTITUDE CONTROL
Autonomous star sensing and pattern recognition for spacecraft attitude determination
01 p0177 N93-10876
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
ROSAT in-orbit attitude measurement recovery
[MBB-UK-0168-92-PUB] 05 p1088 N93-17629
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
COLD-SAT dynamic model
[NASA-TM-105185] 07 p1822 N93-19988
A Star Pattern Recognition Sensor (SPRS) of high accuracy: A contribution to new possibilities of autonomous attitude determination 08 p2201 N93-23532
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
Spacecraft detumbling through energy dissipation
09 p2600 N93-24696
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory
09 p2600 N93-24697
Testing of the on-board attitude determination and control algorithms for SAMPEX
09 p2600 N93-24698
Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Real-time attitude determination and gyro calibration
09 p2602 N93-24708
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Rate determination from vector observations
09 p2603 N93-24713
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter
09 p2606 N93-24732
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors
09 p2606 N93-24733
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors
09 p2607 N93-24735
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1
[NASA-TP-3347] 10 p2959 N93-27162
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera
10 p2923 N93-27194
Attitude stabilization of bias momentum satellites
10 p2923 N93-27195
TechSAT attitude control 10 p2924 N93-27197
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite
10 p2925 N93-27203
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
Refinements on the pinhole camera measurements of the LDEF attitude 11 p3283 N93-29622
Attitude- and Orbit Control Subsystem concepts for TACSATS 11 p3284 N93-29906
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3544 N93-30893

SATELLITE ATTITUDE DISTURBANCE
U ATTITUDE STABILITY
U SPACECRAFT STABILITY

SATELLITE CAPTURE
U SPACECRAFT RECOVERY

SATELLITE COMMUNICATION
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001
Space Communication Artificial Intelligence for Link Evaluation Terminal (SCAILET)
02 p0395 N93-11940
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207
An analysis of the low-earth-orbit communications environment 03 p0561 N93-12633
Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
Error control techniques for satellite and space communications
[NASA-CR-191229] 03 p0565 N93-13411
Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563
Messengers in space
[ESA-BR-37-D] 03 p0516 N93-13857
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
A multiple-aperture multiple-beam EHF antenna for satellite communications
[AD-A256020] 04 p0858 N93-14426
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
An agile frequency synthesizer/RF generator for the SCAMP terminal
[AD-A256777] 05 p1137 N93-16052
A prototype automatic phase compensation module
[NASA-TM-105930] 05 p1148 N93-16616
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769
Coupling losses in multiple beam antennas
[AD-A257494] 06 p1500 N93-17903
On-board B-ISDN fast packet switching architectures. Phase 1: Study
[NASA-CR-189144] 06 p1457 N93-18703
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
Mobile satellite services: A survey of business needs
[AD-A259031] 06 p1470 N93-18955
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Microwave vs optical crosslink study
[NASA-CR-192207] 07 p1879 N93-19989
Computer simulation of a general purpose satellite modem
[AD-A259083] 07 p1882 N93-20392
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on data relay and tracking satellite systems
07 p1790 N93-20418
Research on intersatellite laser communication
07 p1790 N93-20419
Research on space communication equipment technology: Study on relay system
07 p1790 N93-20420
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6
07 p1793 N93-20434
Error control techniques for satellite and space communications
[NASA-CR-192368] 07 p1884 N93-20613
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Overview of KITSAT 07 p1976 N93-21275
Space program in Malaysia 07 p1976 N93-21277
National space program in Australia
07 p1977 N93-21283
PARTNERS 07 p1978 N93-21287
Research in LMSS propagation
[NASA-CR-191915] 07 p1885 N93-21400
Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507
Maritime satellite communication and navigation
08 p2275 N93-23508
Collection and Distribution of Ecological Data by Satellite: CDEDS 08 p2344 N93-23511
Collection and distribution of ecological data by satellite pilot projects as demonstration of the concept
08 p2344 N93-23512
The Canadian mobile satellite system
08 p2275 N93-23515
Fully automatic transmission of information via HF and comparison to satellite transmission
08 p2275 N93-23516
Land mobile satellite communications systems and services 08 p2275 N93-23517
The future role of satellite communications in an improved air traffic management
08 p2275 N93-23518
Financial alternatives for global satellite navigation
08 p2124 N93-23519
Mobile satellite communications in the 1990's
08 p2275 N93-23520
Personal communications satellite service system
08 p2275 N93-23521
SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522
OSI applied to aeronautical satellite mobile communications in EURATN 08 p2276 N93-23525
Satellite navigation in agriculture
08 p2124 N93-23528
Towards global satellite navigation
08 p2124 N93-23529
COMLINE 08 p2276 N93-23530
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Federal Communications Commission (FCC) Transponder Loading Data Conversion Software. User's guide and software maintenance manual, version 1.2
[NASA-CR-191067] 09 p2808 N93-24947
Prospects of two-way international time scale comparisons 09 p2832 N93-24988
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
An introduction to Doppler effect and fading in mobile communications
[AD-A260976] 09 p2676 N93-25866
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
Trellis coded CPFSK
[AD-A261788] 09 p2682 N93-26441
Opening remarks 09 p2682 N93-26464
Large scale rainfall diversity and satellite propagation
09 p2683 N93-26466
ETS-5, ETS-6, and COMETS projects in Japan
09 p2683 N93-26470

Satellite communications application to Pacific countries above Ku band 09 p2683 N93-26471
Allocations by the 1992 World Administrative Radio Conference 09 p2684 N93-26476
ESA's planning and coordination of the OLYMPUS propagation experiment 09 p2684 N93-26477
Observations on the NASA Propagation Program 09 p2685 N93-26482
ACTS propagation terminal update 09 p2685 N93-26484
Rain compensation algorithm using adaptive linear prediction 09 p2685 N93-26485
The 1992 United Nations Workshop on Space Communication for Development: Proceedings 10 p3022 N93-26640
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region 10 p3022 N93-26641
Project 21: A new range of personal mobile satellite services 10 p3022 N93-26642
Iridium: Covering the globe with personal communication 10 p3022 N93-26644
Digital audio and video broadcasting by satellite 10 p3023 N93-26645
Mobile communication via satellite towards the year 2000 10 p3023 N93-26646
SOVCAN STAR: An international satellite system 10 p3023 N93-26647
Satellite communications for aeronautical and navigation service 10 p3023 N93-26648
Zohreh: The Iranian domestic satellite system 10 p3023 N93-26649
Satellite communication services for Tibet autonomous region by domestic satellite in China 10 p3023 N93-26650
Mugunghwa: The first Korean domestic satellite for FSS and DBS services 10 p3023 N93-26651
Japanese experiments for medical and educational broadcasts by Kiku satellite (PARTNERS Project using ETS-V) 10 p3024 N93-26652
Worldwide seamless cellular satellite communications: The global mobile communication by GlobalStar system 10 p3024 N93-26653
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655
Management of the disaster communications by satellite 10 p3024 N93-26656
Communication service by satellite link in Vietnam 10 p3024 N93-26657
Telecommunication service by leased transponders of the regional satellite 10 p3025 N93-26661
Satellite communication programmes for rural education and development 10 p3025 N93-26662
A communications system for the United Nations Transitional Authority in Cambodia (UNTAC) 10 p3025 N93-26663
Privatization of data communication services by domestic satellite in Thailand 10 p3025 N93-26664
Satellites and the BISDN: An overview of NASA R/D [NASA-TM-106108] 10 p3025 N93-26903
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations [NASA-TM-106172] 10 p2956 N93-27064
Mars exploration mission 10 p2953 N93-28045
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes [AD-A262091] 10 p3028 N93-28190
Information Switching Processor (ISP) contention analysis and control [NASA-CR-191130] 10 p2957 N93-28416
Automating the satellite range scheduling process [AD-A262601] 11 p3270 N93-28468
Design and construction of a prototype ACTS propagation terminal [NASA-CR-193071] 11 p3404 N93-28539
T(lc2)acS(lc3)ats for Surveillance Verification and C3I [AGARD-CP-522] 11 p3387 N93-29892
Tactical satellites 11 p3284 N93-29893
TACSAT ground control and data collection 11 p3388 N93-29895
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO 11 p3284 N93-29896
Considerations for NATO satellite communications in the post-2000 era 11 p3388 N93-29899
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications 11 p3389 N93-29902
Launch vehicles for lightweight TACSAT deployment 11 p3271 N93-29903
A slotted Aloha satellite channel simulator 11 p3360 N93-30250
Canadian EHF MILSATCOM research and development project 11 p3362 N93-30264
SAW technology for on-board processing in military satellite communications 11 p3362 N93-30265
A satellite downlink spread spectrum timing beacon 11 p3362 N93-30267
FASSET: A development model for a Canadian EHF MILSATCOM system 11 p3363 N93-30268
Coarse synchronization in an EHF frequency-hopped satellite communications system 11 p3365 N93-30281
Security of the remote control link of Anik E satellites 11 p3365 N93-30282
Coding for frequency hopped spread spectrum satellite communications 11 p3365 N93-30283
Adaptive jammer nulling in EHF communications satellites 11 p3365 N93-30284
Temporal synchronization of frequency hopped DPSK 11 p3365 N93-30285
Performance of frequency hopped M-ary FSK in Rayleigh fading and partial-band jamming 11 p3368 N93-30303
Comparison of two random access techniques for the North American MSAT system 11 p3370 N93-30315
Teleglobe's international Mobile Earth Terminal service 11 p3371 N93-30317
Constant Average Power Single Sideband (CAPSSB) modulation 11 p3373 N93-30331
Signal processor based MSAT trellis coded M-DPSK with adaptive Doppler phasor correction 11 p3373 N93-30332
Two-stage Doppler phasor corrected TCM/DMPSK for shadowed mobile satellite channels 11 p3373 N93-30333
Engineering management consideration for an integrated aeronautical mobile satellite service 11 p3374 N93-30337
The evolution of global mobile communications 11 p3376 N93-30349
Space qualification for an intersatellite laser communications system [AD-A265145] 12 p3717 N93-31989

SATELLITE CONFIGURATIONS
Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738
Research on Earth observing satellite system: Conceptual study of Advanced Earth Observing Satellite-2 (ADEOS-2) 07 p1790 N93-20415
Personal communications satellite service system 08 p2275 N93-23521
Multipurpose satellite bus (MPS) 11 p3232 N93-29743
QuickStar: System design, capabilities, and tactical applications of a small, smart space system 11 p3284 N93-29905

SATELLITE CONTROL
NT SATELLITE ATTITUDE CONTROL
From pilot's associate to satellite controller's associate 02 p0390 N93-11922
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
Military space operations: Satellite control system improved, but serious problems remain [AD-A256809] 04 p0971 N93-15626
Modification of Earth-satellite orbits using medium-energy pulsed lasers [DE93-000858] 05 p1074 N93-16302
Space time neural networks for tether operations in space 08 p2456 N93-22370
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems 09 p2814 N93-25589
Mars revolving observation satellite 10 p2953 N93-28047
Upper atmosphere research satellite jitter study 11 p3264 N93-28708
System of navigation by satellites with European coverage 11 p3284 N93-29897
Security of the remote control link of Anik E satellites 11 p3365 N93-30282
Petite amateur naval satellite spacecraft digital control system: A hardware design [AD-A265234] 12 p3690 N93-32061

SATELLITE DESIGN
Chinese Space Science and Technology (selected articles) [AD-A254099] 01 p0069 N93-10701
Computer based satellite design [AD-A255315] 04 p0816 N93-14536
Comparative study of stability of flexible satellites with and without guy-wire constraints 04 p0817 N93-14585
Reusable Reentry Satellite (RRS) system design study [NASA-CR-187897] 04 p0817 N93-14733
Reusable Reentry Satellite (RRS) system design study: System cost estimates document [NASA-CR-188480] 04 p0818 N93-14872
Anik E spacecraft integration and test 04 p0808 N93-14939
Space based radar: Test of large space structures 04 p0808 N93-14941
Space craft verification at the David Florida Laboratory 04 p0809 N93-14943
Full surface testing of grazing incidence mirrors [AD-A255798] 04 p0984 N93-15371
System test approach for the SAX satellite 04 p0824 N93-15622
Reusable Reentry Satellite (RRS) system design study. Phase B, appendix E: Attitude control system study [NASA-CR-188578] 04 p0825 N93-15633
Simulation of geometric configurations of an in orbit satellite 05 p1079 N93-15738
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
Reusable Reentry Satellite (RRS): Configuration trade study [NASA-CR-187772] 05 p1086 N93-15804
PACISM: A design aid for the development of the petite amateur Navy satellite [AD-A256719] 05 p1086 N93-15977
Reusable Reentry Satellite (RRS): Propulsion system trade study [NASA-CR-186527] 05 p1087 N93-16720
Spacecraft design project: High temperature superconducting infrared imaging satellite [NASA-CR-192036] 06 p1458 N93-17887
Spacecraft design project: Low Earth orbit communications satellite [NASA-CR-192038] 06 p1458 N93-17969
Research on advanced spacecraft 07 p1789 N93-20411
Research on Earth observing satellite system: Conceptual study of Advanced Earth Observing Satellite-2 (ADEOS-2) 07 p1790 N93-20415
Japanese space activities 07 p1976 N93-21274
Overview of KITSAT 07 p1976 N93-21275
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1 [DE93-005382] 08 p2325 N93-22975
EUROAVIA Design Workshop 1991: Organization and lessons learned 08 p2199 N93-23821
Aspects of the design of a satellite borne infra-red radiometer 09 p2620 N93-25474
TechSAT attitude control 10 p2924 N93-27197
Manned engineering test satellites 10 p2948 N93-28016
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Artificial gravity experiment satellites 10 p2949 N93-28018
Linearly connected solar power satellite 10 p2949 N93-28019
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites 10 p2952 N93-28037
Moon revolving observation satellite 10 p2952 N93-28038
Mars revolving observation satellite 10 p2953 N93-28047
International aviation (Selected articles) [AD-A262566] 11 p3227 N93-28576
Project MEDSAT 11 p3231 N93-29739
Multipurpose satellite bus (MPS) 11 p3232 N93-29743
An overview of DARPA's advanced space technology program 11 p3269 N93-29908
SAR sensors on TACSATS: A feasibility assessment 11 p3286 N93-29909
A TACSAT SAR concept 11 p3286 N93-29910

SATELLITE DOPPLER POSITIONING
Present-day plate motions: Retrieval from the TOPEX/Poseidon orbitography network (DORIS system) 04 p0918 N93-14993
Effects of cloud cover on satellite positioning [AD-A260032] 08 p2409 N93-24252
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
Precise tracking of the Magellan and Pioneer Venus orbiters by Same-Beam Interferometry. Part 2: Orbit determination analysis 11 p3270 N93-29589

Digital processing for positioning with one satellite
[ETN-93-93732] 12 p3685 N93-31318

SATELLITE DRAG

Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP
03 p0518 N93-13922

SATELLITE GROUND SUPPORT

Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134

SATELLITE GROUND TRACKS

Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081

SATELLITE IMAGERY

Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063

Imaging radar investigations of the Sudbury structure
01 p0117 N93-10162

Molecular biology in studies of oceanic primary production
[DE92-016101] 01 p0128 N93-10283

Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292

SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311

Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848

Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849

Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850

Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851

An evidential reasoning approach to the classification of satellite images
[DLR-FB-91-29] 02 p0342 N93-11140

Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-186416] 02 p0343 N93-11701

Oceanographic expert system: Potential for TESS(3) applications
[AD-A254908] 02 p0374 N93-12288

Automatic cloud classification from multi-spectral satellite data
[AD-A255125] 02 p0372 N93-12420

Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598

Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800

Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714

The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters
03 p0635 N93-13840

Automatic pattern recognition techniques for geometrical correction on satellite data
03 p0687 N93-13913

An evaluation of the use and future need of remotely sensed images in grades K-12 03 p0635 N93-13956

Altimeter and oceanographic in situ measurements in the area of the Greenland-Iceland-Norwegian Sea, 1987-1988
[AD-A256598] 04 p0960 N93-14239

Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612

The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777

Integrating satellite imagery into a geographic information system for monitoring the downstream impacts of dam construction on floodplain agriculture in Sokoto State, Nigeria 04 p0905 N93-14823

ExperCAT case studies
[AD-A256177] 05 p1211 N93-15871

Morphodynamics of intertidal regions
[BCRS-92-03] 05 p1220 N93-16574

Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738

An investigation of extensional tectonics of southern California
[NASA-CR-191359] 05 p1209 N93-17092

Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755

Spacecraft design project: High temperature superconducting infrared imaging satellite
[NASA-CR-192036] 06 p1458 N93-17887

Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927

Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004

Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073

Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214

Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216

Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346

Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571

Analysis of kriging applied to resolution enhancement of digital satellite imagery
[AD-A258914] 06 p1626 N93-19337

Spectral and spatial pattern recognition in digital imagery
[AD-A258910] 06 p1627 N93-19355

Incorporation of orbital imagery into a cartographic data base
[INPE-5300-PRE/1705] 06 p1688 N93-19644

A method for estimating the phytomass of a tropical forest region through the use of orbital data
[INPE-5320-PRE/1717] 06 p1567 N93-19645

Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739

A system for segmentation and classification of satellite images
[INPE-5291-PRE/1696] 06 p1567 N93-19788

Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789

Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795

NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821

A knowledge-based system for satellite imagery segmentation
[INPE-5296-PRE/1701] 06 p1568 N93-19834

Methods for analysis of networks within a geographical information system
[INPE-5299-PRE/1704] 06 p1693 N93-19835

Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856

Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857

Research on diabatic initialization
07 p2004 N93-20075

Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079

Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083

OLS data system/global survey of lightning
07 p2006 N93-20085

Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322

Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271

International Space Year in China
07 p1975 N93-21272

Space program in Indonesia 07 p1975 N93-21273

Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286

Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539

Remote sensing data application on forests in Okinawa Islands focusing on mangrove forests
07 p1978 N93-21543

Production of teaching materials from Geostationary Meteorological Satellite Himawari images
07 p1978 N93-21544

Changing weather information: Roles of meteorological information through meteorological satellites
07 p1979 N93-21545

Finding fish way by using remote sensing
07 p1979 N93-21546

End-to-end tests of satellite data
07 p1953 N93-21571

Preparation of AVHRR GAC data sets for global change studies 07 p1954 N93-21573

The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574

Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584

Cloud-generated radiative heating determined from satellite measurements 07 p1956 N93-21589

Lake remote sensing for global climate research
07 p1958 N93-21602

Remote sensing of latent heat fluxes at the air-sea interface 07 p1959 N93-21603

Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621

Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623

Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images
07 p1962 N93-21624

Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625

A comparative study of estimation of partial cloud coverage within a pixel: Proposed adaptive least square method with constraints 07 p1962 N93-21626

Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions
07 p1963 N93-21630

A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632

Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633

A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635

Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636

Generation and distribution of remotely-sensed sea surface temperature images 07 p1964 N93-21637

Satellite data assimilation in the wave model 3G-WAM
07 p1965 N93-21638

The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119

Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121

Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122

Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123

Monitoring of Kuroshio current using the data of VTIR obtained by MOS-1 and MOS-1b
08 p2334 N93-22124

Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125

Observation in the East China Sea
08 p2335 N93-22126

Estimation of partial cloud cover within a pixel
08 p2335 N93-22127

Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128

Overview of activities of ISY PIE Committee
08 p2335 N93-22129

Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130

Drifting ice in the Sea of Okhotsk
08 p2336 N93-22131

Microwave remote sensing of ice
08 p2336 N93-22132

Observation in Arctic 08 p2336 N93-22133

Vegetation distribution of South East Asia
08 p2336 N93-22134

Monitoring of growth environment of forest
08 p2336 N93-22135

Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136

Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137

Upper-air circulation systems
08 p2337 N93-22138

Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139

Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR
08 p2337 N93-22141

Laser disc for Earth environment data set
08 p2338 N93-22142
Environmental data sets in Canada
08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
Environmental data set in Thailand
08 p2338 N93-22145
Environmental data sets at the University of Alaska
08 p2338 N93-22146
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
Earth sensing data service 08 p2339 N93-22439
MOS-1 08 p2340 N93-22442
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
The use of remote sensing data in a statistical ground utilization information system 08 p2341 N93-22447
Satellite image and reference data investigations for exploration purposes 08 p2341 N93-22449
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
Calibration, navigation, and registration of MAMS data for FIFE
[NASA-TM-108397] 08 p2342 N93-22699
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
The Mavale project: Evaluation of potential pollution sources to superficial and subterranean water resources in the Paraiba do Sul Valley, Brazil
[INPE-5318-PRE/1715] 08 p2385 N93-23105
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Surface radar studies of rain estimation in correlation with infrared and visible techniques of INSAT and GOES-E geostationary satellites 08 p2406 N93-23351
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
Image maps 08 p2348 N93-23537
The production of satellite image maps: Experiments at the Technical University of Berlin
08 p2348 N93-23538
Comparison of mapping with different satellite images
08 p2348 N93-23540
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
System design for ARTEMIS environmental monitoring
08 p2349 N93-23545
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Data for map algebra 08 p2350 N93-23553
Image treatment and geographical information systems at the service of the Common Agricultural Policy
08 p2351 N93-23555
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data
08 p2351 N93-23558
Remote sensing landslide hazard mapping using GIS technology in Colombian Andes
08 p2351 N93-23559
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
Remote sensing applied to mapping and other purposes: STADIS project, a practical example in Tunisia
08 p2352 N93-23561
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563
The use of multiple linked self-organised artificial neural networks for classification of remotely sensed images
08 p2353 N93-23565
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Remote sensing and land use in the region of Tuscany (Italy). A new methodology for the integration of very heterogeneous data 08 p2353 N93-23567
Integration of remote sensing and GIS data for a multiscale study of the Po river basin
08 p2353 N93-23570
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574
The analysis of remotely sensed data with neural networks 08 p2355 N93-23579
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Microscale geomorphological analysis in middle Italy using airborne and satellite remote sensing techniques
08 p2355 N93-23581
The creation of a DEM from SPOT data
08 p2355 N93-23582
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia
08 p2407 N93-23721
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
SPOT 4 image ground segment
08 p2360 N93-23768
The SPOT system development program: SPOT AVAL
08 p2360 N93-23769
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
High resolution stereo images from the Space Station Mir 08 p2365 N93-23800
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Applicability of satellite remote sensing for slope instability hazard zonation 08 p2368 N93-23817
Study of the cultivated land losses around Tunis
08 p2368 N93-23819
Space technologies in French education
08 p2369 N93-23824
Remote sensing satellite and thematic applications in high schools and elementary schools in France
08 p2370 N93-23829
Satellite-images in secondary education in Baden-Wuerttemberg (Germany)
08 p2370 N93-23830
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851
HST imaging of the binary pulsar PSR1913+16
08 p2536 N93-23902
Modeling of cloud/radiation processes for tropical anvils
[AD-A260203] 08 p2410 N93-24470
Compression through decomposition into browse and residual images 08 p2430 N93-24546
Applications of wavelet-based compression to multidimensional Earth science data
08 p2430 N93-24547
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795
Remote sensing geology 09 p2744 N93-24815
Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817
Application of satellite imageries data to fisheries in Japan 09 p2745 N93-24822
Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827
Remote sensing monitoring and hindcasting of the accident occurred to the tanker Haven in the Gulf of Genoa (Italy) 09 p2747 N93-24830
Evaluation of nearshore suspended sediment concentration through Landsat TM data: First results
09 p2747 N93-24833
Interpretation and segmentation of changed forest stands from difference imagery based on regression functions 09 p2748 N93-24839
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842
A prototype system for forest fire prevention and control 09 p2749 N93-24844
Toward a satellite based crop information system in Hungary 09 p2750 N93-24849
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS
09 p2751 N93-24855
Registration of the use of agricultural fields and soil erosion using satellite remote sensing
09 p2751 N93-24856
Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863
EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
The use of remotely sensed data for operational fisheries oceanography 09 p2734 N93-24927
Applications of wavelet-based compression to multidimensional earth science data
[DE93-007348] 09 p2762 N93-25166
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430
Multi-temporal satellite image analysis for crop inventories in the Po River Valley (Italy)
09 p2755 N93-25434
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Detecting the scale and resolution effects in remote sensing and GIS 09 p2756 N93-25707
A land-surface testbed for EOSDIS
09 p2878 N93-25797
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
Remotely sensed data from space: Distribution, pricing, and applications. An OTA background paper
10 p3062 N93-27066
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3078 N93-27949
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland)
11 p3458 N93-28926
Evidence-based classification of satellite image data
11 p3459 N93-28931
Earth observation from space: Competition or cooperation?
[AD-A262044] 11 p3459 N93-29000
Convective and stratiform rain: Multichannel microwave sensing over oceans
[NASA-TM-104586] 11 p3482 N93-29448
Automated satellite image navigation
[AD-A262868] 11 p3269 N93-29475
What's past is prologue: Supporting global change research with historical data
[DE93-005777] 11 p3472 N93-30009
Neural network cloud classification research
[AD-A264628] 11 p3484 N93-30176
Interim report on Landsat national archive activities
11 p3618 N93-30455
Land use database for the Netherlands using LANDSAT Thematic Mapper pictures
[BCRS-91-32] 11 p3463 N93-30839
Bayesian linear analysis with application to removal of atmospheric influences on optical remote sensing images
[BCRS-92-19] 11 p3463 N93-31011
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213
Geographical and topographical data from satellite images used in developing a digital road topology database 12 p3745 N93-31266
Velocities of Thwaites and Land glaciers
12 p3760 N93-31885
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886
SPOT satellite mapping of Ice Stream B
12 p3760 N93-31887
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890
Radar studies of the West Antarctic ice streams
12 p3760 N93-31891
Recent acceleration of Thwaites Glacier
12 p3761 N93-31893
Surface winds over West Antarctica
12 p3763 N93-31903
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008
Manipulating remotely-sensed data with Khoros
[DE93-012622] 12 p3842 N93-32298
Remotely sensed data from space. Distribution, pricing, and applications: An OTA background paper
[PB93-176964] 12 p3747 N93-32309
The application of remotely sensed data to studies of volcanism within the Galapagos Islands
12 p3747 N93-32326

Satellite pictures: An efficient aid for information about land use
[ETN-93-93467] 12 p3747 N93-32343

SATELLITE INSTRUMENTS
NT MULTISPECTRAL LINEAR ARRAYS
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
Anik E spacecraft integration and test 04 p0808 N93-14939
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
EISCAT related satellites in near future 06 p1578 N93-18738
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
Research on Earth observing satellite system: Conceptual study of Advanced Earth Observing Satellite-2 (ADEOS-2) 07 p1790 N93-20415
Research on advanced Earth observing sensors 07 p1790 N93-20416
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804
ORFEUS: Scientific targets and optical performance 08 p2537 N93-23905
Analysis of the results of the first year of operation of the Munich Dust Counter 08 p2537 N93-23910
Precipitating auroral electron flux characteristics based on UV data obtained by the AIRS experiment onboard the polar BEAR satellite
[AD-A260015] 08 p2401 N93-24301
Instrumentation for hypersonic aerodynamics research with tethered satellites
[NASA-CR-191435] 08 p2442 N93-24539
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Rate determination from vector observations 09 p2603 N93-24713
DORIS precise orbit determination and location system performances of ultra stable oscillators 09 p2608 N93-24997
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
CEOS Committee on Earth Observations Satellites consolidated report, 1992
[NASA-TM-108776] 09 p2615 N93-25217
Lageos laser ranging earth rotation
[AD-A261471] 09 p2757 N93-26354
Ofeq-2 orbit, attitude, and flight evaluation 10 p2924 N93-27198
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node
[NASA-TM-104566-VOL-2] 11 p3486 N93-28497
SeaWiFS technical report series. Volume 6: SeaWiFS technical report series cumulative index: Volumes 1-5
[NASA-TM-104566-VOL-6] 11 p3486 N93-28500
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108
NOAA satellite programs and technology requirements 11 p3627 N93-30710

SATELLITE LAUNCHING
U SPACECRAFT LAUNCHING

SATELLITE LIFETIME
Reusable Reentry Satellite (RRS) system design study: System cost estimates document
[NASA-CR-188480] 04 p0818 N93-14872
Ofeq-2 orbit, attitude, and flight evaluation 10 p2924 N93-27198

SATELLITE MANEUVERS
U SPACECRAFT MANEUVERS

SATELLITE NAVIGATION SYSTEMS
GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574
Navstar global positioning system: Introduction and status
[NLR-TP-91008-U] 05 p1059 N93-17559
A model of Global Positioning System (GPS) Master Control Station (MCS) operations
[AD-A258846] 06 p1433 N93-19067
DGPS for space and return 08 p2146 N93-22286
On the navigation of polar orbiting meteorological satellites
[MPIM-75] 08 p2180 N93-23111
NAVSAT: An application of GPS and GLONASS for the civil user community 08 p2124 N93-23534
On-line health monitoring: An integrity improvement for the civil use of GPS and GLONASS 08 p2125 N93-23535
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability
[DLR-MITT-92-07] 08 p2123 N93-24138
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Mixed constellation synchronization of GPS time 09 p2836 N93-25015
Comparison of GLONASS and GPS time transfers 09 p2836 N93-25017
An experimental health monitoring unit for GPS and GLONASS 09 p2586 N93-25018
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
First experience with the ASN-16 GLONASS receiver 09 p2693 N93-25033
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
Aerial cartography using SICAD NAV-AIR 12 p3744 N93-31258

SATELLITE NETWORKS
NT ARGOS SYSTEM
NT VSAT (NETWORK)
Lessons drawn from 2 existing satellite networks: ARABSAT and EUTELSAT. Application to the Pacific basin projects
[REPT-921-440-101] 02 p0282 N93-11591
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems 02 p0285 N93-12207
ISDN at NASA Lewis Research Center
[NASA-TM-105911] 02 p0419 N93-12410
Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
Regional satellites: The European experience with Eutelsat for TV, voice, data and mobile transmissions
[REPT-921-440-106] 04 p0818 N93-15071
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Full surface testing of grazing incidence mirrors
[AD-A255798] 04 p0984 N93-15371
Military space operations: Satellite control system improved, but serious problems remain
[AD-A256809] 04 p0971 N93-15626
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
Spacecraft design project: Low Earth orbit communications satellite
[NASA-CR-192038] 06 p1458 N93-17969
Mobile satellite services: A survey of business needs
[AD-A259031] 06 p1470 N93-18955
Variance-covariance estimation and statistical testing of satellite networks
[PB92-225358] 07 p1824 N93-21048
Expanded geodetic control along the primary road system by use of satellite surveying technology
[PB93-127090] 08 p2343 N93-23257
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
The Canadian mobile satellite system 08 p2275 N93-23515
Mobile satellite communications in the 1990's 08 p2275 N93-23520
Personal communications satellite service system 08 p2275 N93-23521
SkyFix: A better position through the use of INMARSAT and GPS 08 p2124 N93-23522
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
NAVSAT: An application of GPS and GLONASS for the civil user community 08 p2124 N93-23534
Final report on the first step in distributed remote sensing
[DE93-007936] 08 p2375 N93-24520
Mixed constellation synchronization of GPS time 09 p2836 N93-25015
Dual use of distributed remote sensing satellites
[DE93-008852] 10 p3062 N93-26615
The 1992 United Nations Workshop on Space Communication for Development: Proceedings 10 p3022 N93-26640
The Advanced Communications Technology Satellite (ACTS): Five new technologies 10 p3022 N93-26643
Iridium: Covering the globe with personal communication 10 p3022 N93-26644
SOVCAN STAR: An international satellite system 10 p3023 N93-26647
Zohreh: The Iranian domestic satellite system 10 p3023 N93-26649
Telecommunication service by leased transponders of the regional satellite 10 p3025 N93-26661
Satellite communication programmes for rural education and development 10 p3025 N93-26662
Privatization of data communication services by domestic satellite in Thailand 10 p3025 N93-26664
Minimum number of satellites for Earth coverage by a constellation of low-orbit satellites 10 p2924 N93-27200
On-board B-ISDN fast packet switching architectures. Phase 2: Development. Proof-of-concept architecture definition report
[NASA-CR-191151] 11 p3273 N93-29884
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
TACSAT-spacecraft bus concept and design: Application of a multimission bus for TACSAT in LEO 11 p3284 N93-29896
System of navigation by satellites with European coverage 11 p3284 N93-29897

SATELLITE OBSERVATION
Imaging radar investigations of the Sudbury structure 01 p0117 N93-10162
Ground/space co-operation for interferometry 01 p0178 N93-10946
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Nimbus-7 Scanning Multichannel Microwave Radiometer (SMMR) PARM tape user's guide
[NASA-RP-1284] 02 p0373 N93-11718
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data 02 p0365 N93-12182
ERS-1 user handbook
[ESA-SP-1148] 02 p0344 N93-12280
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Remote sensing data from CLARET: A prototype CART data set
[NASA-CR-191294] 03 p0634 N93-13094
B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
Assimilation of satellite color observations in a coupled ocean GCM-ecosystem model
[NASA-CR-191218] 03 p0670 N93-13714
The determination and error assessment of the Earth's gravity field model 03 p0656 N93-13771
Resonance studies of artificial earth satellites 03 p0523 N93-14037
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Ocean wave detection using satellite altimetry 04 p0906 N93-14839
Global survey of effective particle size in liquid water clouds by satellite observations 04 p0921 N93-14862
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data 04 p0928 N93-14981
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream 04 p0929 N93-14985
Precise orbit computation and sea surface modeling 04 p0813 N93-15000
Satellite measurement of ionospheric-induced VHF distortion
[DE92-040328] 04 p0862 N93-15435
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574

SeaWiFS Technical Report Series. Volume 7: Cloud screening for polar orbiting visible and infrared (IR) satellite sensors
[NASA-TM-104566-VOL-7] 04 p0932 N93-15645
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
Observation of the Earth-atmosphere system by NOAA satellite (acquisition, production, application, and use of NOAA data)
[BCRS-92-02] 05 p1207 N93-16221
Feasibility study on global operational forest cover monitoring network for FAO using satellite remote sensing
[BCRS-90-05] 05 p1190 N93-16222
Radiation fluxes at the FIFE site
[NASA-CR-191717] 05 p1208 N93-16718
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Modeling energy and mass fluxes from prairie canopies
[NASA-CR-191801] 06 p1566 N93-18232
Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast
[NASA-CR-192120] 06 p1586 N93-18360
Numerical experiments on consistent horizontal and vertical resolution for atmospheric models and observing systems 06 p1583 N93-18718
A DE-1/whistler study of the thermal plasma structure and dynamics in the dusk bulge sector of the magnetosphere
[NASA-CR-192088] 06 p1579 N93-18850
Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
The effects of small ice crystals on the infrared radiative properties of cirrus clouds
[NASA-CR-192181] 07 p2002 N93-20046
Interactive access and management for four-dimensional environmental data sets using McIDAS 07 p1965 N93-20070
Research on diabatic initialization 07 p2004 N93-20075
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
AMPR/SSMI data comparisons 07 p2005 N93-20081
Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083
OLS data system/global survey of lightning 07 p2006 N93-20085
ER-2 investigations of lightning and thunderstorms 07 p2006 N93-20088
Tropical Pacific moisture variability 07 p2007 N93-20093
Investigation of cloud/water vapor motion winds from geostationary satellite 07 p2008 N93-20094
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
MAMS: High resolution atmospheric/surface properties 07 p2008 N93-20097
Simulations of satellite Doppler wind observations 07 p2010 N93-20104
Remote sensing of water vapor features 07 p2010 N93-20107
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results
[NASA-TM-108607] 07 p2018 N93-20891
Global change data base training exercise manual. Exploring Earth's environment: Africa as an example
[PB92-224682] 07 p1990 N93-21211
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Space research and remote sensing programs in Bangladesh 07 p1975 N93-21271
International Space Year in China 07 p1975 N93-21272
Space program in Indonesia 07 p1975 N93-21273
Space program in Malaysia 07 p1976 N93-21277
National space programs and application of the remote sensing data in Mongolia 07 p1976 N93-21278
Status of remote sensing and Geographic Information System (GIS) applications in the Environment and Natural Resources (ENR) sector 07 p1976 N93-21279
Russian space system for the Earth remote sensing 07 p1977 N93-21280
Sun-synchronous and geo-synchronous satellite data utilization for environmental studies 07 p1977 N93-21281
Thailand ISY activities 07 p1977 N93-21282
National space program in Australia 07 p1977 N93-21283
Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286
Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539
Principles and application tendency of remote sensing: Its principle, function, and utilization 07 p1978 N93-21540
Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541
Study for natural environment in Okinawa Islands by using remote sensing 07 p1978 N93-21542
Remote sensing data application on forests in Okinawa Islands focusing on mangrove forests 07 p1978 N93-21543
Production of teaching materials from Geostationary Meteorological Satellite Himawari images 07 p1978 N93-21544
Changing weather information: Roles of meteorological information through meteorological satellites 07 p1979 N93-21545
Finding fish way by using remote sensing 07 p1979 N93-21546
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Earth observation in the TIGER programme of the UK Natural Environment Research Council 07 p1953 N93-21572
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578
Key problems of global ecology and the International Space Year 07 p1955 N93-21579
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587
Climatological use of long time series of data from the water vapour channel of Meteosat 07 p1958 N93-21601
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data 07 p1960 N93-21610
Representativity of wind measurement from space 07 p1961 N93-21617
Sampling properties of a spaceborne lidar (ATLID) 07 p1961 N93-21618
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621
Operational cloud classification with Meteosat data 07 p1962 N93-21622
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Bispectral cloud analysis for the Atlantic-European region using digital Meteosat images 07 p1962 N93-21624
Determination of longwave radiation reaching the surface from Meteosat images and radiation model calculations 07 p1962 N93-21625
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Surface circulation in the Adriatic Sea as observed by AVHRR 07 p1964 N93-21634
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119
Overview of ISY plan 08 p2334 N93-22120
Overview of Earth environment data set: MOS-1/MOS-1b data sets 08 p2334 N93-22121
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123
Monitoring of Kuroshio current using the data of VTIR obtained by MOS-1 and MOS-1b 08 p2334 N93-22124
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Observation in the East China Sea 08 p2335 N93-22126
Estimation of partial cloud cover within a pixel 08 p2335 N93-22127
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Overview of activities of ISY PIE Committee 08 p2335 N93-22129
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk 08 p2336 N93-22131
Microwave remote sensing of ice 08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
Vegetation distribution of South East Asia 08 p2336 N93-22134
Monitoring of growth environment of forest 08 p2336 N93-22135
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Upper-air circulation systems 08 p2337 N93-22138
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Data set for fisheries: Why can fishing grounds be monitored by data set of MOS-1b VTIR 08 p2337 N93-22141
Laser disc for Earth environment data set 08 p2338 N93-22142
Environmental data sets in Canada 08 p2338 N93-22143
ESA Earthnet activities related to the global environmental data network 08 p2338 N93-22144
Environmental data set in Thailand 08 p2338 N93-22145
Environmental data sets at the University of Alaska 08 p2338 N93-22146
Environmental data sets for International Space Year activities in Australia 08 p2338 N93-22147
The Brazilian contributions for the International Space Year, 1992 08 p2338 N93-22148
Use of remote sensing as part of the technical co-operation with developing countries 08 p2339 N93-22438
Earth sensing data service 08 p2339 N93-22439
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 08 p2413 N93-22804
SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting
[NASA-TM-104566-VOL-8] 08 p2413 N93-23010
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
System design for ARTEMIS environmental monitoring 08 p2349 N93-23545
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems 08 p2349 N93-23546
Delivery of information from Earth observation satellites 08 p2350 N93-23549
NASDA's Earth observation satellite program 08 p2357 N93-23751
Satellite-borne Earth observations in the framework of German global change research 08 p2357 N93-23755
ERS-1: The first European Earth observation system 08 p2358 N93-23757
The SPOT program 08 p2360 N93-23766
The SPOT 4 satellite and beyond 08 p2360 N93-23767
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770

The scientific program of the Priroda project
08 p2360 N93-23771
GLOBSAT/METOC: An alternative approach for a European Earth observation programme from the polar orbit
08 p2361 N93-23775
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility
08 p2362 N93-23779
The International Space Year programme
08 p2366 N93-23803
Monitoring desertification in Patagonia/Argentina, using satellite data for sustainable environmental management
08 p2367 N93-23813
Space technologies in French education
08 p2369 N93-23824
Computer-based lessons in satellite oceanography: An academic network for teachers and students
08 p2369 N93-23825
Development of data sets for the ISY sea surface temperature: MOS-1/MOS-1b data sets
08 p2371 N93-23838
ISY sea surface temperature validation test program in Mutsu Bay (Japan)
08 p2371 N93-23839
Protection of SPOT data and derived products under private agreements, the law and international conventions
08 p2373 N93-23851
International law perspective on establishing a European regulation with regard to the legal protection of the use of satellite remote sensing data
08 p2374 N93-23855
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Assessment of spaceborne lidar for meteorological analyses
[AD-A260026] 08 p2410 N93-24517
Final report on the first step in distributed remote sensing
[DE93-007936] 08 p2375 N93-24520
WCRP surface radiation budget shortwave data product description, version 1.1
[NASA-TM-107747] 09 p2777 N93-24742
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Satellite remote sensing for environmental geology: The Bandung (West Java) experience
09 p2739 N93-24784
The regional planning and control using the satellite data
09 p2740 N93-24788
Land cover monitoring in the Netherlands applying satellite remote sensing
09 p2740 N93-24789
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT)
09 p2740 N93-24792
Aerospace techniques in radiation and ecological monitoring of the Republic Belarus
09 p2741 N93-24793
Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation
09 p2743 N93-24805
Satellite borne remote sensing data: A tool for natural disaster reduction
09 p2743 N93-24806
Sustainable remote sensing: A major improvement for realtime resource management and disaster early warning in developing countries
09 p2743 N93-24808
Use of remote sensing spacecrafts in real time support to disaster management: Interfaces with ground segment facilities and services
09 p2743 N93-24809
Potential operational use of remote sensing from space in forestry
09 p2745 N93-24817
Remote sensing applied to agriculture state of the art and new trends
09 p2745 N93-24818
Applications of remote sensing for tidal waters, coastal areas and inland waters
09 p2745 N93-24819
European applications of space-borne Earth observation for land cover mapping
09 p2745 N93-24820
Supporting the Portuguese fisheries with satellites
09 p2745 N93-24821
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques
09 p2746 N93-24823
SEOMAR: An Italian approach to the observation of the Mediterranean area
09 p2746 N93-24825
Algal blooms and gel production in Adriatic Sea observed by remote sensing techniques
09 p2747 N93-24831
World Forest Watch: A global forest monitoring test
09 p2748 N93-24836
Biodiversity indication by Earth observation data
09 p2751 N93-24858
Current trends in satellite data supply for environmental monitoring
09 p2754 N93-24874
The Global Ocean Observing System
09 p2733 N93-24923
Satellite monitoring of the global ocean surface during 1987-1989
09 p2734 N93-24926
The use of remotely sensed data for operational fisheries oceanography
09 p2734 N93-24927
Satellite altimetry
09 p2734 N93-24930
Data management for JGOFS: Theory and design
09 p2735 N93-24935
Automated in situ observations of upper ocean biogeochemistry, bio-optics, and physics and their potential use for global studies
09 p2736 N93-24939
CEOS Committee on Earth Observations Satellites consolidated report, 1992
[NASA-TM-108776] 09 p2615 N93-25217
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406
A high performance room-temperature near-infrared camera
[AD-A260602] 09 p2709 N93-25634
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations
09 p2784 N93-25741
Data fusion with artificial neural networks (ANN) for classification of earth surface from microwave satellite measurements
09 p2824 N93-25974
Dual use of distributed remote sensing satellites
[DE93-008852] 10 p3062 N93-26615
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
The relationship between satellite-derived cloud parameters and measured maximum wind speed in the typhoon genesis stage
10 p3075 N93-26993
Remotely sensed data from space: Distribution, pricing, and applications. An OTA background paper
10 p3062 N93-27066
An evaluation of satellite-derived humidity and its relationship to convective development
[NASA-CR-193077] 10 p3077 N93-27262
Desktop publishing in remote sensing
[BCRS-92-15] 10 p3063 N93-27702
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414
SeaWiFS technical report series. Volume 6: SeaWiFS technical report series cumulative index: Volumes 1-5
[NASA-TM-104566-VOL-6] 11 p3486 N93-28500
IUE observations of cataclysmic variable
[NASA-CR-193188] 11 p3629 N93-28634
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
The dynamic cusp at low altitudes: A case study combining Viking, DMSP, and Sondrestrom incoherent scatter radar observations
[NASA-CR-193152] 11 p3476 N93-28842
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
Earth observation from space: Competition or cooperation?
[AD-A262044] 11 p3459 N93-29000
Space optical and low-frequency radio searches for Earth-crossing asteroids and comets
[DE93-008716] 11 p3634 N93-29246
Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343
A TACSAT SAR concept
11 p3286 N93-29910
The possible direct use of satellite radiance measurements by the Atmospheric Radiation Measurement Program
[DE93-009819] 11 p3462 N93-30049
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187
Sungrazing comet observations associated with SOHO
12 p3871 N93-31369
Reconnection in the solar corona
12 p3855 N93-31695
Observation of particle bursts in the tail of planet Mars onboard the Phobos 2 spacecraft
12 p3856 N93-31699
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations
12 p3857 N93-31705
Solar wind penetration to geostationary altitude during the March 1991 magnetic storm
12 p3857 N93-31706
Role of the INTERBALL small scale investigations in the GGS program
12 p3859 N93-31717
Determination of the robustness of passive microwave measurements and derivative parameters for use in precipitation discrimination over land
[AD-A265492] 12 p3768 N93-32008
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084
Satellite pictures: An efficient aid for information about land use
[ETN-93-93467] 12 p3747 N93-32343

SATELLITE ORBIT CALCULATION
U ORBIT CALCULATION

SATELLITE ORBITS
NT GEOSYNCHRONOUS ORBITS
NT PARKING ORBITS
NT POLAR ORBITS
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335
Orbital perturbations due to the albedo effect
[GKSS-91/E/59] 02 p0220 N93-11348
An analysis of the low-earth-orbit communications environment
03 p0561 N93-12633
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
The use of consider covariance analysis in choosing data weights to reduce the effect of errors in model parameters on satellite orbit determination accuracy
03 p0518 N93-13768
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
On-orbit deployment anamolies: What can be done?
04 p0821 N93-15603
ROSAT in-orbit attitude measurement recovery
[MBB-UK-0168-92-PUB] 05 p1088 N93-17629
EISCAT related satellites in near future
06 p1578 N93-18738
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
Some observations of chaotic motion of satellites with damping in an elliptic orbit
07 p1826 N93-20726
SSG 2.106: Determination of orbits to cm-accuracy
07 p1971 N93-20973
SSG 4.119: Relativistic effects in geodesy
07 p1973 N93-20985
Satellite situation report, volume 32, no. 4
[NASA-TM-108203] 07 p1824 N93-20999
Precise GPS-based tracking of remote sensing satellites
08 p2122 N93-23587
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft
09 p2601 N93-24705
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites
09 p2679 N93-26127
Mars revolving observation satellite
10 p2953 N93-28047
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications
11 p3389 N93-29902
Attitude- and Orbit Control Subsystem concepts for TACSATS
11 p3284 N93-29906
Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081
Satellite motion around an oblate planet: A perturbation solution for all orbital parameters
[AD-A265779] 12 p3690 N93-32335

SATELLITE ORIENTATION
LDEF yaw and pitch angle estimates
03 p0524 N93-12772
The Orbiter Stability Experiment on STS-40
03 p0508 N93-13159
A general observation matrix for attitude error estimation with an offset GPS antenna
[AD-A255214] 04 p0789 N93-14574

ROSAT in-orbit attitude measurement recovery
[MBB-UK-0168-92-PUB] 05 p1088 N93-17629
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
Space Station Freedom assembly and operation at a 51.6 degree inclination orbit
[NASA-TM-107731] 09 p2615 N93-25174

SATELLITE PERTURBATION
Orbital perturbations due to the albedo effect
[GKSS-91/E/59] 02 p0220 N93-11348
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
Resonance studies of artificial earth satellites 03 p0523 N93-14037
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
Space time neural networks for tether operations in space 08 p2456 N93-22370
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
The use of satellites in gravity field determination and model adjustment
[ISBN-90-6275-802-9/CIP] 10 p2973 N93-27946

SATELLITE POWER TRANSMISSION
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas) 08 p2264 N93-23504
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
Systems analysis on laser beamed power
[NASA-CR-193206] 10 p3047 N93-27036
Linearly connected solar power satellite 10 p2949 N93-28019
ASPEC: Solar power satellite 11 p3233 N93-29750
Power beaming to communication satellites in GEO
[DE93-007608] 11 p3279 N93-29840

SATELLITE RENDEZVOUS
U ORBITAL RENDEZVOUS

SATELLITE REPAIR
U ORBITAL SERVICING

SATELLITE ROTATION
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite 10 p2924 N93-27199
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710

SATELLITE SOUNDING
Remote sensing of water vapor features 07 p2010 N93-20107
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286
Proceedings of the 14th Earth Observation Symposium
[JTN-93-80414] 07 p1978 N93-21539
Principles and application tendency of remote sensing: Its principle, function, and utilization 07 p1978 N93-21540
Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541
Study for natural environment in Okinawa Islands by using remote sensing 07 p1978 N93-21542
Requirements and projects for high-resolution atmospheric sounding 07 p1959 N93-21607
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
The Second International Conference on Japanese Earth Observation Programs: Proceedings of Pre ISY International Symposium
[JTN-93-80413] 08 p2334 N93-22119
Overview of ISY plan 08 p2334 N93-22120
Overview on activities of ISY GSST Working Group in Japan 08 p2334 N93-22122
Upper-air circulation systems 08 p2337 N93-22138
A satellite-based Radar Wind Sounder (RAWS) 08 p2406 N93-23384
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder 09 p2773 N93-25739
Derivation of total ozone amount from NOAA/TOVS data 10 p3071 N93-26997
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059
A noise level analysis of special multiple-spin VAS data during storm-fest
[NOAA-TR-NESDIS-65] 10 p3071 N93-27079

SATELLITE SURFACES
NT LUNAR SURFACE
Indexes of maps of the planets and satellites, 1992
[NASA-TM-4395] 01 p0189 N93-10832
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156

SATELLITE TEMPERATURE
Researches and developments on typical thermal technologies for space applications 08 p2248 N93-22845
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354

SATELLITE TRACKING
Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
Parallelization of the Navy Space Surveillance Center (NAVSPASUR) satellite model
[AD-A256133] 04 p0816 N93-14253
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study
[NASA-CR-188583] 04 p0824 N93-15629
Real-time ionospheric monitoring system using the GPS
[AD-A256916] 05 p1058 N93-16141
Interactive satellite navigation for the Naval environmental operational nowcasting system
[AD-A257920] 06 p1459 N93-18004
Data reduction with least squares differential correction using equinoctial elements
[AD-A259004] 06 p1454 N93-18894
A model to compare performance of space and ground network support of low-Earth orbiters 06 p1508 N93-18925
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
A synthetic environment for satellite modeling and satellite orbital motion
[AD-A258847] 06 p1470 N93-19068
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
Precise GPS-based tracking of remote sensing satellites 08 p2122 N93-23587
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
The advances in F and T technology: Their benefits of and for space science and technology 09 p2831 N93-24979
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
An expert system for processing uncorrelated satellite tracks
[AD-A262713] 10 p2954 N93-28395
Automating the satellite range scheduling process
[AD-A262601] 11 p3270 N93-28468
A satellite-tracking millimeter-wave reflector antenna system for mobile satellite-tracking
[NASA-CASE-NPO-18772-1-CU] 11 p3381 N93-28955
The application of phase tracking GPS for flight test trajectory determination
[NLR-TP-91349-U] 12 p3678 N93-32337

SATELLITE TRANSMISSION
An analysis of the low-earth-orbit communications environment 03 p0561 N93-12633
Large scale rainfall diversity and satellite propagation 09 p2683 N93-26466
OLYMPUS/ACTS scintillation experiment at the Lewis Research Center 09 p2685 N93-26481
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations
[NASA-TM-106172] 10 p2956 N93-27064

SATELLITE-BORNE INSTRUMENTS
NT ADVANCED VERY HIGH RESOLUTION RADIOMETER
NT TOTAL OZONE MAPPING SPECTROMETER
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
An overview of RADARSAT payload technologies 04 p0807 N93-14933
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis 05 p1170 N93-17338
The Lunar Orbital Prospector 05 p1395 N93-17436
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
Research on space coolers 07 p1794 N93-20442
Research on satellite-borne high speed data recorder 07 p1795 N93-20449
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
Representativity of wind measurement from space 07 p1961 N93-21617
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777
A two-stage magnetic refrigerator for astronomical applications with reservoir temperatures above 4 K
[NASA-CR-192365] 07 p1878 N93-21815
The first European remote sensing satellite, ERS-1. A summary of useful load, mission, ground segment, standard products and user service 08 p2339 N93-22437
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
Flight project data book, 1991
[NASA-TM-108656] 08 p2154 N93-23385
ESA ERS 1 product specification
[ESA-SP-1149] 08 p2200 N93-23389
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
Meteosat second generation: A look to the future 08 p2357 N93-23753
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
Meteosat second generation enhanced visible-IR imager SEVIRI and its environmental monitoring potential 08 p2362 N93-23780
Broadband imaging spectrometer technology and its use potential for environmental change mission 08 p2364 N93-23791
SAX overview 08 p2540 N93-23927
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932
SEOMAR: An Italian approach to the observation of the Mediterranean area 09 p2746 N93-24825
Commercial applications multispectral sensor system 09 p2758 N93-25615
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution
[NASA-CR-192832] 09 p2775 N93-26084
EOS/AMSU-A NASA/Aerojet Interface Meeting
[NASA-TM-108234] 10 p3063 N93-27288
A broadband THz receiver for low background space applications 10 p3020 N93-27782
Miniature long-life space cryocoolers 11 p3378 N93-28825
Ultraviolet imaging spectrometer 11 p3582 N93-28827
Development of Miniaturized Optimized Smart Sensors (MOSS) for space plasmas 11 p3286 N93-28826
Project Copernicus: An Earth observing system 11 p3231 N93-29738
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346

The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy
12 p3868 N93-31350
SWAN: A study of solar wind anisotropies
12 p3868 N93-31351
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
Energetic particle analyser ERNE
12 p3869 N93-31354
Sungrazing comet observations associated with SOHO
12 p3871 N93-31369
Bayesian analysis of SOHO spectra
12 p3876 N93-31398
Objectives of RESIK solar concave soft x ray spectrometer for Coronas-F mission
12 p3879 N93-31418

SATELLITE-BORNE PHOTOGRAPHY
Comparison of mapping with different satellite images
08 p2348 N93-23540
Application of photographic remote sensing data from space for information about forests
09 p2748 N93-24838
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera
10 p2923 N93-27194

SATELLITE-BORNE RADAR
SAR simulation 03 p0564 N93-13056
Proposal for a coordination between EISCAT and INTERBALL 06 p1726 N93-19544
A satellite-borne radar wind sensor (RAWS)
07 p2008 N93-20096
Satellite radar altimetry over sea ice
07 p1957 N93-21596
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
SAR shape-from-shading for a populated alpine area
11 p3458 N93-28923

SATELLITES
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems
[DE93-007610] 11 p3281 N93-30509

SATURATED HYDROCARBONS
U ALKANES

SATURN (PLANET)
Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
Cassini/Huygens: A mission to Saturn and Titan
08 p2539 N93-23918

SATURN ATMOSPHERE
A study of the low and mid-latitude upper ionospheres of Jupiter and Saturn 04 p1022 N93-14179
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
Dynamics of planetary atmospheres
[NASA-CR-192117] 06 p1735 N93-18782

SATURN LAUNCH VEHICLES
NT SATURN 5 LAUNCH VEHICLES

SATURN SATELLITES
NT TITAN

SATURN 5 LAUNCH VEHICLES
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
The initial flight anomalies of Skylab 1
09 p2619 N93-24692

SAUDI ARABIA
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia
08 p2407 N93-23721

SAVANNAHS
U GRASSLANDS

SAWS
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891

SAWTOOTH WAVEFORMS
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951

SCALARS
Solutions without phase-slip for the Ginsburg-Landau equation
[PB92-115575] 03 p0696 N93-12889
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
The low-energy structure of compactified superstring models 04 p0997 N93-14116
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
AR/D image processing system
08 p2152 N93-22321
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
FESDIF: Finite Element Scalar Diffraction theory code
[DE93-007222] 08 p2475 N93-24447
Scalar gain interpretation of large order filters
09 p2606 N93-24729
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Quantum wormholes and harmonic oscillators
10 p3144 N93-27338
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808
A simple formula for reducing Feynman diagrams to scalar integrals
[DE92-644717] 11 p3607 N93-30916
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986

SCALE (CORROSION)
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560

SCALE EFFECT
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793
Effects of scale in predicting global structural response 11 p3306 N93-30860
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874

SCALE HEIGHT
ELF propagation highlights 11 p3395 N93-30730

SCALE MODELS
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622
Development of a 1/7-scale F/A-18 UAV for supermaneuverability research --- unmanned air vehicle
[AD-A247261] 02 p0208 N93-12053
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Scale effects in buckling, postbuckling and crippling of graphite-epoxy Z-section stiffeners
03 p0621 N93-12632
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 2: Tests with the closed circuit
[NASA-CR-191672] 04 p0780 N93-14738
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731
Prediction of the performances in combustion of ramjets and stato-rockets by isothermal experiments and modeling 05 p1067 N93-17622
Operational and research aspects of a radio-controlled model flight test program
[NASA-TM-104266] 06 p1440 N93-18616
Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
A model study of the aircraft cabin environment resulting from in-flight fires
[DOT/FAA/CT-90/22] 07 p1764 N93-21557
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
Development of a material processing plant for lunar soil 10 p3021 N93-26694
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz
10 p3014 N93-27749
Lunar regolith densification 11 p3276 N93-29115
Lunar crane system 11 p3277 N93-29118
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Exploitation of parallelism in climate models
[DE93-011259] 11 p3470 N93-29318
Design, building, and testing of the postlanding systems for the assured crew return vehicle
11 p3229 N93-29726
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model
11 p3243 N93-29778
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874

SCALING
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285

SCALING LAWS
Melt production in large-scale impact events: Calculations of impact-melt volumes and crater scaling
01 p0108 N93-10125
A look at scalable dense linear algebra libraries
[DE92-017805] 01 p0143 N93-10285
A look at scalable dense linear algebra libraries
[DE92-017161] 01 p0139 N93-10816
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988

Current scaling of plasma focus devices
[IPF-90-1] 02 p0449 N93-11029
Analytical and numerical principles for the scaling of plasma focus experiments, with regard to electrical resistance
[IPF-91-2] 02 p0450 N93-11103
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Scaling of 100 kW class applied-field MPD thrusters
[NASA-CR-190791] 03 p0525 N93-12638
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
Unit operations for gas-liquid mass transfer in reduced gravity environments 03 p0557 N93-14011
Geometric optics scaling laws for x-ray laser coherence
[DE92-040402] 05 p1301 N93-16102
Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Dimensionless scaling of confinement in ATF
[DE93-001705] 07 p2069 N93-20030
Penning surface-plasma source scaling laws: Theory and practice
[DE93-003814] 07 p2076 N93-21778
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Catastrophic collisions: Laboratory impact experiments, hydrocode simulations, and the scaling problem 11 p3635 N93-30411
Spectra and structure functions of temperature fluctuations in the inner solar wind 12 p3860 N93-31720

SCALLOPING
Microwave emission from relativistic electron beams
[AD-A264102] 11 p3400 N93-30880

SCANDINAVIA
Experiences with two GPS receivers in northern Europe
[NLR-TP-91168-U] 12 p3675 N93-31120

SCANDIUM
NT SCANDIUM ISOTOPES

SCANDIUM COMPOUNDS
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175

SCANDIUM ISOTOPES
Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485

SCANDIUM 46
U SCANDIUM ISOTOPES

SCANNERS
NT COASTAL ZONE COLOR SCANNER
NT HORIZON SCANNERS
NT INFRARED SCANNERS
NT MULTISPECTRAL BAND SCANNERS
NT OCEAN COLOR SCANNER
NT OPTICAL SCANNERS
NT THEMATIC MAPPERS (LANDSAT)
NT ULTRASONIC SCANNERS
Wind tunnel operator aimed comparison between two electronic pressure scanner systems
[DLAS-EST-TR-040] 02 p0217 N93-11225
Photogrammetric point determination using digital imagery of three-line scanner systems
[SER-C-372] 02 p0309 N93-11346
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
Scan-based switching tests
[AD-A257712] 05 p1151 N93-17685
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system 07 p1967 N93-20529
Scanner technology as an alternative to manual digitizing. The data acquisition of the 1990s 07 p1963 N93-20539
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
The evolution of Computed Tomography (CT) as an explosives detection modality 07 p1768 N93-21883
Applications of TEM to interface in materials
[DE93-004776] 08 p2501 N93-22492
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview 09 p2680 N93-26128
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Goddard Conference on Mass Storage Systems and Technologies, volume 2
[NASA-CP-3198-VOL-2] 12 p3839 N93-31964
The redwood project: An overview 12 p3841 N93-31979
Upgrade of the LIMDAS day/night whole sky imager
[AD-A265871] 12 p3769 N93-32171

SCANNING
NT CONICAL SCANNING
NT FREQUENCY SCANNING
NT RADAR SCANNING
NT RASTER SCANNING
Introduction of electronic pressure scanning at the Royal Aerospace Establishment
[RAE-TM-AERO-2222] 02 p0199 N93-11882
Development of an automated cartographic system 07 p1967 N93-20530
Performance of scanline-oriented CSG direct display algorithms
[REPT-93-03] 12 p3788 N93-31548

SCANNING DEVICES
U SCANNERS

SCANNING ELECTRON MICROSCOPY
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
The use of the charge-induced voltage alteration technique to analyze precursors to dielectric breakdown
[DE92-040960] 05 p1149 N93-17188
Space station protective coating development 07 p1848 N93-20816
Copper/solder intermetallic growth studies
[AD-A259856] 08 p2232 N93-23955
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples 09 p2628 N93-26032
Single electron charging effects in mesoscopic systems
[AD-A261228] 09 p2868 N93-26302
Beneficiation of ilmenite from lunar analog 10 p2997 N93-26681
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
Solid state research
[AD-A262273] 10 p3154 N93-28237
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33 12 p3681 N93-31744

SCANNING TUNNELING MICROSCOPY
Field emission current-voltage curves as a diagnostic for scanning tunneling microscope tips
[AD-A251171] 01 p0165 N93-10245
Scanning tunneling microscopy of semiconductor surfaces
[AD-A246853] 01 p0168 N93-10726
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects
[AD-A256660] 05 p1101 N93-15913
Application of scanning tunneling microscopy to electrochemistry
[AD-A255680] 05 p1101 N93-15955
Adhesion in atomic scale metal contacts
[AD-A257137] 05 p1121 N93-16142
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Writing electronically active nanometer-scale structures with a scanning tunneling microscope
[MBB-Z-0367-91-PUB] 06 p1671 N93-18117
Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510
Prediction of hydrogen entry and permeation in metals and alloys
[AD-A260580] 09 p2651 N93-25903
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
STM tip-induced transitions of dislocation network structures on the surface of highly oriented pyrolytic graphite
[AD-A262419] 10 p3004 N93-27655
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
Solid state research
[AD-A262273] 10 p3154 N93-28237
Surface diffusion: Atomistics and surface morphology (summary of MRS Symposium B panel discussion)
[DE93-009862] 11 p3594 N93-29188
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Fundamental studies of friction, lubrication, and wear by atomic force microscopy
[AD-A264647] 11 p3446 N93-30524

SCAR PROGRAM
U SUPERSONIC CRUISE AIRCRAFT RESEARCH

SCARPS
U ESCARPMENTS

SCARS (GEOLOGY)
U EROSION

SCAT
U SUPERSONIC COMMERCIAL AIR TRANSPORT

SCATHA SATELLITE
The relationship between electrostatic discharges on spacecraft P78-2 and the electron environment
[AD-A255179] 02 p0226 N93-12379
SCATHA mission termination report 09 p2605 N93-24725
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305

SCATTER PROPAGATION
NT IONOSPHERIC F-SCATTER PROPAGATION
Scattering through apertures and by three-dimensional structures. Application to the measurement of the surface impedance of conductive materials
[ONERA-P-1990-2] 11 p3392 N93-30018
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757

SCATTERERS
U SCATTERING

SCATTERING
NT ACOUSTIC SCATTERING
NT ATMOSPHERIC SCATTERING
NT BACKSCATTERING
NT COHERENT SCATTERING
NT COMPTON EFFECT
NT ELASTIC SCATTERING
NT ELECTROMAGNETIC SCATTERING
NT ELECTRON SCATTERING
NT FORWARD SCATTERING
NT HALOS
NT INCOHERENT SCATTERING
NT INELASTIC SCATTERING
NT INVERSE SCATTERING
NT ION SCATTERING
NT IONOSPHERIC F-SCATTER PROPAGATION
NT LIGHT SCATTERING
NT MICROWAVE SCATTERING
NT MIE SCATTERING
NT NEUTRON SCATTERING
NT NUCLEON-NUCLEON SCATTERING
NT PROTON SCATTERING
NT RADAR SCATTERING
NT RAMAN SPECTRA
NT RAYLEIGH SCATTERING
NT RESONANCE SCATTERING
NT REVERBERATION
NT THOMSON SCATTERING
NT TROPOSPHERIC SCATTERING
NT WAVE SCATTERING
NT X RAY SCATTERING

Semiclassical quantization of chaotic billiards
[DE92-634888] 01 p0169 N93-10226

Diffusion of Echo 7 electron beams during bounce motion
[DE92-018288] 02 p0357 N93-10985

Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270

Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599

Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171

An analytic phase function for cylindrical particles
[AD-A255750] 04 p0977 N93-15054

A laser spectroscopy technique for evaluating in-situ degradation of composite materials
[AD-A256983] 05 p1097 N93-16255

QCD on the light cone
[DE93-001822] 05 p1330 N93-17183

He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788

Stimulated Brillouin scattering phase conjugation 06 p1664 N93-18471

On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433

Applications of TEM to interface in materials
[DE93-004776] 08 p2501 N93-22492

Physical and direct methods in crystallography 08 p2393 N93-23249

Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599

Least squares surface approximation to scattered data using multiquadric functions
[AD-A259804] 08 p2469 N93-23640

Laser spectroscopy of stimulated scattering in collisionally broadened group 2A metal vapors
[AD-A260532] 08 p2223 N93-24278

Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281

Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402

Towards rotationally state-resolved differential cross sections for the hydrogen exchange reaction
[DE93-007735] 10 p3131 N93-26614

Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723

Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232

The Monte Carlo/S(sub N) hybrid method with orthogonal interface basis vectors
[DE93-005462] 10 p3104 N93-28299

Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833

Method and apparatus for imaging an object in or through a scattering medium by using multiple-wave mixing
[AD-D015707] 11 p3581 N93-30410

Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915

Low-energy behaviour of few-particle scattering amplitudes in two dimensions
[DE93-609834] 11 p3572 N93-30944

Some outstanding issues in pion scattering at energies above the (delta) resonance
[DE93-012747] 12 p3822 N93-32300

SCATTERING AMPLITUDE

Scattering of polarized electrons by oriented deuterons
[DE92-624834] 02 p0440 N93-11914

High energy elastic and diffractive scattering
[DE93-000762] 05 p1292 N93-17231

Infinite relativistic Toda lattice: Scattering problem and canonical structure
[PREPRINT-785] 06 p1645 N93-18187

Theory and numerical modeling of low-frequency acoustic scattering from bubble plumes near the sea surface
[AD-A259199] 07 p2018 N93-20564

Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197

Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549

Coupled-channel analysis of low energy nucleon-antinucleon interactions
[DE93-606115] 11 p3571 N93-30791

Low-energy behaviour of few-particle scattering amplitudes in two dimensions
[DE93-609834] 11 p3572 N93-30944

Nonlinear Pomeron and Odderon in elastic re-scatterings
[DE93-608326] 12 p3818 N93-31241

Supercritical pomeron and spin effects in meson-nucleon scattering at high energy
[DE93-608327] 12 p3818 N93-31242

Odderon dominance in dipole model of hadron elastic scattering
[DE93-608329] 12 p3819 N93-31243

SCATTERING COEFFICIENTS

CP-violation in K(sup +/-) to 3 pi decays and lattice QCD B-factors
[PREPRINT-848] 05 p1323 N93-17068

A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886

Optical constants and scattering factors from reflectivity measurements: 50 eV to 5 keV
[DE93-003750] 07 p2068 N93-21674

Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493

Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641

SCATTERING CROSS SECTIONS

Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705

Pion- and proton-nucleus interactions at intermediate energy
[DE92-017980] 01 p0157 N93-10838

Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245

Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581

A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062

Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093

Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463

Equilibrium and pre-equilibrium models for calculation of particle emission cross sections and spectra
[DE93-001635] 05 p1293 N93-17464

Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600

Nuclear structure studies at intermediate energy
[DE93-003661] 05 p1295 N93-17605

Theory of radar scattering from dusty plasmas 06 p1516 N93-19540

Neutron Elastic Scatter (NES) for Explosives Detection Systems (EDS) 07 p1766 N93-21868

Inclusive J/psi, psi(2S) and b-quark production in (-p)p collisions at square root of s - 1.8 TeV
[DE93-004739] 08 p2481 N93-22739

Electromagnetic scattering cross sections from the bodies of revolution, volume 1
[DREV-CR-645] 08 p2264 N93-23342

Determination of the optical properties of particles for solar heated fluidized beds
[DLR-FB-92-15] 08 p2490 N93-24641

Strangeness production in S + Pb and p + Pb collisions at 200 GeV/c per nucleon nucleon
[DE93-007654] 09 p2847 N93-25326

Progress in impulse approach research
[AD-A261728] 09 p2850 N93-26281

Comparisons of cross-section predictions for relativistic iron and argon beams with semiempirical fragmentation models
[NASA-TM-4462] 10 p3138 N93-27110

Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111

Exotic atoms
[DE93-010242] 11 p3564 N93-28611

Measurement of W-Z interference from neutrino-electron scattering
[DE93-010724] 11 p3566 N93-29313

Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446

Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670

Baryon number violation and particle collider experiments
[NIKHEF-H/92-14] 11 p3572 N93-31008

Molecular dynamical and structural studies for the bakelite by neutron cross section measurements
[DE93-609444] 12 p3819 N93-31244

SCATTERING FUNCTIONS

Scattering properties of Venus' surface 04 p1044 N93-14391

Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982

Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016

Scattering centre analysis of simple metallic objects
[ESA-TT-1250] 08 p2274 N93-24619

Mathematical inversion of multiple-scattering of laser light
[DE93-609128] 12 p3803 N93-31224

SCATTERING MATRIX
U S MATRIX THEORY

SCATTEROMETERS

Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915

SAR peculiarities, ambiguities and constraints 03 p0563 N93-13051

The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440

Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620

ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763

ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764

An advanced scatterometer for the European polar platform 08 p2363 N93-23787

SCAVENGING

Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340

SCENE ANALYSIS

Extraction of shape information from predicted irradiance profiles in infrared images
[RSRE-MEMO-4464] 02 p0447 N93-11342

A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391

Sensing and interpretation of 3-D shape and motion 03 p0692 N93-13240

Building and using scene representations in image understanding 03 p0692 N93-13241

The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245

Deciduous forest scene complexity in high-resolution multispectral scanner imagery
[AD-A255511] 03 p0635 N93-13867

Neural nets for scene analysis
[AD-A255976] 04 p0961 N93-14409

Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696

Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Positioning a camera from a photograph and a scene model
[TELECOM-PARIS-92-D-002] 06 p1537 N93-17948
Automatic modeling of nonpolyhedral objects by monocular observation
[ETN-93-92678] 07 p2068 N93-20898
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
Satellite image mosaics from automatic scene re-navigation 08 p2352 N93-23563
The use of multiple linked self-organised artificial neural networks for classification of remotely sensed images 08 p2353 N93-23565
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
Towards infrared image understanding 08 p2488 N93-24000
Scene segmentation of natural images using texture measures and back-propagation
[NASA-TM-104003] 09 p2803 N93-25235
Image-based ranging and guidance for rotorcraft
[NASA-CR-177608] 09 p2586 N93-26549
Sparse arrangements and the number of views of polyhedral scenes
[RUU-CS-92-24] 10 p3120 N93-28065
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Encoding spatial images: A fuzzy set theory approach 11 p3511 N93-29527
Binocular spherical disparity: A study in representation for a forward translating camera
[PB93-184422] 11 p3579 N93-29667
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981

SCF
U SELF CONSISTENT FIELDS

SCHEDULES
NT COUNTDOWN
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Methodologies for building robust schedules 02 p0397 N93-11949
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Streamlined acquisition handbook
[NASA-TM-108133] 04 p1002 N93-14719
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
A simulated annealing approach to schedule optimization for the SES facility 06 p1634 N93-18662
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
Iterative refinement scheduling 06 p1635 N93-18669
CABINS: Case-based interactive scheduler 06 p1635 N93-18670
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
Uncertainty management by relaxation of conflicting constraints in production process scheduling 06 p1636 N93-18673
Real-time scheduling using minimum search 06 p1637 N93-18676
Rescheduling with iterative repair 06 p1637 N93-18679
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas 06 p1638 N93-18688
Time management situation assessment (TMSA) 06 p1639 N93-18692
Constraint monitoring in TOSCA 06 p1639 N93-18693
National aero-space plane: Restructuring future research and development efforts
[AD-A258799] 06 p1441 N93-18981
Physics and engineering design studies on large helical device
[NIFS-161] 07 p2070 N93-20157
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Selected worldwide Marine weather broadcasts
[PB93-118164] 07 p2013 N93-21294
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
Space Station Freedom research capabilities 08 p2183 N93-22609
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Management issues in systems engineering 09 p2665 N93-24682
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
A perspective on acquisition of NASA space systems
[AD-A263246] 11 p3610 N93-29499
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133
A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
Protocols for distributive scheduling 12 p3835 N93-32129

SCHEDULING
NT PREDICTION ANALYSIS TECHNIQUES
Ada validation tests for rate monotonic scheduling algorithms
[AD-A253325] 01 p0136 N93-10300
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Methodologies for building robust schedules 02 p0397 N93-11949
COMPASS: An Ada based scheduler 02 p0397 N93-11950
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Minimizing conflicts: A heuristic repair method for constraint-satisfaction and scheduling problems
[NASA-TM-108121] 04 p0964 N93-15286
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
An application of artificial intelligence to automatic telescopes
[NASA-TM-108115] 04 p0965 N93-15291
Requirements for the implementation of schedule repair technology in the Experiment Scheduling Program 05 p1278 N93-17286
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Static scheduler for hard real-time tasks on multiprocessor systems
[AD-A257663] 05 p1257 N93-17724
The Starlite Project: Prototyping real-time software
[AD-A257773] 05 p1253 N93-17730
Effectiveness of heuristics and simulated annealing for the scheduling of concurrent tasks: An empirical comparison
[INRIA-RR-1379] 06 p1630 N93-18434
On optimal polling policies
[INRIA-RR-1541] 06 p1633 N93-18624
Working Notes from the 1992 AAAI Spring Symposium on Practical Approaches to Scheduling and Planning
[NASA-TM-108124] 06 p1634 N93-18659
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations 06 p1634 N93-18660
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
A simulated annealing approach to schedule optimization for the SES facility 06 p1634 N93-18662
Decomposability and scalability in space-based observatory scheduling 06 p1634 N93-18663
Scheduling of an aircraft fleet 06 p1635 N93-18665
Adaptive planning for applications with dynamic objectives 06 p1635 N93-18666
Global planning of several plants 06 p1635 N93-18667
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
Iterative refinement scheduling 06 p1635 N93-18669
CABINS: Case-based interactive scheduler 06 p1635 N93-18670
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Uncertainty management by relaxation of conflicting constraints in production process scheduling 06 p1636 N93-18673
Experiments with a decision-theoretic scheduler 06 p1636 N93-18674
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675
Real-time scheduling using minimum search 06 p1637 N93-18676
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
O-Plan2: The open planning architecture 06 p1637 N93-18678
Realization of high quality production schedules: Structuring quality factors via iteration of user specification processes 06 p1637 N93-18680
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
Real-time contingency handling in MAESTRO 06 p1638 N93-18683
Learning to integrate reactivity and deliberation in uncertain planning and scheduling problems 06 p1638 N93-18684
Completable scheduling: An integrated approach to planning and scheduling 06 p1638 N93-18685
IOPS advisor: Research in progress on knowledge-intensive methods for irregular operations airline scheduling 06 p1638 N93-18686
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems 06 p1638 N93-18687
Combining constraint satisfaction and local improvement algorithms to construct anaesthetists' rotas 06 p1638 N93-18688
JIGSAW: Preference-directed, co-operative scheduling 06 p1639 N93-18689
A hybrid job-shop scheduling system 06 p1639 N93-18690
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
Constraint monitoring in TOSCA 06 p1639 N93-18693
SOCAP: Lessons learned in applying SIPE-2 to the military operations crisis action planning domain 06 p1639 N93-18694
A comparison of multiprocessor scheduling methods for iterative data flow architectures
[NASA-CR-189730] 06 p1521 N93-19107
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Building a knowledge base for the knowledge worker system
[AD-A258544] 07 p2089 N93-20370
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
Stochastic scheduling with variable profile and precedence constraints
[INRIA-RR-1525] 07 p2059 N93-21396
Video conferencing made easy 08 p2275 N93-22173
Integrated flexible manufacturing program for manufacturing automation and rapid prototyping 08 p2259 N93-22174
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
Design and analysis of scheduling policies for real-time computer systems
[AD-A259806] 08 p2448 N93-23641
Integrated Flexible Manufacturing Program for manufacturing automation and rapid prototyping
[DE93-006722] 08 p2442 N93-24327
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
Concurrency control in real-time database systems 09 p2874 N93-25271

A genetic algorithm tool (splicer) for complex scheduling problems and the Space Station Freedom resupply problem 09 p2814 N93-25613
An optimal scheduling of pick-place operations of a robot-vision-tracking system by using neural networks and rule-based systems 09 p2821 N93-25880
Using AI/expert system technology to automate planning and replanning for the HST servicing missions 09 p2822 N93-25962
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support 09 p2815 N93-26075
Intelligent, real-time problem solving, phase 3 [AD-A261441] 09 p2829 N93-26345
New lower and upper bounds for scheduling around a small common date [MEMO-COSOR-92-18] 10 p3093 N93-27246
Minimizing total inventory cost on a single machine in just-in-time manufacturing [MEMO-COSOR-92-20] 10 p3093 N93-27247
Polynomial-time algorithms for single-machine bicriteria scheduling [MEMO-COSOR-92-21] 10 p3093 N93-27248
A note on the effect of varying routing probability on two parallel queues with dynamic routing under a threshold-type scheduling [MEMO-COSOR-92-08] 10 p3124 N93-27277
A globally gated polling system with server interruptions, and applications to the repairman problem [CWI-BS-R9208] 10 p3127 N93-27309
Complexity of scheduling multiprocessor tasks with prespecified processor allocations [MEMO-COSOR-92-32] 10 p3106 N93-27361
Local search in physical distribution management [MEMO-COSOR-92-30] 10 p3163 N93-27384
Priority inheritance in real-time micro kernels [MEMO-INF-92-52] 10 p3095 N93-27387
Approximate analysis of an M/G/1 priority queue with priority changes due to impatience [CWI-BS-R9202] 10 p3127 N93-27606
Optimal server assignment in the case of service times with monotone failure rates [TW-92-04] 10 p3125 N93-27906
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness [AD-A263033] 10 p3084 N93-27923
Complexity of scheduling multiprocessor tasks with prespecified processor allocations [CWI-BS-R9211] 10 p3108 N93-27990
Automating the satellite range scheduling process [AD-A262601] 11 p3270 N93-28468
Preemptive scheduling with variable profile, precedence constraints and due dates [INRIA-RR-1622] 11 p3538 N93-28937
Designing a fuzzy scheduler for hard real-time systems 11 p3512 N93-29537
Assessment of Columbus payload operations capabilities by scheduling with the MARS system [ESA-STR-235] 11 p3281 N93-30106
Analytical foundations of gain scheduling [AD-A264662] 11 p3260 N93-30550
Scheduling data transfers in parallel computers and communications systems 12 p3836 N93-31132
Job shop scheduling by local search [MEMO-COSOR-92-29] 12 p3834 N93-31510
Periodic multiprocessor scheduling [ETN-93-94043] 12 p3795 N93-31522
Decay-usage scheduling in multiprocessor and distributed systems. 1: Theory [REPT-92-105] 12 p3795 N93-31864
New architectures to reduce I/O bottlenecks in high-performance systems [DE93-009059] 12 p3795 N93-31985
Generation and exploration of aggregation abstractions for scheduling and resource allocation 12 p3835 N93-32128
Protocols for distributive scheduling 12 p3835 N93-32129
Scheduling with partial orders and a causal model 12 p3835 N93-32130
Crisis action planning and replanning using SIPE-2 12 p3835 N93-32131
The MICRO-BOSS scheduling system: Current status and future efforts 12 p3835 N93-32133
Decision-theoretic control of EUVE telescope scheduling 12 p3835 N93-32134
Decision theory for computing variable and value ordering decisions for scheduling problems 12 p3835 N93-32137
Integration of domain and resource-based reasoning for real-time control in dynamic environments 12 p3794 N93-32141
Performance analysis of a large-grain dataflow scheduling paradigm [NASA-TP-3323] 12 p3796 N93-32213
Ant system for job-shop scheduling [REPT-92-066] 12 p3792 N93-32346

SCHEMATICS
U CIRCUIT DIAGRAMS

SCHIFF BASES
U IMINES

SCHLIEREN PHOTOGRAPHY
Detonation reactions frozen by free expansion and analyzed by mass spectrometry [DE92-018605] 02 p0274 N93-11566
Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS) [NASA-CR-184483] 04 p0855 N93-14793
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine [AD-A263810] 11 p3580 N93-29880

SCHMIDT CAMERAS
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131

SCHMIDT NUMBER
Measurements of scalar power spectra in high Schmidt number turbulent jets [AD-A261542] 09 p2707 N93-26379

SCHMIDT TELESCOPES
Ground-based observation of near-Earth asteroids 05 p1360 N93-16879
ASCHOT: Astrophysical Schmidt Orbital Telescope 08 p2539 N93-23919

SCHOOLS
Blacks in undergraduate science and engineering education [NSF-92-305] 03 p0730 N93-13015
Fiscal Year 1991 highlights [NSF-92-23] 03 p0731 N93-13702
Application of information system technology to K-12 education [AD-A255223] 03 p0731 N93-13834
Reliability, Maintainability, and Supportability (RMS) education in engineering schools [AD-A258260] 06 p1552 N93-18026
The 1992 Science Olympiad National Tournament [NASA-CR-191379] 06 p1679 N93-18385
Development of interactive multimedia applications 08 p2530 N93-22171
Pre-college education 08 p2516 N93-23142
Space support forum 08 p2153 N93-23160
Remote sensing of the Earth: A pilot program in German schools 08 p2369 N93-23822
Mathematics as technology: Mathematical engineering [CWI-AM-R9202] 10 p3113 N93-27296
Digest of education statistics, 1992 [PB93-169522] 10 p3161 N93-27420
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 12: Armstrong Laboratory [AD-A262020] 10 p3161 N93-27598
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 13: Phillips Laboratory [AD-A262021] 10 p3161 N93-27599
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 14: Rome Laboratory [AD-A262022] 10 p3161 N93-27600
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 15: Wright Laboratory [AD-A262023] 10 p3162 N93-27601
Third Annual Women in Science and Technology Conference [DE93-005271] 10 p3164 N93-28297
Proposal to develop guides for high school teachers on global systems science [DE93-008759] 11 p3624 N93-29100
Advanced network technology: Background paper [OTA-BP-TCT-101] 11 p3539 N93-29650
Filling the gaps: An overview of data on education in grades K through 12 [PB93-176550] 11 p3608 N93-30821

SCHOTTKY BARRIER DIODES
U SCHOTTKY DIODES

SCHOTTKY DIODES
Implanted contacts for diamond semiconductor devices [AD-A245568] 01 p0165 N93-10274
Advanced electronic structures [AD-A258401] 06 p1519 N93-18261
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures [AD-A257913] 06 p1672 N93-18367
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation [AD-A259372] 06 p1522 N93-19853
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers [AD-A258616] 07 p1887 N93-19995
Review on Schottky barrier diode development 07 p1798 N93-20464
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content [DE93-000049] 08 p2377 N93-22750
Ultrafast measurements of 200 gigahertz Schottky photodiodes 09 p2688 N93-25392
The development of hydrogen sensor technology at NASA Lewis Research Center [NASA-TM-106141] 10 p3045 N93-27021
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications 10 p3012 N93-27734
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves 10 p3012 N93-27737
Superlattice barrier varactors 10 p3012 N93-27738
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
Progress in integrated-circuit horn antennas for receiver applications. Part 2: A 90 GHz quasi-integrated horn antenna receiver 10 p3016 N93-27756
Monolithic millimeter-wave diode grid frequency multiplier arrays 10 p3019 N93-27775
Planar GaAs diodes for THz frequency mixing applications 10 p3019 N93-27776
New approach to the design of Schottky barrier diodes for THz mixers 10 p3019 N93-27778
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781
All-solid-state radiometers for environmental studies to 700 GHz 10 p3020 N93-27784
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785

SCHOTTKY EFFECT
U WORK FUNCTIONS

SCHROEDINGER EQUATION
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics [AD-A254931] 03 p0696 N93-13027
A simple method to generate integrable symplectic maps [PREPRINT-795] 05 p1265 N93-16416
Integrable cellular automata [PREPRINT-869] 05 p1269 N93-16967
A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions [PREPRINT-851] 05 p1270 N93-17071
Time evolution of Caldirola-Kanai oscillators [PREPRINT-846] 05 p1272 N93-17712
Yang phase for non-Hermitian systems and biunitary transformations [PREPRINT-782] 06 p1645 N93-18197
Molecular interactions and properties with many-body methods [AD-A261688] 09 p2850 N93-26367
Wave packet motion in harmonic potential and computer visualization 10 p3141 N93-27315
Alternative descriptions of wave and particle aspects of the harmonic oscillator 10 p3142 N93-27317
Boundary conditions in tunneling via quantum hydrodynamics 10 p3143 N93-27327
Localized solutions of N + 1 dimensional evolution equations [SSCL-PREPRINT-753] 10 p3157 N93-28210
The semiclassical stability of de Sitter spacetime [DESY-92-131] 11 p3603 N93-28472
On the method of determining relations [DE93-606041] 11 p3551 N93-30765
Quantum-kinetic Green function and macroscopic wave function [DE93-606040] 11 p3606 N93-30796
On two-dimensional quasiclassics [DE93-606034] 11 p3606 N93-30805
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background [DE93-606063] 11 p3606 N93-30808
On the invariant measure for the nonlinear Schroedinger equation [DE92-644672] 11 p3551 N93-30912

General method for reducing the two-body Dirac equation
[DE93-609833] 11 p3607 N93-30943
A squeezed state holomorphic phase space representation of equations of motion
[DE93-609835] 11 p3607 N93-30945
A remark on the invariant measure for the nonlinear Schroedinger equation
[DE93-609840] 11 p3552 N93-30946
Schroedinger equations of higher (greater than 2) order
[DE92-644677] 11 p3552 N93-30984
Formulation of wave mechanics without the Planck constant h/2 pi
[DE93-604083] 11 p3608 N93-30987

SCHWARZ-CHRISTOFFEL TRANSFORMATION
The effective transverse resistivity in multifilamentary conductors
[MEMO-1027] 07 p1892 N93-21008

SCHWARZSCHILD METRIC
Spinning particles in Schwarzschild space-time
[NIKHEF-H/92-09] 10 p3156 N93-27511

SCHWASSMANN-WACHMANN COMET
First images of a possible CO(+)-tail of comet P/Schwassmann-Wachmann 1 observed against the dust coma background 06 p1708 N93-19175
Activity in distant comets 06 p1712 N93-19202

SCIENCE
Women and minorities in science and engineering: An update
[NSF-92-303] 03 p0730 N93-12907
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
Awards: 1991 undergraduate course and curriculum development program
[NSF-92-45] 03 p0731 N93-13699
Diversity in biological research
[NSF-92-19] 03 p0673 N93-13700
Science and engineering degrees: 1966-1990
[NSF-92-326] 03 p0731 N93-13701
Ventures in science
[DE93-003044] 05 p1331 N93-16521
National Science Foundation annual report, 1991
[PB92-217736] 05 p1402 N93-16948
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
The 1992 Science Olympiad National Tournament
[NASA-CR-191379] 06 p1679 N93-18385
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
Space support forum 08 p2153 N93-23160
Science, Technology, and Industrial Policy in the Former Soviet Union
[DE93-006528] 09 p2887 N93-26499

SCIENTIFIC SATELLITES
NT AMPTE (SATELLITES)
NT ASTRONOMICAL SATELLITES
NT COSMIC BACKGROUND EXPLORER SATELLITE
NT DYNAMICS EXPLORER SATELLITES
NT EXOSAT SATELLITE
NT EXPLORER SATELLITES
NT EXPLORER 50 SATELLITE
NT EXTREME ULTRAVIOLET EXPLORER SATELLITE
NT GAMMA RAY OBSERVATORY
NT GINGA SATELLITE
NT HUBBLE SPACE TELESCOPE
NT INTERNATIONAL SUN EARTH EXPLORER 1
NT INTERNATIONAL SUN EARTH EXPLORER 2
NT INTERNATIONAL SUN EARTH EXPLORER 3
NT INTERNATIONAL SUN EARTH EXPLORERS
NT LARGE DEPLOYABLE REFLECTOR
NT LONG DURATION EXPOSURE FACILITY
NT SCATHA SATELLITE
NT SMALL SCIENTIFIC SATELLITES
NT SPACE INFRARED TELESCOPE FACILITY
NT UPPER ATMOSPHERE RESEARCH SATELLITE (UARS)
NT X RAY ASTROPHYSICS FACILITY
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Analysis and modeling of the CRRES satellite data
[AD-A254349] 03 p0650 N93-12944
Preview of Blackbeard interferometry
[DE92-040329] 04 p0818 N93-14904
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
Developing satellite ground control software through graphical models 05 p1246 N93-17500
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
Improved models of the inner and outer radiation belts
[AD-A258708] 07 p1998 N93-20379
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
Simulation and calculation of the APEX attitude
[AD-A258716] 07 p1824 N93-20382
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
SSG 2.107: Gravity field determination by satelli te gravity-gradiometry 07 p1971 N93-20974
Activities report of the European Space Agency
[ETN-93-93509] 07 p2103 N93-21764
EUROAVIA Design Workshop 1991: Organization and lessons learned 08 p2199 N93-23821
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280
A multimission three-axis stabilized spacecraft flight dynamics ground support system 09 p2603 N93-24714
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
CRRES: Combined release and radiation effects satellite program summary
[NASA-CR-192469] 09 p2774 N93-25886
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
Measurements of magnetic fields produced by a 30 kWe class Arcjet Power Conditioning Unit
[AD-A262786] 11 p3287 N93-28658
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032
A program to determine the pointing angle to a specular point
[AD-A262777] 11 p3630 N93-29460

SCIENTIFIC VISUALIZATION
Scientific visualization of volumetric radar cross section data
[AD-A259586] 08 p2272 N93-24065
Scientific visualization using the Flow Analysis Software Toolkit (FAST) 09 p2814 N93-25600

SCIENTISTS
Glenn T. Seaborg and heavy ion nuclear science
[DE92-016943] 01 p0156 N93-10762
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
Science and engineering degrees, by race/ethnicity of recipients: 1977-1990
[NSF-92-327] 03 p0729 N93-12694
Air Force engineering research initiation grants (1990-1991)
[AD-A255004] 03 p0774 N93-12706
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
Evolution of the scientific paper
[DE92-019696] 03 p0735 N93-12994
Blacks in undergraduate science and engineering education
[NSF-92-305] 03 p0730 N93-13015
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Characteristics of recent science and engineering graduates: 1990. Detailed statistical tables
[NSF-92-316] 03 p0731 N93-13454
Highlights 92/2 03 p0775 N93-13474
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
The changing culture of science: Bringing it into balance
[AD-A255993] 04 p0998 N93-14417
Source hierarchy list. Volume 2: E through N
[AD-A256101] 05 p1352 N93-16064
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
Prologue to Action. Life Sciences Education and Science Literacy
[PB93-107514] 07 p2021 N93-21230
Science and Engineering programs: On target for women
[PB93-116499] 07 p2084 N93-21797
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629
Underrepresented groups 08 p2517 N93-23146
Pipeline issues 08 p2517 N93-23148
Focusing educational initiatives 08 p2517 N93-23150
Learning to meet the science and technology challenge
[PB93-139996] 08 p2520 N93-23680
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-28297
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Advanced network technology: Background paper
[OTA-BP-TCT-101] 11 p3539 N93-29650

SCINTILLATING FIBERS
Physics studies with ICARUS and a hybrid ionization and scintillation fiber detector
[DE93-003034] 08 p2482 N93-22986
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491

SCINTILLATION
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
Development of a scintillating optical fiber ionization calorimeter
[NASA-CR-184415] 02 p0311 N93-11662
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
Comparison between irregularity motion and bulk plasma drifts at high latitudes
[PL-TR-91-2292] 04 p0914 N93-14727
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A256520] 04 p0917 N93-15395
Solar wind velocity measurements with the EISCAT UHF antenna array 06 p1725 N93-19542
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
Laser propagation through turbulence
[AD-A260712] 09 p2714 N93-26217
OLYMPUS/ACTS scintillation experiment at the Lewis Research Center 09 p2685 N93-26481
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359

Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343
Comparison of diversity combining, interleaving, and decoding techniques of a scintillated channel
11 p3362 N93-30266
An investigation of methods for improving models of ionospheric plasma-density irregularities and radio-frequency scintillation
[AD-A264156] 12 p3756 N93-31062
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595
Detecting and tracking changes in solar wind conditions using interplanetary scintillation
12 p3857 N93-31703

SCINTILLATION COUNTERS
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special 03 p0509 N93-13166
Effects of ionizing radiation on scintillators and other particle detectors
[DE92-018184] 03 p0705 N93-13531
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326
Experimental investigations in particle physics at intermediate energies
[DE93-000406] 05 p1284 N93-16160
Nuclear research with heavy ions
[DE92-040840] 05 p1285 N93-16184
Monte Carlo shower counter studies
[NASA-CR-191364] 05 p1243 N93-16933
Correlated optical observations with BATSE/CGRO on SCO X-1 05 p1344 N93-17313
Calibration of phoswich detectors
[KVI-891] 05 p1169 N93-17404
Experimental particle physics
[DE93-003884] 06 p1655 N93-18538
Experimental evaluation of software-driven digital gain-drift compensation in scintillator gamma ray spectroscopy
[DE93-002623] 06 p1657 N93-19616
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Design of a high current proton accelerator
07 p1766 N93-21873
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
Physics studies with ICARUS and a hybrid ionization and scintillation fiber detector
[DE93-003034] 08 p2482 N93-22986
Drift scintillation meter for the defense meteorological satellite program
[AD-A259993] 08 p2410 N93-24299
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
Radiation interaction and detection principles
[DE93-005302] 10 p3136 N93-28298
Construction and testing of a neutron and gamma spectrometry system using pulse shape discrimination with an organic scintillator
[AD-A262550] 11 p3567 N93-29415
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Pion pair production in photon-photon collisions
[DE93-606114] 11 p3571 N93-30790
The ZEUS uranium calorimeter: Main characteristics and first operating experience
[NIKHEF-H/92-15] 12 p3728 N93-31117
A scintillation experiment over a forest
[KNMI-WR-92-04] 12 p3746 N93-31595

SCINTILLATION FIBERS
U SCINTILLATING FIBERS

SCINTILLATORS
U SCINTILLATION COUNTERS

SCINTILLOMETERS
U SCINTILLATION COUNTERS

SCISSION
U CLEAVAGE

SCORING
The relationship between computer scoring and safety-pilot grading of flight performance
[AD-A256245] 04 p0937 N93-14600
Laser scribing system for amorphous silicon solar cells
[AD-A259287] 07 p1910 N93-20608
NIST scoring package certification procedures in conjunction with NIST special databases 2 and 6
[PB93-188126] 12 p3838 N93-31331

SCPC TRANSMISSION
U SINGLE CHANNEL PER CARRIER TRANSMISSION

SCRAMJET ENGINES
U SUPERSONIC COMBUSTION RAMJET ENGINES

SCRAMJETS
U SUPERSONIC COMBUSTION RAMJET ENGINES

SCRAP
Tool grinding and spark testing
11 p3291 N93-30954

SCREW DISLOCATIONS
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434

SCREWS
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
The design of mechanically compatible fasteners for human mandible reconstruction
09 p2796 N93-25569
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505

SCRIBING
U SCORING

SCRUBBERS
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Biological treatment of porous off-gases
[VTT-JULK-766] 12 p3752 N93-31853

SCRUBBING
U WASHING

SDV
U SHUTTLE DERIVED VEHICLES

SEA BREEZE
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Sea breeze simulation with a static profile of the eddy viscosity
[FOA-B-40415-4.5] 10 p3078 N93-27831

SEA FLOOR SPREADING
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
VENTS 1990 Cleft Segment plume monitoring experiment: Physical and chemical data, NOAA ship DISCOVERER, September 8-29, 1990
[PB93-116622] 07 p2019 N93-21688

SEA ICE
NT ICE FLOES
NT ICEBERGS
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599
Interaction and impact of floating bodies
[AD-A254627] 03 p0574 N93-12617
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
Report of the International Ice Patrol in the North Atlantic, bulletin no. 77
[AD-A256162] 04 p0925 N93-14452
Physical and dynamic properties of sea ice in the polar oceans
[AD-A256303] 05 p1219 N93-15843
Investigation of Antarctic sea ice concentration by means of selected algorithms
[AD-A257132] 05 p1220 N93-16076
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
Multi-discipline Arctic oceanography and acoustics program: The Geodesic Underice Tramway System (GUTS)
[AD-A258323] 06 p1589 N93-18254
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
Modelling of dynamic soil-structure-ice interaction
06 p1558 N93-18759
Use of ERS-1 SAR data in numerical sea ice modeling
07 p1957 N93-21592
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Detecting new-ice in the Arctic from multispectral satellite data 07 p1957 N93-21594
Satellite radar altimetry over sea ice
07 p1957 N93-21596
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
Sea ice and glacier in the Antarctic from passive microwave observation 08 p2336 N93-22130
Drifting ice in the Sea of Okhotsk
08 p2336 N93-22131
Microwave remote sensing of ice
08 p2336 N93-22132
Observation in Arctic 08 p2336 N93-22133
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data
08 p2340 N93-22445
Investigations into the dynamics of sea ice in the East Greenland Sea region in May 1988, using NOAA-AVHRR data 08 p2341 N93-22446
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
ERS-1: The first European Earth observation system
08 p2358 N93-23757
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters
08 p2359 N93-23762
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
The Oden real time ice monitoring demonstration
08 p2371 N93-23837
Active and passive remote sensing of ice
[AD-A259765] 08 p2415 N93-24026
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422
Radar backscatter measurements from Arctic sea ice during the fall freeze-up
[NASA-CR-193100] 09 p2790 N93-26050
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377
Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491
Ice-ocean four dimensional structure and dynamics
[AD-A264850] 11 p3490 N93-30906
Modeling studies of ice-ocean dynamics and thermodynamics
[AD-A264084] 12 p3769 N93-31082
Some historical notes about the Stefan problem
[REPT-93-07] 12 p3728 N93-32397

SEA KEEPING
HMS Speedy: Seakeeping trials, 25 February to 1 March 1982
[ARE-AMTE(H)-R84117] 10 p3021 N93-27853
SEA LAUNCHING
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Monitoring limits on sea-launched cruise missiles
[OTA-ISC-513] 05 p1061 N93-16632
SEA LEVEL
Evaluation of Seasat/Geosat orbits and altimetry with application to long-term sea level changes in the North Pacific 01 p0103 N93-10847
Atmospheric loading response of the solid earth and oceans 03 p0659 N93-13955
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
North-Australian tropical seas circulation study 04 p0926 N93-14968
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
SSG 5.99: Tidal friction and the Earth's rotation 07 p1974 N93-20992
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Sea level variation 09 p2734 N93-24929
Satellite altimetry 09 p2734 N93-24930
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Field trial of caffeine on physical performance at altitude: An attempt to overcome the challenge
[AD-A264260] 11 p3497 N93-30894
Reconstruction of late Wisconsinan Ice Sheet and sea-level implications 12 p3758 N93-31879
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective 12 p3759 N93-31882
Changes on the ice plain of Ice Stream B and Ross Ice Shelf 12 p3760 N93-31889
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983
SEA STATES
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
SEA SURFACE TEMPERATURE
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Orthogonal functions over the oceans and applications to the determination of orbit error, geoid and sea surface topography from satellite altimetry 02 p0373 N93-12002
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data 02 p0365 N93-12182
Interannual variabilities of the East Asian summer monsoon and tropical sea surface temperatures 02 p0372 N93-12534
The relationship between SST anomalies and clouds, water vapor, and their radiative effects 03 p0665 N93-13744
Climate sensitivity study with energy balance models 03 p0666 N93-13817
Test and calibration of the along track scanning radiometer, a satellite-borne infrared radiometer designed to measure sea surface temperature 03 p0671 N93-13842
The assimilation of marine surface data into the Navy operational global atmospheric prediction system
[AD-A255559] 03 p0667 N93-13877
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory 04 p0920 N93-14213
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Analysis of AVHRR, CZCS and historical in situ data off the Oregon Coast
[NASA-CR-192120] 06 p1586 N93-18360
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633
Surface circulation in the Adriatic Sea as observed by AVHRR 07 p1964 N93-21634
Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636
Generation and distribution of remotely-sensed sea surface temperature images 07 p1964 N93-21637
Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Observation in the East China Sea 08 p2335 N93-22126
Estimation of partial cloud cover within a pixel 08 p2335 N93-22127
Elimination of absorption effect of atmospheric gases and stratospheric aerosol by combined use of IR and microwave data 08 p2335 N93-22128
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779
Development of data sets for the ISY sea surface temperature: MOS-1/MOS-1b data sets 08 p2371 N93-23838
ISY sea surface temperature validation test program in Mutsu Bay (Japan) 08 p2371 N93-23839
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
Satellite monitoring of the global ocean surface during 1987-1989 09 p2734 N93-24926
Simulation and prediction of tropical SST with a coupled ocean-atmosphere model 09 p2789 N93-25469
Relations between blue whiting biomass and satellite derived phytoplankton and temperature in the Norwegian Sea
[AD-A261205] 09 p2757 N93-25868
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method 10 p3074 N93-28249
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
SEA TRUTH
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Observation system for sea surface temperature validation test in Mutsu Bay 08 p2334 N93-22123
Observation in the East China Sea 08 p2335 N93-22126
Estimation of partial cloud cover within a pixel 08 p2335 N93-22127
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
SEA WATER
Ordovician impacts at sea in Baltoscandia 01 p0116 N93-10159
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE92-011856] 01 p0128 N93-10621
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
Evaluation of an analytical model for predicting light scattering from cylindrically-shaped objects in the ocean
[AD-A248414] 02 p0447 N93-11489
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Application of theoretical models to active and passive remote sensing of saline ice 03 p0633 N93-13086
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
The behavior and dissolution of gas bubble clouds in an ocean environment
[AD-A257131] 05 p1220 N93-16075
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Advanced atomic filters 06 p1664 N93-18468
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Fatigue performance of nine bolt materials in air and in sea water with cathodic protection 07 p1924 N93-20349
In-situ determination of optical properties of sea water and particle characteristics in the Corfu Sea (Mediterranean): Report on the first joint campaign of the Mito project
[BCRS-92-04] 07 p2018 N93-20741
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
World ocean circulation experiment. WOCE results of an oxygen/salinity comparison cruise on the R/VVernadsky
[PB93-116523] 07 p2018 N93-21214
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581
Active and passive remote sensing of ice
[AD-A259765] 08 p2415 N93-24026
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Free boundary problems in fresh-salt groundwater flow
[REPT-92-45] 10 p3041 N93-27882
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
Total CO2 and nitrate measurements in the southwest pacific during austral autumn, 1990
[PB93-188415] 12 p3769 N93-31333
SEALANTS
U SEALERS
SEALERS
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications 01 p0015 N93-10006
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253839] 01 p0029 N93-10207
Sealant research for solid oxide fuel cells
[DE92-019044] 02 p0345 N93-11513
Evaluation of EMP/EMI requirements versus corrosion prevention methods
[AD-A257820] 06 p1503 N93-18352
Four space application material coatings on the long-duration exposure flight (LDEF)
[NASA-TM-104574] 06 p1493 N93-18370

SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022

SEALING
Novel seals and specialty component attachment mechanisms for Respiratory Protection system (RESPO 21)
[AD-A253395] 01 p0091 N93-10290
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
Thruster sealing system and apparatus
[NASA-CASE-MSC-21898-1] 04 p0890 N93-14702
Method of applying a thermal barrier coating system to a substrate
[NASA-CASE-LEW-15020-2] 04 p0832 N93-14706
Design and analysis of seals for extended service life
05 p1181 N93-17283
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
Oxygen production on Mars and the Moon
10 p3021 N93-26683

SEALS (STOPPERS)
NT BRUSH SEALS
NT GASKETS
NT HERMETIC SEALS
NT LABYRINTH SEALS
NT O RING SEALS
NT PLUGS
NT PUMP SEALS
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
Compressible and incompressible fluid seals: Influence on rotordynamic response and stability
[NASA-CR-190746] 01 p0092 N93-10891
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Turbulence measurements of high shear flow fields in a turbomachine seal configuration
01 p0093 N93-10893
An experimental technique for performing 3-D LDA measurements inside whirling annular seals
01 p0093 N93-10894
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Test program, helium II orbital resupply coupling
[NASA-CR-185681] 02 p0326 N93-11650
Space Station Freedom seal leakage rate analysis and testing summary: Air leaks in ambient versus vacuum exit conditions
[NASA-TM-103604] 02 p0328 N93-12149
Development of braided rope seals for hypersonic engine applications: Flow modeling
[NASA-TM-105942] 04 p0888 N93-14478
Thruster sealing system and apparatus
[NASA-CASE-MSC-21898-1] 04 p0890 N93-14702
Simulation of cryogenic turbopump annular seals
05 p1181 N93-17318
An experimental examination of the thermal and acoustic environments on runway joint seals
[AD-A257965] 05 p1073 N93-17734
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
High-temperature, bellows hybrid seal
[NASA-CASE-LEW-15570-1] 06 p1549 N93-19027
Hatch securing mechanism
[AD-D015613] 07 p1914 N93-20399
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Advanced bristle seals for gas turbine engines
[AD-A261296] 09 p2720 N93-26564
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix B: Case, seals, and joints PFORs
[NASA-CR-192564] 11 p3272 N93-30619

SEAMOUNTS
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792

SEAMS (JOINTS)
A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
High efficiency, low weight and volume energy absorbent seam
[AD-D015531] 07 p1877 N93-20765

SEARCH AND RESCUE SATELLITE
U SARSAT

SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE
U PROJECT SETI

SEARCH PROFILES
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Spike: AI scheduling for Hubble Space Telescope after 18 months of orbital operations
06 p1634 N93-18660

SEARCH RADAR
NT OVER-THE-HORIZON RADAR
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
The detection and correlation modeling of Rayleigh distributed radar signals
[AD-A256612] 04 p0858 N93-14250
Evaluation of radar performance degradation due to standoff jamming
[AD-A257316] 05 p1137 N93-15983
Method and apparatus for determining target elevation angle, altitude and range, and the like in a monopulse radar system with reduced multipath errors
[AD-D015622] 08 p2272 N93-24232
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

SEARCHING
NT SEARCH PROFILES
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB]
06 p1624 N93-18858
Job shop scheduling by local search
[MEMO-COSOR-92-29] 12 p3834 N93-31510

SEAS
NT ADRIATIC SEA
NT ARABIAN SEA
NT BALTIC SEA
NT BARENTS SEA
NT BEAUFORT SEA (NORTH AMERICA)
NT CARIBBEAN SEA
NT MEDITERRANEAN SEA
NT NORTH SEA
The design and implementation of radar clutter modelling and adaptive target detection techniques
02 p0283 N93-11913
!mage matching strategies for the co-registration of CAESAR sea-images: An hierarchical area-based approach, part 2
[BCRS-90-40B-PT-2] 06 p1564 N93-17951
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 3: Design and detailed design document
[BCRS-90-40C-PT-3] 06 p1564 N93-17953
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Ocean Margins Program
[DE93-008937] 11 p3470 N93-29262

SEASAT SATELLITES
Microwave radiometer studies of atmospheric water over the oceans, volume 2
[NASA-CR-190343] 01 p0127 N93-10848
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060
Satellite data assimilation in the wave model 3G-WAM
07 p1965 N93-21638
Geological applications of space SAR data
08 p2339 N93-22440
Report of the Seasat Failure Review Board
09 p2619 N93-24693

SEASONAL VARIATIONS
U ANNUAL VARIATIONS

SEASONS
NT SPRING (SEASON)
NT SUMMER
NT WINTER
An assessment of permafrost conditions at three DND airports in Arctic Canada as they pertain to future planning and operations
[ORAE-R107] 08 p2133 N93-23114
VLF/LF propagation measurements
11 p3395 N93-30732
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874

SEATS
NT EJECTION SEATS
Design guide for the ergonomic aspects of helicopter crew seating
[ISVR-TR-209] 03 p0678 N93-13464
Effects of seating configuration and number of type 3 exits on emergency aircraft evacuation
[AD-A256616] 04 p0783 N93-14277
Passive zero-gravity leg restraint
[NASA-CASE-ARC-11882-1-CU]
04 p0939 N93-14713
Portable seat lift
[NASA-CASE-MFS-28610-1] 05 p1228 N93-17045
Enabler operator station --- lunar surface vehicle
[NASA-CR-192067] 06 p1546 N93-18050
AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910
Design of a portable powered seat lift
08 p2429 N93-22190
Microcomputer based software for biodynamic simulation 08 p2429 N93-22191
Crashworthiness of composite seats for civil aircraft
09 p2582 N93-24773

SECONDARY BATTERIES
U STORAGE BATTERIES

SECONDARY COSMIC RAYS
Enhancement of the gyro lines by suprathermal particles 06 p1724 N93-19535

SECONDARY EMISSION
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
Monte-Carlo simulations of secondary electron emission from CsI, induced by 1-10 keV x rays and electrons
[DE93-604906] 12 p3818 N93-31239

SECONDARY FLOW
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3]
02 p0213 N93-11339
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
Effects of cooling-air injection on secondary flows and losses in a turbine cascade
[NAL-TR-1121T] 02 p0307 N93-12382
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
On the prediction of turbulent secondary flows
[NASA-CR-189722] 03 p0575 N93-12717
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
Turbulent secondary flow as a coherent structure of turbulent shear flows 05 p1161 N93-16822
Similarity in laminar pipe flows with secondary flows
06 p1413 N93-19302
Flow and heat transfer experiments in the turbine airfoil/endwall region 09 p2704 N93-25725
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187

SECONDARY ION MASS SPECTROMETRY
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces
01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces
01 p0032 N93-10854
Lunar and asteroid composition using a remote secondary ion mass spectrometer
05 p1387 N93-17245
CoMA: A high resolution Time-Of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for in situ analysis of cometary matter 06 p1721 N93-19272
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry
[DE93-003839] 07 p2098 N93-21849
High resolution studies of atoms and small molecules
[DE93-004340] 08 p2481 N93-22758
State-selected studies of atoms and molecules ejected from ion bombarded surfaces
[AD-A261275] 09 p2850 N93-26267
Accelerator Mass Spectrometry facility (AMS)
[AD-A262458] 10 p3134 N93-27829
Oxygen isotopes implanted in the LDEF spacecraft
10 p2997 N93-28256
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Scanning ionic microscopy with high spatial resolution: Parallel acquisition of elementary images by high resolution mass spectrometry
[ONERA-NT-1990-7] 11 p3314 N93-30139

SECONDARY RADAR
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
SECONDARY WAVES
U S WAVES
SECRETIONS
NT ALDOSTERONE
NT HORMONES
NT INSULIN
NT PITUITARY HORMONES
NT PROSTAGLANDINS
SECULAR PERTURBATION
U LONG TERM EFFECTS
SECULAR VARIATIONS
Modeling the geomagnetic field over Spain: Anomalous field, secular variation, and reference field
[MEMO-15] 05 p1211 N93-17634
Asteroid proper elements and secular resonances
06 p1710 N93-19186
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem
[NASA-TP-3272-PT-1B] 09 p2776 N93-26421
SECURITY
NT AIRPORT SECURITY
NT COMPUTER INFORMATION SECURITY
Authentication algorithm for the universal Authenticated Item Monitoring Systems (AIMS)
[DE92-018826] 02 p0408 N93-11378
The protection of the Facsimile (FAX) machine against the insider threat
[DE92-019424] 03 p0565 N93-13506
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Proceedings of the First International Symposium on Explosive Detection Technology
[DOT/FAA/CT-92/11] 07 p1764 N93-21856
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
The UK perspective on aviation security
07 p1764 N93-21858
Assessing the operational impacts of checked luggage screening 07 p1777 N93-21936
A systems approach to the explosive detection problem 07 p1778 N93-21942
Security classification of information
[DE93-012416] 11 p3612 N93-28840
Activities report of PTT Research
[ISBN-9-07-212514-2] 11 p3392 N93-30025
Security of the remote control link of Anik E satellites
11 p3365 N93-30282
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
Advances in Analysis and Detection of Explosives. Proceedings of the 4th International Symposium on Analysis and Detection of Explosives
[AD-A265002] 12 p3713 N93-32077
Intelligent security assessment for a mobile robot
[AD-A265003] 12 p3799 N93-32078
SEDIMENT TRANSPORT
The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California
[DE92-019172] 02 p0373 N93-11734
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion
06 p1743 N93-19819
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
SEDIMENTARY ROCKS
NT COAL
NT SANDSTONES
NT SHALES
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160
Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada
06 p1582 N93-18975
SEDIMENTS
NT MUD
NT SANDS
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
The flux and recycling of bioactive substances in the surface sediments of the deep basins off southern California
[DE92-019172] 02 p0373 N93-11734
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Topography-induced variation in benthic boundary layer particle dynamics and fauna
[AD-A258230] 06 p1589 N93-18124
The orbital record in stratigraphy
06 p1582 N93-18974
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data
08 p2351 N93-23558
A direct mathematical approach to optimize the age-depth relation of deep-sea sediment cores
[MPIM-77] 08 p2414 N93-23636
Observing the northeast Atlantic with NOAA-N at the University of Lisbon (Portugal) Space Oceanography Facility 08 p2362 N93-23779
Orbital tuning of marine sedimentary cores: An automatic procedure based on a general linear model
[MPIM-79] 08 p2415 N93-23856
Evaluation of nearshore suspended sediment concentration through Landsat TM data: First results
09 p2747 N93-24833
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336
Geologic controls on the West Antarctic Ice Sheet
12 p3762 N93-31900
SEE (SOFTWARE ENGINEERING ENVIRONMENTS)
U PROGRAMMING ENVIRONMENTS
SEEDS
A trainable image pattern classification system for detection of damaged soybean seeds
02 p0201 N93-12208
A study of the effects of micro-gravity on seed germination 03 p0510 N93-13167
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
Final results of space exposed experiment developed for students 11 p3492 N93-29702
Continued results of the seeds in space experiment
11 p3492 N93-29703
SEEING (ASTRONOMY)
Light extinction in the atmosphere
[DE93-005034] 08 p2397 N93-23978
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
SEEKERS
U HOMING DEVICES
SEEPAGE
Flow rate logging seepage meter
[NASA-CASE-LAR-14835-1] 06 p1538 N93-19328
Radar sensing of petroleum seepage gases
[AD-A261431] 09 p2682 N93-26455
SEGMENTS
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
Reflections on segmentation
[RR-873-I] 07 p2034 N93-20791
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872
Geometric approaches of image generation using Voronoi models
[ETN-93-92690] 07 p2041 N93-21393
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Second quantization in bit-string physics
10 p3146 N93-27357
SEGREGATION
U SEPARATION
SEISMIC ENERGY
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium
[AD-A256711] 05 p1206 N93-16138
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
Analysis of seismograms from nuclear explosions of known yield at Degelen Mountain and Konystan in east Kazakhstan, USSR
[AWE-O-2/92] 10 p3073 N93-27703
SEISMIC WAVES
NT RAYLEIGH WAVES
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Propagation of regional phases: Observations and theory
[AD-A246891] 02 p0359 N93-11228
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
Seismic wave propagation in thinly-layered media with steep reflectors
[DE92-015619] 02 p0364 N93-12142
A dip-dependent divergence correction
[DE92-016283] 02 p0366 N93-12308
Migration by the Kirchhoff, slant stack, and Gaussian beam methods
[DE92-018640] 02 p0366 N93-12318
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
Regional seismic studies in Central Asia
[AD-A256677] 05 p1206 N93-16094
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium
[AD-A256711] 05 p1206 N93-16138
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
A systematic study of the effects of crust and upper mantle structure on regional seismograms
[AD-A260231] 08 p2399 N93-24086
Develop an x-windows tool to compute Gaussian beam synthetic seismograms
[AD-A260034] 08 p2400 N93-24253
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
A semi-empirical analysis of strong-motion peaks in terms of seismic source, propagation path, and local site conditions
[PB93-150266] 08 p2402 N93-24629
Analysis of seismograms from nuclear explosions of known yield at Degelen Mountain and Konystan in east Kazakhstan, USSR
[AWE-O-2/92] 10 p3073 N93-27703
Migration of seismic data in the double Radon transformed domain
[ETN-93-93596] 10 p3073 N93-28094
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models
[AD-A263209] 10 p3075 N93-28384
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412

Modeling earthquakes with local and regional broadband data 11 p3478 N93-30005
Modeling regional seismic waves
[AD-A264002] 11 p3479 N93-30756
The shot continuation operator
[REPT-92-065] 12 p3758 N93-31606

SEISMOGRAMS
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093
Regional seismic studies in Central Asia
[AD-A256677] 05 p1206 N93-16094
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium
[AD-A256711] 05 p1206 N93-16138
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
A systematic study of the effects of crust and upper mantle structure on regional seismograms
[AD-A260231] 08 p2399 N93-24086
Develop an x-windows tool to compute Gaussian beam synthetic seismograms
[AD-A260034] 08 p2400 N93-24253
Analysis of seismograms from nuclear explosions of known yield at Degelen Mountain and Konystan in east Kazakhstan, USSR
[AWE-O-2/92] 10 p3073 N93-27703
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models
[AD-A263209] 10 p3075 N93-28384

SEISMOGRAPHS
Propagation of regional phases: Observations and theory
[AD-A246891] 02 p0359 N93-11228
State-of-the-art for assessing earthquake hazards in the United States. Report 26: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Optimism experiment and development of space-qualified seismometers in France 11 p3646 N93-28796
The MESUR mission 11 p3649 N93-28816
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819

SEISMOLOGY
NT HELIOSEISMOLOGY
NT MOONQUAKES
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties
[AD-A254350] 02 p0366 N93-12270
A dip-dependent divergence correction
[DE92-016283] 02 p0366 N93-12308
Migration by the Kirchhoff, slant stack, and Gaussian beam methods
[DE92-018640] 02 p0366 N93-12318
Effects of source-region phenomenology on seismic discrimination
[DE92-017441] 03 p0649 N93-12841
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Seismic studies of crustal structure and tectonic evolution across the central California margin and the Colorado Plateau margin 03 p0657 N93-13794
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure 04 p0913 N93-14225
Proceedings of the Fourteenth Annual PL/DARPA Seismic Research Symposium
[AD-A256711] 05 p1206 N93-16138
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
Lithospheric dynamics near plate boundaries
[NASA-CR-192108] 07 p1997 N93-20310
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
The sensitivity of seismic responses to gas hydrates
[DE93-000216] 07 p1999 N93-21253
Summaries of FY 1992 geosciences research
[DE93-004826] 07 p1965 N93-21726
Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801
Applications of satellite data on seismic risk assessment: Strain analysis of fault lineament systems 08 p2349 N93-23546
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
A geological and geophysical information system for Eurasia
[AD-A261789] 09 p2883 N93-26442
GPS measurements at Vandenberg, AFB
[AD-A262280] 10 p2941 N93-28241
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176
A neural network approach to seismic phase identification
[DE93-013601] 12 p3800 N93-32305

SEISMOMETERS
U SEISMOGRAPHS

SEIZURES
Automatic detection of seizures with applications 09 p2796 N93-25592

SELECTION
NT PERSONNEL SELECTION
NT PILOT SELECTION
NT SITE SELECTION
Selection and costing of heat exchangers
[ESDU-92013] 06 p1524 N93-18040
Nonmonotonic temporal reasoning
[AD-A258899] 07 p2032 N93-20377
Advanced display object selection methods for enhancing user-computer productivity 08 p2444 N93-22151
Mir 1992 operations and crew training 08 p2157 N93-24352
The best variety or an almost best one? A comparison of subset selection procedures
[MEMO-COSOR-92-22] 10 p3123 N93-27237
Extensions of choice behaviour
[MEMO-COSOR-92-23] 10 p3163 N93-27280
An experimental methodology for a fuzzy set preference model 11 p3514 N93-29547
A fuzzy case based reasoning tool for model based approach to rocket engine health monitoring 11 p3289 N93-29570

SELECTIVE DISSEMINATION OF INFORMATION
Security considerations within military information systems 01 p0174 N93-10603
Unifying information flow policies
[RSRE-90020] 01 p0175 N93-10801
The Terry-Wiseman security policy model and examples of its use
[RSRE-90001] 01 p0134 N93-10807
Lattices for security policies
[RSRE-90005] 01 p0139 N93-10823
A multilevel security model for object-oriented database systems 01 p0175 N93-10844
Lies, damned lies, and databases
[RSRE-MEMO-4503-ISSUE-2] 02 p0474 N93-11333
Risk assessment of LAN communications
[AD-A257327] 05 p1137 N93-15987
The SWORD multilevel secure DBMS
[RSRE-92005] 09 p2811 N93-25942

SELECTIVE SURFACES
On the definition and calculation of effective impedances and averaged boundary conditions with application to the analysis of high complexity frequency selective surfaces
[RSRE-MEMO-4518] 02 p0281 N93-11387

SELECTIVITY
GPS standardization for the needs of time transfer 09 p2836 N93-25016

SELENIDES
NT CADMIUM SELENIDES
NT COPPER SELENIDES
NT GALLIUM SELENIDES
NT LEAD SELENIDES
NT ZINC SELENIDES
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Research on high efficiency, large-area CuInSe2-based thin-film modules
[DE93-000077] 08 p2513 N93-24433
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454

SELENIUM
Experimental studies of x ray laser spectral profiles: Observation of gain narrowing and saturation behavior
[DE92-019603] 02 p0316 N93-11659

SELENIUM COMPOUNDS
NT CADMIUM SELENIDES
NT COPPER SELENIDES
NT GALLIUM SELENIDES
NT LEAD SELENIDES
NT SELENIDES
NT ZINC SELENIDES

SELF ALIGNMENT
A self-aligning interferometer suitable for white or monochromatic light consisting solely of a mirror and a reflection grating, part 2
[DE93-609517] 12 p3823 N93-31246

SELF CONSISTENT FIELDS
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
Ab initio atomic recombination reaction energetics on model heat shield surfaces
[NASA-CR-191210] 03 p0575 N93-12677
Theoretical characterization of the potential energy surface for NH + NO 04 p0843 N93-15357
Selfconsistent analysis of radial electric field and fast ion losses in CHS Torsatron/Heliotron
[NIFS-178] 07 p2071 N93-20264
Effect of alpha particles on radial electric field structure in Torsatron/Heliotron reactor
[NIFS-182] 07 p2071 N93-20265
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505

SELF DEPLOYING SPACE STATIONS
U SELF ERECTING DEVICES
U SPACE STATIONS

SELF DIFFUSION (SOLID STATE)
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603

SELF ERECTING DEVICES
Prefabricated foldable lunar base modular systems for habitats, offices, and laboratories 05 p1229 N93-17444
In-step inflatable antenna experiment 11 p3263 N93-28701

SELF EXCITATION
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672

SELF FOCUSING
Self-focusing of broadband laser pulses in dispersive media
[DE93-007369] 08 p2307 N93-22529

SELF INDUCED VIBRATION
NT PANEL FLUTTER
NT TRANSONIC FLUTTER
Thermally induced vibrations in a temperature-rate dependent thermoelastic solid with a spherical cavity 07 p1933 N93-20663

SELF LUBRICATING MATERIALS
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
SELF LUBRICATION
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
SELF ORGANIZING SYSTEMS
Smart algorithms and adaptive methods in computational fluid dynamics 01 p0044 N93-10469
Quark/gluon jet separation in the photoproduction region with a neural network algorithm
[NOTA-INTERNA-992] 06 p1653 N93-17943
Computer and mathematical modelling of massively parallel architectures for self-organizing neural pattern recognition machines
[AD-A258167] 06 p1630 N93-18297
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
Determining the number of hidden units in multi-layer perceptrons using F-ratios 08 p2451 N93-22214
A new approach for designing self-organizing systems and application to adaptive control
08 p2451 N93-22215
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
The use of multiple linked self-organised artificial neural networks for classification of remotely sensed images
08 p2353 N93-23565
Neural network methods for analysis of remotely-sensed satellite data 08 p2353 N93-23566
Demonstration for novel self-organization theory by three-dimensional magnetohydrodynamic simulation
[NIFS-212] 09 p2859 N93-25227
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
Adding dynamic rules to self-organizing fuzzy systems
11 p3515 N93-29557
A conjugate gradients/trust regions algorithms for training multilayer perceptrons for nonlinear mapping
11 p3519 N93-29581
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Neural nets and their relevance for information retrieval
[CL-91-02] 12 p3798 N93-31469
Kohonen feature maps in natural language processing
[CL-91-01] 12 p3788 N93-31517
Connectionist models and linguistic theory: Investigations of stress systems in language
[AD-A265450] 12 p3777 N93-32064
SELF OSCILLATION
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669
SELF PROPAGATION
Combustion synthesis of ceramic and metal-matrix composites 07 p1854 N93-20203
SELF REGULATING
U AUTOMATIC CONTROL
SELF TESTS
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
Self-checking on-line testable static RAM
[NASA-CASE-NPO-17939-1-CU]
08 p2432 N93-22032
Fault tolerance and testing for WSI systems
11 p3361 N93-30258
SELSYNS (TRADEMARK)
U SERVOMOTORS
SEM (MICROSCOPY)
U SCANNING ELECTRON MICROSCOPY
SEMANTICS
A formal definition of the static semantics of ELLA's core
[RSRE-91024] 02 p0409 N93-11436
Selecting reusable components using algebraic specifications 02 p0415 N93-12387
Neural network-based retrieval from software reuse repositories 02 p0415 N93-12388
Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494
Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502
An axiomatic treatment of partial correctness and deadlock in a shared variable parallel language
[AD-A256234] 04 p0960 N93-15494
A framework for classifying and resolving semantic conflicts using the enhanced entity-relationship model
[AD-A257452] 05 p1351 N93-15870
The failure of failures in a paradigm for asynchronous communication
[CWI-CS-R9147] 05 p1237 N93-16410
The dynamics of description
[CWI-CS-R9143] 05 p1240 N93-16671
Strong sequentiality of left-linear overlapping rewriting systems
[CWI-CS-R9146] 05 p1267 N93-16721
Quantification and partiality
[CWI-CS-R9152] 05 p1242 N93-16732
A sound and complete calculus for update logic
[CWI-CS-R9155] 05 p1267 N93-16742
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
Semantic query optimization in distributed database systems: A knowledge-based approach
[ISBN-90-9003849-3] 05 p1356 N93-17590
Semantics and comparative logic
[LP-91-09] 05 p1272 N93-17713
A framework for classifying and resolving semantic heterogeneity in object-oriented databases
[AD-A257597] 05 p1357 N93-17790
The Lambek calculus enriched with additional connectives
[LP-91-04] 06 p1642 N93-17826
The semantics of plural noun phrases
[LP-91-07] 06 p1614 N93-17827
Categorical grammar and natural reasoning
[LP-91-08] 06 p1642 N93-17828
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
A note on interrogatives and adverbs of quantification
[LP-92-07] 06 p1615 N93-17830
A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
An update semantics for dynamic predicate logic
[LP-92-04] 06 p1615 N93-17841
The dynamic semantics of Kernel ELLA
[AD-A258221] 06 p1617 N93-18024
Flow models of distributed computations: Three equivalent semantics for CCS
[INRIA-RR-1484] 06 p1622 N93-18613
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
A static view of localities
[INRIA-RR-1483] 06 p1622 N93-18650
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651
Extended abstract: Managing disjunction for practical temporal reasoning 06 p1634 N93-18664
Tomita's algorithm in practical applications
07 p2031 N93-20227
Resolution in modal propositional logic
[REPT-91-59] 07 p2052 N93-20853
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
On semantics: The case of knowledge graphs
[MEMO-1028] 07 p2091 N93-20955
Maximal Kripke-type semantics for modal and superintuitionistic predicate logics
[ML-92-02] 07 p2054 N93-21009
Modelling knowledge in electronic study books
[MEMO-1029] 07 p2091 N93-21032
An order-theoretic model for the algebra of communicating processes
[RUU-CS-92-02] 07 p2054 N93-21034
Efficient implementation of a functional language for the definition of practicable, denotational semantics
[ETN-93-93413] 07 p2055 N93-21176
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
An ontology of knowledge graphs
[MEMO-1049] 08 p2441 N93-24063
Interpretation as abduction
[AD-A259608] 08 p2425 N93-24227
Visualizing the semantic content of large text databases using text maps 09 p2826 N93-25982
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135
Towards a formalism for program generation
[AD-A261689] 09 p2812 N93-26368
A theory of first-order built-in's of PROLOG
[CWI-CS-R9216] 10 p3093 N93-27255
Transition systems and dynamic semantics
[CWI-CS-R9217] 10 p3094 N93-27256
Real time process algebra with prefixed integration
[CWI-CS-R9219] 10 p3114 N93-27362
A comparison of OBJ3 and ASF+SDF
[CWI-CS-R9223] 10 p3094 N93-27363
Using cached functions and constructors for incremental attribute evaluation
[RUU-CS-92-11] 10 p3094 N93-27369
Termination of term writing by interpretation
[RUU-CS-92-14] 10 p3114 N93-27381
Comparative transition system semantics
[CWI-CS-R9222] 10 p3095 N93-27389
An executable semantics for a subset of COLD
[CWI-CS-R9145] 10 p3097 N93-27493
Towards a design theory for database triggers
[CWI-CS-R9201] 10 p3166 N93-27494
Bisimulation semantics for concurrency with atomicity and action refinement
[CWI-CS-R9210] 10 p3116 N93-27498
Processes as terms: Non-well-founded models for bisimulation
[CWI-CS-R9211] 10 p3097 N93-27499
A simple specification language combining processes, time, and data
[CWI-CS-R9209] 10 p3097 N93-27525
Asynchronous communication in process algebra (extended abstract)
[CWI-CS-R9206] 10 p3098 N93-27551
Computable processes and bisimulation equivalence
[CWI-CS-R9207] 10 p3098 N93-27552
Index expression belief networks for information disclosure
[TR-92-12] 10 p3167 N93-27915
Index expression belief networks for information disclosure
[RUU-CS-92-21] 10 p3167 N93-27929
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994
Regular processes with relative time and silent steps
[CWI-CS-R9231] 10 p3101 N93-27995
Specification and generation of a lambda-calculus environment
[CWI-CS-R9233] 10 p3101 N93-27997
Dynamic modal predicate logic
[CWI-CS-R9237] 10 p3101 N93-28001
Current trends in the semantics of dataflow
[RUU-CS-92-22] 10 p3167 N93-28063
Semantic models for distributed data base management. Part 1: Development of a metamodel for fragmentation
[REPT-92-33] 10 p3168 N93-28390
Formal definition of a conceptual language for the description and manipulation of information models
[TR-92-16] 11 p3523 N93-28503
Nets of reactive processes
[INRIA-RR-1588] 11 p3537 N93-28505
Implementing error-valued semantics for dataflow languages on imperative machines
[DE93-009319] 11 p3615 N93-29310
Information compression in the context model
11 p3514 N93-29549
A functional implementation of the Jacobi eigen-solver
[DE93-007349] 11 p3549 N93-29769
Full abstraction for a shared variable parallel language
[AD-A263547] 11 p3530 N93-29821
Turning SOS rules into equations
[CWI-CS-R9218] 11 p3532 N93-30017
On the integration of algebraic and logic languages
[ETN-93-94238] 12 p3786 N93-31205
Reasoning about termination of PROLOG programs
[CT-91-12] 12 p3787 N93-31479
Object oriented application flow graphs and their semantics
[CT-92-01] 12 p3788 N93-31528
Revision by expansion in logic programs
[REPT-93-02] 12 p3790 N93-31852
Producing approximate answers to database queries
12 p3843 N93-32150
SEMICIRCULAR CANALS
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800
Neural processing of gravity information
[NASA-CR-192766] 08 p2419 N93-23233

SEMICONDUCTING FILMS

Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355

Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414

Ion beams as a means of deposition and in-situ characterization of thin films and thin film layered structures
[DE92-016397] 02 p0469 N93-12310

Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932

Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516

Process for the controlled growth of single-crystal films of silicon carbide polytypes on silicon carbide wafers
[NASA-CASE-LEW-15222-3] 05 p1327 N93-17413

Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study
07 p1803 N93-21079

Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040

SEMICONDUCTOR DEVICES

NT AVALANCHE DIODES
NT BIPOLAR TRANSISTORS
NT CHARGE COUPLED DEVICES
NT CHARGE TRANSFER DEVICES
NT CMOS
NT FIELD EFFECT TRANSISTORS
NT GALLIUM ARSENIDE LASERS
NT HETEROJUNCTION DEVICES
NT HIGH ELECTRON MOBILITY TRANSISTORS
NT JFET
NT JUNCTION DIODES
NT JUNCTION TRANSISTORS
NT LIGHT EMITTING DIODES
NT METAL OXIDE SEMICONDUCTORS
NT MIM (SEMICONDUCTORS)
NT MIS (SEMICONDUCTORS)
NT MODFETS
NT MSM (SEMICONDUCTORS)
NT PHOTODIODES
NT PHOTOTRANSISTORS
NT PHOTOVOLTAIC CELLS
NT SCHOTTKY DIODES
NT SEMICONDUCTOR LASERS
NT SILICON TRANSISTORS
NT SOI (SEMICONDUCTORS)
NT SOLAR CELLS
NT SOS (SEMICONDUCTORS)
NT THERMISTORS
NT THYRISTORS
NT TRANSISTOR AMPLIFIERS
NT TRANSISTORS
NT VARACTOR DIODES
NT VARISTORS

Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345

Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421

Optimization of resonant interband tunnel devices
[AD-A252401] 01 p0168 N93-10637

Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663

Quantum 1/f noise in high technology applications including ultrasmall structures and devices
[AD-A253922] 01 p0074 N93-10751

Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871

Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257

An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492

Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693

Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502

Semiconductor measurement technology: Version 2.0 of the TXYZ thermal analysis program: TXYZ20
[PB92-217603] 03 p0570 N93-12978

A study of small solid-state switched TEA CO2 lasers
03 p0607 N93-13814

On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087

Transport in heterostructures and device in microwave and millimeter wave regimes
[AD-A255975] 04 p0858 N93-14408

Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410

Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433

Novel engineered compound semiconductor heterostructures for advanced electronics applications
[AD-A255363] 04 p0866 N93-14562

Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583

Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668

Dual active layer photoconductor
[AD-D015423] 04 p0993 N93-14820

A theoretical search for supervelocity semiconductors
[AD-A258325] 04 p0994 N93-15191

Time stability of Monte Carlo device simulation
[DE92-019375] 05 p1275 N93-15884

Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904

Center for High-Frequency Microelectronics
[AD-A257003] 05 p1145 N93-16030

A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140

Solid state research
[AD-A256965] 05 p1318 N93-16251

Aspects of electron transport in semiconductor nanostructures
[ETN-92-92787] 05 p1321 N93-16486

Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512

Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599

The unofficial AMPLEX owner's manual
[DE93-001437] 05 p1148 N93-16651

Feasibility assessment and applications development of a radiobiological dosimeter for space applications, phase 2
[CTN-93-60609] 05 p1168 N93-16745

Process for the controlled growth of single-crystal films of silicon carbide polytypes on silicon carbide wafers
[NASA-CASE-LEW-15222-3] 05 p1327 N93-17413

Multigrid for semiconductor device simulation: Cell-centered or vertex-centered multigrid?
[CWI-NM-R9118] 05 p1271 N93-17553

Preliminary investigation into the development of hardening devices using vacuum microelectronic technology
[AD-A258009] 05 p1152 N93-17750

A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777

Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314

Device applications of layered structures
06 p1523 N93-18461

Application of multirate digital filter banks to wideband all-digital phase-locked loops design
06 p1505 N93-18908

Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467

Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488

Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131

The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132

A semiconductor bridge ignited hot gas piston ejector
07 p1864 N93-20137

Proceedings of the International Workshop on Quantum Effect Physics, Electronics, and Applications
[AD-A259457] 07 p2084 N93-20242

Growth, characterization and device development in monocrystalline diamond films
[AD-A259099] 07 p2079 N93-20407

IRCCD research 07 p1790 N93-20417

Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20466

Development of high density hybrid IC
07 p1798 N93-20469

Research on single event resistance evaluation technology: Single event resistance evaluation by SEM
07 p1801 N93-20484

Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485

Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486

Simulation of electronic transport in semiconductor heterolayer devices
[AD-A260122] 08 p2502 N93-22548

Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999

Electrical characterization of conducting polymers and polymeric semiconductor devices
[ACTA-POL-SCAND-PH-178] 08 p2238 N93-23006

Focal plane arrays for submillimeter waves using two-dimensional electron gas elements: A grant under the Innovative Research Program
[NASA-CR-192271] 08 p2263 N93-23062

Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366

Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134

Optical studies of laterally confined quantum well structures grown on ex-situ and in-situ patterned substrates
[AD-A260275] 08 p2511 N93-24167

Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225

Quantum mechanics of electrons in crystals with graded composition
[AD-A260294] 08 p2512 N93-24262

Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367

Electric field effects on quantum-confined semiconductor structures 09 p2865 N93-25703

Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774

Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194

RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311

1992 technical digest series volume 16. Conference edition: Summaries of papers presented at the Nonlinear Dynamics in Optical Systems Topical Meeting
[AD-A261915] 09 p2857 N93-26544

Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577

Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626

Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645

Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873

Transport of electron-waves and single-charges in semiconductor nanostructures
[ETN-93-93609] 10 p3031 N93-27880

Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912

Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327

Analysis of electrothermal interactions in power semiconductor modules
[ETN-93-93800] 11 p3591 N93-28470

Optically controlled solid state opening switches
[AD-A262404] 11 p3591 N93-28496

Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642

Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614

Simulation of transient radiation effects on semiconductor devices using a pulsed Q-switched Nd:YAG laser 11 p3357 N93-30230

NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666

Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation
[DE93-606332] 11 p3601 N93-30798
Laboratory experiments in integrated circuit fabrication
11 p3292 N93-30962
Scattering of electrons at heterostructure interfaces
[ETN-93-94044] 12 p3828 N93-31523
Characteristics and properties of the continuity equations in a semiconductor
[REPT-92-080] 12 p3720 N93-31609
Light-induced band-structure modifications in modulation-doped 3-5 semiconductor heterostructures
[ETN-93-94053] 12 p3828 N93-31619
Excitonic bistabilities, instabilities and chaos in laser-pumped semiconductor
[DE93-608677] 12 p3731 N93-31669
Noise attenuating circuit for mechanical relay including optical isolation
[AD-D015700] 12 p3720 N93-31842

SEMICONDUCTOR DIODES
NT AVALANCHE DIODES
NT GUNN DIODES
NT JUNCTION DIODES
NT LIGHT EMITTING DIODES
NT PHOTODIODES
NT SCHOTTKY DIODES
NT TUNNEL DIODES
NT VARACTOR DIODES
Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
Stability of coupled semiconductor diode lasers
01 p0088 N93-10379
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
Resonance ionization of rubidium using sequential diode laser-driven transitions
[DE92-014468] 01 p0089 N93-10429
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722
Optoelectronics material center: A collaborative program including center for high technology materials of the University of New Mexico, Stanford University, California Institute of Technology
[AD-A256005] 04 p0886 N93-15115
Communications: Fiber-coupled external-cavity semiconductor high-power laser
[AD-A257386] 05 p1171 N93-15860
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A257419] 05 p1171 N93-15864
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
Development of high speed rectifier diodes
07 p1798 N93-20463
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A262377] 10 p3147 N93-27695
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Analytical predictions of the intermodulation noise of semiconductor laser diode 11 p3361 N93-30256

SEMICONDUCTOR INSULATOR SEMICONDUCTORS
U SIS (SEMICONDUCTORS)

SEMICONDUCTOR JUNCTIONS
NT HETEROJUNCTIONS
NT P-I-N JUNCTIONS
NT P-N JUNCTIONS
Electron transfer rates at semiconductor/liquid interfaces
[DE92-018559] 02 p0289 N93-11438
Recombination and metastability in amorphous silicon and silicon germanium alloys
[DE92-010593] 02 p0463 N93-11816
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-002625] 06 p1676 N93-19617
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Fast interfacial electron transfer: Evidence for inverted region kinetic behavior
[AD-A262434] 10 p3133 N93-27658
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions
10 p3013 N93-27743
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Quantum transport
[AD-A264935] 12 p3832 N93-32072

SEMICONDUCTOR LASERS
NT GALLIUM ARSENIDE LASERS
Long wavelength multiple quantum well lasers for high-speed modulation applications
[AD-A253348] 01 p0087 N93-10211
Fellowship in physics/modern optics and quantum electronics
[AD-A253666] 01 p0087 N93-10228
Stability of coupled semiconductor diode lasers
01 p0088 N93-10379
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
In-plane strain measurement on high speed rotating components using pulsed laser ESPI
[PNR-90975] 02 p0315 N93-11064
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU]
03 p0605 N93-13418
A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers
03 p0606 N93-13629
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers
03 p0607 N93-13773
The three to five semiconductor quantum well lasers and related optoelectronic devices on silicon
[AD-A255368] 03 p0608 N93-13864
Optical signal distribution schemes for millimeter phased array radar
[AD-A256262] 04 p0858 N93-14437
The III-V semiconductor quantum well lasers and related optoelectronic devices (on silicon). Oxide-defined semiconductor quantum well lasers and optoelectronic devices: Al-based III-V nativeoxide s
[AD-A255239] 04 p0885 N93-14667
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Optoelectronics material center: A collaborative program including center for high technology materials of the University of New Mexico, Stanford University, California Institute of Technology
[AD-A256005] 04 p0886 N93-15115
Communications: Fiber-coupled external-cavity semiconductor high-power laser
[AD-A257386] 05 p1171 N93-15860
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A258485] 06 p1540 N93-18101
Self-collimated unstable resonator semiconductor laser
[NASA-CASE-NPO-18386-1-CU]
06 p1540 N93-18277
Development of simplified external control techniques for broad area semiconductor lasers
[NASA-CR-192223] 06 p1541 N93-18584
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
Laser phase front measurements using a phase conjugate Twyman-Green interferometer
[AD-A258821] 06 p1542 N93-18996
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Laser diode ordnance design
07 p1864 N93-20140
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Proposed system safety design and test requirements for the microlaser ordnance system
07 p1864 N93-20144
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145
Advances in laser diodes for pyrotechnic applications
07 p1865 N93-20146
Laser diode initiated detonators for space applications
07 p1865 N93-20147
Transverse effects in a model of semiconductor laser arrays 07 p1909 N93-20284
The semiconductor laser applied to fibre optic sensors
07 p1910 N93-20286
Injection seeded, diode pumped regenerative ring Nd:YAG amplifier for spaceborne laser ranging technology development
[NASA-CR-192171] 07 p1910 N93-20298
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
Modulation behavior of semiconductor lasers with optical feedback
[ETN-93-92567] 07 p1911 N93-20881
Video guidance sensor 07 p1812 N93-21409
Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture
08 p2139 N93-22250
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Quantum theory of multiwave mixing with applications to squeezing in both atomic and semiconductor media
[AD-A259875] 08 p2514 N93-22732
P+ contacts on GaAs for semiconductor lasers
[AD-A260207] 08 p2309 N93-24003
Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040
Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Semiconductor laser with a self-pumped phase conjugate external cavity
[AD-A260028] 08 p2310 N93-24323
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
An active solid state ring laser gyroscope
09 p2709 N93-25291
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
Influence of optical feedback on the pulse behavior of semiconductor lasers
[ETN-93-93798] 11 p3436 N93-28614
ND laser with co-doped ion(s) pumped by visible laser diodes
[AD-D015711] 11 p3437 N93-29277
Fiber-optic currents measurements
[DE93-007970] 11 p3579 N93-29350
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Analytical predictions of the intermodulation noise of semiconductor laser diode 11 p3361 N93-30256
Mode hopping in semiconductor lasers
12 p3731 N93-31131
Optoelectronic Materials Center: A collaborative program including University of New Mexico, Stanford University and California Institute of Technology
[AD-A265575] 12 p3732 N93-32052

SEMICONDUCTORS (MATERIALS)
NT ACCEPTOR MATERIALS
NT AMORPHOUS SEMICONDUCTORS
NT AMORPHOUS SILICON
NT CMOS
NT DONOR MATERIALS

NT METAL OXIDE SEMICONDUCTORS
NT MIM (SEMICONDUCTORS)
NT MIS (SEMICONDUCTORS)
NT N-TYPE SEMICONDUCTORS
NT ORGANIC SEMICONDUCTORS
NT P-TYPE SEMICONDUCTORS
NT PHOTOCONDUCTORS
NT SOS (SEMICONDUCTORS)
NT SUPERLATTICES
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Fellowship in physics/modern optics and quantum electronics
[AD-A253666] 01 p0087 N93-10228
Novel optoelectronic devices based on combining GaAs and InP on Si
[AD-A253781] 01 p0165 N93-10235
Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Advanced processing and characterization technologies. Fabrication and characterization of semiconductor optoelectronic devices and integrated circuits. Final Conference Proceedings No. 10
[AD-A254162] 01 p0073 N93-10663
Scanning tunneling microscopy of semiconductor surfaces
[AD-A246853] 01 p0168 N93-10726
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU] 02 p0458 N93-11056
Triisopropylindium: A new precursor for OMVPE growth
[AD-A250672] 02 p0460 N93-11558
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
Mechanical properties of semiconductors and their alloys
[AD-A253908] 02 p0462 N93-11727
Basic principles of organometallic vapor phase epitaxy
[AD-A250665] 02 p0464 N93-11868
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Programme and abstracts. Workshop on Expert Evaluation and Control of Compound Semiconductor Materials and Technologies No. 1: (EXAMTEC 199)
[AD-A254023] 02 p0292 N93-12071
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Synthesis and characterization of novel aluminum-arsenic compounds 2. Crystal structures of (R2AlAs (SiMe3)2)2 (R = i-Bu, Me) and i-Bu2 (Cl)Al*As (SiMe3)3
[AD-A248001] 02 p0467 N93-12175
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Determination of Fe(sup 2+) and Fe(sup 3+) concentrations of semi-insulating InP:Fe
[DE92-017119] 02 p0469 N93-12316
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Investigation of microgravity effects on solidification phenomena of selected materials
03 p0510 N93-13168
Electrical design of payload G-534: The Pool Boiling Experiment 03 p0510 N93-13170
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU] 03 p0605 N93-13418
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
Electronic transport properties of semiconductor microstructures 03 p0724 N93-13730
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
Time-resolved optical studies of 3-5 semiconductors
04 p0990 N93-14183
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Advanced laser chemical processing for microelectronics and integrated optics
[AD-A255980] 04 p0865 N93-14425
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
The 3 to 5 heterojunction structures and high speed devices
[AD-A250399] 04 p0991 N93-14521
Novel engineered compound semiconductor heterostructures for advanced electronics applications
[AD-A255363] 04 p0866 N93-14562
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Gas-surface interactions
[AD-A255390] 04 p0841 N93-14652
Ultrastructure processing and environmental stability of advanced structural and electronic materials
[AD-A256153] 04 p0831 N93-14665
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU] 04 p0994 N93-15151
A theoretical search for supervelocity semiconductors
[AD-A256325] 04 p0994 N93-15191
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
The components of an optical RS flip-flop for an integrated optical processor
[AD-A256879] 05 p1301 N93-15709
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Physics and chemistry in high electric fields
[AD-A257138] 05 p1280 N93-15854
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
RF vacuum microelectronics
[AD-A257320] 05 p1144 N93-15984
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
Electronic transport in 3-5 semiconductors and their lattice matched heterojunctions
[AD-A256904] 05 p1316 N93-16023
Center for High-Frequency Microelectronics
[AD-A257003] 05 p1145 N93-16030
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
Strained quantum well modulation-doped InGaSb/AlGaSb structures grown by molecular beam epitaxy
[DE93-000755] 05 p1316 N93-16132
A theoretical search for supervelocity semiconductors
[AD-A256912] 05 p1317 N93-16140
Nonlinear optical studies of resonant systems
[AD-A257001] 05 p1302 N93-16235
HACT spatial light modulator
[AD-A256994] 05 p1302 N93-16261
Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
Pressure as a probe of deep levels and defects in semiconductors: GaAs, GaP and their alloys
[DE93-000714] 05 p1323 N93-17055
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
X-ray studies of microstructures in semiconductors and superconducting materials
[DE93-001953] 05 p1324 N93-17198
Remote hydrogen sensing techniques
[NASA-CR-192416] 05 p1169 N93-17203
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
The 16th International Conference on Defects in Semiconductors
[AD-A258035] 05 p1328 N93-17754
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
On the time dependent hydrodynamic model for semiconductors
[ETN-93-93027] 06 p1518 N93-18098
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A257799] 06 p1671 N93-18238
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Method and apparatus for non-destructively measuring local resistivity of semiconductors
[AD-D015534] 06 p1519 N93-18316
Studies of metal-semiconductor clusters
06 p1678 N93-18493
Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers
[DE93-002324] 06 p1674 N93-18521
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
Theoretical and STM studies of the electronic structure of metal/semiconductor/hydrogen systems
[AD-A258693] 06 p1678 N93-19862
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
A coupled multi-ALU processing node for a highly parallel computer
[AD-A259455] 07 p2043 N93-20240
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274

Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Growth and characterization of binary and pseudo-binary 3-5 compounds exhibiting non-linear optical behavior. Undergraduate research opportunities in microgravity science and technology
[NASA-CR-192143] 07 p2068 N93-21363
A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333
Metallization and insulization during impact
[DE93-004708] 08 p2500 N93-22420
Electronic structure studies of YBa2Cu3O(x)(6.2 less than equal to x less than or equal to 6.9) using angle resolved photoemission
[DE93-004811] 08 p2501 N93-22493
Simulation of electronic transport in semiconductor heterolayer devices
[AD-A260122] 08 p2502 N93-22548
Utilization criteria of rapid disconnectable power semiconductors in quasi resonant inverters
[ETN-93-93421] 08 p2278 N93-22679
A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
Process toward a comprehensive control system for molecular beam epitaxy
[AD-A259724] 08 p2507 N93-23468
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Solid state research
[AD-A259726] 08 p2509 N93-24024
Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Report of the Gordon Research Conference on Point Defects, Line Defects, and Interfaces in Semiconductors
[AD-A259546] 08 p2510 N93-24083
Formation of defect-free metal/semiconductor contacts
[AD-A259604] 08 p2284 N93-24151
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
The DX centers in three to five semiconductors under hydrostatic pressure
[DE93-007701] 09 p2864 N93-25490
High speed solid state circuit breaker
09 p2694 N93-25598
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors
09 p2865 N93-25715
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
HERO resistant semiconductor bridge igniter
09 p2627 N93-26024
Gordon Conference on Point Defects, Line Defects and Interfaces in Semiconductors
[AD-A261485] 09 p2868 N93-26357
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Joint services electronics program
[AD-A261801] 09 p2692 N93-26539
Optical characterization of Ga(1-x)In(x)As(y)Sb(1-y)/GaSb alloy and device application
[AD-A261713] 09 p2870 N93-26581
Silicon carbide semiconductor technology for high temperature and radiation environments
10 p2978 N93-26928
A Petrov-Galerkin mixed finite element method with exponential fitting
[CWI-NM-R9204] 10 p3113 N93-27301
Incomplete Line LU for discretized coupled PDE's as preconditioner in Bi-CGSTAB
[CWI-NM-R9213] 10 p3031 N93-27367
Investigation of a new concept in semiconductor microwave oscillators: The contiguous domain oscillator
[AD-A262352] 10 p3031 N93-27645
Innovative optoelectronic materials and structures using OMVPE
[AD-A262202] 10 p3152 N93-27683
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Superlattice barrier varactors
10 p3012 N93-27738
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Workshop on Optical Properties of Mesoscopic Semiconductor Structures
[AD-A263024] 10 p3147 N93-27912
Nonlinear Optics: Materials, Fundamentals, and Applications. Postdeadline papers
[AD-A261807] 10 p3147 N93-28123
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE93-011437] 10 p3032 N93-28217
Rapid Thermal Processing (RTP) of semiconductors in space
[NASA-CR-193110] 10 p3009 N93-28408
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-006285] 11 p3406 N93-28944
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
Electrochemical fabrication of cadmium chalcogenide microdiode arrays
[AD-A263169] 11 p3310 N93-28988
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
New Mexico Center for Particle Physics: Studies of fundamental interactions
[DE93-008302] 11 p3566 N93-29261
Low temperature (LT) GaAs and related materials
[AD-A263607] 11 p3298 N93-29282
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514
Proceedings of Symposium F on New Aspects on the Growth, Characterization and Applications of CdTe and related Cd rich alloys 5, 1992
[AD-A263541] 11 p3597 N93-29974
Nonequilibrium screening and exciton dynamics probed by femtosecond laser pulses
[AD-A263603] 11 p3439 N93-29983
Fundamental studies of the morphology, chemistry, and electrical properties of metals on GaAs and other III-V semiconductor compounds
[AD-A264417] 11 p3597 N93-30120
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Atomic layer epitaxy of semiconductor heterostructures
[AD-A264755] 11 p3599 N93-30560
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665
Chaotic dynamics of high density photon and exciton system
[DE93-608522] 12 p3819 N93-31666
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Large-area, triple-junction a-Si alloy production scale-up
[DE93-010007] 12 p3750 N93-32177
Method and apparatus for characterizing the quality for electrically thin semiconductor films
[AD-D015734] 12 p3830 N93-32206

SEMIMETALS
U METALLOIDS

SENDERS
U TRANSMITTERS

SENSE ORGANS
NT EAR
NT EYE (ANATOMY)
NT FOVEA
NT OTOLITH ORGANS
NT PHOTORECEPTORS
NT PROPRIOCEPTORS
NT PUPILS
NT RETINA
NT SEMICIRCULAR CANALS
NT VESTIBULES

SENSES
U SENSORY PERCEPTION

SENSIBILITY
U SENSITIVITY

SENSING
U DETECTION

SENSITIVITY
NT IMPACT RESISTANCE
NT NOTCH SENSITIVITY
NT PHOTOSENSITIVITY
NT PHOTOTROPISM
NT PROPELLANT SENSITIVITY
NT RADIATION TOLERANCE
NT SPECTRAL SENSITIVITY
Sensitivity of modeled ozone concentrations to uncertainties in biogenic emissions
[PB92-192202] 01 p0105 N93-10432
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate
02 p0381 N93-11306
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
Initial laboratory evaluation of color video cameras
[DE92-018274] 02 p0311 N93-11673
The sensitivity of the receiver coherence diameter and modulation transfer function to variations of a damp unstable atmosphere
[AD-A253269] 02 p0363 N93-11785
Repeatable sensitivity of optical-time-domain-reflectometry-based strain measurement
[DE92-016910] 02 p0338 N93-11792
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Sensitivity analysis of the simultaneous proportionate change of inputs and outputs in data envelopment analysis
[AD-A254821] 03 p0683 N93-12730
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184

Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478
Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB] 06 p1538 N93-19492
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
On-line process analysis innovation: DiComp (tm) shunting dielectric sensor technology 08 p2287 N93-22200
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
A figure of merit for Transit-Time-Limited time-derivative electromagnetic field sensors
[AD-A260016] 08 p2273 N93-24459
Autonomic physiological data associated with simulator discomfort
[NASA-CR-177609] 09 p2794 N93-24738
ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782
Weak magnetic field sensitivity of quartz crystal oscillators 09 p2833 N93-24993
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009
A computational aerodynamic design optimization method using sensitivity analysis 09 p2589 N93-25552
Neural networks for atmospheric retrievals 09 p2824 N93-25975
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity 09 p2626 N93-26020
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Molecular composition, structure, and sensitivity of explosives
[DE93-003850] 09 p2662 N93-26493
Sensitivity calculations for a 2D, inviscid, supersonic forebody problem
[NASA-CR-191444] 10 p2928 N93-27004
Optimism experiment and development of space-qualified seismometers in France 11 p3646 N93-28796
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive
[LA-UR-92-1427] 11 p3345 N93-30074
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161

SENSORIMOTOR PERFORMANCE
NT PSYCHOMOTOR PERFORMANCE
Multimodal interactions in sensory-motor processing
[AD-A255780] 04 p0938 N93-15067
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
Aimed arm movements under changed gravity 07 p1809 N93-21113
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Coordinated action in 3-D space
[AD-A261418] 09 p2799 N93-26449
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258

SENSORS
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Shutter apparatus
[AD-D015350] 02 p0309 N93-11049
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
A model-based reasoning approach to sensor placement for monitorability 02 p0391 N93-11923
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
Fibre-optic sensors using adiabatically tapered single-mode fibres
[AD-A254555] 03 p0708 N93-12642
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
An integrated optical sensor for GMAW feedback control
[DE92-018019] 03 p0610 N93-12793
Capacitive skin characterization
[NASA-CR-191261] 03 p0598 N93-13567
Electro-optic architecture for servicing sensors and actuators in advanced aircraft propulsion systems
[NASA-CR-182269] 03 p0711 N93-13762
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810
System for memorizing maximum values
[NASA-CASE-MSC-21922-1] 04 p0882 N93-14841
Dielectric optical waveguide sensors integrated with GaAs active devices
[DE93-000750] 05 p1302 N93-16231
A high fidelity simulation of optical detection systems, volume 2
[AD-A258498] 06 p1661 N93-18089
Proceedings for Optical Fiber Sensors
[AD-A257801] 06 p1662 N93-18239
Optical fiber strain sensor with improved linearity
[NASA-CASE-LAR-14857-1-SB] 06 p1663 N93-19374
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
NASA wind shear flight test in situ results 06 p1418 N93-19593
Method and apparatus for determination of material residual stress
[NASA-CASE-GSC-13451-1] 07 p1921 N93-20118
The semiconductor laser applied to fibre optic sensors 07 p1910 N93-20286
Smart Integrated Microsensor System (SIMS)
[AD-A259430] 07 p1907 N93-21247
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
Optical fiber fluorosensor
[NASA-CASE-LAR-14525-1-CU] 07 p2069 N93-22008
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
On-line process analysis innovation: DiComp (tm) shunting dielectric sensor technology 08 p2287 N93-22200
A modular, programmable measurement system for physiological and spaceflight applications 08 p2305 N93-22201
Predictive sensor method and apparatus 08 p2305 N93-22202
TRAC based sensing for autonomous rendezvous 08 p2140 N93-22253
Integrated and Multi-Function Navigation
[AGARD-CP-525] 08 p2119 N93-22780
Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Microelectronic and micromechanical sensors and actuators in CMOS technology: A novel scheme toward s regularization and integration
[ISBN-0-315-60192-2] 08 p2305 N93-24609
The SSIMT: A CMOS based magnetic sensor
[ISBN-0-315-60334-8] 08 p2305 N93-24610
Digitization of analog data from in-flight lightning strikes 09 p2778 N93-24884
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Realtime control of multiple sensor systems
[AD-A261037] 09 p2680 N93-26226
The development of hydrogen sensor technology at NASA Lewis Research Center
[NASA-TM-106141] 10 p3045 N93-27021
Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625
The dynamic behavior of constrained adaptive array sensor processors
[AD-A262402] 11 p3541 N93-28494
Development of Miniaturized Optimized Smart Sensors (MOSS) for space plasmas 11 p3286 N93-28828
Progress in the development of broadband electric-field sensors for transient fields 11 p3369 N93-30306
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554

SENSORY DEPRIVATION
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510

SENSORY DISCRIMINATION
NT TACTILE DISCRIMINATION
NT VISUAL DISCRIMINATION

SENSORY FEEDBACK
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Modeling of a full vision system using combined Visual/Haptic search for remote object identification
[AD-A260977] 09 p2801 N93-25867
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109

SENSORY PERCEPTION
NT AUDITORY PERCEPTION
NT OLFACTORY PERCEPTION
NT PAIN
NT PROPRIOCEPTION
NT SPACE PERCEPTION
NT TACTILE DISCRIMINATION
NT TOUCH
NT VERTICAL PERCEPTION
NT VISUAL DISCRIMINATION
NT VISUAL PERCEPTION
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
The OMPAT level 1 Neurophysiological Performance Assessment Battery: NPPAB
[AD-A254840] 02 p0387 N93-12432
Institute for the Study of Human Capabilities
[AD-A256091] 04 p0938 N93-14427
Design of an artificial neural network based tactile sensor for the UTAH/MIT dexterous hand
[AD-A256565] 04 p0966 N93-15406
The role of central monoaminergic systems in arousal and selective attention
[AD-A258500] 06 p1597 N93-18264
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Role of orientation reference selection in motion sickness
[NASA-CR-191912] 06 p1598 N93-18596
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
Virtual reality applications to automated rendezvous and capture 08 p2141 N93-22261
Biomagnetic localization from transient quasi-static events
[DE93-007328] 09 p2794 N93-25186
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Cognitive and Neural Sciences Division 1992 programs
[AD-A263400] 11 p3654 N93-29258

SENSORY STIMULATION
Developing virtual cockpits 06 p1608 N93-19764

SENTENCES
NT WORDS (LANGUAGE)
Recent developments in the NL-Soar garden path theory
[AD-A255889] 03 p0688 N93-13944
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
The semantics of plural noun phrases
[LP-91-07] 06 p1614 N93-17827

SEPARATED FLOW
NT BOUNDARY LAYER SEPARATION
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886

High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer
01 p0005 N93-10889
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
In-flight flow visualization results from the X-29A aircraft at high angles of attack
[NASA-TM-4430] 03 p0493 N93-13322
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets
[NASA-TM-105935] 05 p1055 N93-16625
Influence of Prandtl number and effects of disruption shape on the performance of enhanced tubes with the separation and reattachment mechanism
[DE93-003624] 05 p1164 N93-17604
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6] 06 p1527 N93-18326
Hypersonic flows as related to the national aerospace plane
[NASA-CR-191980] 06 p1406 N93-18378
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
An experimental investigation of the separating/reattaching flow over a backstep
[NASA-CR-192105] 06 p1408 N93-18781
Stall departure resistance enhancer
[NASA-CASE-LAR-14221-1] 06 p1447 N93-19023
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
The structures and the sensitivity of an incompressible turbulent boundary layer in the vicinity of the separation
[ETN-93-92557] 07 p1902 N93-20892
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
Separated flow past smooth slender bodies
08 p2298 N93-24213
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
An investigation of the fundamental cause of asymmetric separated flow
[AD-A260296] 08 p2114 N93-24263
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct
09 p2699 N93-25342
Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Calculations of turbulent separated flows
[NASA-TM-106154] 10 p3039 N93-27161
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements
10 p2934 N93-27448
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations
10 p2935 N93-27451
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Dynamic airfoil stall investigations
10 p2935 N93-27453
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method
10 p2935 N93-27455
Plume effects on the flow around a blunted cone at hypersonic speeds 10 p2936 N93-27460
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
A theoretical and computational study on active wake control 11 p3243 N93-30892
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200

SEPARATION
Acoustophoresis separation method
[NASA-CASE-LAR-13388-2] 07 p1846 N93-20570
Investigation of separation in a strap-on Space Shuttle system
[AD-A262372] 10 p2956 N93-27693
Process for selectively recovering algae and protozoa
[NASA-CASE-MFS-26124-1-NPO]
11 p3491 N93-29174

SEPARATORS
NT AIR FILTERS
NT CLASSIFIERS
NT DIVIDERS
NT DUST COLLECTORS
NT ELECTROSTATIC PRECIPITATORS
NT EVAPORATORS
NT FLUID FILTERS
NT SPIRALS (CONCENTRATORS)
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919
Fluid separator
[NASA-CASE-MFS-28658-1] 05 p1163 N93-17039
Development of an electrochemical hydrogen separator
[DE93-002606] 05 p1106 N93-17186
NASA pyrotechnically actuated systems program
07 p1863 N93-20133
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
Design and synthesis of reactive separation systems
[DE93-008764] 09 p2642 N93-25115
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Beneficiation of ilmenite from lunar analog
10 p2997 N93-26681
Magnetic beneficiation of lunar soils
10 p3213 N93-27968
Combined centrifugal force/gravity gas/liquid separator system
[AD-D015726] 11 p3444 N93-29288

SEQUENCING
Parallel genetic algorithms: Introduction and overview of current research
[REPT-92-015] 02 p0418 N93-11181
Escape-time visualization method for language-restricted iterated function systems
04 p0956 N93-15558
An algorithm for the construction of dependency trees
[MEMO-INF-92-39] 05 p1240 N93-16668
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors
[AD-A258020] 06 p1496 N93-17917
Doppler velocities in the ion tail of comet Levy 1990c
06 p1708 N93-19176
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
The WG sequences: Quasi perfect binary sequences
08 p2271 N93-23631
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
A globally gated polling system with server interruptions, and applications to the repairman problem
[CWI-BS-R9208] 10 p3127 N93-27309
Priority inheritance in real-time micro kernels
[MEMO-INF-92-52] 10 p3095 N93-27387
Analysing E(sub k)/E(sub r)/c queues
[MEMO-COSOR-92-27] 10 p3127 N93-27396
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
Uncorrectable sequences and telecommand
11 p3385 N93-29596
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Computer assisted multiplex sequencing
[DE93-007144] 11 p3536 N93-30934

SEQUENTIAL ANALYSIS
An examination of the performance of a natural truncation point and acceptance rule for a curtailed Wald sequential sampling plan with Bernoulli parameters
[AD-A257579] 06 p1649 N93-18180
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
A method for sequential image analysis of hazard areas 09 p2743 N93-24810

SEQUENTIAL COMPUTERS
Neural network simulations on massively parallel computers: Applications in chemical physics
[DE93-006739] 11 p3538 N93-28894

SEQUENTIAL CONTROL
A failures model for delay-insensitive processes and the soundness of laws for guarded choice
[CS-9106] 05 p1264 N93-16350
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
An efficient constrained predictive control algorithm for 2-input systems
[OUEL-1946/92] 12 p3785 N93-31152

SERIES (MATHEMATICS)
NT ASYMPTOTIC SERIES
NT FOURIER SERIES
NT POWER SERIES
NT PRONY SERIES
NT TAYLOR SERIES
Hereditarily-finite sets and complete metric spaces
[CWI-CS-R9148] 05 p1265 N93-16366
Strong sequentiality of left-linear overlapping rewriting systems
[CWI-CS-R9146] 05 p1267 N93-16721
The construction of minimal multi-layered perceptrons: A case study for sorting
[MEMO-COSOR-92-14] 10 p3112 N93-27233
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
The minimal number of layers of a perceptron that sorts
[MEMO-COSOR-92-06] 10 p3112 N93-27275
On transfinite abstract reduction systems
[CWI-CS-R9205] 10 p3117 N93-27550

SERIES EXPANSION
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Asymptotic estimates of Stirling numbers
[CWI-AM-R9204] 10 p3113 N93-27310
Wigner expansions for partition functions of nonrelativistic and relativistic oscillator systems
10 p3145 N93-27343
Plaquette expansion in lattice Hamiltonian models
[DE93-609846] 12 p3813 N93-31906

SEROTONIN
Physiological analyses of the afferents controlling brain neurochemical systems
[AD-A253185] 02 p0375 N93-11146
Study of SCN neurochemistry using in vivo microdialysis in the conscious brain: Correlation with circadian activity rhythms
[AD-A259803] 08 p2421 N93-23459
Molecular approach to hypothalamic rhythms
[AD-A264438] 11 p3496 N93-30421
SERUMS
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
Amino acid sequences for the binding regions in serum albumin proteins
[NASA-CASE-MFS-28402-1] 11 p3491 N93-28952
Lipidemic profile of Hellenic Airforce officers 12 p3774 N93-32250
Correlation of life-style and dietary concomitants of Greek pilots with serum analytes 12 p3780 N93-32256
SERVICE LIFE
An evaluation of a method of reconstituting fatigue loading from Rainflow counting
[RAE-TR-89057] 01 p0094 N93-10198
An evaluation of the cumulative damage effect under creep loading 01 p0058 N93-10540
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
Long cycle life rechargeable lithium batteries
[NASA-CR-190937] 02 p0291 N93-11604
Eddy current characterization of magnetic treatment of materials
[NASA-TM-104573] 02 p0258 N93-11621
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Structural fatigue aspects of the P-3 Orion
[ARL-STRUC-TM-558] 03 p0500 N93-13256
Identifiability in the autopsy model of reliability theory 03 p0620 N93-13710
Electronics reliability fracture mechanics. Volume 1: Causes of failures of shop replaceable units and hybrid microcircuits
[AD-A255836] 04 p0894 N93-14104
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Lithium rechargeable cell with a poly 3-methylthiophene cathode
[AD-A255436] 04 p0866 N93-14552
Smart battery controller for lithium sulfur dioxide batteries
[AD-A255490] 04 p0867 N93-14642
Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Optimal allocation under partial ordering of lifetimes of components
[AD-A255577] 05 p1181 N93-16040
Reliability assessment of critical electronic components
[AD-A256996] 05 p1146 N93-16263
Formed platelet combustor liner construction feasibility, phase A
[NASA-CR-184506] 05 p1091 N93-16697
Design and analysis of seals for extended service life 05 p1181 N93-17283
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
The MPD thruster program at JPL 06 p1666 N93-18638
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Service loading of work attachments of hydraulic excavators 07 p1924 N93-20351
Research on equipment life extension technology 07 p1793 N93-20436
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
Nickel hydrogen capacity loss 07 p1983 N93-20498
Capacity fade in nickel cadmium and nickel hydrogen cells 07 p1984 N93-20499
NiH2 capacity fade during early cycling 07 p1984 N93-20500
Characteristics of storage related capacity loss in Ni/H2 cells
[STD/92-118] 07 p1984 N93-20501
Nickel hydrogen battery cell storage matrix test 07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503
Charge retention test experiences on Hubble Space Telescope nickel-hydrogen battery cells 07 p1984 N93-20504
Cycle life status of SAFT VOS nickel-cadmium cells 07 p1985 N93-20511
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
Development of a 100 kW class plasma torch for ash-melting plasma furnaces
[DE93-754079] 08 p2493 N93-22715
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
High temperature filter materials
[DE93-005018] 08 p2315 N93-23295
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
Elastomer compound developed for high wear applications 09 p2659 N93-25607
Improved fatigue life for moorings
[PB93-161198] 09 p2730 N93-26320
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Sodium sulfur technology program NaSTEC 11 p3265 N93-28718
Approach to extending the cycle life of lithium secondary battery
[DE93-776266] 11 p3406 N93-28983
Polymer electrolyte fuel cells for transportation applications
[DE93-008721] 11 p3464 N93-29147
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501
Power beaming to communication satellites in GEO
[DE93-007608] 11 p3279 N93-29840
Direct use geothermal applications for brazed plate heat exchangers
[DE93-008559] 11 p3465 N93-30011
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks 12 p3687 N93-31069
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
System reliability and risk assessment task goals and status 12 p3695 N93-31568
System engineering concept demonstration, system engineering needs, volume 2
[AD-A265468] 12 p3791 N93-32023
Damage severity of monitored fatigue load spectra
[NLR-TP-92009-U] 12 p3679 N93-32205
SERVICES
NT MEDICAL SERVICES
NT METEOROLOGICAL SERVICES
An investigation of ground access mode choice for departing passengers
[TT-9201] 02 p0217 N93-11224
An analysis of the field service function of selected electronics firms
[AD-A255003] 03 p0570 N93-12868
Next generation satellite communications networks 04 p0812 N93-14962
Earth sensing data service 08 p2339 N93-22439
Communications techniques supporting the data management 08 p2276 N93-23543
Meteosat operational programme current missions and services 08 p2357 N93-23752
SPOT 4 image ground segment 08 p2360 N93-23768
Definition of a European promotion concept 08 p2162 N93-24381
Factors associated with perceptions of productivity and usage of information technology in a service organization 09 p2875 N93-25421
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679
SERVOCONTROL
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013861] 02 p0421 N93-12138
SMART: A modular architecture for robotics and teleoperation
[DE92-040965] 04 p0966 N93-15385
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
Parallel manipulators. Part 5: Determination of the workspace for a constant orientation
[INRIA-RR-1645] 10 p3053 N93-28439
A comparison of force control algorithms for robots in contact with flexible environments
[NASA-CR-193251] 12 p3789 N93-31638
SERVOMECHANISMS
NT SERVOMOTORS
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles 01 p0017 N93-10015
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
Jointed assembly actuated by fluid pressure
[AD-D015383] 04 p0893 N93-15248
A design tool for electromechanical servo systems
[ISBN-90-9004089-7] 05 p1260 N93-16571
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Power analysis in flexible automation
[AD-A259080] 06 p1549 N93-18961
Efficient visual grasping alignment for cylinders
[NASA-CR-191863] 06 p1663 N93-19346
A contribution to the adaptive control of servo-drives with direct current motor
[ETN-93-92562] 07 p2047 N93-20876
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
Sample positioning in microgravity
[NASA-CASE-NPO-18448-1-CU] 08 p2253 N93-24600
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model 09 p2678 N93-26119
Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27566
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Pulse-modulated control of switching valves for an electro-hydraulic servo actuator
[DLR-FB-92-18] 12 p3719 N93-31462
An iconic programming language for sensor-based robots 12 p3793 N93-32098
SERVOMOTORS
A contribution to the adaptive control of servo-drives with direct current motor
[ETN-93-92562] 07 p2047 N93-20876
Fuzzy control of small servo motors 08 p2453 N93-22357
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010
SERVOS
U SERVOMOTORS
SERVOSTABILITY CONTROL
U SERVOCONTROL
SES (SHUTTLE)
U SHUTTLE ENGINEERING SIMULATOR
SET THEORY
NT BOREL SETS
NT EQUIVALENCE
NT THRESHOLD LOGIC

Decomposition of balanced matrices. Part 5: Goggles
[AD-A247462] 02 p0430 N93-12217
Recursive construction of fractals
[ISBN-951-41-0689-X] 03 p0697 N93-13271
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
Proof elimination in type theory
[CS-9202] 05 p1278 N93-16351
Convergence of Julia sets in the approximation of lambda e(sup z) by lambda (1 + z/d)(sup d)
[W-9205] 05 p1264 N93-16354
Hereditarily-finite sets and complete metric spaces
[CWI-CS-R9148] 05 p1265 N93-16366
Note on the average rank of LYM-sets
[MEMO-1036] 05 p1266 N93-16640
Finite type structures within combinatory algebras
[ML-91-06] 05 p1273 N93-17781
Going stable in graph models
[ML-91-08] 05 p1274 N93-17786
The Lambek calculus enriched with additional connectives
[LP-91-04] 06 p1642 N93-17826
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
Comparing the theory of representations and constructing mathematics
[ML-92-01] 06 p1644 N93-17913
Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221
Plane multiflows with a fixed number of demands
[RR-885-M] 07 p2034 N93-20788
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
General antifactors of graphs
[RR-868-M] 07 p2054 N93-20946
A generalized cut condition for multiflows in matroids
[RR-869-M] 07 p2054 N93-20947
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 2
[RR-875-M] 07 p2056 N93-21395
Inverting sets and the packing problem
[DE93-003822] 08 p2466 N93-22075
Application of fuzzy set and Dempster-Shafer theory to organic geochemistry interpretation
08 p2450 N93-22212
Certain and possible rules for decision making using rough set theory extended to fuzzy sets
08 p2454 N93-22359
The best variety or an almost best one? A comparison of subset selection procedures
[MEMO-COSOR-92-22] 10 p3123 N93-27237
New lower and upper bounds for scheduling around a small common date
[MEMO-COSOR-92-18] 10 p3093 N93-27246
Exact classification with two-layered perceptrons
[MEMO-COSOR-92-25] 10 p3112 N93-27273
Subset selection: Robustness and imprecise selection
[MEMO-COSOR-92-10] 10 p3124 N93-27279
Extensions of choice behaviour
[MEMO-COSOR-92-23] 10 p3163 N93-27280
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
The design of chip architectures for accurate inner product computation
[ISBN-9-09-005204-6] 10 p3090 N93-27372
On Hamiltonian properties of 2-tough graphs
10 p3115 N93-27471
Toughness and the cycle structure of graphs
10 p3115 N93-27472
A primitive recursive set theory and AFA: On the logical complexity of the largest bisimulation
[CWI-CS-R9213] 10 p3097 N93-27501
On ranks of twists of elliptic curves and power-free values of binary forms
[W-9213] 10 p3118 N93-27868
The set of super-stable marriages forms a distributive lattice
[MEMO-1052] 10 p3125 N93-27907
Measurability of operators
[W-9203] 10 p3125 N93-27930
Cuttings and applications
[RUU-CS-92-26] 10 p3122 N93-28166
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 1
[NASA-CP-10112-VOL-1] 11 p3509 N93-29516
An analysis of possible applications of fuzzy set theory to the actuarial credibility theory
11 p3510 N93-29517
Estimations of expectedness and potential surprise in possibility theory 11 p3510 N93-29518
Comparison of specificity and information for fuzzy domains 11 p3510 N93-29519
Encoding spatial images: A fuzzy set theory approach
11 p3511 N93-29527
North American Fuzzy Logic Processing Society (NAFIPS 1992), volume 2
[NASA-CP-10112-VOL-2] 11 p3515 N93-29556
On probability-possibility transformations
11 p3519 N93-29582
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Introduction to Fuzzy Set Theory
12 p3689 N93-31446
The crease structure of the Karush-Kuhn-Tucker set in parametric optimization
[REPT-92-62] 12 p3806 N93-31551
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

SETI
U PROJECT SETI

SETTLING
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751

SEWAGE
NT SOLID WASTES
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567

SEWAGE TREATMENT
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567

SEWING
An industrial sewing machine variable speed controller
[NASA-CR-192066] 05 p1180 N93-17772
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852

SEX FACTOR
An annotated bibliography of research involving women, conducted at the US Army Research Institute of Environmental Medicine
[AD-A265497] 12 p3773 N93-31917

SEX GLANDS
NT PROSTATE GLAND

SEXTANTS
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786

SEYFERT GALAXIES
Quasar x-ray spectra revisited
04 p1012 N93-14760
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095
X ray spectral structure of Seyfert galaxies
05 p1366 N93-17098
Chaotic behaviour of x ray lightcurves of AGN?
05 p1366 N93-17101
Correlated hard x ray and UV variability in NGC 5548
05 p1361 N93-17104
Power spectrum modelling of the x ray variability of NGC4051 05 p1367 N93-17108
Preliminary results from the ROSAT WFC all sky survey: A sample of low galactic column density AGN's
05 p1362 N93-17131
The x ray properties of warm IRAS galaxies
05 p1371 N93-17134
Soft x ray segregation of Seyfert galaxies
05 p1362 N93-17135
On the origin of the x ray background
05 p1374 N93-17149
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
The surface density of quasars and Seyfert galaxies at B is approximately 22.0 05 p1375 N93-17157
A ROSAT high resolution x ray image of NGC 1068
05 p1360 N93-17402
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
BBXRT and Ginga observations of the Seyfert 1 galaxy MRK 335 06 p1561 N93-18710
The broad-band x ray spectral variability of Mkn 841
06 p1561 N93-18711
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
HST/FOS spectra of PG 1351+64: An intrinsic absorber at low redshift 10 p3180 N93-26761
The environments of Seyfert and Markarian galaxies
10 p3185 N93-26789
Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
Infrared coronal emission lines and the possibility of their maser emission in Seyfert nuclei
10 p3196 N93-26853
Influence of the active nucleus on the multiphase interstellar medium in NGC 1068
10 p3196 N93-26854
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects
10 p3197 N93-26857
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
High resolution 1-20 micron imaging of the nuclear environment of NGC 1068 10 p3197 N93-26859
Long slit spectroscopy of NGC 5506
10 p3198 N93-26861
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
Infrared spectroscopy and imaging of starburst galaxies and AGNs
[MPE-PREPRINT-229] 11 p3632 N93-30643

SFERICS
U ATMOSPHERICS

SH WAVES
Elastic plate mode sensitivities to mass loading applications to gas sensors 09 p2711 N93-25009

SHADOWGRAPH PHOTOGRAPHY
NT SCHLIEREN PHOTOGRAPHY
Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477
Preliminary study for a fluid optical analysis system in microgravity adapted to Canadian needs
[CTN-93-60625] 05 p1131 N93-16644
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123

SHADOWGRAPHS
U SHADOWGRAPH PHOTOGRAPHY

SHADOWS
NT LUNAR SHADOW
Shadow technique for improved inversion of lidar data to cirrus and contrail optical depth
[ESA-TT-1263] 08 p2405 N93-23332
A note on the computation of antenna-blocking shadows 11 p3385 N93-29593

SHAFTS (MACHINE ELEMENTS)
NT ROTATING SHAFTS
NT TURBOSHAFTS
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
A consistent cracked bar vibration theory
02 p0339 N93-12000
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control
[ESDU-92026] 04 p0889 N93-14543
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
High torque capable, self locking, vibration isolating flexible shaft coupling statement of government interest
[AD-D015501] 05 p1178 N93-16583
Calculation of the fatigue life of a surface-hardened shaft by the finite-element method
[VTT-PUBS-92] 06 p1548 N93-18695
Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
Probabilistic aspects of growth of the fatigue cracks in the railroad axles 07 p1924 N93-20348
Robot friendly probe and socket assembly
[NASA-CASE-MSC-22028-1] 07 p1917 N93-22007
Stability and stability degree of a cracked flexible rotor supported on journal bearings
[ILR-MITT-268(1991)] 08 p2313 N93-23020
Wrench for installing an electrical connector
[AD-D015625] 08 p2318 N93-24220

Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU] 08 p2169 N93-24598
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001
Durability of Quick Reaction Satellite Antenna (QRSA) trunnion castings
[AD-A264095] 11 p3281 N93-30813

SHALES
The Acraman impact and its widespread ejecta, South Australia 01 p0111 N93-10141
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236

SHALLOW SHELLS
Non-linear analysis of wave propagation using transform methods and plates and shells using integral equations 04 p0896 N93-14186

SHALLOW WATER
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
Morphodynamics of intertidal regions
[BCRS-92-03] 05 p1220 N93-16574
A numerical model of the northwest European continental shelf on the Cray Y-MP2E
[CWI-NM-R9119] 05 p1252 N93-17554
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
Finite element approximation of the shallow water equations on the MASPAR
[AD-A264649] 11 p3489 N93-30525
ELF propagation in deep and shallow sea water 11 p3397 N93-30739

SHANKS
U JOINTS (JUNCTIONS)

SHANNON INFORMATION THEORY
U INFORMATION THEORY

SHAPE CONTROL
Ku-band antenna design for MSAT mission 04 p0813 N93-14963
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484
Design of flexible rods with embedded SMA actuators
[AD-A260742] 09 p2729 N93-25846

SHAPE FUNCTIONS
Performance of the h-p version of the finite element method with various elements
[AD-A250689] 02 p0427 N93-11837
Boundary element shape function for bimaterial interface cracks 07 p1939 N93-20701

SHAPE MEMORY ALLOYS
NT NITINOL ALLOYS
Fastening apparatus having shape memory alloy actuator
[NASA-CASE-MSC-21935-1] 03 p0614 N93-13423
Articulated control surface
[AD-D015464] 05 p1068 N93-16463
Robust control of smart structures 06 p1550 N93-19057
Method and apparatus for preloading a joint by remotely operable means
[NASA-CASE-MSC-21940-1] 07 p1914 N93-20120
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
Design of flexible rods with embedded SMA actuators
[AD-A260742] 09 p2729 N93-25846
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
A one-dimensional continuum model for shape-memory alloys
[AD-A262505] 11 p3321 N93-28656
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278

SHAPED CHARGES
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151
Analysis of shaped charge jet penetration experiments with Pen
[UCRL-LR-110773] 09 p2730 N93-26177
Algorithms for the analysis of penetration by shaped charge jets
[UCRL-LR-109887] 09 p2730 N93-26178

SHAPES
NT CONVEXITY
NT LINE SHAPE
NT T SHAPE
Hexagonal and octagonal finite elements 01 p0050 N93-10500
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
A semiempirical formula for calculating the coefficients for field emission tip forms
[AD-A254109] 01 p0145 N93-10857
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
A laboratory investigation of raindrop oscillations 03 p0666 N93-13790
Geometric invariants and object recognition
[AD-A255317] 04 p0943 N93-14546
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Modeling clothed figures
[AD-A257037] 04 p0940 N93-15363
Streamwise computation of a circular-to-rectangular transition duct potential flow field
[NIAR-92-17] 05 p1159 N93-16628
Recognition of fiducial marks applied to robotic systems
[NASA-CR-191857] 05 p1168 N93-16659
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
Spin vector and shape of 532 Herculina 06 p1711 N93-19193
Category A F-16 accidents in the Belgian Air Force 06 p1425 N93-19675
Geometry of energy minimizing surfaces
[AD-A258694] 06 p1678 N93-19863
Further developments in shape optimization of stress concentration regions. Part 1: General theory 07 p1927 N93-20630
Further developments in shape optimization of stress concentration regions. Part 2: Applications 07 p1928 N93-20631
Structural shape optimization of robotic links 07 p1918 N93-20717
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2058 N93-21392
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
Topography from shading and stereo 09 p2879 N93-25803
Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Fiber shape effects on metal matrix composite behavior
[NASA-TM-106067] 10 p2989 N93-26704
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem 10 p3188 N93-26810
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085
A composite structured/unstructured-mesh Euler method for complex airfoil shapes 10 p2933 N93-27439
Experimental and computational ice shapes and resulting drag increase for a NACA 0012 airfoil 10 p2933 N93-27440
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
An interactive boundary-layer approach to multielement airfoils at high lift 10 p2934 N93-27445
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
Three dimensional reconstruction of complex shapes based on the Delaunay triangulation
[INRIA-RR-1697] 11 p3547 N93-28616
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591
Methods for characterizing the human head for the design of helmets
[AD-A263875] 11 p3507 N93-29889
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

SHARP LEADING EDGES
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134

SHATTER CONES
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Breccia dikes from the Beaverhead impact structure, southwest Montana 01 p0110 N93-10137
Where's the Beaverhead beef? --- meteorite impact structure 01 p0112 N93-10146
Search for a meteoritic component at the Beaverhead impact structure, Montana 01 p0116 N93-10158

SHATTERING
U FRAGMENTATION

SHEAR
The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296

SHEAR CREEP
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region 02 p0269 N93-11985

SHEAR DISTURBANCES
U S WAVES

SHEAR FATIGUE
U SHEAR STRESS

SHEAR FLOW
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
A new energy transfer model for turbulent free shear flow
[NASA-TM-105854] 01 p0081 N93-10454
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Turbulent mixing in compressible free shear layers 01 p0083 N93-10846
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
Turbulence measurements of high shear flow fields in a turbomachine seal configuration 01 p0093 N93-10893
Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Coherent structures in compressible convection 03 p0592 N93-13964
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows 05 p1152 N93-15793

Modeling of turbulent shear flows
05 p1153 N93-15797
Renormalization group methods for the Reynolds stress transport equations
05 p1154 N93-15800
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Correlation theory of a two-dimensional plasma turbulence with shear flow
[DE93-000880] 05 p1309 N93-16308
Tokamak turbulence in self-regulated differentially rotating flow and L-H transition dynamics
[DE93-000443] 05 p1310 N93-16451
Turbulent secondary flow as a coherent structure of turbulent shear flows
05 p1161 N93-16822
The influence of density gradient on turbulent structure in the 2D shear flow
05 p1162 N93-16826
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Poloidal flow generation by resistive pressure-gradient-driven turbulence
[DE93-001638] 06 p1667 N93-18707
Stability of nonequilibrium shear flows
06 p1534 N93-19056
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows
[DE93-002794] 06 p1535 N93-19615
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93 19743
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Ordering of aggregating particle suspensions undergoing simple shear
07 p1805 N93-21092
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
Tests of random flight and closure models in predicting turbulent scalar transport
[DE93-004123] 08 p2288 N93-22521
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
Spatial simulation of transition in wall-bounded shear flows: Active control and effects of surface roughness
09 p2701 N93-25483
Particle dynamics modeling of boundary effects in granular Couette flow
09 p2705 N93-25738
Proceedings of the NUWC Division Newport Seminar Series on Turbulence and its Control
[NUWC-NPT-TM-922089] 09 p2707 N93-26328
The effect of tidal fields on the shapes and kinematics of dark halos
10 p3177 N93-26740
Turbulent mixing layers in the interstellar medium of galaxies
10 p3198 N93-26863
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804
GARTEUR 3D sheer layer experiment
[FFA-TN-1992-26] 12 p3671 N93-31052
SPOT satellite mapping of Ice Stream B
12 p3760 N93-31887
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095
Time accurate simulations of compressible shear flows
[NASA-CR-193410] 12 p3728 N93-32371

SHEAR LAYERS

Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Turbulent mixing in compressible free shear layers
01 p0083 N93-10846
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Numerical investigation of three-dimensionally evolving jets
02 p0303 N93-11870
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer
03 p0593 N93-14057
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves
[NASA-TM-105918] 04 p0880 N93-15499
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Two equation modelling and the pseudo compressibility technique
05 p1153 N93-15799
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Mixing and reaction in the subsonic 2-D turbulent free shear layer
05 p1054 N93-16508
Development of wall turbulence structure
05 p1162 N93-16824
Vortical and turbulent structure of planar and lobed mixer free-shear layers
06 p1533 N93-19055
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Numerical study of axial turbulent flow over long cylinders
08 p2295 N93-23592
The effect of large-scale unsteady motion on a turbulent reattaching shear layer: Application to the supersonic compression ramp
08 p2114 N93-24215
Studies in air/air supersonic mixing layers
09 p2582 N93-26007
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610
The development of a mixing layer under the action of weak streamwise vortices
[NASA-TM-106089] 11 p3418 N93-28947
Shear, strain, and thermohaline vertical fine structure in the upper ocean
11 p3488 N93-30046
A theoretical and computational study on active wake control
11 p3243 N93-30892
GARTEUR 3D sheer layer experiment
[FFA-TN-1992-26] 12 p3671 N93-31052
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095

SHEAR PROPERTIES

NT SHEAR STRENGTH
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results
01 p0016 N93-10007
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Consistent shear constitutive relations for laminated plates
01 p0028 N93-10509
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Study of the behavior of titanium and ceramic fiber matrix composite alloy
[ETN-92-92087] 02 p0240 N93-11708
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
The shear gage and compact shear specimen for shear property measurements of composite materials
03 p0628 N93-13630
An investigation of crack growth at interfaces in bimaterials and composites using a consistent shear-lag model
04 p0896 N93-14187
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Dissipation in adiabatic shear bands
[DE93-002280] 07 p1856 N93-20025
A recent boundary integral procedure on determining shear centers, warping constant and other cross sectional properties of a turbine blade
07 p1918 N93-20703
Relationships between layer linkage and mechanical properties of 3D woven textile structures
07 p1836 N93-21144
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Dielectric and dynamic mechanical properties of ATBN-containing thermosets
[DREA-CR-91-444] 08 p2239 N93-23725
Performance study of the rheometrics melt flow monitor for real-time rheological characterization
[NRC-34372] 08 p2241 N93-24290
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361
European tri-service advanced materials workshop on compressive strength in rigid-rod polymers
[AD-A261517] 09 p2658 N93-26576
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
Plastic deformation of granular materials
[AD-A262449] 10 p3058 N93-27826
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
A mechanics model for the compressive response of fiber reinforced composites
[AD-A265556] 12 p3701 N93-32067
Structure and stability of reacting compressible free shear layers
[AD-A265594] 12 p3727 N93-32095

SHEAR STRAIN

The shear gage and compact shear specimen for shear property measurements of composite materials
03 p0628 N93-13630
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
Nonlinear large displacement and moderate rotational characteristics of composite beams incorporating transverse shear strain
[AD-A258908] 06 p1559 N93-19353
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
On existence of solutions and duality for a model of non-linear elastic plates with transverse shear deformations
09 p2726 N93-25437
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
Enhanced noncontacting laser extensometer for biaxial strain measurements
[AD-A263170] 11 p3430 N93-28989

SHEAR STRENGTH

Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
Sandwiched structural panel having a bi-directional core structure
[NASA-CASE-MFS-28796-1] 06 p1479 N93-19022
Dynamic hardness tester and cure meter
09 p2711 N93-25608

Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Compressive strengths of fiber-reinforced composites with interface debonding 12 p3699 N93-31136
The role of the margins in ice stream dynamics 12 p3761 N93-31896

SHEAR STRESS
NT TORSIONAL STRESS
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
Analysis of a buffer strip laminate with a cutout 01 p0052 N93-10506
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Linear and nonlinear analyses of thick composite circular plates using the finite element method 01 p0096 N93-10873
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581
The peculiar rheo-optical behaviour of bisphenol-A-polycarbonate and polymethylmethacrylate 02 p0269 N93-11984
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers 02 p0304 N93-12003
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
Characterizing longitudinal splitting and delamination fracture toughness of composites 04 p0831 N93-14607
Shear fatigue crack growth analysis in large-grain polycrystals 04 p0993 N93-14838
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Direct numerical simulation of turbulent flow in a square duct 05 p1158 N93-16513
Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
Dissipation in adiabatic shear bands
[DE93-002280] 07 p1856 N93-20025
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion 07 p1921 N93-20332
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Traction and shearing dynamics of a three dimensional carbon/carbon composite
[REPT-921-430-109] 07 p1833 N93-20931
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
The effect of current-induced stress perturbation on large- and meso-scale air-sea interactions 08 p2393 N93-23207
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface 09 p2705 N93-25746
Optimization techniques for contact stress analysis
[AD-A260846] 09 p2729 N93-25911
Proceedings of the NUWC Division Newport Seminar Series on Turbulence and its Control
[NUWC-NPT-TM-922089] 09 p2707 N93-26328
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics
[AD-A262403] 11 p3329 N93-28495
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations 11 p3483 N93-30044
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650
In search of ice-stream sticky spots 12 p3762 N93-31899
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

SHEAR WAVES
U S WAVES

SHEARING
Dynamic stability of laminated transversely-isotropic composite plates subjected to parametric excitations 01 p0029 N93-10525
Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627

SHEARING STRESS
U SHEAR STRESS

SHEATHS
NT PLASMA SHEATHS
High-temperature, bellows hybrid seal
[NASA-CASE-LEW-15570-1] 06 p1549 N93-19027

SHEEP
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211

SHEET METAL
U METAL SHEETS

SHEETS
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150

SHELL GALAXIES
Gas distribution and starbursts in shell galaxies 10 p3183 N93-26780

SHELL STABILITY
On the stability of confined shells under external pressure 02 p0335 N93-11202
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders 04 p0897 N93-14251
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412

SHELL THEORY
A multilayered shell finite element 01 p0049 N93-10495
Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
Natural vibrations of multilayered doubly curved shells 01 p0057 N93-10532
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials 02 p0339 N93-12194
Fast optimization of static axisymmetric shell structures 03 p0630 N93-13921
Rotational band structure of intruder configurations: Success and limitations of the Cranked Shell Model
[DE93-001713] 05 p1288 N93-16972
Geometrically nonlinear analysis of laminated elastic structures
[NASA-CR-191055] 06 p1476 N93-17924

SHELLS (STRUCTURAL FORMS)
NT ANISOTROPIC SHELLS
NT CIRCULAR SHELLS
NT CONICAL SHELLS
NT CYLINDRICAL SHELLS
NT DOMES (STRUCTURAL FORMS)
NT ELASTIC SHELLS
NT FLUID FILLED SHELLS
NT HEMISPHERICAL SHELLS
NT LIQUID FILLED SHELLS
NT ORTHOTROPIC SHELLS
NT RADOMES
NT REINFORCED SHELLS
NT SHALLOW SHELLS
NT SPHERICAL SHELLS
NT THIN WALLED SHELLS
Contact problem in delamination-buckling of laminated composite shells 01 p0046 N93-10479
Natural vibrations of multilayered doubly curved shells 01 p0057 N93-10532
On the vibration of axisymmetric shells 01 p0057 N93-10535
Some remarks on shell element analysis with DYNA3D and NIKE3D
[DE92-018784] 02 p0337 N93-11775
Buckling problems of sandwich shells
[LR-690] 05 p1185 N93-16286
Beam, plate, and shell finite elements for CSI design code 05 p1189 N93-16782
Mode interaction in stiffened composite shells under combined mechanical and thermal loadings 05 p1189 N93-16793
Optimum design of isotropic monocoque and ring-stiffened circular cylindrical shells subject to external hydrostatic pressure
[AD-A257864] 06 p1555 N93-18327
Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242

SHELTERS
NT LUNAR SHELTERS

SHIELDING
NT ELECTROMAGNETIC SHIELDING
NT HEAT SHIELDING
NT MAGNETIC SHIELDING
NT RADIATION SHIELDING
NT RADIO FREQUENCY SHIELDING
NT REENTRY SHIELDING
NT REUSABLE HEAT SHIELDING
NT SOLAR RADIATION SHIELDING
NT SPACECRAFT SHIELDING
Driven shielding capacitive proximity sensor
[NASA-CASE-GSC-13377-1] 04 p0962 N93-14701

Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583

SHIELDS (GEOLOGY)
U BEDROCK

SHIFT REGISTERS
Precision digital phase lock loop circuit
[AD-D015594] 07 p1891 N93-20785

SHIP HULLS
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332

SHIPS
NT AIRCRAFT CARRIERS
NT SUBMARINES
Dredging research program: Feasibility of a kinematic differential Global Positioning System
[AD-A248953] 02 p0205 N93-11419
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293
Results from a large-scale MHD propulsion experiment
[DE92-018177] 02 p0456 N93-12416
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
A local approach for fatigue strength evaluation on ship structures 07 p1948 N93-21327
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
High-performance visualization applied to computational electromagnetics: Method-of-moments on a silicon graphics workstation
[AD-A260820] 09 p2675 N93-25700
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
HMS Speedy: Seakeeping trials, 25 February to 1 March 1982
[ARE-AMTE(H)-R84117] 10 p3021 N93-27853
A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818

SHIPYARDS
Measurements of surface ocean carbon dioxide partial pressure during WOCE
[DE93-006890] 08 p2412 N93-22580

SHOCK
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836

SHOCK (PHYSIOLOGY)
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

SHOCK ABSORBERS
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Wheels for wheelchairs and the like
[NASA-CASE-MFS-28632-1] 05 p1228 N93-17042
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
Energy dissipator
[NASA-CASE-MSC-21555-1] 08 p2314 N93-23075

SHOCK DIFFUSERS
U DIFFUSERS

SHOCK FRONTS
Interaction of isotropic turbulence with a shock wave 03 p0590 N93-13898
Theoretical studies in interstellar cloud chemistry
[NASA-CR-192010] 07 p2096 N93-20269
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625
Large eddy simulations of shockwave passage through turbulence
[DE92-019503] 11 p3419 N93-29050
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Coronal shock waves 12 p3853 N93-31681
Quasi-parallel shock re-formation: Two-dimensional simulations 12 p3826 N93-31682
Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683

SHOCK HEATING
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
The ISM in the M82 starburst 10 p3202 N93-26887

SHOCK LAYERS
Documentation of the detailed radiation property data for the radiation-ablation code RASLE
[NASA-TM-103848] 01 p0028 N93-10742
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Studies of radiative emission from the simulated shock layer of the Huygens probe 03 p0521 N93-12834
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations 03 p0589 N93-13825
Development of engineering methods for nonequilibrium radiative phenomena about aeroassisted entry vehicles 04 p0817 N93-14632
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
Effect of non-equilibrium flow chemistry on the heating distribution over the MESUR forebody during a Martian entry
[NASA-CR-177601] 06 p1533 N93-19011
Assessment of nonequilibrium radiation computation methods for hypersonic flows
[NASA-TM-103994] 06 p1534 N93-19348
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
An experimental study of under-expanded jets 09 p2577 N93-25467
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method 10 p2935 N93-27455

SHOCK LOADS
NT BLAST LOADS
Carbon and oxygen isotope study of carbonates from highly shocked clasts of the polymict breccia of the Haughton Crater (Canada) 01 p0105 N93-10113
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760
Shock-treated lunar soil simulant: Preliminary assessment as a construction material 05 p1386 N93-17238
Shock and impact dynamics 06 p1558 N93-18760
Piezoelectric response of precisely poled PVDF to shock compression greater than 10 GPa
[DE93-002469] 06 p1539 N93-19636
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy 11 p3318 N93-30073
A steric hindrance model for the crystal orientation dependence of the shock initiation sensitivity of PETN explosive
[LA-UR-92-1427] 11 p3345 N93-30074
Microstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate 11 p3319 N93-30092
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096
Isothermal and shock compression of high density ammonium nitrate and ammonium perchlorate
[DE93-000682] 11 p3315 N93-30209

SHOCK MEASURING INSTRUMENTS
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760

SHOCK RESISTANCE
NT IMPACT RESISTANCE
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Proceedings of the 62nd Shock and Vibration Symposium, Volume 2
[AD-A249267] 03 p0628 N93-13637
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652

SHOCK SIMULATORS
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692

SHOCK SPECTRA
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Characterizing transient vibrations using band limited temporal moments
[DE93-009639] 11 p3453 N93-30185
On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101

SHOCK TESTS
Influence of the preshock temperature on shock effects in quartz 01 p0115 N93-10157
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760
Experimental approach on the pyrotechnical shock reduction of Ariane-5 upper stage 05 p1075 N93-15764
Shock-treated lunar soil simulant: Preliminary assessment as a construction material 05 p1386 N93-17238
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485

SHOCK TUBES
NT SHOCK TUNNELS
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341
Shock tube study of the effects of large density differences and blowing ratio on heat transfer to a film-cooled flat plate
[AD-A258813] 06 p1532 N93-18990
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Comprehensive mechanisms for combustion chemistry: An experimental and numerical study with emphasis on applied sensitivity analysis
[DE93-007258] 08 p2219 N93-22824
Investigation of critical C/H/N/O reactions in NOx formation and removal in natural gas combustion
[PB93-132702] 08 p2222 N93-23347
Ignition and combustion of lunar propellants
[NASA-CR-192814] 09 p2659 N93-24745
Shock tube application to the study of compressible turbulent boundary layer with mass injection 09 p2697 N93-25252
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Thermal oxidation of HCN by NO2 in shock waves 11 p3318 N93-30064
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485

SHOCK TUNNELS
Electron beam fluorescence measurements in the Boeing hypersonic shock tunnel 03 p0602 N93-13681

Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Shock tunnel studies of scramjet phenomena, supplement 6
[NASA-CR-191428] 08 p2289 N93-22817
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916

SHOCK WAVE GENERATORS
NT SHOCK TUBES
NT SHOCK TUNNELS

SHOCK WAVE INTERACTION
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution 02 p0309 N93-12039
AGARD WG13 aerodynamics of high speed air intakes: Assessment of CFD results 03 p0581 N93-13220
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Interaction of isotropic turbulence with a shock wave 03 p0590 N93-13898
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Experimental investigations on converging second-sound shock waves in He 2
[MPIS-103/1991] 07 p2060 N93-20885
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Heat transfer measurements in swept shock wave/turbulent boundary-layer interactions 09 p2704 N93-25705
Large eddy simulations of shockwave passage through turbulence
[DE92-019503] 11 p3419 N93-29050
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004

SHOCK WAVE PROFILES
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321

SHOCK WAVE PROPAGATION
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids 01 p0064 N93-10568
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029
Shock waves induced by pulsed laser in confined interaction: Numerical simulation 02 p0319 N93-12038
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Witness plate shock velocity study
[DE93-005742] 08 p2474 N93-22760
Effects of UGTs on the ionosphere
[DE93-000793] 08 p2392 N93-22806
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Some aspects of the aeroacoustics of high-speed jets
[NASA-CR-191458] 11 p3418 N93-28975
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100

SHOCK WAVES
NT DETONATION WAVES
NT NORMAL SHOCK WAVES
NT OBLIQUE SHOCK WAVES
NT SONIC BOOMS
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
Progress in multi-dimensional upwind differencing
[NASA-CR-189708] 01 p0083 N93-10808
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Investigations of the motion of discrete-velocity gases
[AD-A253728] 01 p0084 N93-10895
Yellow hypergiant interferometry: A clue to understanding evolutionary instability 01 p0182 N93-10919
Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors 02 p0235 N93-11133
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser 02 p0319 N93-12037
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution 02 p0309 N93-12039
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids 02 p0340 N93-12199
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows
[ISAS-RN-646] 03 p0491 N93-12716
RHALE: A MMALE shock physics code written in C++
[DE92-018271] 03 p0684 N93-12795
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Diagnostic of shock wave processes
[DE92-018059] 03 p0565 N93-13357
An experimental/computational study of heat transfer in sharp fin induced shock wave/turbulent boundary layer interactions at low hypersonic Mach numbers 03 p0590 N93-13826
Interaction of isotropic turbulence with a shock wave 03 p0590 N93-13898
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
Turbulent magnetized plasmas from ionizing shock waves 04 p0987 N93-14120
Optical probes for laser induced shocks
[AD-A256092] 04 p0884 N93-14284
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects 04 p1040 N93-14365
Hydrodynamics of supernova 1987 A 04 p1019 N93-14633
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3] 04 p0875 N93-14689
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Use of surface heat transfer measurements as a flow separation diagnostic in a two dimensional reflected oblique shock/turbulent boundary layer interaction
[NASA-TM-105981] 04 p0879 N93-15355
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
Computation of internal flows using unstructured triangular meshes 06 p1409 N93-19276
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Perturbation problems in fluid dynamics
[AD-A258934] 06 p1535 N93-19450
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479
Microphotography of shocks in crystals
[DE93-002888] 06 p1677 N93-19827
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation
[AD-A259372] 06 p1522 N93-19853
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
Experimental investigations on converging second-sound shock waves in He 2
[MPIS-103/1991] 07 p2060 N93-20885
Chinese research on shock physics
[PB93-134450] 08 p2474 N93-22080
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Restoring monotonicity of slowly-moving shocks computed with Godunov-type schemes
[CRANFIELD-AERO-9207] 08 p2297 N93-24075
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106

Alfven wave transport effects in the time evolution of parallel cosmic-ray modified shocks
[NASA-CR-192932] 09 p2899 N93-25161
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Shock tube application to the study of compressible turbulent boundary layer with mass injection 09 p2697 N93-25252
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets 09 p2625 N93-26012
Calibration of a shock wave position sensor using artificial neural networks
[NASA-TM-106138] 10 p3045 N93-27001
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Godunov-type schemes applied to detonation flows
[NASA-CR-191447] 10 p2929 N93-27090
On steady, inviscid shock waves at continuously curved, convex surfaces
[CWI-NM-R9202] 10 p3039 N93-27299
The importance of sterically hindered shear in determining the sensitivity of explosive crystals
[DE93-003861] 10 p3009 N93-28296
Rocket engine nozzle attenuator
[NASA-CASE-MFS-28739-1] 10 p2987 N93-28324
International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576
Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617
Nonlinear stability of viscous shock waves
[TRITA-NA-9205] 11 p3419 N93-29025
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves
[AD-A263653] 11 p3312 N93-29389
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419
Thermal oxidation of HCN by NO2 in shock waves 11 p3318 N93-30064
Chemical dynamics simulations as a probe to the initiation and propagation of condensed phase detonations 11 p3318 N93-30071
Shock waves and polymorphic phase transitions in energetic materials 11 p3351 N93-30100
Contribution to the study of the interaction between acoustic waves and coherent structures induced by a prismatic cylinder in a rectangular cavity
[ONERA-NT-1990-10] 11 p3314 N93-30203
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
Near-infrared line imaging of NGC 6240: Global shock and nuclear starburst
[MPE-PREPRINT-226] 11 p3631 N93-30641
An experimental study of under-expanded jets
[OUEL-1959/92] 12 p3722 N93-31124
Preliminary observations of solar type 2 bursts with the new radiospectrograph in Tremsdorf (Germany) 12 p3872 N93-31370
A numerical model of interaction of coronal transients with the solar wind 12 p3874 N93-31385
Coronal shock waves 12 p3853 N93-31681
Quasi-parallel shock re-formation: Two-dimensional simulations 12 p3826 N93-31682
Ion acceleration at parallel shocks: Self-consistent plasma simulations 12 p3826 N93-31683
Plasma wave phenomena observed at interplanetary shocks by the Ulysses URAP experiment 12 p3826 N93-31684
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Influence of interplanetary shocks on approximately 10 MeV protons: A phenomenological classification 12 p3854 N93-31686
A new method for measuring the speed of the bow shock 12 p3854 N93-31687
On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
ULF/ELF electromagnetic waves associated with the quasiperpendicular Earth's bow shock crossings 12 p3827 N93-31690
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004

SHORAN
Aids to Navigation Service Force Mix 2000 Project: Overview
[AD-A259064] 06 p1433 N93-19386
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
Aids to Navigation Service Force Mix 2000 Project. Volume 3: Analysis of multi-mission requirements and development of planning factors for the Replacement Buoy Tender Fleet
[PB93-142370] 08 p2123 N93-24489

SHORELINES
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674

SHORT CIRCUITS
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
The ignition diffusion concerning contacted and non contacted n(+) emitter interruptions
[ETN-93-92564] 07 p1891 N93-20878

SHORT CRACKS
Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637
Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641

SHORT HAUL AIRCRAFT
NT EUROPEAN AIRBUS
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647

SHORT RANGE NAVIGATION
U SHORAN

SHORT TAKEOFF & VERTICAL LANDING AIRCRAFT
U STOVL AIRCRAFT

SHORT TAKEOFF AIRCRAFT
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896
Evaluation of four advanced nozzle concepts for short takeoff and landing performance
[NASA-TP-3314] 11 p3239 N93-29165

SHORT WAVE RADIATION
NT CENTIMETER WAVES
NT MICROWAVE EMISSION
NT MICROWAVES
NT MILLIMETER WAVES
NT SUBMILLIMETER WAVES
Modeling of HF propagation and heating in the ionosphere
[AD-A253941] 01 p0125 N93-10714
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
A study of the Earth Radiation Budget Experiment: Shortwave measurements and bidirectional reflectance models for the ocean surface 03 p0654 N93-13722
Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881

SHORT WAVE RADIO TRANSMISSION
WARC 92 and some thoughts as to its impact on the NASA propagation program 09 p2684 N93-26475

SHORTENING
U REDUCTION

SHOT NOISE
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
Multiangle lidar performance in the presence of horizontal inhomogeneities in atmospheric extinction and scattering
[AD-A252882] 02 p0371 N93-12167
Shot noise limits to sensitivity of optical interferometry 03 p0745 N93-13586
Physics and technology of resonant-tunneling devices
[AD-A255233] 03 p0573 N93-13837
Computation and communication constraints for distributed estimation systems
[AD-A256287] 04 p0970 N93-14456
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458

SHOT PEENING
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
High reliability residual compressive stress processes. State-of-the-art assessment
[PB93-127751] 08 p2331 N93-24207

SHRINKAGE
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
Microstructural evolution in reaction bonded alumina/mullite ceramics 03 p0552 N93-13328
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646

SHROUDED BODIES
U SHROUDS

SHROUDED PROPELLERS
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets
[NASA-TM-105935] 05 p1055 N93-16825
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake
[NASA-TM-105989] 05 p1066 N93-16705
Isoparametric finite element approach to particle trajectory: Applied as an analysis tool to CRISP aerodynamics
[DLR-FB-91-40] 07 p1763 N93-21760
Aeroacoustic diffraction and dissipation by a short propeller cowl in subsonic flight
[NASA-CR-190801] 08 p2476 N93-22673
Rotating rake design for unique measurement of fan-generated spinning acoustic modes
[NASA-TM-105946] 09 p2595 N93-26161
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162

SHROUDS
Cleaning of a thermal vacuum chamber with shrouds in place 04 p0814 N93-15612
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380

SHUNTS
U BYPASSES
U CIRCUITS

SHUTDOWNS
Modelling the engine temperature distribution between shut down and restart for life usage monitoring 04 p0798 N93-15177

SHUTTERS
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878

SHUTTLE BOOSTERS
U SPACE SHUTTLE BOOSTERS

SHUTTLE DERIVED VEHICLES
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592

Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558

SHUTTLE ENGINEERING SIMULATOR
A simulated annealing approach to schedule optimization for the SES facility
06 p1634 N93-18662

SHUTTLE GLOW
U SPACECRAFT GLOW

SHUTTLE IMAGING RADAR
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
Geological applications of space SAR data
08 p2339 N93-22440

SHUTTLE ORBITERS
U SPACE SHUTTLE ORBITERS

SHUTTLE PALLET SATELLITES
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure
05 p1084 N93-15775

SI
U INTERNATIONAL SYSTEM OF UNITS

SICKNESSES
NT ALTITUDE SICKNESS
NT DECOMPRESSION SICKNESS
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298

SID (IONOSPHERIC DISTURBANCES)
U SUDDEN IONOSPHERIC DISTURBANCES

SIDE-LOOKING RADAR
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Plate tectonics from VLBI and SLR global data
[NASA-CR-191319] 04 p0916 N93-14913

SIDEBANDS
Method and apparatus for passive direction finding with sideband determination
[AD-D015546] 07 p1882 N93-20306
Slot antenna SIS mixers for submillimeter wavelengths
10 p3014 N93-27745
Measurements of the single sideband suppression for a 650 GHz heterodyne receiver
10 p3020 N93-27780
Nonlinear mode coupling in free electron lasers
[AD-A263999] 11 p3439 N93-29883
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A265412] 12 p3717 N93-32046

SIDELOBE REDUCTION
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
ACTA Aeronautica et Astronautica Sinica (selected articles)
[AD-A255070] 03 p0491 N93-13946
Frequency diversity sidelobe canceller
[AD-D015647] 09 p2674 N93-25332

SIDELOBES
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
ACTA Aeronautica et Astronautica Sinica (selected articles)
[AD-A255070] 03 p0491 N93-13946
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Real time data reformatting using the TMS320C25 development system
[AD-A259187] 07 p1882 N93-20273
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744

SIDEREAL TIME
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979

SIDESLIP
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638

SIERRA NEVADA MOUNTAINS (CA)
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique
04 p0923 N93-15088
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874

SIGHT
U VISUAL PERCEPTION

SIGNAL ANALYSIS
NT CEPSTRAL ANALYSIS
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016926] 01 p0075 N93-10790
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
Automated eddy current analysis of materials
[NASA-CR-184432] 03 p0619 N93-12875
Special SAR techniques and applications
03 p0564 N93-13059
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Wavelet-based multiresolution analyses of signals
[AD-A257496] 06 p1500 N93-17904
The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251
Wavelet image analysis 06 p1628 N93-18506
A toposcopic investigation of brain electrical activity induced by motion sickness
[AD-A259024] 06 p1599 N93-18952
Theory and implementation of wavelet analyses in rational resolution decompositions
[AD-A259040] 06 p1509 N93-19000
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
Signal approximation with a wavelet neural network
[AD-A259081] 07 p1890 N93-20556
Discrete orthogonal wavelets
[REPT-91-45] 07 p2052 N93-20862
Variance-covariance estimation and statistical testing of satellite networks
[PB92-225358] 07 p1824 N93-21048
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Location of emissions by evasion of frequency and gusts by sequential analysis sensor in fast scanning
08 p2270 N93-23625
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
Center for intelligent control systems
[AD-A260995] 09 p2821 N93-25853
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937
A 200 GHz tripler using single barrier varactor
10 p3013 N93-27740
Description of an adder board
[TR-92-09] 10 p3027 N93-27904
A compact imaging detector of polarization and spectral content 11 p3582 N93-28810
Wavelet transform techniques and signal analysis
[DE93-007919] 11 p3382 N93-29244
The use of data turning in airborne radars
11 p3358 N93-30241
Classification of radar clutter in an air traffic control environment 11 p3246 N93-30299
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Independent research and independent exploratory development programs
[AD-A264735] 11 p3544 N93-30556
Pulse discriminator for crosstalk rejection in a multi-channel isochromat photoemission spectroscopy
[REPT-92-062] 12 p3719 N93-31253

SIGNAL ANALYZERS
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
High-resolution array with Prony, MUSIC, and ESPRIT algorithms
[AD-A255514] 03 p0566 N93-13868
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
Advanced Communication ESM System (ACES) design considerations
[AD-A259014] 06 p1510 N93-19100
DARPA initiative in concurrent engineering (DICE). Phase 4: Electronics pilot project
[AD-A258927] 06 p1522 N93-19446
NASA experimental airborne doppler radar and real time processor for wind shear detection
06 p1420 N93-19607
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258891] 06 p1523 N93-19861
Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Acoustic charge transport technology investigation for advanced development transponder
11 p3386 N93-29602

SIGNAL DETECTION
NT CORRELATION DETECTION
Subpicosecond resolved incipient laser damage
[AD-A253624] 01 p0087 N93-10202
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
Auditory perception
[AD-A255061] 02 p0385 N93-12469
Integrated filter and detector array for spectral imaging
[NASA-CASE-NPO-18317-1-CU]
03 p0709 N93-13419
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0856 N93-14233
Audio detection algorithms
[AD-A256076] 04 p0973 N93-14234
Statistically calibrated transducer
[AD-D015408] 04 p0882 N93-14878
Wavelet-based multiresolution analyses of signals
[AD-A257496] 06 p1500 N93-17904
The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Advanced Communication ESM System (ACES) design considerations
[AD-A259014] 06 p1510 N93-19100
Signal approximation with a wavelet neural network
[AD-A259081] 07 p1890 N93-20556
Evaluation and detection of a signal containing an autoregressive noise
[ETN-93-92684] 07 p1885 N93-21061
Joint parameters estimation and symbols detection for digital communication over linear or nonlinear unknown channels
[TELECOM-PARIS-91-D-013] 07 p1885 N93-21394
Explosives detection by pure N-14 NQR
07 p1770 N93-21897
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Systematic bearing errors of HF signals observed over a North-South propagation path
08 p2268 N93-23614
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603

Increased fire and toxic contaminant detection responsibility by use of distributed, aspirating sensors
10 p2965 N93-27722
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Multichannel detection of partially correlated signals in clutter
[AD-A261984] 11 p3381 N93-28998
Improved bounds for synchronization jitter
11 p3360 N93-30251
Auditory spectro-temporal pattern analysis
[AD-A264691] 12 p3773 N93-31981
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060
Fix-tracking system
[AD-D015738] 12 p3718 N93-32210

SIGNAL DETECTORS
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Contribution to the development of an ISFET type integrated sensor using an ASIC thread in CMOS technology
[ECL-91-09] 07 p1892 N93-21006
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
Optical fiber for acoustic sensor applications
[AD-A261580] 09 p2857 N93-26515
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968

SIGNAL DISCRIMINATORS
U SIGNAL DETECTORS

SIGNAL DISTORTION
Deterministic transfer function for transionospheric propagation
[DE92-040327] 04 p0862 N93-15427
Satellite measurement of ionospheric-induced VHF distortion
[DE92-040328] 04 p0862 N93-15435
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537

SIGNAL ENCODING
NT AMPLITUDE MODULATION
NT BINARY PHASE SHIFT KEYING
NT DELTA MODULATION
NT DIFFERENTIAL PULSE CODE MODULATION
NT FREQUENCY MODULATION
NT FREQUENCY SHIFT KEYING
NT PHASE MODULATION
NT PHASE SHIFT KEYING
NT PULSE CODE MODULATION
NT PULSE DURATION MODULATION
NT PULSE MODULATION
NT PULSE POSITION MODULATION
NT QUADRATURE PHASE SHIFT KEYING
NT TRELLIS CODING
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
Self-dual (48,24;12) codes 06 p1505 N93-18905
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
Application of Costas codes and quadratic congruential codes to digital pulse compression
[DREO-TN-91-31] 08 p2271 N93-23726
Wavelet encoding and variable resolution progressive transmission 08 p2431 N93-24548
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Golay and other box codes 09 p2678 N93-26116
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
Uncorrectable sequences and telecommand
11 p3385 N93-29596
On subband coding/embedded vector quantization for speech coding 11 p3355 N93-30220
A systolic-array structure for MTCM receivers
11 p3357 N93-30236
An error control protocol based on trellis coded modulations 11 p3358 N93-30237

SIGNAL FADEOUT
U SIGNAL FADING

SIGNAL FADING
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381
Research in LMSS propagation
[NASA-CR-191915] 07 p1885 N93-21400
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Simulation of a NC-FSK maximum likelihood receiver for fast Rayleigh fading
[ISBN-0-315-59024-6] 08 p2274 N93-24627
Propagation at microwave frequencies in the presence of tropospheric stratified layers
09 p2674 N93-25340
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
An introduction to Doppler effect and fading in mobile communications
[AD-A260976] 09 p2676 N93-25866
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
L- and K-band LMSS propagation measurements using MARECS-B, OLYMPUS, and ACTS
09 p2683 N93-26467
Rain rate and modeled fade distributions at 20 GHz and 30 GHz derived from five years of network rain gauge measurements 09 p2683 N93-26468
Effect-specific analysis of propagation parameters
09 p2684 N93-26478
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
Dipolar orientational relaxation in guest/host amorphous polymer probed by second harmonic generation
[AD-A262006] 11 p3333 N93-29441
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Performance of frequency hopped M-ary FSK in Rayleigh fading and partial-band jamming
11 p3368 N93-30303
An adaptive maximum likelihood receiver for correlated Rayleigh fading channels 11 p3371 N93-30316

SIGNAL GENERATORS
NT FREQUENCY SYNTHESIZERS
NT FUNCTION GENERATORS
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Arbitrary waveform generator
[AD-D015346] 02 p0280 N93-11354
National Defense Science and Engineering Graduate Fellowship Program in electrical engineering
[AD-A256975] 05 p1146 N93-16254
Remotely controlled C band signal generator
[AD-D015602] 07 p1880 N93-20014
Adaptive control of nonlinear flexible systems
[AD-A261676] 09 p2826 N93-26365
New results in signal design for the AWGN channel
[AD-A261424] 09 p2682 N93-26451
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
High-resolution signal synthesis for time-frequency distributions
[DE93-008735] 11 p3380 N93-28909
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900

SIGNAL MEASUREMENT
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
A modular, programmable measurement system for physiological and spaceflight applications
08 p2305 N93-22201
The influence of propagation on high frequency radiogoniometry and single station location
08 p2266 N93-23607
Measurements of the direction of arrival of an oblique chirp sounder signal 08 p2268 N93-23616

SIGNAL PROCESSING
Magnetostatic waves-based integrated optic Bragg cell modules with applications to RF signal processing
[AD-A254035] 01 p0071 N93-10240
Development of parallel architectures for sensor array processing algorithms
[AD-A253680] 01 p0141 N93-10299
Algorithms for multichannel optical processor
[AD-A254009] 01 p0158 N93-10360
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Two-dimensional signal processing, optical information storage and processing, and electromagnetic measurements
[AD-A253953] 01 p0073 N93-10417
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
Non-linear data conversion system for dynamic range digital signal processing
[AD-D015347] 02 p0278 N93-11047
A comparison of feed-forward networks and maximum likelihood on a point-source location problem
[RSRE-MEMO-4567] 02 p0281 N93-11391
Stationary time series analysis using information and spectral analysis
[AD-A257279] 02 p0425 N93-11431
Real-time data compression using a FFT digital signal processor
[DE92-017744] 02 p0477 N93-11770
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A254320] 02 p0284 N93-12095
Transient Reduction Analysis using Neural Networks (TRANN)
[DE92-012150] 02 p0421 N93-12153
Real-time classification of signals from three-component seismic sensors using neural nets
[DE92-014886] 02 p0364 N93-12155
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207
Fiber optic delay line signal processors
[AD-A254691] 02 p0448 N93-12227
Algorithms for sensor fusion: Decentralized Bayesian hypothesis testing with feedback, volume 1
[AD-A254633] 02 p0414 N93-12242
Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279
Real-time adaptive sidelobe canceller architectures and implementations
[AD-A254842] 02 p0286 N93-12433
Digital signal processing
[AD-A254870] 02 p0287 N93-12436
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
A general theory of signal integration for fault-tolerant dynamic distributed sensor networks
[AD-A254961] 03 p0732 N93-12553
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
State space methods in multidimensional digital signal processing
[AD-A254646] 03 p0561 N93-12620
Design of a digital Data Recording System (DRS)
[AD-A255088] 03 p0561 N93-12623
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
Fundamentals and Special Problems of Synthetic Aperture Radar (SAR)
[AGARD-LS-182] 03 p0563 N93-13049
Special SAR techniques and applications
03 p0564 N93-13059
A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215
Perception-based and machine-oriented signal processing within speech understanding systems
03 p0692 N93-13239
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
MINT: The multiple error LMS algorithm, and the design of inverse filters for multi-channel sound reproduction systems
[ISVR-TR-211] 03 p0700 N93-13439

Radar signal processing for over resolved targets
[AD-A255256] 03 p0566 N93-13838
High-resolution array with Prony, MUSIC, and ESPRIT algorithms
[AD-A255514] 03 p0566 N93-13868
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
ACTA Aeronautica et Astronautica Sinica (selected articles)
[AD-A255070] 03 p0491 N93-13946
On the detection of ultrawideband radar signals
[AD-A256075] 04 p0858 N93-14233
An analysis of the effect of acoustic non-linearities in wide bandwidth acousto-optic bragg cells
[AD-A256579] 04 p0973 N93-14269
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
Photonic materials and devices for optical information processing and computing applications
[AD-A256047] 04 p0982 N93-14578
AFIT/AFOSR Workshop on the Role of Wavelets in Signal Processing Applications
[AD-A256172] 04 p0859 N93-14649
Method and apparatus for increasing a radar's range with improved scan-to-scan integration of Doppler filtered signals
[AD-D015421] 04 p0860 N93-14742
Modified fast frequency acquisition via adaptive least squares algorithm
[NASA-CASE-NPO-17845-2-CU] 04 p0945 N93-14882
Next generation satellite communications networks 04 p0812 N93-14962
Sonar processing on CESAR
[FFI-92/7007] 04 p0974 N93-15074
A new multiplier-free structure for DFT based on delta modulation
[AD-A255927] 04 p0861 N93-15106
Co-channel speaker separation
[AD-A256443] 04 p0861 N93-15317
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Bayesian interpolation and deconvolution
[AD-A256185] 05 p1274 N93-15874
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Dual waveband signal processing system
[AD-D015493] 05 p1139 N93-16438
Optical high-speed parallel backplane
[AD-D015505] 05 p1148 N93-16608
The unofficial AMPLEX owner's manual
[DE93-001437] 05 p1148 N93-16651
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191807] 05 p1230 N93-16709
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
The multiscale and wavelet transform with applications in well log analysis
[ETN-92-92526] 05 p1246 N93-17491
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
Coded orthogonal signaling
[AD-A257635] 05 p1141 N93-17722
Wavelet-based multiresolution analyses of signals
[AD-A257496] 06 p1500 N93-17904
Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936
The first level energy trigger of the L3 experiment/description of the hardware
[NOTA-INTERNA-987] 06 p1659 N93-17937
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Track-before-declare methods in IR image sequences
[AD-A257517] 06 p1661 N93-18174
One and two dimensional discrete wavelet transforms
[AD-A257981] 06 p1502 N93-18241
The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
New techniques in optical communications and signal processing
[AD-A257894] 06 p1503 N93-18419
Artificial neural networks application simulator 06 p1642 N93-18502
Tools of modeling, identification, and signal processing for fault diagnosis in continuous-time systems
[LAAS-92153] 06 p1649 N93-18625
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Inverse problems for orthogonal matrices, Toda flows, and signal processing
[AD-A258810] 06 p1647 N93-18987
Real-time diagnostics for a reusable rocket engine
[NASA-TM-105792] 06 p1640 N93-19018
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094
Advanced Communication ESM System (ACES) design considerations
[AD-A259014] 06 p1510 N93-19100
Digital signal processing using lapped transforms with variable parameter windows and orthonormal bases
[AD-A258853] 06 p1511 N93-19368
DARPA initiative in concurrent engineering (DICE). Phase 4: Electronics pilot project
[AD-A258927] 06 p1522 N93-19446
Fast Fourier transform: A solution for digital signal processing in incoherent scatter experiments? 06 p1516 N93-19541
NASA experimental airborne doppler radar and real time processor for wind shear detection 06 p1420 N93-19607
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
RAMSES: Multi-spectral experimental radar station installed on board the Transall 06 p1446 N93-19925
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Dual difference filtering: A replacement for interpolation and subtraction to detect changes in misregistered signals
[AD-A259440] 07 p1880 N93-20013
Multi-stage decoding for multi-level block modulation codes
[NASA-CR-192363] 07 p1880 N93-20043
Mountain top measurements of beta(9.2 microns) 07 p2009 N93-20099
A joint source/channel coder design 07 p1881 N93-20177
Signal phase pattern sensitive neural network system and method
[AD-D015571] 07 p2046 N93-20308
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Observation of ionospheric modification using high power oblique HF transmissions
[AD-A258706] 07 p1998 N93-20378
Uninterrupted, enhanced-rate, event-time recorder with mixed-speed counter modules
[AD-D015578] 07 p1906 N93-20769
Discrete orthogonal wavelets
[REPT-91-45] 07 p2052 N93-20862
Direct and inverse unitary eigenproblems in signal processing: An overview
[AD-A259348] 07 p2055 N93-21242
Improved use of passive microwave data for sea ice detection 07 p1957 N93-21597
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
An approach to improving TNA EDS 07 p1765 N93-21864
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Automated system for analyzing the activity of individual neurons 08 p2423 N93-22163
A modular, programmable measurement system for physiological and spaceflight applications 08 p2305 N93-22201
LADAR vision technology for automated rendezvous and capture 08 p2141 N93-22258
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Optimal three-dimensional matched filter processing for detection of point-like moving objects in clutter
[AD-A259727] 08 p2487 N93-23469
Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598
Detection of active emitters using triangulation and trilateration techniques: Theory and practice 08 p2267 N93-23612
Test results of the advanced translator processing system 08 p2269 N93-23620
Multidimensional signal coding in the visual system
[AD-A259836] 08 p2488 N93-23696
Design of an imaging spectrometer processing chain for space application 08 p2364 N93-23792
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Real-time signal processing systems
[AD-A259548] 08 p2272 N93-24084
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Constant false probability data fusion system
[AD-D015624] 08 p2304 N93-24219
Electronics and electrical engineering laboratory technical publication announcements covering laboratory programs, April to June 1992, with 1992/1993 EEEL events calendar
[PB93-147163] 08 p2284 N93-24225
Feature-oriented signal processing under nonlinear partial differential equations
[AD-A259951] 08 p2470 N93-24245
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
Test and evaluation of neural network applications for seismic signal discrimination
[AD-A260030] 08 p2401 N93-24440
The 1993 Space and Earth Science Data Compression Workshop
[NASA-CP-3191] 08 p2430 N93-24544
Optimum space-time processing in non-stationary environments
[ISBN-0-315-56985-9] 08 p2274 N93-24620

VLSI architectural synthesis for DSP custom applications
[ISBN-0-315-57793-2] 08 p2433 N93-24621
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 4
[NASA-CR-192834] 09 p2769 N93-24910
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
Proceedings of the Second SISAL Users' Conference
[DE93-008019] 09 p2815 N93-25304
Log-ratio signal-processing technique for beam position monitors
[DE93-007356] 09 p2851 N93-25314
Beam position and total current monitor for heavy ion fusion beams
[DE93-007653] 09 p2851 N93-25325
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
VLSI for high-speed digital signal processing
[AD-A260754] 09 p2690 N93-25678
An SPW software simulation model of a dispersive fading multipath narrowband HF channel
[AD-A261101] 09 p2675 N93-25767
Exploitation of cyclostationarity for signal-parameter estimation and system identification
[AD-A260833] 09 p2728 N93-25784
Signal processing in impulsive electromagnetic interference
[AD-A260755] 09 p2676 N93-25847
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
Phase discriminating capacitive array sensor system
[NASA-CASE-GSC-13460-1] 09 p2691 N93-26104
Goldstone solar system radar signal processing
09 p2680 N93-26130
Realtime control of multiple sensor systems
[AD-A261037] 09 p2680 N93-26226
OTH-B radar system: System summary
[AD-A261727] 09 p2681 N93-26247
Bayesian cross-entropy reconstruction of complex images
[AD-A261812] 09 p2812 N93-26257
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431
New results in signal design for the AWGN channel
[AD-A261424] 09 p2682 N93-26451
More rain compensation results
09 p2686 N93-26486
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603
Analog signal isolation techniques
[DE93-008059] 10 p3147 N93-27524
Ultra-wideband radar transient detection using time-frequency and wavelet transforms
[AD-A262154] 10 p3026 N93-27549
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
Adaptive filtering methods: On methods to use a priori information in order to reduce complexity while maintaining convergence properties
[ISBN-90-9005143-0] 10 p3121 N93-28109
Filtering, statistical signal processing and variational problems
[AD-A262276] 10 p3028 N93-28238
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Computer simulation studies of two-dimensional beamforming for linear arrays using a parallel computer system
[AD-A262712] 10 p3108 N93-28394
Statistical techniques for signal processing
[AD-A262731] 10 p3126 N93-28400
Analysis of electro-optic materials properties on guided wave devices
[AD-A262787] 10 p3148 N93-28403
Electronics research report
[AD-A262733] 11 p3405 N93-28589
Measurement of a Michelson interferometer mirror velocity with a time interval analyzer
[AD-A263009] 11 p3430 N93-28659
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
High-resolution signal synthesis for time-frequency distributions
[DE93-008735] 11 p3380 N93-28909
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Modified Acousto-Optic Adaptive Processor (Mod-AOAP)
[AD-A261983] 11 p3381 N93-28997
Fiber grating-based sensing system with interferometric wavelength-shift detection
[AD-D015697] 11 p3577 N93-29038
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
Programmable interactive system for cochlear implant electrode stimulation
[AD-A262558] 11 p3494 N93-29421
Digital hardware architecture implementation
[AD-A263219] 11 p3521 N93-29492
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514
Performance analysis of subspace methods
[AD-A263984] 11 p3530 N93-29865
Advanced technologies for lightweight EHF tactical communications satellites 11 p3389 N93-29900
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
ARSRP signal processing software
[AD-A263543] 11 p3391 N93-29975
Photorefractive integrators and correlators
[AD-A264200] 11 p3597 N93-30144
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
Nonlinear processing of phase vocoded speech
11 p3355 N93-30219
A systolic-array structure for MTCM receivers
11 p3357 N93-30236
Enhanced resolution and de-aliasing techniques for fast Fourier transforms 11 p3358 N93-30240
The use of data turning in airborne radars
11 p3358 N93-30241
Synchronization of the LAPTV adative filter with input statistics 11 p3358 N93-30242
Radar beam effects for a flight simulator using signal processor based hardware 11 p3373 N93-30328
Signal processor based MSAT trellis coded M-DPSK with adaptive Doppler phasor correction
11 p3373 N93-30332
Multiscale and multigrid information representation, extraction and fusion
[AD-A264623] 11 p3393 N93-30386
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
Effects of imbalances and DC offsets on I/Q demodulation
[AD-A264466] 11 p3393 N93-30537
Enhanced photorefractive effects in barium titanate
[AD-A264724] 11 p3599 N93-30554
Multiple neuron recording in the hippocampus of freely moving animals
[AD-A264807] 11 p3492 N93-30594
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme
11 p3397 N93-30743
Application of the Fourier transform to short antennas
11 p3398 N93-30750
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879
Massively parallel spatial light modulation-based optical signal processing
[AD-A264846] 11 p3581 N93-30905
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427
Adaptive array processing in uncertain inhomogeneous media 1992-1993
[AD-A265256] 12 p3717 N93-31794
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915
Neural attentional sensory processing
[AD-A265163] 12 p3799 N93-31992
Multivariate problems of statistics, combinatorics, reliability, and signal processing
[AD-A265213] 12 p3811 N93-32003
Linear algebra for signal processing
[AD-A264677] 12 p3808 N93-32017
Deinterleaver technology for future Electronic Support Measures (ESM) systems
[AD-A265005] 12 p3721 N93-32079
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231
Performance measures of parallel digital signal processor systems
[AD-A265804] 12 p3718 N93-32313
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

SIGNAL RECEPTION
NT SYMBOLS
NT TELEVISION RECEPTION
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations
[NASA-TM-106172] 10 p2956 N93-27064
The dynamic behavior of constrained adaptive array sensor processors
[AD-A262402] 11 p3541 N93-28494

SIGNAL REFLECTION
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788

SIGNAL TO NOISE RATIOS
Convergence performance of adaptive detectors, part 3
[AD-A248415] 01 p0143 N93-10275
Signal-to-noise assessment and measurement in spectroscopies with particular reference to Auger and x ray photoelectron spectroscopies
[NPL-DMM(A)-45] 02 p0247 N93-11396
Investigation of a cesium Raman time/frequency standard
[AD-A252677] 02 p0310 N93-11562
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A254320] 02 p0284 N93-12095
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160
Composite tasking for sensor arrays
[AD-A254997] 02 p0287 N93-12512
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Shot noise limits to sensitivity of optical interferometry
03 p0745 N93-13586
NPR and intermodulation in mobile satellite systems
04 p0806 N93-14931
A low bit rate FSK technique for SCPC satellite communication systems 04 p0811 N93-14954

Co-channel speaker separation
[AD-A256443] 04 p0861 N93-15317
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
Evaluation of radar performance degradation due to standoff jamming
[AD-A257316] 05 p1137 N93-15983
Optimal linear array heading in a directional noise field
[AD-A257336] 05 p1137 N93-15991
Nonlinear joint transform correlator
[AD-A258329] 06 p1661 N93-18136
Optical communications and a comparison of optical technologies for a high data rate return link from Mars
[NASA-TP-3180] 06 p1458 N93-18854
The effects of correlated noise in intra-complex DSN arrays for S-band Galileo telemetry reception
06 p1458 N93-18910
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver
06 p1506 N93-18913
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Multiple symbol partially coherent detection of MPSK
06 p1514 N93-19431
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
Evaluation and detection of a signal containing an autoregressive noise
[ETN-93-92684] 07 p1885 N93-21061
An airborne millimeter-wave FM-CW radar for thickness profiling of freshwater ice
[AD-A259368] 07 p1886 N93-21669
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware
08 p2141 N93-22260
Angle of arrival characteristics of ionospheric skywave signals 08 p2268 N93-23618
Analysis of DGPS MSK receivers in a non-gausian noise environment
[PB93-152866] 08 p2123 N93-24310
The detection and amplification processes in low light level cameras with CCD and image intensifier
[FFI-92/7017] 08 p2490 N93-24646
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise
09 p2693 N93-24982
Actual limits of fluorescence S/N ratio in an optically-pumped cesium beam resonator
09 p2833 N93-24991
Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Performance evaluation of UHF fading satellite channel by simulation for different modulation schemes
[AD-A262091] 10 p3028 N93-28190
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
Development of a 9.3 micrometer CW LIDAR for the study of atmospheric aerosol
[NASA-CR-193227] 11 p3381 N93-29105
Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier
11 p3386 N93-29599
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
Reception at Ascension Island, South Atlantic, of the transmissions from the Heard Island feasibility test
[PB93-176261] 11 p3394 N93-30662
Examinations of perturbation reduction by automatic speech dependent recognition of separately spoken single words
[ETN-93-94180] 11 p3394 N93-30672
Performance statistics bulletin. High latitude meteor scatter propagation, May, June, July 1989
[AD-A264003] 11 p3399 N93-30757
Investigation of methods for the measurement of small electron bundle currents
[DIGEL-1992-4] 11 p3413 N93-30763
Evaluation of the scattered pressure due to infinite rigid cylinders, infinite elastic cylindrical shells, and rigid spheres in the presence of an ambient noise field
[AD-A264835] 11 p3563 N93-30899
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231

SIGNAL TRANSMISSION
NT ALOHA SYSTEM
NT BIOTELEMETRY
NT CODE DIVISION MULTIPLE ACCESS
NT DATA TRANSMISSION
NT FREQUENCY DIVISION MULTIPLE ACCESS
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT MICROWAVE ATTENUATION
NT MICROWAVE TRANSMISSION
NT MULTIPATH TRANSMISSION
NT MULTIPLE ACCESS
NT PACKET TRANSMISSION
NT PCM TELEMETRY
NT RADAR TRANSMISSION
NT RADIO TELEMETRY
NT RADIO TRANSMISSION
NT SATELLITE TRANSMISSION
NT SHORT WAVE RADIO TRANSMISSION
NT SINGLE CHANNEL PER CARRIER TRANSMISSION
NT SINGLE SIDEBAND TRANSMISSION
NT TELEMETRY
NT TELEVISION TRANSMISSION
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Electromagnetic radiating source elimination (ERASE) program 08 p2254 N93-22019
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
Irregular media effects on radiowave signals used in navigation and positioning systems
08 p2266 N93-23606
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Systematic bearing errors of HF signals observed over a North-South propagation path
08 p2268 N93-23614
Large bearing errors observed at a high latitude DF site 08 p2268 N93-23615
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Statistics of sampled Rician fading
[AD-A261397] 09 p2681 N93-26289
Description of an adder board
[TR-92-09] 10 p3027 N93-27904
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
Development and flight testing of a fault-tolerant fly-by-light yaw control system 12 p3676 N93-31280

SIGNATURE ANALYSIS
Air-sea interaction and remote sensing
[NASA-CR-190913] 01 p0128 N93-10068
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
High range resolution radar target identification using the Prony model and hidden Markov models
[AD-A259210] 07 p1883 N93-20553
Vibration monitoring with artificial neural networks
[DE93-003543] 07 p1952 N93-21992
Vibration monitoring of EDF rotating machinery using artificial neural networks
[DE93-003557] 07 p1952 N93-21993
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management
08 p2452 N93-22221
Detectability of high power aircraft
[MBB-FE-S-PUB-0490] 08 p2262 N93-22682
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
The use of polarimetric radar remote sensing data for application in forestry 09 p2749 N93-24845

SIGNATURES
NT INFRARED SIGNATURES
NT MAGNETIC SIGNATURES
NT MICROWAVE SIGNATURES
NT RADAR SIGNATURES
NT SPECTRAL SIGNATURES
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225
Laser Doppler experiments
[AD-A252883] 02 p0287 N93-12461
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
Energetic and magnetosheath energy particle signatures of the low-latitude boundary layer at low altitudes near noon
[NASA-CR-191388] 04 p0917 N93-15574
Fingerprinting of Materials
[NASA-CR-184482] 05 p1199 N93-15916
Fingerprinting of materials: Technical supplement
05 p1199 N93-15917
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
Contamination signatures observed during the CIRRIS-1A mission
[AD-A258596] 07 p1820 N93-19982
Wright Laboratory research and development facilities handbook
[AD-A258746] 07 p2085 N93-20403
Principles of nuclear-based explosive detection systems 07 p1765 N93-21861
The GALLEX solar neutrino experiment
[DE93-003357] 07 p2102 N93-21962
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
A prompt start: Implementing the framework convention on climate change
[DE93-005062] 08 p2383 N93-22716
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Terminology and assessment methods of solid propellant rocket exhaust signatures
[AGARD-AR-287] 08 p2204 N93-22998
A proposed neutral line signature
[NASA-CR-192335] 08 p2393 N93-23211
Airborne studies of ocean-particle-cloud interactions
[AD-A259874] 08 p2415 N93-23958
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431
Globular cluster formation in merging galaxies?
10 p3175 N93-26729
The search for cold dark matter using germanium detectors 10 p3205 N93-28250
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692
A covariant form of the Maxwell's equations in four-dimensional spaces with an arbitrary signature
[DE93-606070] 11 p3605 N93-30783
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377

SIGNS (SYMBOLS)
U SYMBOLS

SIGNS AND SYMPTOMS
NT ACQUIRED IMMUNODEFICIENCY SYNDROME
NT EDEMA
Early markers of HIV infection and subclinical disease progression 02 p0379 N93-11296
The screening of inhalant allergic diseases in the selection of candidates for aircraft piloting
02 p0382 N93-11312

Phadiatop: A screening test for inhalant allergy
02 p0383 N93-11313
Allergic and nonallergic rhinitis in Greek pilots
02 p0383 N93-11317
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736
Evoked brain potentials as indicators of a central nervous impairment in a simulated saturation dive to 560 m
[DLR-FB-92-14] 08 p2422 N93-24093
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
Spurious symptom reduction in fault monitoring
[NASA-CR-191453] 11 p3542 N93-29192
The Environmental Symptoms Questionnaire (ESQ): Development and application
[AD-A264127] 11 p3495 N93-30196

SIKORSKY AIRCRAFT
NT H-53 HELICOPTER
NT H-60 HELICOPTER
NT UH-60A HELICOPTER
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum
[AD-A256319] 05 p1061 N93-16404
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process 07 p1782 N93-21315

SIKORSKY S-65 HELICOPTER
U H-53 HELICOPTER

SILANES
Molecular mobility of the interface in a model composite: A NMR study
[AD-A253311] 02 p0265 N93-11194
Si atomic layer epitaxy using remote plasma assisted hydrogen desorption and disilane as a precursor
[AD-A255606] 04 p0993 N93-15008
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites
07 p1836 N93-21146
Stability and reactivity of dimethylethoxysilane
10 p2997 N93-28258

SILICA
U SILICON DIOXIDE

SILICA GEL
Dislocation and pores in mullite from diphasic gels
[DE92-040384] 03 p0550 N93-12999
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Preliminary investigations of metal liquid-like films and coatings derived from them
[AD-A255477] 04 p0849 N93-14489
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941

SILICA GLASS
Laser densification and doping of sol-gel glasses
[AD-A254566] 03 p0604 N93-12644
Fluids, gels, and glasses under extreme conditions of pressure and temperature
[AD-A255675] 04 p0847 N93-14166
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Optical bleaching of bismuth implanted silica glass: A threshold effect
[DE93-009716] 10 p3007 N93-28436

SILICATES
NT ALUMINUM SILICATES
NT CORDIERITE
NT FELDSPARS
NT GADOLINIUM-GALLIUM GARNET
NT GARNETS
NT MONTMORILLONITE
NT PYROXENES
NT TALC
NT YTTRIUM-IRON GARNET
NT ZEOLITES
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
Optical information processing using photorefractive BSO 04 p0981 N93-14204
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Infrared laboratory spectra and composition changes of synthetic amorphous silicate grains
[DE92-040211] 04 p0843 N93-15283
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Processing lunar soils for oxygen and other materials
05 p1381 N93-16889
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Isotope tracer studies of diffusion in silicates and of geological transport processes using actinide elements
[DE93-006902] 08 p2392 N93-23029
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Experimental study of the electrolysis of silicate melts
10 p2997 N93-26679
Glasses, ceramics, and composites from lunar materials 10 p3214 N93-27971
Interactions between tetraalkylammonium ions and silicates
[ETN-93-94057] 12 p3703 N93-31622
The mineralogy and formation processes of Mars soil
12 p3861 N93-31934
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites
12 p3862 N93-31937
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils
[PB93-172948] 12 p3715 N93-32408

SILICIDES
NT DISILICIDES
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers
[DE93-002324] 06 p1674 N93-18521
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22064
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Niobium silicides for high temperature applications
[AD-A262334] 10 p2991 N93-28113
High temperature creep and oxidation resistant chromium silicide matrix alloy containing molybdenum
[NASA-CASE-LEW-15697-1] 11 p3323 N93-29172
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417

SILICON
NT AMORPHOUS SILICON
NT SILICON ISOTOPES
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications
01 p0015 N93-10006
Methodology for the computer-aided design of silicon micromachined devices in a standard CMOS process
[PB92-191246] 01 p0136 N93-10248
Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252804] 01 p0030 N93-10266
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Scanning tunneling microscopy of semiconductor surfaces
[AD-A246853] 01 p0168 N93-10726
Transformation of Cl bonding structures on Si(100)-(2x1)
[AD-A253739] 01 p0040 N93-10748
High sensitivity probes for silicon VLSI internal node testing
[AD-A253924] 01 p0169 N93-10764
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Silicon on insulator structures in selective epitaxial growth
[DE92-017118] 02 p0465 N93-11915
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Uses of Monte Carlo computer simulations in understanding epitaxial growth and ion bombardment of Si(001)
[DE92-016944] 03 p0719 N93-12586
Development of large-area monolithically integrated silicon-film photovoltaic modules
[DE92-010600] 03 p0637 N93-12838
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special 03 p0509 N93-13166
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
Technology trends in high temperature pressure transducers: The impact of micromachining
03 p0601 N93-13676
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition
03 p0726 N93-13904
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
Experimental considerations of higher order parametric x rays from silicon crystals of varying thicknesses
[AD-A256082] 04 p0990 N93-14260
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
[AD-A255242] 04 p0992 N93-14670
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Optimal synthesis methods for silicon compilers
[ETN-92-92677] 04 p0947 N93-15125
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127

Study of the mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions
[CTN-93-60619] 04 p0855 N93-15201
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
Effects of processing on MOS radiation hardening
[AD-A257361] 05 p1142 N93-15856
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599
Mathematical modelling and computer simulation of crystal growth from liquid phase under microgravity conditions, phase 2
[CTN-93-60620] 05 p1133 N93-16934
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Studies of metal-semiconductor clusters 06 p1678 N93-18493
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
On the modelling of the dissolution and liquid phase epitaxial growth processes in a horizontal sandwich system 07 p1803 N93-21080
Defect characterization by means of positron annihilation 07 p1804 N93-21081
Construction of a channeling radiation source and production of intensive channeling radiation at the Darmstadt (Germany) superconductive electron accelerator
[ETN-93-93410] 07 p2066 N93-21206
Fast neutron-induced changes in net impurity concentration of high-resistivity silicon
[DE93-003104] 07 p2080 N93-21240
Bias-annealing experiments for doped a-Si:H layers
[MBB-Z-0316-90-PUB] 07 p2081 N93-21464
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Silicon accelerometer for AHRS and hybrid navigation systems 08 p2120 N93-22786
Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Cavities in He-implanted Si: Internal surface science
[DE93-005340] 08 p2509 N93-24012
Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon
[DE93-005767] 08 p2509 N93-24017
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Photoluminescence of silicon nanostructures formed by ion beam implantation
[DE93-006777] 09 p2862 N93-24958
Anisotropic etching of silicon in KOH solutions 09 p2647 N93-25037
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
Smart microsensors for high temperature applications
[AD-A260747] 09 p2710 N93-25677
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Visible light emission from porous silicon examined by photoluminescence and Raman spectroscopy
[DE93-006780] 09 p2646 N93-26502
Silicon-Film(tm) on ceramic solar cells
[DE93-009608] 10 p3065 N93-27108
Optical model calculations of 14.6A GeV silicon fragmentation cross sections
[NASA-TM-4461] 10 p3138 N93-27111
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Structure and properties of novel compounds of silicon, germanium and tin
[AD-A262445] 10 p3133 N93-27696
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Instrumental neutron activation analysis developed for silicon integrated circuit technology
[ETN-93-93581] 11 p3408 N93-29271
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate
[AD-A262594] 11 p3596 N93-29424
Infrared imaging array integrated in three dimensions directly on top of silicon circuits
[AD-A264707] 11 p3581 N93-30500
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891
Laboratory experiments in integrated circuit fabrication 11 p3292 N93-30962
Low voltage electron beam lithography
[AD-A263360] 12 p3719 N93-31080
An integrated eddy current detection and imaging system on a silicon chip 12 p3693 N93-31560
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183

SILICON ALLOYS

Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Recombination and metastability in amorphous silicon and silicon germanium alloys
[DE92-010593] 02 p0463 N93-11816
Studies on the reactive melt infiltration of silicon and silicon-molybdenum alloys in porous carbon
[NASA-TM-105860] 02 p0273 N93-12398
Weak-beam imaging of dissociated dislocations in HVEM-irradiated Fe-Ni-Cr alloys
[DE92-019587] 03 p0541 N93-12798
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Lattice damage in ion-implanted silicon-germanium alloys
[DE92-040860] 05 p1110 N93-15951
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
Growth mechanisms and characterization of hydrogenated amorphous-silicon-alloy films
[DE93-000071] 08 p2508 N93-23673
A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691
High temperature rare earth and Si-Ge thermoelectric materials
[DE93-006913] 08 p2513 N93-24462
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Oxidation behavior in reaction-bonded aluminum-silicon alloy/alumina powder compacts
[DE93-010407] 11 p3298 N93-29191

SILICON CARBIDES

Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
Ohmic contacts to compound semiconductors 01 p0076 N93-10830
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
CVD of AlN and SiC using cyclic organometallic precursors
[AD-A246910] 02 p0266 N93-11413
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Silicon carbide matrix composites
[REPT-921-430-103] 02 p0239 N93-11588
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
High temperature rectifiers and MOS devices in 6H-silicon carbide
[AD-A254725] 02 p0295 N93-12340
Growth of solid solutions of aluminum nitride and silicon carbide by metalorganic chemical vapor deposition
[AD-A255000] 02 p0254 N93-12518
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
FNAS modify matric and transparent experiments
[NASA-CR-184442] 03 p0531 N93-13311
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
SiC device development for high temperature sensor applications 03 p0601 N93-13677

Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder
03 p0536 N93-14056
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
Analytical and experimental evaluation of joining silicon carbide to silicon carbide and silicon nitride to silicon nitride for heat engine applications
[DE92-041376] 04 p0837 N93-15454
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
Ion implantation effects in silicon carbide
[DE92-041306] 05 p1097 N93-16090
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Process for the controlled growth of single-crystal films of silicon carbide polytypes on silicon carbide wafers
[NASA-CASE-LEW-15222-3] 05 p1327 N93-17413
Radiation effects and micromechanics of SiC/SiC composites
[DE93-003268] 05 p1099 N93-17603
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
Microstructural development in a spray formed aluminum-silicon carbide based metal matrix composite
[AD-A259414] 07 p1832 N93-20124
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Dynamic stress-strain behavior in shear of SiCwhisker reinforced aluminum alloy composites
07 p1930 N93-20643
Experimental and theoretical study of the elastic and microplastic properties of particles reinforced metal matrix composites
[ISAL-92-0014] 07 p1833 N93-20942
Microgravity processing of ceramic composites
07 p1809 N93-21115
Syntheses, structures and properties of polycarbosilanes formed directly by polymerization of Alkenylsilanes
[NASA-CR-191927] 07 p1860 N93-21189
Advanced lightweight ceramic candle filter module
[DE93-000211] 07 p1860 N93-21252
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Structure, mechanical properties, and oxidation behavior of nanolayered MoSi2/SiC coatings
[DE93-005472] 08 p2235 N93-22341
Influence of fiber coatings on the oxidation of fiber-reinforced SiC composites
[DE93-006742] 08 p2208 N93-22578
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si
[PB93-152098] 08 p2225 N93-24632
Effects of processing parameters on the microstructure of a 30 w/o SiCw-2080 aluminum composite
[NRC-IAR-CR-20] 08 p2216 N93-24651
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
Processing and properties of silicon carbide reinforced reaction bonded silicon nitride composites
[AD-A260570] 09 p2640 N93-26236
SiC microsensor with piezoresistive diamond sensing elements
[AD-A261346] 09 p2868 N93-26312
Silicon carbide semiconductor technology for high temperature and radiation environments
10 p2978 N93-26928
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Exploration of multilayer concepts for oxidation protection of carbon-carbon composites
[AD-A262380] 10 p2991 N93-27653
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Interfacial studies of refractory glass-ceramic matrix/advanced SiC fiber reinforced composites
[AD-A263264] 11 p3299 N93-29802
The effect of oxidation embrittlement on the impact behavior of nicalon reinforced CAS 2 ceramic matrix composites
[AD-A263567] 11 p3334 N93-29829
Air oxidation behavior of fuel for the High Temperature Engineering Test Reactor (HTTR)
[DE93-753349] 11 p3576 N93-30006
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883
Thermal shock and fatigue behavior of ceramic tubes
12 p3739 N93-31139
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
Investigation of the electrochemical polarisation behaviour of SiC/6061 Al metal matrix composites
[NPL-DMM(A)-31] 12 p3700 N93-31736
The development of SiC whisker fabrication technology for nuclear applications
[DE93-605320] 12 p3710 N93-31828

SILICON COMPOUNDS

NT ALUMINUM SILICATES
NT COESITE
NT CORDIERITE
NT DISILICIDES
NT FELDSPARS
NT GADOLINIUM-GALLIUM GARNET
NT GARNETS
NT MONTMORILLONITE
NT ORGANIC SILICON COMPOUNDS
NT PYROXENES
NT QUARTZ
NT SILANES
NT SILICATES
NT SILICIDES
NT SILICON CARBIDES
NT SILICON DIOXIDE
NT SILICON NITRIDES
NT SILICON OXIDES
NT STISHOVITE
NT TALC
NT YTTRIUM-IRON GARNET
NT ZEOLITES
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Development of Si(1-x)Ge(x) technology for microwave sensing applications
[NASA-TM-106157] 11 p3405 N93-28610

SILICON DIOXIDE

NT COESITE
NT QUARTZ
NT STISHOVITE
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa
01 p0123 N93-10192
Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Preparation, optical and laser properties of Nd-doped sol-gel silica
[DE92-019378] 02 p0461 N93-11602
Microstructural evolution in reaction bonded alumina/mullite ceramics
03 p0552 N93-13328
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
The properties of thermally passivated Si(1-x) He(x) produced using high pressure techniques (and related augmentation awards)
[AD-A255961] 04 p0991 N93-14429
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Preparation and evaluation of fused silica capillary columns for gas chromatography and micellar electrokinetic chromatography
[ETN-92-92818] 05 p1104 N93-16473
Prediction of rigid silica based insulation conductivity
[NASA-TP-3276] 06 p1524 N93-17925
Development of phosphate-based ceramic membranes
[DE93-003285] 06 p1494 N93-18572
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Silazine to silica
10 p2997 N93-28257
Stability and reactivity of dimethylethoxysilane
10 p2997 N93-28258
Characterization of thermal annealed Bi implanted silica
[DE93-009712] 10 p3005 N93-28318
Electron transport calculations between 1 MeV and 1 eV
[AD-A263412] 11 p3568 N93-29787
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991

SILICON FILMS

Kinetics of oxidation of silicon by electron cyclotron resonance plasmas
[AD-A253140] 01 p0161 N93-10413
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Thin silicon solar cells
[DE93-007420] 08 p2376 N93-22532
Growth mechanisms and characterization of hydrogenated amorphous-silicon-alloy films
[DE93-000071] 08 p2508 N93-23673
Diamond composite films for protective coatings on metals and method of formation
[NASA-CASE-NPO-18501-1-CU]
10 p3006 N93-28426

SILICON ISOTOPES

Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568

SILICON NITRIDES
Thermo-optical switching in Si based etalons
[AD-A253139] 01 p0088 N93-10412
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
The dressing of resin bonded diamond grinding wheels
[PNR-90965] 02 p0264 N93-11086
Engine testing of ceramic cam-roller followers
[DE92-019188] 02 p0268 N93-11735
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
Superplastic forming of ceramic insulation
02 p0228 N93-12452
Cost-effective Sintered Reaction-Bonded Silicon Nitride (SRBSN) for structural ceramics
[DE92-019285] 03 p0549 N93-12821
Ceramic machining: Assessment of current practice and research needs in the US
[PB92-213511] 03 p0553 N93-13649
Properties of textile grade ceramic fibers
04 p0833 N93-14751
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Analytical and experimental evaluation of joining silicon carbide to silicon carbide and silicon nitride to silicon nitride for heat engine applications
[DE92-041376] 04 p0837 N93-15454
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
Development of a creep deformation and life prediction model for a HIPed silicon nitride ceramic
[DE93-000980] 05 p1123 N93-16273
Diffusion bonding of silicon nitride to austenitic stainless steel
[ETN-92-92789] 05 p1113 N93-16488
Microstructure/mechanical-property relationships and R-curve behavior in Si3N4/Si3N4(w) composites
[DE92-041096] 05 p1098 N93-17004
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
Feasibility of silicon nitride films by vapor deposition at low temperature: Comparison of dichlorsilane-ammonia and disilane gaseous systems
[LAAS-92249] 06 p1490 N93-17812
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
Strength optimization through powder modification
[DE93-005109] 08 p2237 N93-22718
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Solid-particle erosion of in-situ reinforced Si3Ni4
[DE92-014868] 08 p2209 N93-22911
The effect of UV light on Ir absorption in chemically vapor deposited a-SiN(x):H films
[DE93-004502] 08 p2486 N93-22941
Fabrication and properties of Si3N4 with rare earth apatite grain boundary phases
[DE93-005752] 08 p2505 N93-23037
The mechanical properties of a novel Si3N4-amorphous Si3N4 composite
[DE93-005473] 08 p2210 N93-23246
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HiPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
Boundary film for structural ceramic materials
[DE93-004971] 08 p2240 N93-23975
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction
[DE93-006796] 08 p2243 N93-24461
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Processing and properties of silicon carbide reinforced reaction bonded silicon nitride composites
[AD-A260570] 09 p2640 N93-26236
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Slot-line end-fire antennas for THz frequencies
10 p3015 N93-27751
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451
Microwave processing of silicon nitride for advanced gas turbine applications
[DE93-007910] 11 p3334 N93-29767
Methylhydridopolysilazane and its pyrolytic conversion to Si3N4/SiC ceramics
[AD-A264150] 11 p3336 N93-30170
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552

SILICON OXIDES
NT COESITE
NT QUARTZ
NT SILICON DIOXIDE
NT STISHOVITE
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
Radiation-induced infrared absorption in nuclear-pumped laser cavity components
[DE92-017346] 03 p0805 N93-13249
Optical glasses for high-peak-power laser applications
[DE92-040403] 04 p0886 N93-14906
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings
07 p1849 N93-20621
Structure property relationships of nanometer size metal clusters in glasses
[DE93-007922] 10 p3002 N93-26672
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941
Slot-line end-fire antennas for THz frequencies
10 p3015 N93-27751

SILICON POLYMERS
NT METHYL POLYSILOXANES
NT SILICONE RESINS
NT SILICONES
NT SILOXANES

SILICON RADIATION DETECTORS
Improvement of thick a-Si radiation detectors by field profile tailoring
[DE92-041192] 05 p1144 N93-15975
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Feasibility assessment and applications development of a radiobiological dosimeter for space applications, phase 2
[CTN-93-60609] 05 p1168 N93-16745
Temperature dependence of radiation damage and its annealing in silicon detectors
[DE93-003854] 09 p2869 N93-26494
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598

SILICON SOLAR CELLS
U SOLAR CELLS

SILICON TRANSISTORS
NT SOS (SEMICONDUCTORS)
Minority carrier transport in heavily doped silicon
[ETN-92-92527] 05 p1327 N93-17563
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893

SILICON-ON-INSULATOR SEMICONDUCTORS
U SOI (SEMICONDUCTORS)

SILICON-ON-SAPPHIRE JUNCTIONS
U SOS (SEMICONDUCTORS)

SILICON-ON-SAPPHIRE SEMICONDUCTORS
U SOS (SEMICONDUCTORS)

SILICON-ON-SAPPHIRE TRANSISTORS
U SOS (SEMICONDUCTORS)

SILICONE RESINS
Silicone softeners: Today 07 p1838 N93-21159

SILICONES
NT METHYL POLYSILOXANES
NT SILOXANES
An evaluation of field-flow fractionation for molecular weight characterization of polymeric materials
[DE92-019192] 02 p0267 N93-11497
Sources and transport of silicone NVR
03 p0547 N93-12777
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Characterization of the synthesis of M-61, a random equilibrium silicone terpolymer, using dry starting materials
[KCP-613-4985] 09 p2657 N93-26213
Silazine to silica 10 p2997 N93-28257
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1
[NASA-TM-108408] 11 p3331 N93-29193
Post-flight analyses of the crystals from the M0003-14 quartz crystal microbalance experiment
11 p3602 N93-29684
SESAME equation of state number 8010: Boron loaded silicone potting material
[DE93-012083] 11 p3300 N93-30395

SILOXANES
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Characterization of the synthesis of M-61, a random equilibrium silicone terpolymer, using dry starting materials
[KCP-613-4985] 09 p2657 N93-26213

SILTS
U SEDIMENTS

SILVER
Some results of the oxidation investigation of copper and silver samples flown on LDEF
01 p0034 N93-10580
Silver lined ceramic vessel and method of preparation
[AD-D015360] 02 p0266 N93-11400
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
Potential modulation of equilibrium and excitation phenomena at the electrolyte-solid interface
[DE93-001685] 05 p1103 N93-16163
Colloidal Au and Ag precipitates formed in Al2O3 by ion implantation and annealing
[DE93-000969] 05 p1112 N93-16197
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467

Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
Processing and property evaluation of silver or aluminum matrix YBa2Cu3O(6+x) superconducting materials
[AD-A263382] 11 p3595 N93-29333

SILVER ALLOYS
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738

SILVER BROMIDES
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176

SILVER COMPOUNDS
NT SILVER BROMIDES
NT SILVER IODIDES
4.5 micron laser source
[AD-A253367] 01 p0087 N93-10090
CO2 laser frequency doubling using AgGaSe2
[RSRE-MEMO-4528] 02 p0315 N93-11388
Colloid formation in implanted glasses
[DE93-006763] 09 p2653 N93-24971

SILVER HALIDES
NT SILVER BROMIDES
NT SILVER IODIDES

SILVER IODIDES
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
Investigation of winter mountain storms in Utah during the 1989 Utah/NOAA field program
[PB93-153021] 09 p2785 N93-25849
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
The adhesion of AgI molecules to gaseous metallic silver cluster cations
[AD-A264820] 11 p3338 N93-30628

SILVER OXIDE ZINC BATTERIES
U SILVER ZINC BATTERIES

SILVER ZINC BATTERIES
Proper battery system design for GAS experiments
03 p0511 N93-13176
Battery selection for space experiments
03 p0512 N93-13184
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038

SIMD (COMPUTERS)
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Computational fluid dynamics with irregular grids on the connection machine
[INRIA-RR-1411] 05 p1157 N93-16478
The performance of PAGOSA on several SIMD and MIMD parallel computers
[DE93-002599] 05 p1256 N93-16988
Monte Carlo simulations on SIMD computer architectures
[DE92-041210] 05 p1245 N93-17360
Numerical Wind Tunnel hardware
06 p1411 N93-19289
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Efficiently modeling neural networks on massively parallel computers
08 p2453 N93-22353
Data-parallel Langevin dynamics simulations
[DE93-003836] 08 p2445 N93-22434
Efficiently modeling neural networks on massively parallel computers
[DE93-003787] 08 p2447 N93-22937
Isomorphic routing on a toroidal mesh
[NASA-CR-191430] 08 p2437 N93-23058
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Some experiments in transforming towards parallel executability
[TR-92-08] 10 p3107 N93-27903
Implementation of a single-material version of PAGOSA on MIMD hypercubes
[SAND-92-0640] 11 p3526 N93-29127
The parallel implementation of a backpropagation neural network and its applicability to SPECT image reconstruction
[DE93-010304] 11 p3567 N93-29416
Special purpose parallel computer architecture for real-time control and simulation in robotic applications
[NASA-CASE-NPO-17629-1-CU]
11 p3521 N93-29608
Data parallelism
[DE93-009300] 11 p3539 N93-29782

SIMICOR (IMAGE CORRELATOR)
U IMAGE CORRELATORS

SIMILARITIES
U ANALOGIES

SIMILARITY NUMBERS
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866

SIMPLEX METHOD
Polynomial dual network simplex algorithms
[AD-A254340] 02 p0413 N93-12131
New results in signal design for the AWGN channel
[AD-A261424] 09 p2682 N93-26451

SIMPLIFICATION
Method of local shaping of thermoplastics
[AD-A255913] 04 p0856 N93-15105
Towards a meta simplifier
[INRIA-RR-1402] 06 p1621 N93-18574
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
Computational reacting gas dynamics
[NASA-CR-192089] 06 p1535 N93-19859
Interpretation as abduction
[AD-A259608] 08 p2425 N93-24227

SIMS (SPECTROMETRY)
U SECONDARY ION MASS SPECTROMETRY

SIMULATED ANNEALING
A simulated annealing approach to schedule optimization for the SES facility
06 p1634 N93-18662
Probability and statistics applied to the theory of algorithms
[AD-A259956] 08 p2473 N93-24248
Discrete range clustering using Monte Carlo methods
[NASA-TM-104004] 09 p2584 N93-24914
New ground states in unconventional superconductors
09 p2688 N93-25282
Digital Oblique Remote Ionospheric Sensing (DORIS) program development
[AD-A261750] 09 p2776 N93-26283
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
Structural design using neural networks
11 p3545 N93-31029
Design of coupled mace filters for optical pattern recognition using practical spatial light modulators
[NASA-CR-193192] 12 p3823 N93-31841

SIMULATION
NT ACOUSTIC SIMULATION
NT ANALOG SIMULATION
NT COMPUTER SYSTEMS SIMULATION
NT COMPUTERIZED SIMULATION
NT CONTROL SIMULATION
NT DIGITAL SIMULATION
NT ENVIRONMENT SIMULATION
NT EXHAUST FLOW SIMULATION
NT FLIGHT SIMULATION
NT LANDING SIMULATION
NT MOTION SIMULATION
NT NEUTRAL BUOYANCY SIMULATION
NT SOLAR SIMULATION
NT SPACE ENVIRONMENT SIMULATION
NT SYSTEMS SIMULATION
NT THERMAL SIMULATION
NT WEIGHTLESSNESS SIMULATION
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Advanced ceramic matrix composites for TPS
02 p0228 N93-12450
Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall
03 p0663 N93-13489
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Moon Park: A research and educational facility
03 p0519 N93-14015
A proof of convergence of the Markov chain simulation method
[AD-A255456] 04 p0970 N93-14487
Systems modeling
[AD-A255215] 04 p0944 N93-14575
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
Simulation and nonlinear modelling of microwave transistors 04 p0807 N93-14936
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070
A high intensity solar cell invention: The edge-illuminated Vertical Multi-Junction (VMJ) solar cell
[DE92-019015] 04 p0907 N93-15224
Radar data processing using a distributed computational system
[AD-A256209] 04 p0861 N93-15237
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
Enhancement of multiple target track simulation
[AD-A257224] 05 p1278 N93-16236
Parallel algorithms for simulating continuous time Markov chains
[NASA-CR-189729] 05 p1238 N93-16550
Above-surface neutralization of highly charged ions: The formation of hollow atoms
[DE93-001371] 05 p1288 N93-16603
NCC Simulation Model: Simulating the operations of the network control center, phase 2
[NASA-CR-191616] 05 p1140 N93-16716
NiCd cells behaviour at high currents and low temperature for space applications
[ITN-93-85176] 05 p1149 N93-16835
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Hermes CX-7: Air transport system design simulation
[NASA-CR-192082] 06 p1437 N93-18056
Arrow 227: Air transport system design simulation
[NASA-CR-192053] 06 p1437 N93-18063
The S.T.o.R.M. (tm): Air transport system design simulation
[NASA-CR-192070] 06 p1439 N93-18349
Simulated coal-gas-fueled molten carbonate fuel cell development program
[DE93-000205] 06 p1570 N93-18527
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail
06 p1704 N93-19147
The influence of individual sensivity to stress on the behavior (attitude and performance) of avoidance of an accident 06 p1430 N93-19705
Multi-fluid modeling of interpenetrating plasmas
[DE93-002893] 06 p1668 N93-19829
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Application of surrogate materials in process study of actinides
[DE93-002257] 07 p1856 N93-20024
Particle simulation of auroral double layers
[AD-A258577] 07 p1996 N93-20032
CASE/simulation systems 07 p2088 N93-20165
Studies of premixed laminar and turbulent flames at microgravity 07 p1853 N93-20196
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
Agglomeration of fractals in simulated reduced gravity
07 p1806 N93-21093
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237
A model study of the aircraft cabin environment resulting from in-flight fires
[DOT/FAA/CT-90/22] 07 p1764 N93-21557
Retrieval of cloud liquid water and precipitation from polarized microwave simulations and SSM/I measurements 07 p1960 N93-21613
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Validation of simulated explosives for testing TNA explosives detection systems 07 p1769 N93-21891

Neighboring suboptimal control for vehicle guidance
08 p2171 N93-22011
National Launch System: Structures and materials
08 p2172 N93-22083
ATTIRE (analytical tools for thermal infrared engineering): A sensor simulation and modeling package
08 p2305 N93-22203
Simulation of electronic transport in semiconductor heterolayer devices
[AD-A260122] 08 p2502 N93-22548
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Training high performance skills using above real-time training
[NASA-CR-192616] 08 p2425 N93-24192
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU]
08 p2169 N93-24598
Optimal message log reclamation for independent checkpointing
[NASA-CR-192886] 09 p2815 N93-24749
Striped tape arrays
[NASA-CR-192914] 09 p2806 N93-25267
Multi-rate, real time image compression for images dominated by point sources 09 p2805 N93-25932
Studies in air/air supersonic mixing layers
09 p2582 N93-26007
Imaging the magnetosphere in the extreme ultraviolet
[NASA-CR-192218] 09 p2775 N93-26151
NLS operations concepts: Failure modes scenario simulation model analysis
[MCR-92-5013] 09 p2609 N93-26175
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
Processes as terms: Non-well-founded models for bisimulation
[CWI-CS-R9211] 10 p3097 N93-27499
Lunar gravitational field estimation and the effects of mismodeling upon lunar satellite orbit prediction
[NASA-CR-188249] 11 p3634 N93-29042
Adsorption of hydrated halide ions on charged electrodes: Molecular dynamics simulation
[AD-A263137] 11 p3568 N93-29619
Space station attitude disturbance arising from internal motions 11 p3280 N93-29995
Radiated fields from an electromagnetic pulse simulator 11 p3366 N93-30290
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378
Contact mechanics and the dynamics of manipulation
12 p3733 N93-31103
Automated failure mode effects and criticality analyses for reliability prediction of multibody mechanical systems
12 p3738 N93-31107
Quality support tool of simulation models: A comparison between methodology
[REPT-92-061/BIS] 12 p3839 N93-31605
Selection by simulation: A work sample approach to the selection of process algebras
[ISBN-9-09-005483-9] 12 p3811 N93-31618

SIMULATOR TRAINING
U TRAINING SIMULATORS

SIMULATORS
NT COCKPIT SIMULATORS
NT CONTROL SIMULATION
NT ENVIRONMENT SIMULATORS
NT FLIGHT SIMULATORS
NT MOTION SIMULATORS
NT SHOCK SIMULATORS
NT SHUTTLE ENGINEERING SIMULATOR
NT SOLAR SIMULATORS
NT SPACE SIMULATORS
NT TARGET SIMULATORS
NT TRAINING SIMULATORS
NT VERTICAL MOTION SIMULATORS
NT VIBRATION SIMULATORS
An analog macromodel of the SG1525A PWM for use with SPICE2G.6 simulators
[DE92-019423] 02 p0291 N93-11639
Simulator, Tactical Use, Flare (STUF) project report
[AD-A254890] 02 p0276 N93-12281
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Aspects of a parallel-architecture simulator
[AD-A256872] 04 p0941 N93-15628
Modeling of radiation effects in CMOS
[AD-A257236] 05 p1144 N93-15970
Portable radar simulator
[AD-D015453] 05 p1139 N93-16459
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Visual system performance for driving simulators
[MBB-FE-521-S-PUB-0497] 08 p2132 N93-22393
Icing cloud simulator for use in helicopter engine induction system ice protection testing
[DOT/FAA/CT-TN92/43] 08 p2133 N93-23087
Developing a neural network to act as a noise filter
[AD-A259515] 08 p2460 N93-23699
Automated program recognition by graph parsing
[AD-A259609] 08 p2441 N93-24125
Training high performance skills using above real-time training
[NASA-CR-192616] 08 p2425 N93-24192
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
Data systems dynamic simulator
09 p2814 N93-25602
Utilization of an electronic circuit simulator in CMOS latch-up studies
[AD-A260877] 09 p2690 N93-25935
Rocket engine numerical simulator
10 p2981 N93-26962
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Building a generalized distributed system model
[NASA-CR-193239] 11 p3527 N93-29219
Programmable interactive system for cochlear implant electrode stimulation
[AD-A262558] 11 p3494 N93-29421
Exercise/recreation facility for a lunar or Mars analog
11 p3230 N93-29733
A functional implementation of the Jacobi eigen-solver
[DE93-007349] 11 p3549 N93-29769
Development of a concept formulation process aid for analyzing training requirements and developing training devices
[AD-A263579] 11 p3261 N93-29972
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

SIMULTANEOUS IMAGE CORRELATOR
U IMAGE CORRELATORS

SINE WAVES
Extension of fresnel near-field region by single-cycle sinusoidal pulses
[AD-A254736] 02 p0285 N93-12356
Numerical analysis of oscillating flow about a circular cylinder
[AD-A255164] 02 p0307 N93-12406
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
Equipment testing with damped sinewaves between 1 and 50 MHz 09 p2692 N93-24881
New algorithms for the detection and elimination of sine waves and other narrow-band signals in the presence of broadband signals and noise
[AD-A261811] 09 p2681 N93-26261
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Infrared rugates by molecular beam epitaxy
11 p3582 N93-28808
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655

SINGLE CHANNEL PER CARRIER TRANSMISSION
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems
02 p0285 N93-12207

SINGLE CRYSTALS
Molecular dynamics of shocks in crystals with defects
[AD-A253353] 01 p0164 N93-10099
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
Single crystal growth of beta-Al2O3 for iso-index filters
[AD-A252259] 01 p0169 N93-10879
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
CO2 laser frequency doubling using AgGaSe2
[RSRE MEMO-4528] 02 p0315 N93-11388
Contribution to the study of the anisotropic viscoelasticity of large strains: The case of the monocrystal
[ECL-90-29] 02 p0460 N93-11573
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581
Flux pinning in oxygen-depleted YBa2Cu3O(7-y) single crystals
[DE92-019548] 02 p0461 N93-11647
Slow crack growth in vacuum
02 p0338 N93-11909
Image potential states at metal-dielectric interfaces
[DE92-017019] 02 p0466 N93-12124
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Fatigue in single crystal nickel superalloys
[AD-A254603] 02 p0260 N93-12237
Surface analysis of Ln(2-x)Ce(x)CuO4 (Ln = Pr and Nd) single crystals grown by the top seeded solution method
[AD-A254905] 02 p0469 N93-12286
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Heat transfer, fluid flow and interface shapes in floating-zone crystal growth 03 p0724 N93-13739
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
Fatigue in single crystal nickel superalloys
[AD-A256095] 04 p0844 N93-14264
Determination of operable deformation mechanisms during ballistic impact in tungsten single crystals, utilizing transmission electron microscopy
[AD-A255351] 04 p0991 N93-14518
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
[AD-A255242] 04 p0992 N93-14670
In-service considerations affecting component life
04 p0800 N93-14898
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Grain competition in bicrystal welds
[DE92-040707] 05 p1110 N93-15950
Potential modulation of equilibrium and excitation phenomena at the electrolyte-solid interface
[DE93-001685] 05 p1103 N93-16163

ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Process for single crystal growth of high T(c) superconductors
[AD-D015480] 05 p1320 N93-16485
The 10th International Conference on Crystal Growth (ICCG-10)
[AD-A256938] 05 p1321 N93-16505
Brittle to ductile transition in cleavage fracture
[DE93-002466] 05 p1187 N93-17012
Crystallographic and magnetic properties of UPdSn
[DE92-040243] 05 p1324 N93-17206
Anode for rechargeable ambient temperature lithium cells
[NASA-CASE-NPO-18580-1-CU] 05 p1150 N93-17278
Process for the controlled growth of single-crystal films of silicon carbide polytypes on silicon carbide wafers
[NASA-CASE-LEW-15222-3] 05 p1327 N93-17413
Fatigue in single crystal nickel superalloys
[AD-A258038] 05 p1117 N93-17704
Growth and characterization of single crystals
[NOTA-INTERNA-984] 06 p1670 N93-17935
Heteroepitaxial diamond growth
[AD-A257510] 06 p1671 N93-18079
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345
Determination of cleavage planes and fracture characterization of Ni-based single crystal superalloys
[NASA-CR-191932] 06 p1674 N93-18593
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Fatigue in single crystal nickel superalloys
[AD-A259191] 07 p1856 N93-20275
Growth, characterization and device development in monocrystalline diamond films
[AD-A259099] 07 p2079 N93-20407
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization and device development
[AD-A259177] 07 p2079 N93-20561
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
Laser scribing system for amorphous silicon solar cells
[AD-A259287] 07 p1910 N93-20608
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Growth and defects of explosives crystals
[DE93-003866] 07 p2082 N93-21780
High performance sapphire windows
08 p2310 N93-22198
Correlations between surface structure and catalytic activity/selectivity
[DE93-005884] 08 p2217 N93-22423
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films
08 p2505 N93-23100
Growth and characterization of isotopically enriched Ge-70 and Ge-74 single crystals
[DE93-004697] 08 p2510 N93-24050
Heteroepitaxial diamond growth
[AD-A259623] 08 p2510 N93-24127
Diamond homoepitaxy by chemical vapor deposition
[AD-A260551] 08 p2512 N93-24281
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
Crack tip fields in ductile crystals and bicrystals
09 p2866 N93-25749
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Fatigue in single crystal nickel superalloys
[AD-A260709] 09 p2651 N93-25843
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Fatigue in single crystal nickel superalloys
[AD-A262126] 10 p2999 N93-27674
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Motion-sensitive optical correlator
[NASA-CASE-NPO-18769-1-CU] 10 p3148 N93-28133
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661
Environmental embrittlement of binary and Zr-doped Ni3Al
[DE93-008575] 11 p3321 N93-28679
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Neutron scattering studies of the structures and lattice dynamics of the alkali metals
[DE93-008272] 11 p3593 N93-28956
Uniaxially stressed Ge:Ga and Ge:Be
[DE93-010426] 11 p3594 N93-29150
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
Design and performance evaluation of a gas chromatograph micromachined in a single crystal silicon substrate
[AD-A262594] 11 p3596 N93-29424
Balanced technology initiative on computational mechanics of materials
[AD-A263906] 11 p3453 N93-29863
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067
Microstructural basis for enhanced shock-induced chemistry in single crystals of ammonium perchlorate 11 p3319 N93-30092
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate 11 p3350 N93-30094
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366
The calculation of electrostatic interactions and their role in determining the energies and geometries of molecular HE crystals
[DE92-040374] 11 p3570 N93-30448
Photoinduced charge separation in Q1D heterojunction materials: Evidence for electron-hole pair separation in mixed-halide MX solids
[AD-A264711] 11 p3598 N93-30501
Photoinduced electron-hole charge separation, intrinsic self-doping and novel device applications of Q1D heterojunction materials: Mixed-halide MX solids
[AD-A264714] 11 p3600 N93-30569
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574
Hard photon emission from high energy electrons and positrons in single crystals
[DE93-606328] 11 p3600 N93-30770
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878
Pulsed laser photoacoustic spectrometer for study of solid materials
[DE93-605290] 11 p3441 N93-31023
NTO polymorphs
[DE93-005451] 12 p3712 N93-31186
The effect of porosity and gamma-gamma' eutectic content on the low cycle fatigue behavior of hydrogen-charged PWA-1480 12 p3696 N93-31576
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads
12 p3696 N93-31578
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
Single crystal tungsten kinetic energy penetrators
[DE93-012570] 12 p3706 N93-32296

SINGLE ENGINE AIRCRAFT
NT F-16 AIRCRAFT
NT F-104 AIRCRAFT
NT MIRAGE AIRCRAFT
NT YF-16 AIRCRAFT

SINGLE EVENT UPSETS
An accurate and efficient method to calculate the rate of single event upsets from the LET spectrum and SEU cross section test results
[AD-A253917] 02 p0290 N93-11492
On the suitability of non-hardened high density SRAMs for space applications
[AD-A255898] 03 p0524 N93-14087
Comparison of heavy ion and electron-beam upset data for GaAs
[AD-A255901] 03 p0708 N93-14089
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM
07 p1801 N93-20484
Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485
Design and qualification of the SEU/TD Radiation Monitor chip
[NASA-CR-192797] 08 p2280 N93-23041
SEU tolerant computer based on the R3000
[DE93-009294] 11 p3520 N93-29058
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142

SINGLE INPUT SINGLE OUTPUT SYSTEMS
U SISO (CONTROL SYSTEMS)

SINGLE INSTRUCTION MULTIPLE DATASTREAM
U SIMD (COMPUTERS)

SINGLE SIDEBAND MODULATION
U SINGLE SIDEBAND TRANSMISSION

SINGLE SIDEBAND TRANSMISSION

A current assessment of single site locating technology 08 p2267 N93-23608
Constant Average Power Single Sideband (CAPSSB) modulation 11 p3373 N93-30331

SINGLE STAGE ROCKET VEHICLES
NT AGENA ROCKET VEHICLES

SINGLE STAGE TO ORBIT VEHICLES

Plug nozzle propulsion system
01 p0017 N93-10013
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014

Rocket Based Combined Cycle (RBCC) Propulsion Technology Workshop. Volume 1: Executive summary
[NASA-CR-184382] 02 p0231 N93-11042
Rocket Based Combined Cycle (RBCC) Propulsion Workshop, volume 2
[NASA-CR-184383] 02 p0231 N93-11043
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
Advanced Manned Launch System
08 p2172 N93-22084
Single stage to orbit/SDIO 08 p2173 N93-22086
Advanced rocket propulsion 08 p2174 N93-22091
New launch technologies and American competitiveness 08 p2153 N93-23157
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations
[RAND/N-3464-AF] 09 p2767 N93-26327
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759

SINGLE-PHASE FLOW
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Predictive modeling of particle-laden, turbulent flows
[DE93-008208] 09 p2698 N93-25309

SINGULAR INTEGRAL EQUATIONS
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374

SINGULARITY (MATHEMATICS)
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities
01 p0047 N93-10483
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Integral transform approach to an inertial viscoelastic problem involving moving singularities
01 p0049 N93-10490
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
A variational approach for coupled creeping-flow problems 01 p0062 N93-10557
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Singularities of the Euler equation and hydrodynamic stability
[NASA-CR-189720] 02 p0306 N93-12173
Spacetime singularities in string theory
02 p0472 N93-12530
On computing accurate singular values and eigenvalues of acyclic matrices
[AD-A255892] 03 p0697 N93-14036
Wavelet methods for curve estimation
[AD-A255357] 04 p0970 N93-14538
Cosmological models in higher-order gravity
04 p1018 N93-14592
On a symmetry of turbulence
[AD-A256647] 05 p1155 N93-15910
On the stability of a stringy black hole
[PREPRINT-879] 05 p1365 N93-16983
Performances of finite element solution for crack problem 07 p1936 N93-20682
Non standard analysis and ordinary differential equations
[RR-884-M] 07 p2051 N93-20787
Singular points at infinity of quadratic systems of differential equations
[REPT-91-58] 07 p2052 N93-20852
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Explicit robust schemes for implementation of a class of principal value-based constitutive models: Symbolic and numeric implementation
[NASA-TM-106124] 10 p3089 N93-26946
Operator algebra from fusion rules 2: Implementing apparent singularities
[NIKHEF-H/92-06] 10 p3155 N93-27307
Wavelet local extrema applied to image processing
[AD-A262362] 10 p3118 N93-27691
Numerical models of plane-symmetric spacetimes with applications to gravity-wave collisions
10 p3204 N93-28081

SINKS
NT HEAT SINKS
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
Impact contribution of prebiotic reactants to Earth
[NASA-CR-192785] 08 p2552 N93-24480
Mars brine formation experiment
12 p3864 N93-31949

SINKS (GEOLOGY)
U STRUCTURAL BASINS

SINTERING
NT LIQUID PHASE SINTERING
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A253660] 01 p0041 N93-10779
Microwave sintering of multilayer ceramic capacitors
[DE92-018772] 02 p0267 N93-11570
Nanophase ceramics
[AD-A254661] 02 p0272 N93-12246
Ceramic TBS/porous metal compliant layer
02 p0228 N93-12453
Cost-effective Sintered Reaction-Bonded Silicon Nitride (SRBSN) for structural ceramics
[DE92-019285] 03 p0549 N93-12821
Deformation characterization of powdered metals in compaction and application of the finite element method to compaction processes 04 p0844 N93-14472
Method of making substantially single phase superconducting oxide ceramics having a TC above 85 degrees
[AD-D015422] 04 p0850 N93-14743
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project
[DE92-041378] 04 p0837 N93-15455
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
Laboratory studies on cometary crust formation: The importance of sintering 06 p1715 N93-19228
Comparative cost analysis of ceramic processing techniques
[DE93-003047] 06 p1496 N93-19832
Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116
Properties of aligned YBa2Cu3O(7-delta) superconductor as a function of oxygen deficiency delta
[DE93-001707] 07 p2082 N93-21750
Silicon nitride containing rare earth silicate intergranular phases
[DE93-006624] 08 p2509 N93-24034
Application of microwave heating for fabrication of silicon nitride ceramics
[DE93-006741] 08 p2242 N93-24330
Densification of ceramics by gas overpressure sintering
[MTL-TR-92-45] 09 p2657 N93-26432
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Effects of composition on sintering of current interconnects in SOFC
[DE93-004837] 10 p3065 N93-27613
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Microwave processing of ceramics
[DE93-010708] 11 p3332 N93-29252
Properties of superconducting YBa2Cu3O(6+4) ceramic materials: Effect of processing parameters
[AD-A263441] 11 p3334 N93-29790
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Colloid and interface chemistry aspects of ceramics
[AD-A264685] 11 p3337 N93-30552
Reactive sintering of Ni3Al intermetallic alloys under compressive stress
[DE93-009729] 11 p3327 N93-30652
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201

SINUSOIDS
U SINE WAVES

SIPHONS
Siphon breaker design requirements
[DE93-011799] 11 p3425 N93-30132

SIR-A
U SHUTTLE IMAGING RADAR

SIR-B
U SHUTTLE IMAGING RADAR

SIRTF
U SPACE INFRARED TELESCOPE FACILITY

SIS (SEMICONDUCTORS)
A low noise 410-495 heterodyné two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions
10 p3013 N93-27743
Activities report for the Laboratory for Space Research Groningen (Netherlands)
[ETN-93-93688] 11 p3631 N93-30638

SIS (SUPERCONDUCTORS)
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-002625] 06 p1676 N93-19617
Research on space superconducting element technology 07 p1794 N93-20441
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes
09 p2889 N93-25440
A 200 GHz tripler using single barrier varactor
10 p3013 N93-27740
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Double dipole antenna SIS receivers at 100 and 400 GHz 10 p3013 N93-27744
Slot antenna SIS mixers for submillimeter wavelengths
10 p3014 N93-27745
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz
10 p3014 N93-27749
A low-noise 492 GHz SIS waveguide receiver
10 p3015 N93-27750
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies
10 p3016 N93-27758
Embedding impedance approximations in the analysis of SIS mixers 10 p3016 N93-27760
Sub micron area Nb/AlO(x)/Nb tunnel junctions for submillimeter mixer applications
10 p3016 N93-27761
Fabrication and characterization of high current-density, submicron, NbN/MgO/NbN tunnel junctions
10 p3017 N93-27763
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Submillimeter wave detection with superconducting tunnel diodes 10 p3018 N93-27769
Evaluation of integrated tuning elements with SIS devices 10 p3018 N93-27770
Source conductance scaling for high frequency superconducting quasiparticle receivers
10 p3018 N93-27771

SISO (CONTROL SYSTEMS)
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
The Mini-Mast CSI testbed: Lessons learned 06 p1461 N93-18819
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Control design for the SERC experimental testbeds 10 p3058 N93-27891
Nonlinear H(sub infinity) almost disturbance decoupling
[MEMO-1066] 10 p3110 N93-28075
Stabilization using low-gain PI control: SISO case
[OUEL-1947/92] 11 p3541 N93-28898
A decoupled control approach for magnetic suspension systems using electromagnets mounted in a planar array
[NASA-TM-109011] 12 p3715 N93-32227

SITE SELECTION
Conceptual design of a human piloted mining mission 03 p0514 N93-13552
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Lunar resource evaluation and mine site selection 05 p1380 N93-16881
Lunar site characterization and mining 05 p1380 N93-16882
The choice of the location of the lunar base 05 p1394 N93-17431
Geological and geophysical field investigations from a lunar base at Mare Smythii 05 p1394 N93-17432
Astronomy on the Moon: Geological considerations
[SOEST-CONTRIB-2399] 05 p1363 N93-17434
Helium mining on the Moon: Site selection and evaluation 05 p1395 N93-17435
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
A search for intact lava tubes on the Moon: Possible lunar base habitats
[PGD-PUBL-541] 05 p1396 N93-17438
Last chance at Taurus-Littrow 06 p1740 N93-18817
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
Earth observing system: Information on NASA's selection of data centers. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-91-67] 06 p1569 N93-19842
Los Alamos studies of the Nevada test site facilities for the testing of nuclear rockets 10 p2954 N93-26966
Bibliography of the Maryland Power Plant Research Program, fourteenth edition
[PB93-174241] 10 p3068 N93-27404
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992
Reconnaissance and deep-drill site selection on Taylor Dome, Antarctica 12 p3759 N93-31883

SITES
NT LANDING SITES
NT LAUNCHING PADS
NT LAUNCHING SITES
NT LUNAR LANDING SITES
Characterization of site geochemistry in support of environmental restoration
[DE92-017512] 03 p0641 N93-12685
CSTG subcommission on Space Geodetic Measurement Sites (SGMS) 07 p1970 N93-20969

SITTING POSITION
Passive zero-gravity leg restraint
[NASA-CASE-ARC-11882-1-CU] 04 p0939 N93-14713
Portable seat lift
[NASA-CASE-MFS-28610-1] 05 p1228 N93-17045
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

SIZE (DIMENSIONS)
NT GRAIN SIZE
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628

SIZE DETERMINATION
Method for non-destructive estimation of waveguide directional coupler dimensions
[NASA-CASE-NPO-18454-1-CU] 06 p1519 N93-18285
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
ASPAM (Atmospheric Slant Path Analysis Model) statistical paired differences pilot study for sample size determination
[AD-A260288] 08 p2411 N93-24568

SIZE DISTRIBUTION
NT PARTICLE SIZE DISTRIBUTION
A fundamental understanding of the effects of ceramic processing on product microstructure
[AD-A255729] 04 p0850 N93-15049
Atomization of JP-10/B4C gelled slurry fuel
[AD-A256827] 05 p1128 N93-15686
A cloud chamber study of the effect which nonprecipitating clouds have on the aerosol size distribution
[AD-A256730] 05 p1200 N93-16139
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
The flux of small asteroids near the Earth 06 p1715 N93-19225
Velocity distribution of fragments of catastrophic impacts 06 p1719 N93-19252
Drop sizing with thermal anemometry: A review
[DLR-MITT-91-18] 07 p1906 N93-21039
Volatiles in interplanetary dust particles: A comparison with CI and CM chondrites 09 p2896 N93-26062
Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184
Particulate emissions from gas turbine engines
[AD-A261374] 09 p2595 N93-26339
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Micrometeoroids and debris on LDEF 11 p3638 N93-29356

SKELETON
U MUSCULOSKELETAL SYSTEM

SKILLS
U ABILITIES

SKIN (ANATOMY)
Dermal exposure assessment: Principles and applications
[PB92-205665] 01 p0131 N93-10438
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951

SKIN (STRUCTURAL MEMBER)
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
Fabrication of the V-22 composite AFT fuselage using automated fiber placement 11 p3302 N93-30443

SKIN FRICTION
NT AERODYNAMIC DRAG
NT FRICTION DRAG
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
Reflection type skin friction meter
[NASA-CASE-LAR-14520-1-SB] 06 p1406 N93-18275
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426

SKIN TEMPERATURE (NON-BIOLOGICAL)
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632
Intercomparison of satellite-derived sea surface temperatures 07 p1964 N93-21636

SKIRTS
Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173

SKY
NT NIGHT SKY

SKY BRIGHTNESS
Zodiacal emission 03 p0772 N93-13147

SKY RADIATION
NT AIRGLOW
NT DAYGLOW
NT GEOCORONAL EMISSIONS
NT NIGHTGLOW
NT TWILIGHT GLOW

SKY SURVEYS (ASTRONOMY)
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
Rosat deep surveys 02 p0482 N93-11474
X ray morphology of clusters of galaxies 02 p0482 N93-11475
Morphology and physics of supernova remnants 02 p0482 N93-11476
Stars in the Rosat all-sky survey 02 p0482 N93-11477
A systematic search for low-mass companions orbiting nearby stars and the calibration of the end of the stellar main sequence 03 p0749 N93-14070
A faint spectrosconic quasar survey 04 p1012 N93-14629
Extragalactic counterparts to Einstein slew survey sources 05 p1361 N93-17107
ROSAT-IUE All Sky Survey (RIASS): First results on active galaxies 05 p1369 N93-17117
The quasar 1821+643 during the ROSAT survey 05 p1361 N93-17119
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
Spectra of radio-loud quasars observed in the ROSAT/XRT all sky survey 05 p1361 N93-17125
Initial results from a ROSAT deep survey in Lynx 05 p1362 N93-17132
ROSAT all sky survey observations of IRAS galaxies 05 p1362 N93-17133
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Pre-phase A: Development of a far-ultraviolet photometric- and spectroscopic-survey small-explorer experiment
[NASA-CR-192092] 06 p1696 N93-18415
An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926
Extreme Ultraviolet Explorer. Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
Two high-sensitivity pulsar searches 06 p1696 N93-19047
A Southern Hemisphere radar meteor orbit survey 06 p1701 N93-19121
High resolution images of P/Tempel 1 and P/Tempel 2 constructed from IRAS survey data 06 p1699 N93-19257
Automating sky object classification in astronomical survey images 06 p1690 N93-19728
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192263] 07 p1998 N93-20755
The Einstein All-Sky Slew Survey
[NASA-CR-192323] 07 p2095 N93-20793
Identifications of Einstein Slew Survey sources 07 p2095 N93-20794
Einstein Slew Survey: Data analysis innovations 07 p2095 N93-20795
Thirteen new BL Lacertae objects discovered by an efficient x ray/radio/optical technique 07 p2095 N93-20796
ROSAT all sky survey observations of IRAS galaxies
[MPE-PREPRINT-220] 08 p2542 N93-22462
The ROSAT all-sky x ray survey 08 p2533 N93-23880
ROSAT observations of active galactic nuclei 08 p2534 N93-23888
IRAS galaxies in the ROSAT survey 08 p2536 N93-23897
Extragalactic radio sources in the ROSAT survey 08 p2536 N93-23899
Soft x ray emission from supergiant x ray binaries detected on the ROSAT all-sky survey 08 p2537 N93-23907
The ALEXIS data processing package: An update
[DE93-007374] 09 p2899 N93-25185
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289
The structure of the nearby universe traced by theIRAS galaxies
[NASA-CR-192809] 09 p2889 N93-25331

Cape Photographic Durchmusterung, volume 1
[NASA-RP-1300-VOL-1] 09 p2890 N93-26002
Cape Photographic Durchmusterung, volume 2
[NASA-RP-1300-VOL-2] 09 p2890 N93-26003
Cape Photographic Durchmusterung, volume 3
[NASA-RP-1300-VOL-3] 09 p2890 N93-26004
ROSAT x ray survey observations of active chromospheric binary systems and other selected sources
[NASA-CR-192933] 09 p2891 N93-26426
The nature of faint emission-line galaxies
10 p3173 N93-26716
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
Distant radio galaxies in the near IR
10 p3177 N93-26742
Massive low surface brightness galaxies
10 p3178 N93-26746
A faint field-galaxy redshift survey in quasar fields
10 p3179 N93-26751
Interstellar Mg II and C IV absorption by 1 1/2 galaxies along the sightline to MrK 205 10 p3182 N93-26770
Ultraviolet Imaging Telescope (UIT) observations of galaxies 10 p3184 N93-26785
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
A radio continuum survey of edge-on spiral galaxies at 90 cm 10 p3185 N93-26790
Dust and ionized gas in elliptical galaxies: Signatures of merging collisions 10 p3186 N93-26799
Molecular gas content of galaxies in the Hydra-Centaurus supercluster 10 p3188 N93-26807
The critical density for star formation in HII galaxies
10 p3189 N93-26817
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects
10 p3197 N93-26857
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds
10 p3201 N93-26878
Multi-filter spectrophotometry simulations
10 p3201 N93-26881
Cordoba Durchmusterung, volume 1
[NASA-RP-1299-VOL-1] 10 p3170 N93-27116
Cordoba Durchmusterung, volume 2
[NASA-RP-1299-VOL-2] 10 p3170 N93-27117
Cordoba Durchmusterung, volume 3
[NASA-RP-1299-VOL-3] 10 p3170 N93-27118
Cordoba Durchmusterung, volume 4
[NASA-RP-1299-VOL-4] 10 p3170 N93-27119
Bonner Durchmusterung, volume 1
[NASA-RP-1297-VOL-1] 10 p3170 N93-27382
Bonner Durchmusterung, volume 2
[NASA-RP-1297-VOL-2] 10 p3170 N93-27383
Supporting research and technology activities in the preparation of a three-dimensional map of the infrared sky
[NASA-CR-193075] 10 p3171 N93-28414
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Digital image compression using artificial neural networks 11 p3624 N93-28811
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Bonner Durchmusterung (Southern Durchmusterung)
[NASA-RP-1298-VOL-3] 11 p3630 N93-29811
Young open clusters as probes of the star formation process 11 p3635 N93-30377
The faintest stars 11 p3630 N93-30493
Dense gas in the monoceros OB1 dark cloud and its relationship to star formation 11 p3636 N93-30502
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563
Using machine learning techniques to automate sky survey catalog generation 12 p3843 N93-32143

SKY WAVES
NT WHISTLERS
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Angle of arrival characteristics of ionospheric skywave signals 08 p2268 N93-23618
Auroral-E observations: The first year's data
[AD-A263158] 10 p3074 N93-28308

SKYLAB PROGRAM
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
The correlation of active and passive microwave outputs for the Skylab S-193 sensor
[LEC-7819] 03 p0635 N93-13440

SKYLAB SPACE STATION (UNMANNED)
U SKYLAB 1

SKYLAB 1
The initial flight anomalies of Skylab 1
09 p2619 N93-24692

SL 1
U SKYLAB 1

SLABS
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Laser Journal
[AD-A254106] 01 p0090 N93-10855
Efficient asymptotic closed form approximation for dyadic green's function for anisotropic substrates, phase 1
[AD-A256258] 04 p0830 N93-14436
Evolution of attached and detached slabs and their associated mantle dynamics
[NASA-CR-191920] 06 p1576 N93-18320
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
Cosmic-ray-veto detector system
[DE93-004787] 08 p2559 N93-22707
Nonlinear analysis of relativistic harmonic generation by intense lasers in plasmas
[AD-A260092] 08 p2497 N93-24052
Minimization of heat slab nodes with higher order boundary conditions
[DE93-004238] 09 p2695 N93-24966

SLAGS
Basicity and optical basicities of slags
[NPL-DMM(A)-48] 02 p0447 N93-11408
Optical properties of slags: Data for refractive indices and absorption coefficients
[NPL-DMM(A)-73] 08 p2486 N93-22453
Viscosities of molten slags
[NPL-DMM(A)-55] 12 p3705 N93-31321
Thermal conductivities of slags
[NPL-DMM(A)-68] 12 p3705 N93-31322
Electrical conductivities of molten slags
[NPL-DMM(A)-79] 12 p3705 N93-31324
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603

SLANT
U SLOPES

SLANT PERCEPTION
U SPACE PERCEPTION

SLEEP
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Sleep inertia: Is there a worst time to wake up?
[AD-A256602] 04 p0934 N93-14240
C-141 aircrew sleep and fatigue during the Persian Gulf conflict 12 p3782 N93-32265
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266
Human factors and the safety of flights: The importance of the management of sleep 12 p3782 N93-32267

SLEEP DEPRIVATION
Sleep inertia: Is there a worst time to wake up?
[AD-A256602] 04 p0934 N93-14240
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923

SLEEVES
Self-actuating slide valve system
[AD-D015456] 05 p1177 N93-16435

SLENDER BODIES
NT SLENDER CONES
An approximate method for estimating the lifting characteristics of thin bodies of non-circular cross-section
[CRANFIELD-AERO-9006] 08 p2108 N93-22395
Upwind relaxation method for hypersonic flow simulation
[DLR-FB-91-36] 08 p2109 N93-22659
Separated flow past smooth slender bodies
08 p2298 N93-24213
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250

SLENDER CONES
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176

SLENDER WINGS
NT INFINITE SPAN WINGS
Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610
An experimental and computational investigation of slender wings undergoing wing rock
03 p0505 N93-13915
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150

SLEWING
Rapid maneuvering of large flexible orbiting systems
02 p0225 N93-11885
Extragalactic counterparts to Einstein slew survey sources 05 p1361 N93-17107

SLICKS
U OIL SLICKS

SLIDES
U CHUTES

SLIDING
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU]
02 p0324 N93-11177
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
Utilizing sensed incipient slip signals for grasp force control
[AD-A255725] 04 p0888 N93-14434
Development of an interfacial test system for the determination of interfacial properties in fiber reinforced ceramic composites
[DE93-006743] 08 p2236 N93-22579
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Determination of low frequency reference slipping for high frequency unstationary motion processes
[ILR-MITT-273(1992)] 11 p3455 N93-31017

SLIDING CONTACT
Three-dimensional boundary element analysis of contact and fracture problems 09 p2725 N93-25335

SLIDING FRICTION
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Friction and wear of plasma-deposited diamond films
[NASA-TM-105926] 06 p1495 N93-19035
Sliding durability of candidate seal fiber materials in hydrogen from 25 to 900 C
[NASA-TM-105939] 08 p2206 N93-22590
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Experimental and analytical study of a hybrid isolation system using friction controllable sliding bearings
[PB93-150282] 08 p2320 N93-24595
Energy dissipation in inelastic flow of cohesionless granular media 09 p2703 N93-25662
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352

SLIP
An interlayer shear slip theory for composite laminates with nonrigid bonding 02 p0237 N93-11229
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567

SLIP BANDS
U EDGE DISLOCATIONS

SLIP CASTING
Development of ceramic matrix composites for application in the ceramic technology for advanced heat engines project. Phase 2A: Development of in-situ toughened silicon nitride
[DE92-041371] 04 p0853 N93-15452
Improved ceramic slip casting technique — application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041
Finite element analytical techniques for ceramic production in microgravity-2 07 p1809 N93-21116
Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies
[DE93-002906] 07 p1919 N93-21956
SLIP FLOW
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
SLIPSTREAMS
NT PROPELLER SLIPSTREAMS
SLITS
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156
SLOPES
NT GLIDE PATHS
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Slope effects on shortwave radiation components and net radiation
[NASA-CR-192199] 06 p1504 N93-18881
SLOSHING
U LIQUID SLOSHING
SLOT ANTENNAS
Scattering from a finite collection of transverse dipole and axial slot arrays with edge effects 03 p0568 N93-14048
Advanced electromagnetic methods for aerospace vehicles
[NASA-CR-192180] 06 p1503 N93-18580
Moment method analysis of linearly tapered slot antennas: Low loss components for switched beam radiometers
[NASA-CR-192094] 06 p1515 N93-19483
Space power amplification with active linearly tapered slot antenna array
[NASA-TM-106036] 08 p2277 N93-22485
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Log-periodic slot antenna
[CA-PATENT-1-296-421] 08 p2272 N93-24203
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles
[DE93-008363] 10 p3025 N93-26670
Moment method analysis of linearly tapered slot antennas
[NASA-CR-191474] 10 p2955 N93-27261
Microwave characterization of slotline on high resistivity silicon for antenna feed network
[NASA-TM-106058] 10 p3031 N93-27265
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751
Double-slot antennas on extended hemispherical dielectric lenses 10 p3016 N93-27759
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
SLOTS
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118
A three-dimensional algebraic grid generation scheme for gas turbine combustors with inclined slots
[NASA-CR-191095] 09 p2694 N93-24759
Shock tube application to the study of compressible turbulent boundary layer with mass injection 09 p2697 N93-25252
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028
Vertical slot convection: A linear study
[DE93-007643] 11 p3423 N93-29804
SLOTTED ANTENNAS
U SLOT ANTENNAS
SLOTTED WIND TUNNELS
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
SLOW NEUTRONS
U THERMAL NEUTRONS
SLUDGE
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Regulatory impact analysis of the Part 503 sewage sludge regulation
[PB93-110625] 09 p2768 N93-26567
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197
SLURRIES
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192231] 07 p1866 N93-20231
Low cost dewatering of waste slurries 09 p2769 N93-25573
Ultrasonic polishing 09 p2670 N93-25580
Particle size as a factor in agglomeration in slurry fuels 09 p2625 N93-26013
Method for producing oxygen from lunar materials
[NASA-CASE-MSC-21759-1] 11 p3312 N93-29617
SLURRY PROPELLANTS
Metal slurry droplet and spray combustion 02 p0245 N93-11138
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Ignition and combustion characteristics of metallized propellants
[NASA-CR-192285] 06 p1497 N93-19412
Atomization and combustion of a gelled, metallized slurry fuel
[AD-A261778] 09 p2647 N93-26602
SLUSH
Inter-comparison of satellite derived passive microwave ice products 08 p2371 N93-23836
SM-65 MISSILE
U ATLAS LAUNCH VEHICLES
SMALL PERTURBATION FLOW
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
SMALL SCIENTIFIC SATELLITES
The ALEXIS experiment: Current status and performance
[DE92-018601] 03 p0524 N93-13516
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769
Concept of a small satellite for URM 08 p2199 N93-23922
Satellite communications application to Pacific countries above Ku band 09 p2683 N93-26471
NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290
SMART STRUCTURES
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Smart materials for Army structures
[AD-A254925] 04 p0836 N93-15218
Ground test validation for precision structures 05 p1085 N93-15785
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
Robust control of smart structures 06 p1550 N93-19057
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
MIT Space Engineering Research Center testbed programs
[NASA-CR-192115] 07 p2103 N93-21660
Smart electromagnetic structures: The neural antenna
[AD-A260469] 08 p2262 N93-22901
Damage-survivable and damage-tolerant laminated composites with optimally placed piezoelectric layers
[AD-A260879] 09 p2636 N93-25631
Design of flexible rods with embedded SMA actuators
[AD-A260742] 09 p2729 N93-25846
Smart structural composites with piezoelectric micro-constituents
[AD-A260970] 09 p2640 N93-26225
Investigation of coupled analysis techniques for adaptive material structural systems
[AD-A261359] 09 p2868 N93-26332
Growing the Space Station's electrical power plant 10 p2969 N93-27810
The 3rd Annual Controlled Structures Technology Symposium
[NASA-CR-192993] 10 p3060 N93-28167
Intelligent structures technology 10 p3061 N93-28176
Demonstration and fabrication of large area 1-3 PZT composite panels
[AD-A262904] 10 p2992 N93-28305
Smart skin structures for identifying and locating laser irradiation
[DE93-005464] 11 p3436 N93-28887
Robust control of intelligent rotor
[AD-A263707] 11 p3259 N93-29985
SMELL
U OLFACTORY RERCEPTION
SMELTING
Electrolytic smelting of lunar rock for oxygen, iron, and silicon 03 p0761 N93-13979
SMOKE
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Satellite detection of complex aerosols over the Arabian Peninsula/Gulf
[AD-A256085] 04 p0909 N93-14261
Semi-propellants for ducted rockets 05 p1092 N93-17612
Ozone as a sink for atmospheric carbon aerosols
[PB93-118594] 07 p1993 N93-21790
Comparison of full scale fire tests and a computer fire model of several smoke ejection experiments
[PB93-139087] 08 p2258 N93-23280
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model
[DOT/FAA/CT-89/25] 10 p2941 N93-28055
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Survey of smoking habits in the Spanish Air Force 12 p3781 N93-32262
SMOKE DETECTORS
Contributions of microgravity test results to the design of spacecraft fire safety systems
[NASA-TM-106093] 09 p2614 N93-24755
Increased fire and toxic contaminant detection responsibility by use of distributed, aspirating sensors 10 p2965 N93-27722
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113
SMOOTHING
NT DATA SMOOTHING
The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407
Application of smoothing techniques for tracking maneuvering targets. Multiple target tracking in clutter: New approaches
[AD-A254609] 03 p0561 N93-12615
Ablation, melting, and smoothing of polycrystalline alumina by pulsed excimer laser radiation
[DE93-005148] 08 p2227 N93-22496
Numerical study of a multigrid method with four smoothing methods for the incompressible Navier-Stokes equations in general coordinates
[REPT-93-04] 12 p3725 N93-31547
An ILU smoother for the incompressible Navier-Stokes equations in general coordinates
[REPT-92-91] 12 p3725 N93-31634
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062
SNATCHING
U SPACECRAFT RECOVERY
SNEAK CIRCUIT ANALYSIS
Sneak analysis applied to process systems
[DE93-752866] 08 p2257 N93-22970

SNOW
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Modern methods in nfeteorological and oceanographic data analysis
[AD-A257080] 04 p0903 N93-15496
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
Alternative strategies for the use of satellite data analysis systems for hazard monitoring and disaster mitigation
09 p2743 N93-24805
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Seasonal snowfall statistics for selected stations
[AD-A263173] 11 p3481 N93-28991

SNOW COVER
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Comparison of areal extent of snow as determined by AVHRR and SSM/I satellite imagery
[AD-A258054] 05 p1192 N93-17755
A snow cover model for global climatic simulations
[MPIM-85] 08 p2388 N93-23861
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422

SNOWPLOW EFFECT
U PLASMA DYNAMICS

SNOWSTORMS
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063

SOBOLEV SPACE
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273
Line formation and the Poynting-Robertson effect in accretion discs 09 p2847 N93-25355
Sobolev-type orthogonal polynomials with a small number of real zeros
[REPT-92-64] 12 p3806 N93-31549
Point interactions on bounded domains
[REPT-92-97] 12 p3807 N93-31654
A remark about the mean curvature
[DE93-619668] 12 p3809 N93-32285

SOCIAL FACTORS
Neuropsychiatric morbidity in early HIV disease: Implications for military occupational function
02 p0379 N93-11299
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Earth science information: Planning for the integration and use of global change information
[NASA-CR-191217] 03 p0733 N93-12660
The lunar community church: Contributions to lunar living and to evolution of ethical and spiritual thinking
03 p0676 N93-14020
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801
Space resources. Volume 4: Social concerns
[NASA-SP-509-VOL-4] 05 p1377 N93-16857
Strategies for broadening public involvement in space developments 05 p1349 N93-16861
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Impacts of sociopolitical conditions
05 p1379 N93-16873
Modeling socioeconomic and ecologic aspects of land-use change
[DE93-001370] 05 p1205 N93-17478
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
Small business profiles, 1992
[PB93-110914] 07 p2086 N93-21548
Points of Light movement: The President's report to the Nation
[PB93-139780] 08 p2532 N93-23679
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Small business access to equity capital
[PB93-144582] 09 p2872 N93-25735
The challenges and benefits of lunar exploration
10 p3211 N93-27957
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008

SOCIAL ISOLATION
Summary of presentation for research on social structure, agreement, and conflict in groups in extreme and isolated environments 05 p1221 N93-16801

SOCIOLOGY
NT SOCIAL FACTORS
The informed citizen: Technology and responsibility in the information age 03 p0742 N93-14049
Global climate change: Social and economic research issues
[DE92-041151] 05 p1199 N93-15974
Points of Light movement: The President's report to the Nation
[PB93-139780] 08 p2532 N93-23679
Man, technology, society and development: From the hunters and gatherers to the first industrial revolution 3.5 million years ago into AD1760
[ISBN-9-03-860102-6] 12 p3833 N93-31543

SODALITE
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407

SODAR
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992

SODIUM
NT LIQUID SODIUM
NT SODIUM VAPOR
Emission tomography of sodium in a hydrogen-air flame
[AD-A253530] 01 p0029 N93-10224
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
A joint study of the lower ionosphere by radar, lidar, and spectrometer 03 p0655 N93-13755
Conduction in ion implanted single crystal diamond
[DE92-040861] 05 p1317 N93-16164
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300

SODIUM ALLOYS
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383

SODIUM CHLORIDES
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656
Fatigue crack propagation of titanium alloys in salt water
[GKSS-91/E/46] 07 p1856 N93-21551
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176

SODIUM COMPOUNDS
NT CRYOLITE
NT SODIUM CHLORIDES
NT SODIUM SULFATES
NT TALC
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
The electrical conductivity of sodium polysulfide melts
[DE92-041217] 05 p1100 N93-15677

SODIUM SILICATES
NT TALC

SODIUM SULFATES
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982

SODIUM SULFUR BATTERIES
Results of advanced battery technology evaluations for electric vehicle applications
[DE92-018766] 02 p0289 N93-11432
The electrical conductivity of sodium polysulfide melts
[DE92-041217] 05 p1100 N93-15677
The 1992 NASA Aerospace Battery Workshop
[NASA-CP-3192] 07 p1983 N93-20490
Lewis Research Center battery overview
07 p1983 N93-20493
Eagle-Picher Industries Sodium Sulfur Program
07 p1987 N93-20523
Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027
Sodium-Sulfur Cell Technology flight experiment (SSCT) 11 p3264 N93-28715
Sodium sulfur technology program NaSTEC
11 p3265 N93-28718
Battery testing at Argonne National Laboratory
[DE93-009204] 11 p3407 N93-29036

SODIUM VAPOR
Development of a laser-induced fluorescence system for application to rocket plumes
[AD-A259760] 08 p2205 N93-24025

SOFIA (AIRBORNE OBSERVATORY)
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721

SOFT LANDING
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study
[NASA-CR-188583] 04 p0824 N93-15629
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647

SOFT LANDING SPACECRAFT
NT AEROSPACE PLANES
NT AURORA 7
NT BURAN SPACE SHUTTLE
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT MARS EXCURSION MODULE
NT X-30 VEHICLE

SOFT RECOVERY
U SOFT LANDING

SOFTENING
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Silicone softeners: Today 07 p1838 N93-21159
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
A 69 cent look at thermoplastic softening
11 p3292 N93-30963

SOFTWARE (COMPUTERS)
U COMPUTER PROGRAMS
U COMPUTER SYSTEMS PROGRAMS

SOFTWARE ENGINEERING
NT ASSEMBLER ROUTINES
NT COMPUTER PROGRAMMING
NT LANGUAGE PROGRAMMING
NT LOGIC PROGRAMMING
NT MICROPROGRAMMING
NT MULTIPROGRAMMING
NT OBJECT-ORIENTED PROGRAMMING
NT ON-LINE PROGRAMMING
NT PARALLEL PROGRAMMING
NT STRUCTURED PROGRAMMING
NT SYMBOLIC PROGRAMMING
Proceedings of the CASE Adoption Workshop
[AD-A253362] 01 p0135 N93-10104
An analysis technique for examining integration in a project support environment
[AD-A253351] 01 p0135 N93-10214

Guide to the user requirements definition phase
[ESA-PSS-05-02-ISSUE-1] 01 p0136 N93-10315
Guide to the software requirements definition phase
[ESA-PSS-05-03-ISSUE-1] 01 p0136 N93-10316
Reliability assurance requirements for ESA space systems
[ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
The past, present, and future of configuration management
[AD-A254175] 01 p0138 N93-10665
Software support for programming in the large
[AD-A254050] 01 p0138 N93-10782
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210
Software quality methodology integration study results
[AD-A253891] 02 p0408 N93-11371
The WEB approach to ELLA
[RSRE-MEMO-4549] 02 p0409 N93-11407
The use of statistical measures to validate system dynamics models
[AD-A248569] 02 p0428 N93-11417
The development and technology transfer of software engineering technology at NASA. Johnson Space Center 02 p0396 N93-11943
System diagnostic builder 02 p0396 N93-11944
An approach to integrating and creating flexible software environments 02 p0396 N93-11946
COMPASS: An Ada based scheduler 02 p0397 N93-11950
Program for implementing software quality metrics
[DE92-018617] 02 p0413 N93-12187
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
The SoRReL papers: Recent publications of the Software Reuse Repository Lab
[NASA-CR-190894] 02 p0414 N93-12384
A hybrid approach to software repository retrieval: Blending faceted classification and type signatures 02 p0415 N93-12386
Neural network-based retrieval from software reuse repositories 02 p0415 N93-12388
Supporting multiple domains in a single reuse repository 02 p0415 N93-12390
Assessing repository technology: Where do we go from here? 02 p0415 N93-12391
A neural net-based approach to software metrics 02 p0415 N93-12392
Balancing generality and specificity in component-based reuse 02 p0416 N93-12393
Cost estimation of software development and the implications for the program manager
[AD-A255167] 02 p0480 N93-12472
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808
Framework Programmable Platform for the Advanced Software Development Workstation (FPP/ASDW). Demonstration framework document. Volume 2: Framework process description
[NASA-CR-190275] 03 p0685 N93-13004
Visualization techniques to aid in the analysis of multi-spectral astrophysical data sets
[NASA-CR-191260] 03 p0685 N93-13261
Software reliability through fault-avoidance and fault-tolerance
[NASA-CR-189880] 03 p0686 N93-13293
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
Software stamping
[NPL-DITC-198/92] 04 p0946 N93-15072
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
Software flexibility and configuration control for the A340/A330 Aircraft Condition Monitoring System (ACMS) 04 p0793 N93-15154
A philosophy for integrated monitoring system design 04 p0796 N93-15174
Continuing engineering education for software engineering professionals
[DE92-019888] 04 p0947 N93-15225
Experience with a course on architectures for software systems. Part 1: Course description
[AD-A256221] 04 p0941 N93-15239
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
Integrating VHDL (VHSIC hardware description language) with existing EDA tools
[VH-8] 04 p0948 N93-15268
An eclectic method for object oriented database design
[AD-A256439] 04 p1008 N93-15315
User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
Integrated support for real-time control systems
[PNR-90994] 04 p0952 N93-15476
Data collection procedures for the Software Engineering Laboratory (SEL) database
[NASA-TM-108579] 04 p0957 N93-15579
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
Information engineering and the information engineering facility versus rapid application development and focus
[AD-A257297] 05 p1350 N93-15895
Software measures and the capability maturity model
[AD-A257238] 05 p1234 N93-15962
Directory of design support methods
[AD-A256987] 05 p1227 N93-16258
The challenge of a data storage hierarchy 05 p1354 N93-16325
The position of the mathematician in the development of digital simulation systems with application to computational physics
[NLR-TP-90168-U] 05 p1236 N93-16344
Software engineering laboratory series: Annotated bibliography of software engineering laboratory literature
[NASA-TM-108100] 05 p1237 N93-16380
Functional requirements of an advanced instructional design advisor: Simulation authoring, Volume 3
[AD-A256650] 05 p1238 N93-16500
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Creating an open environment software infrastructure 05 p1254 N93-16774
Quantifying parameters for Bayesian prior assumptions when estimating the probability of failure of software 05 p1254 N93-16777
Towards automated support for extraction of reusable components 05 p1244 N93-17163
The software-cycle model for re-engineering and reuse 05 p1244 N93-17165
Fine-grain incremental implementation of algebraic specifications
[CWI-CS-R9159] 05 p1270 N93-17489
Software design as a problem in learning theory (a research overview) 05 p1248 N93-17509
Towards automation of user interface design 05 p1248 N93-17510
Toward domain-specific design environments: Some representation ideas from the telecommunications domain 05 p1249 N93-17511
Model-based software design 05 p1249 N93-17514
Automating the design of scientific computing software 05 p1249 N93-17516
Domain specific software design for decision aiding 05 p1249 N93-17517
Automating software design system DESTA 05 p1250 N93-17519
Generic domain models in software engineering 05 p1250 N93-17520
A domain-specific design architecture for composite material design and aircraft part redesign 05 p1250 N93-17522
RT-Syn: A real-time software system generator 05 p1250 N93-17523
Knowledge-based design of generate-and-patch problem solvers that solve global resource assignment problems 05 p1251 N93-17527
Proceedings of the 2nd International Conference on Algebraic Methodology and Software Technology
[AD-A257487] 05 p1272 N93-17664
Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763
The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818
A concept study for a national software engineering database
[AD-A258254] 06 p1614 N93-17823
A testbed for flow visualization research
[REPT-92-32] 06 p1616 N93-17846
System for Anomaly and Failure Detection (SAFD) system development
[NASA-CR-184475] 06 p1552 N93-17856
Repository-based software engineering program
[NASA-CR-191653] 06 p1616 N93-17885
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
Re-engineering software systems in the Department of Defense using integrated computer aided software engineering tools
[AD-A257500] 06 p1617 N93-17905
Software Engineering Process Groups: Results of the 1992 SEPG Workshop event evaluation and a first report on SEPG status
[AD-A258259] 06 p1617 N93-18011
A reuse-based software development methodology
[AD-A258255] 06 p1617 N93-18025
Theory of algorithm structure and design
[AD-A257948] 06 p1617 N93-18081
Range scheduling automation for the Air Force satellite control network: A case study in computer system development
[AD-A258142] 06 p1454 N93-18084
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
Software process development and enactment: Concepts and definitions
[AD-A258465] 06 p1619 N93-18243
A classification and bibliography of software prototyping
[AD-A258466] 06 p1619 N93-18268
Joint Integrated Avionics Working Group (JIAWG) object-oriented domain analysis method (JODA), version 3.1
[AD-A258468] 06 p1447 N93-18270
Analysis of a software maintenance system: A case study
[AD-A258469] 06 p1619 N93-18271
Automated documentation generator for advanced protein crystal growth
[NASA-CR-192452] 06 p1673 N93-18425
Wrapping mathematical tools 06 p1648 N93-18504
Robot welding process control development task
[NASA-CR-192434] 06 p1549 N93-18851
Software Engineering Laboratory (SEL) database organization and user's guide, revision 2
[NASA-TM-108631] 06 p1624 N93-18860
Recommended approach to software development, revision 3
[NASA-TM-108630] 06 p1624 N93-18861
A model for merging software prototypes
[AD-A258781] 06 p1624 N93-18948
Development of a task analysis tool to facilitate user interface design 06 p1628 N93-19404
Fast algorithms for transport models
[DE93-003881] 06 p1657 N93-19508
Flight above a virtual world 06 p1609 N93-19766
Ada implementation of an object data repository
[AD-A259144] 07 p2087 N93-20002
A unified model of program behavior
[AD-A259142] 07 p2030 N93-20128
CASE/simulation systems 07 p2088 N93-20165
A parsing algorithm for non-deterministic context-sensitive languages 07 p2031 N93-20223
Software quality measurement: A framework for counting problems and defects
[AD-A258556] 07 p2032 N93-20387
Development of semantic metamodels for object orientation
[REPT-91-83] 07 p2038 N93-21037
A relocatable compiler for mathematical expressions
[REPT-92-035] 07 p2028 N93-21183
Software quality assurance: Documentation and reviews
[PB93-113694] 07 p2040 N93-21221
Software design document for the generic avionics data bus tool kit
[AD-A259329] 07 p1784 N93-21259
A phase one AR/C system design 07 p1816 N93-21435
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
Integrated FASTBUS, VME and CAMAC diagnostic software at Fermilab
[DE93-004424] 07 p2042 N93-21845
Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041

Development of interactive multimedia applications
08 p2530 N93-22171
Learning characteristics of a space-time neural network as a tether skiprope observer 08 p2197 N93-22176
The design of scalable software libraries for distributed memory concurrent computers
[DE93-003612] 08 p2434 N93-22332
Exploratory research for the development of a computer aided software design environment with the software technology program
[NASA-CR-192821] 08 p2434 N93-22385
User areas in aircraft cockpit, using methods of rapid prototype development
[MBB-FE-315-S-PUB-0493] 08 p2426 N93-22389
Computer aided integrated production planning in unit production, as represented in aircraft construction
[MBB-FW-3-S-PUB-0439-A] 08 p2435 N93-22394
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results
[NASA-CR-192294] 08 p2180 N93-22683
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
Software engineering: What do experiments need?
[DE93-004767] 08 p2436 N93-22740
Mission requirements and applications of integrated and multi-function navigation systems
08 p2119 N93-22781
Update of GRASP/Ada reverse engineering tools for Ada
[NASA-CR-192465] 08 p2436 N93-22798
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Attitude control results
[NASA-CR-192291] 08 p2458 N93-23084
Proceedings: DOD Software Technology Strategy public forum 08 p2437 N93-23092
Modeling and analysis of software reliability
08 p2438 N93-23196
A new process for acquiring software architecture
[AD-A259487] 08 p2439 N93-23463
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661
Software design specification for the Manufacturing Optimization (MO) system
[AD-A259707] 08 p2440 N93-23666
Academic legitimacy of the software engineering discipline
[AD-A260241] 08 p2441 N93-24223
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
DataMir: A PC-based computer system for application at Space Station Mir 08 p2158 N93-24358
Activities of the Institute for Information Technology
[NRC-35023] 08 p2571 N93-24648
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
Analysis of large system black box verification test data
[NASA-CR-192885] 09 p2815 N93-24748
The ALEXIS data processing package: An update
[DE93-007374] 09 p2899 N93-25185
PCG: A software package for the iterative solution of linear systems on scalar, vector and parallel computers
[DE93-007366] 09 p2809 N93-25315
FORTRAN M as a language for building earth system models
[DE93-007697] 09 p2763 N93-25370
The database Query Support Processor (QSP)
09 p2807 N93-25577
Software lifecycle support environment (SLCSE) knowledge-based enhancements
[AD-A261042] 09 p2811 N93-25791
Multivariate statistical analysis software technologies for astrophysical research involving large data bases
09 p2878 N93-25796
SAVS: A Space Analysis and Visualization System
09 p2881 N93-25812
A Spatial Analysis and Modeling System (SAMS) for environment management 09 p2881 N93-25813
Model-based reasoning for system and software engineering: The Knowledge From Pictures (KFP) environment 09 p2825 N93-25978
In search of meta-knowledge
09 p2826 N93-25983
An OSI architecture for the Deep Space Network
09 p2679 N93-26121
High performance computing and communications panel report 09 p2807 N93-26131
Research directions in software analysis, synthesis and certification
[AD-A261367] 09 p2812 N93-26336
Towards a formalism for program generation
[AD-A261689] 09 p2812 N93-26368
Test, Control and Monitor System (TCMS) operations plan
[NASA-CR-193098] 09 p2873 N93-26419
Test, Control and Monitor System maintenance plan
[NASA-CR-193099] 09 p2873 N93-26420
Managing real-time software projects: Problems and issues
[AD-A261428] 09 p2813 N93-26453
IDEF6: A design rationale capture method concept paper
[AD-A261594] 09 p2884 N93-26523
DADiSP processing guide 10 p2947 N93-26949
Considerations for control system software verification and validation specific to implementations using distributed processor architectures
[DE93-007920] 10 p3090 N93-27051
Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257
International survey of industrial applications of formal methods. Volume 1: Purpose, approach, analysis, and conclusions
[PB93-178556] 10 p3010 N93-27517
International survey of industrial applications of formal methods. Volume 2: Case studies
[PB93-178564] 10 p3010 N93-27518
DEFMEF predesign document
[NLR-TP-91269-U] 10 p3098 N93-27543
Welding process modelling and control
[NASA-CR-192549] 10 p3051 N93-27593
Software quality and testing: What DOD can learn from commercial practices
[AD-A262332] 10 p3099 N93-27652
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
Space Station Freedom Software Support Environment 10 p2964 N93-27706
An overview of MCC and its research
10 p2965 N93-27717
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Advanced automation of a prototypic thermal control system for Space Station 10 p2972 N93-27846
Data management system technology discipline
10 p2972 N93-27857
Flexible control techniques for a lunar base
10 p3111 N93-27981
An integrated environment for the development of scientific and engineering applications
[AD-A262277] 10 p3103 N93-28239
Improvements to the high-frequency benchmark propagation analysis program
[AD-A262278] 10 p3103 N93-28240
Repository-Based Software Engineering Program: Working Program Management Plan
[NASA-CR-193113] 10 p3104 N93-28319
The theory of interface slicing
[NASA-CR-193108] 10 p3104 N93-28320
The repository-based software engineering program: Redefining AdaNET as a mainstream NASA source
[NASA-CR-193114] 10 p3104 N93-28328
Parallel computation and the basis system
[DE93-008755] 11 p3537 N93-28544
An assessment of space shuttle flight software development processes
[NASA-CR-193179] 11 p3525 N93-28934
Concept document of the repository-based software engineering program: A constructive appraisal
[NASA-CR-193125] 11 p3526 N93-29027
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
RBSE: Product development team research activity deliverables
[NASA-CR-193115] 11 p3527 N93-29212
National Center for Supercomputer Applications
11 p3614 N93-29232
Development of a visual system interface to support a domain-oriented application composition system
[AD-A262489] 11 p3528 N93-29418
Software development and analysis for experimental high frequency surface wave radar data
[AD-A261982] 11 p3383 N93-29438
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534
Synthesis techniques and analysis tools for on-chip fault-tolerance
[AD-A263167] 11 p3409 N93-29654
Capability maturity model for software, version 1.1
[AD-A263403] 11 p3530 N93-29852
A guide to total software quality control, volume 1
[AD-A263881] 11 p3531 N93-29920
A guide to total software quality control, volume 2
[AD-A263891] 11 p3531 N93-29921
Key practices of the capability maturity model, version 1.1
[AD-A263432] 11 p3610 N93-29970
Accelerating the transfer of technology for implementing domain specific software architectures
[AD-A264017] 11 p3532 N93-30014
Estimating Ada system size during development
[AD-A263880] 11 p3532 N93-30022
Software testing using the IEEE standards
[DE93-009833] 11 p3532 N93-30050
On analytical performance modelling of software for distributed systems 11 p3364 N93-30279
Communications systems design for testability: Grey-box testing 11 p3368 N93-30302
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
An annotated bibliography on integration in software engineering environments
[AD-A264798] 11 p3535 N93-30602
Gigabit network communications research
[AD-A264895] 11 p3536 N93-31026
Object oriented application flow graphs and their semantics
[CT-92-01] 12 p3788 N93-31528
Science Information Systems Newsletter, issue 28
[NASA-TM-108266] 12 p3834 N93-31589
Development of a case tool to support decision based software development
[NASA-CR-193289] 12 p3790 N93-31738
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
An overview of PCTE: A basis for a Portable Commo n Tool Environment
[AD-A265202] 12 p3791 N93-32000
System engineering concept demonstration, security study, volume 7
[AD-A265473] 12 p3791 N93-32007
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
System engineering concept demonstration, system engineering needs, volume 2
[AD-A265468] 12 p3791 N93-32023
System engineering concept demonstration, interface standards studies, volume 4
[AD-A265470] 12 p3791 N93-32024
Research in transparent informed prefetching
[AD-A265417] 12 p3842 N93-32049
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
Advanced Artificial Intelligence Technology Testbed
12 p3801 N93-32126
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147
ARIES: Acquisition of Requirements and Incremental Evolution of Specifications 12 p3794 N93-32157
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418
The reuse of large-scale components
[REPT-92-95] 12 p3793 N93-32419

SOFTWARE ENGINEERING ENVIRONMENTS
U PROGRAMMING ENVIRONMENTS

SOFTWARE RELIABILITY
NT COMPUTER PROGRAM INTEGRITY
Reliability techniques for combined hardware and software systems
[AD-A256347] 04 p0895 N93-15204
Quantifying parameters for Bayesian prior assumptions when estimating the probability of failure of software
05 p1254 N93-16777
The Software Engineering Laboratory: An operational software experience factory 05 p1243 N93-17162
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
Providing an empirical basis for optimizing the verification and testing phases of software development
05 p1244 N93-17168
Using software metrics and software reliability models to attain acceptable quality software for flight and ground support software for avionic systems
05 p1254 N93-17305
Domain specific software architectures: Command and control 05 p1247 N93-17503
A conceptual framework for system fault tolerance
[AD-A258467] 06 p1619 N93-18269

Real-time fault tolerant computer systems
[AD-A258891] 06 p1625 N93-19334
Computer aided reliability, availability, and safety modeling for fault-tolerant computer systems with commentary on the HARP program
[NASA-CR-192405] 07 p2029 N93-19981
Software quality measurement: A framework for counting problems and defects
[AD-A258556] 07 p2032 N93-20387
Multiversion software reliability through fault-avoidance and fault-tolerance
[NASA-CR-192191] 07 p2041 N93-21647
Domain engineering validation case study: Synthesis for the air traffic display/collision warning monitor domain version 01.00.03
[AD-A259407] 07 p1780 N93-21671
Modeling and analysis of software reliability
08 p2438 N93-23196
PASCAL subroutines for standard test problems in unconstrained minimization
[MATHS-REPT-A-155] 08 p2441 N93-24076
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
Putting time into proof outlines
[NASA-CR-192978] 09 p2809 N93-25152
Statistical modelling of software reliability
[NASA-CR-192985] 09 p2809 N93-25257
Software testing initiative for strategic defense systems
[AD-A261350] 09 p2831 N93-26330
Managing real-time software projects: Problems and issues
[AD-A261428] 09 p2813 N93-26453
Advanced communications technology satellite high burst rate link evaluation terminal power control and rain fade software test plan, version 1.0
[NASA-CR-189167] 10 p3092 N93-27071
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
Development of a software safety process and a case study of its use
[NASA-CR-193159] 10 p3094 N93-27291
An analytical solution to the consistency problem for the Littlewood model in software reliability
[CWI-BS-R9129] 10 p3096 N93-27392
Software quality and testing: What DOD can learn from commercial practices
[AD-A262332] 10 p3099 N93-27652
An assessment of space shuttle flight software development processes
[NASA-CR-193179] 11 p3525 N93-28934
Key practices of the capability maturity model, version 1.1
[AD-A263432] 11 p3610 N93-29970
Using Penelope to assess the correctness of NASA Ada software: A demonstration of formal methods as a counterpart to testing
[NASA-CR-4509] 11 p3533 N93-30380
Procedures for applying Ada quality prediction models
[AD-A264730] 11 p3534 N93-30546
An approach to software quality prediction from Ada designs
[AD-A264731] 11 p3534 N93-30547
Building Hadamard matrices in steps of 4 to order 200
[PB93-189835] 12 p3786 N93-31200
Formal specification and verification of concurrent programs
[AD-A265201] 12 p3790 N93-31793
Experimental analysis of computer system dependability
[NASA-CR-193401] 12 p3785 N93-32233
Initial definition of a Knowledge-Based Software Quality Assistant
[AD-A265866] 12 p3793 N93-32418

SOFTWARE REUSE

The SoRReL papers: Recent publications of the Software Reuse Repository Lab
[NASA-CR-190894] 02 p0414 N93-12384
Design of a lattice-based faceted classification system
02 p0415 N93-12385
A hybrid approach to software repository retrieval: Blending faceted classification and type signatures
02 p0415 N93-12386
Selecting reusable components using algebraic specifications 02 p0415 N93-12387
Neural network-based retrieval from software reuse repositories 02 p0415 N93-12388
Inheritance for software reuse: The good, the bad, and the ugly 02 p0415 N93-12389
Supporting multiple domains in a single reuse repository 02 p0415 N93-12390
Assessing repository technology: Where do we go from here? 02 p0415 N93-12391
Balancing generality and specificity in component-based reuse 02 p0416 N93-12393
Software Technology for Adaptable, Reliable Systems (STARS)
[AD-A257022] 04 p0952 N93-15471
The domain-specific software architecture program
[AD-A257225] 05 p1232 N93-15818
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
Towards automated support for extraction of reusable components 05 p1244 N93-17163
The software-cycle model for re-engineering and reuse 05 p1244 N93-17165
Domain specific software design for decision aiding
05 p1249 N93-17517
Generic domain models in software engineering
05 p1250 N93-17520
RT-Syn: A real-time software system generator
05 p1250 N93-17523
CARDS: A blueprint and environment for domain-specific software reuse 05 p1251 N93-17528
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
Integrating domain-specific reuse for system/software engineers course description
[AD-A257637] 05 p1252 N93-17723
Repository-based software engineering program
[NASA-CR-191653] 06 p1616 N93-17885
Using an object-oriented database management system to enhance the reusability of class definitions
[AD-A257559] 06 p1685 N93-17981
A reuse-based software development methodology
[AD-A258255] 06 p1617 N93-18025
Joint Integrated Avionics Working Group (JIAWG) object-oriented domain analysis method (JODA), version 3.1
[AD-A258468] 06 p1447 N93-18270
A clearinghouse for software reuse: Lessons learned from RAPID/DSRS initiatives
[AD-A258782] 06 p1625 N93-19062
Examining a layered approach to function and design representation for reusable software components
[AD-A258920] 06 p1626 N93-19343
Design recovery for software library population
[AD-A259292] 07 p2090 N93-20611
Domain engineering validation case study: Synthesis for the air traffic display/collision warning monitor domain version 01.00.03
[AD-A259407] 07 p1780 N93-21671
A NASA-wide approach toward cost-effective, high-quality software through reuse
[NASA-CP-10115] 08 p2435 N93-22601
Conjunctive programming: An interactive approach to software system synthesis
[NASA-CR-192798] 08 p2436 N93-22701
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
Knowledge base methodology: Methodology for first Engineering Script Language (ESL) knowledge base
[NASA-CR-192820] 08 p2523 N93-23031
A multimission three-axis stabilized spacecraft flight dynamics ground support system
09 p2603 N93-24714
An application of machine learning to the organization of institutional software repositories
09 p2825 N93-25981
The design and implementation of a reusable component library and a retrieval/integration system
[AD-A261827] 09 p2812 N93-26271
Department of Defense technical architecture framework for information management. Volume 1: Implementation concept, version 1.1
[AD-A261911] 09 p2884 N93-26531
Three view language: A graphics-based language for requirements definition, version 01.00.00
[AD-A261732] 09 p2813 N93-26583
Repository-Based Software Engineering Program: Working Program Management Plan
[NASA-CR-193113] 10 p3104 N93-28319
The theory of interface slicing
[NASA-CR-193108] 10 p3104 N93-28320
The repository-based software engineering program: Redefining AdaNET as a mainstream NASA source
[NASA-CR-193114] 10 p3104 N93-28328
Toward reusable graphics components in Ada
[AD-A262568] 11 p3524 N93-28577
Development of a case tool to support decision based software development
[NASA-CR-193289] 12 p3790 N93-31738
Automation and hypermedia technology applications
12 p3843 N93-32155
The reuse of large-scale components
[REPT-92-95] 12 p3793 N93-32419

SOFTWARE TOOLS

Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Interactive animation of fault tolerant parallel algorithms
[AD-A253349] 01 p0135 N93-10212
An analysis technique for examining integration in a project support environment
[AD-A253351] 01 p0135 N93-10214
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
Parallels in computer-aided design framework and software development environment efforts
[AD-A253327] 01 p0137 N93-10448
Software support for programming in the large
[AD-A254050] 01 p0138 N93-10782
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Managing data: From vision to reality
[PB92-191212] 02 p0474 N93-11215
Evaluation of a Cray performance tool using a large hydrodynamics code
[DE92-013239] 02 p0407 N93-11231
A process monitor for the transputer
[RSRE-MEMO-4554] 02 p0408 N93-11389
A front end implementation of the Pollyanna secure DBMS
[RSRE-MEMO-4540] 02 p0475 N93-11404
Ten15 developments to support parallelism
[RSRE-MEMO-4545] 02 p0409 N93-11406
The ESSE project: Supporting object-oriented database schema analysis and evolution: Overview
[REPT-92-026] 02 p0476 N93-11689
Hypertext functionality: A theoretical framework
02 p0478 N93-11858
Distributed environmental control
02 p0391 N93-11924
An embedded rule-based diagnostic expert system in Ada 02 p0392 N93-11928
Intelligent diagnostics systems
02 p0393 N93-11931
On the acquisition and representation of procedural knowledge 02 p0394 N93-11937
System diagnostic builder 02 p0396 N93-11944
COMPASS: An Ada based scheduler
02 p0397 N93-11950
Manager's assistant systems for space system planning 02 p0398 N93-11952
Habitat automation 02 p0391 N93-11976
The SoRReL papers: Recent publications of the Software Reuse Repository Lab
[NASA-CR-190894] 02 p0414 N93-12384
Selecting reusable components using algebraic specifications 02 p0415 N93-12387
Assessing repository technology: Where do we go from here? 02 p0415 N93-12391
Balancing generality and specificity in component-based reuse 02 p0416 N93-12393
Verification and validation of AI software
[AD-A254601] 03 p0682 N93-12614
Graphics-based parallel programming tools
[AD-A254406] 03 p0683 N93-12763
SAR simulation 03 p0564 N93-13056
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
Proof of theorems in Z
[AD-A255711] 04 p0968 N93-14431
A non-deterministic recogniser generator
[MEMO-INF-92-21] 04 p0946 N93-15091
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
Workstation tools for feature extraction and classification for nonstationary and transient signals
[AD-A255389] 04 p0947 N93-15228
VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment
[VH-1] 04 p0947 N93-15262
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
Integrating VHDL (VHSIC hardware description language) with existing EDA tools
[VH-8] 04 p0948 N93-15268
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299

User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
Mathematical software under UNICOS at LCC
[DE93-001828] 04 p0952 N93-15493
Flight dynamics system software development environment (FDS/SDE) tutorial
[NASA-TM-108580] 04 p0952 N93-15502
Proceedings: Graphics Interface 1992
[ISBN-0-9695338-1-0] 04 p0952 N93-15533
Hyper-rendering 04 p0953 N93-15538
A framework for describing and implementing software visualization systems 04 p0953 N93-15540
A multi-layer graphic model for building interactive graphical applications 04 p0957 N93-15567
Development of an interactive code for updating dynamic finite element models 05 p1078 N93-15732
CAD to FEM tool 05 p1079 N93-15737
Integration of CAD tools in space vehicle design 05 p1079 N93-15739
Specifying, predicting, and verifying the timing properties of hard-real-time programming languages and systems
[AD-A257296] 05 p1233 N93-15894
Transparently interposing user code at the system interface
[AD-A256636] 05 p1233 N93-15907
A tool for automated validation of network protocols
[AD-A256726] 05 p1255 N93-16066
Integrated automation for support of research and development
[NLR-MP-88063-U] 05 p1235 N93-16290
BEEMER: An integrated optics design tool
[DE92-040401] 05 p1236 N93-16295
MGMtool: A performance modelling tool based on matrix geometric techniques
[MEMO-INF-92-35] 05 p1236 N93-16338
Software engineering laboratory series: Annotated bibliography of software engineering laboratory literature
[NASA-TM-108100] 05 p1237 N93-16380
TOPICS: A contribution to analog design automation
[ISBN-90-9004786-7] 05 p1238 N93-16471
Parallel processing for linear programming
[ISBN-90-6275-754-5] 05 p1256 N93-16565
Development of a computer assisted toolbox for aerodynamic design of aircraft at subcritical conditions with application to three-surface and canard aircraft
[ISBN-90-6275-768-5] 05 p1239 N93-16567
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
On efficiently characterizing solutions of linear Diophantine equations and its application to data dependence analysis
[RUU-CS-92-01] 05 p1266 N93-16643
TokenPasser: A petri net specification tool
[NASA-CR-191816] 05 p1241 N93-16725
CRUISE: Creative user interface for software engineering
[ITN-93-85172] 05 p1242 N93-16736
Creating an open environment software infrastructure 05 p1254 N93-16774
Collected Software Engineering Papers, Volume 10
[NASA-TM-108581] 05 p1243 N93-17161
The Software Engineering Laboratory: An operational software experience factory 05 p1243 N93-17162
Automated support for experience-based software management 05 p1244 N93-17164
The software-cycle model for re-engineering and reuse 05 p1244 N93-17165
Software Engineering Laboratory Ada performance study: Results and implications 05 p1245 N93-17172
The KASE approach to domain-specific software systems 05 p1247 N93-17502
Issues in knowledge representation to support maintainability: A case study in scientific data preparation 05 p1247 N93-17504
Meta-tools for software development and knowledge acquisition 05 p1248 N93-17508
Interactive specification acquisition via scenarios: A proposal 05 p1249 N93-17512
Automating the design of scientific computing software 05 p1249 N93-17516
Automating software design system DESTA 05 p1250 N93-17519
Generic domain models in software engineering 05 p1250 N93-17520
Practical architecture of design optimisation software for aircraft structures taking the MBB-LAGRANGE code as an example
[MBB-FE-251-S-PUB-479] 05 p1063 N93-17565
The control of test costs: Experience of the FADEC software
[ETN-93-93384] 05 p1357 N93-17745
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
The design and implementation of a user interface for the computer-aided prototyping system
[AD-A258017] 06 p1614 N93-17818
A testbed for flow visualization research
[REPT-92-32] 06 p1616 N93-17846
The application of function points to predict source lines of code for software development
[AD-A258447] 06 p1616 N93-17892
The product and services design and development software aided tool RELIASEP
[ETN-93-93015] 06 p1617 N93-18076
Grammatica: An open software laboratory for artificial intelligence
[REPT-92-031] 06 p1632 N93-18331
Wrapping mathematical tools 06 p1648 N93-18504
QA system for structural analysis 06 p1557 N93-18755
P-adaptivity applied to plate in bending problems 06 p1557 N93-18756
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Development of a task analysis tool to facilitate user interface design 06 p1628 N93-19404
DARPA initiative in concurrent engineering (DICE). Phase 4: Electronics pilot project
[AD-A258927] 06 p1522 N93-19446
A general experiment definition system and its applications 06 p1517 N93-19576
NASA experimental airborne doppler radar and real time processor for wind shear detection 06 p1420 N93-19607
Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852
Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574
Object-oriented design. MECANO: A method and an environment for object-oriented applications construction
[ETN-93-92682] 07 p2038 N93-20921
Verification methods of the behavioral specifications: Study and implementation
[ETN-93-92687] 07 p2044 N93-21064
A relocatable compiler for mathematical expressions
[REPT-92-035] 07 p2028 N93-21183
Computer Aided Control System Design (CACSD) 08 p2107 N93-22572
A NASA-wide approach toward cost-effective, high-quality software through reuse
[NASA-CP-10115] 08 p2435 N93-22601
Knowledge base methodology: Methodology for first Engineering Script Language (ESL) knowledge base
[NASA-CR-192820] 08 p2523 N93-23031
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems
[NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Investigation of proof techniques within the EVES verification technology
[DREO-FR-92-5451-02] 08 p2440 N93-23730
Application and development of wavelet analysis
[AD-A260389] 08 p2489 N93-24240
Develop an x-windows tool to compute Gaussian beam synthetic seismograms
[AD-A260034] 08 p2400 N93-24253
COMPASS: A computerized payload operations support system for Columbus 08 p2161 N93-24377
Flowfield computer graphics
[NASA-CR-193029] 08 p2444 N93-24655
Object-oriented tools for distributed computing 09 p2817 N93-25576
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
High level design for distributed application instrumentation
[AD-A260812] 09 p2710 N93-25696
Construction of an advanced software tool for planetary atmospheric modeling 09 p2815 N93-25799
A methodology and software environment for testing process model's sequential predictions with protocols
[AD-A260980] 09 p2882 N93-25844
The design and implementation of a reusable component library and a retrieval/integration system
[AD-A261827] 09 p2812 N93-26271
Research directions in software analysis, synthesis and certification
[AD-A261367] 09 p2812 N93-26336
Parallel programming with PCN
[DE93-008087] 10 p3105 N93-26627
CDM analysis
[NASA-CR-193132] 10 p3106 N93-27149
Validation of structure metrics: A case study
[MEMO-INF-92-58] 10 p3096 N93-27491
DEFMEF predesign document
[NLR-TP-91269-U] 10 p3098 N93-27543
XInPosse: Structural simulation for graphics hardware
[CWI-CS-R9208] 10 p3098 N93-27553
An examination of selected software testing tools:
[AD-A261941] 10 p3099 N93-27665
GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
The second Garnet compendium: Collected papers 1990-1992
[AD-A262696] 10 p3102 N93-28118
An astrophysics data program investigation of spatial structure of supernova remnants
[NASA-CR-193104] 10 p3205 N93-28409
A proposed approach for developing next-generation computational electromagnetics software
[DE93-007326] 11 p3380 N93-28900
Parallel software tools at Langley Research Center
[NASA-TM-108995] 11 p3520 N93-29070
The scientific modeling assistant: An advanced software tool for scientific model building 11 p3613 N93-29229
Development of a visual system interface to support a domain-oriented application composition system
[AD-A262489] 11 p3528 N93-29418
SWAT system performance predictions
[AD-A262857] 11 p3579 N93-29470
Synthesis techniques and analysis tools for on-chip fault-tolerance
[AD-A263167] 11 p3409 N93-29654
Data probe user's guide
[PB93-178655] 11 p3530 N93-29678
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Electronics mixed-mode simulation
[AD-A264734] 11 p3534 N93-30577
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Design and implementation of a Global Positioning System (GPS) supported area navigation system with electronic aircraft
[ILR-MITT-275(1992)] 11 p3246 N93-30671
Multi-parameter optimization tool for low-cost commercial fuselage crown designs 11 p3305 N93-30858
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037
Fuzzy Control/Space Station automation 12 p3688 N93-31440
The Delfi3 debugger: Notes on the implementation
[REPT-92-106] 12 p3790 N93-31850
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
Knowledge-based software development tools
[AD-A265218] 12 p3791 N93-32059
Intelligent assistance in scientific data preparation 12 p3843 N93-32144
The Knowledge-Based Software Assistant: Beyond CASE 12 p3794 N93-32156

SOHO MISSION

Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
SOHO overview and preparation for operations 12 p3867 N93-31344
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346

The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
Solar corona synoptic observations from SOHO with an extreme ultraviolet imaging telescope 12 p3868 N93-31348
UVCS: The ultraviolet coronograph spectrometer for SOHO 12 p3868 N93-31349
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy 12 p3868 N93-31350
SWAN: A study of solar wind anisotropies 12 p3868 N93-31351
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
A model for coronal streamer observations using the SOHO coronagraph instrumentation 12 p3870 N93-31361
Ly-alpha radiation from coronal transients 12 p3870 N93-31363
Sungrazing comet observations associated with SOHO 12 p3871 N93-31369
Eclipse observations of the outer solar corona and the SOHO mission 12 p3872 N93-31371
Bayesian analysis of SOHO spectra 12 p3876 N93-31398
Design for a complete SOHO mission under the ISTP 12 p3880 N93-31424
Some European activities in support of the SOHO mission 12 p3880 N93-31425
The SOHO interdisciplinary science matrix 12 p3880 N93-31426
Study of the Solar-Terrestrial System [ESA-SP-346] 12 p3852 N93-31674
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science 12 p3852 N93-31675
Reconnection in the solar corona 12 p3855 N93-31695
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission 12 p3860 N93-31725

SOI (SEMICONDUCTORS)

Silicon on insulator structures in selective epitaxial growth [DE92-017118] 02 p0465 N93-11915
Back-gate bias generator [AD-A255126] 02 p0295 N93-12421
Gate-all-around device [AD-A255287] 04 p0866 N93-14534
VLSI microelectronics research 06 p1523 N93-18462
Quantum transport of electrons in nanostructured silicon MOSFET's [ETN-93-93597] 10 p3031 N93-27871

SOIL EROSION

Evaluation of a soil fixative to retard particle entrainment: A laboratory study [UCRL-LR-109806] 04 p0915 N93-14877
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation [NASA-CR-191886] 05 p1190 N93-16382
Estimation of runoff and erosion using GIS integrating DEM, LANDSAT data, and terrain hydrological data 08 p2351 N93-23558
Registration of the use of agricultural fields and soil erosion using satellite remote sensing 09 p2751 N93-24856

SOIL MAPPING

High-resolution elemental mapping of the lunar surface 05 p1387 N93-17244
Multifrequency backscatter modelling of bare soil: Attema, Kats, and Krul model applied in Agriscatt 1987 data [BCRS-91-43] 07 p1884 N93-20739

SOIL MECHANICS

The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible? [DE92-016184] 03 p0612 N93-13236
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH [DOT/FAA/CT-90/24] 06 p1421 N93-19647
Cyclic behavior modelling [ECL-92-09] 07 p1920 N93-20060
Horizontal stress in-situ by cone penetrometers and related studies [AD-A260503] 08 p2401 N93-24418
Lunar regolith and structure mechanics 09 p2670 N93-26412
Lunar regolith densification 11 p3276 N93-29115
Regolith-structure modeling 11 p3276 N93-29116

SOIL MOISTURE

Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves [NASA-TM-108608] 06 p1590 N93-18525
Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results [NASA-TM-108607] 07 p2018 N93-20891
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
Use of Special Sensor Microwave/Imager (SSM/I) for estimation of precipitation features in a semi-arid, mountain region: A case study of southwest Saudi Arabia 08 p2407 N93-23721
Land surface processes and climate modeling 09 p2783 N93-25685
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system [AD-A261454] 09 p2787 N93-26351
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model [DE93-003464] 10 p3070 N93-28057
Mathematical model of frost heave and thaw settlement in pavements [CRREL-REPT-93-2] 11 p3262 N93-30103
ESTAR: The Electronically Scanned Thinned Array Radiometer for remote sensing measurement of soil moisture and ocean salinity [NASA-TM-4523] 12 p3747 N93-32362

SOIL SCIENCE

Soil organic matter dynamics and the global carbon cycle [DE93-001367] 05 p1203 N93-17197
Active synthetic soil [NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations [INPE-5324-PRE/1722] 06 p1568 N93-19792
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
Horizontal stress in-situ by cone penetrometers and related studies [AD-A260503] 08 p2401 N93-24418
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
Mathematical model of frost heave and thaw settlement in pavements [CRREL-REPT-93-2] 11 p3262 N93-30103
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study [PB93-181618] 11 p3474 N93-30823

SOILS

NT LUNAR DUST
NT LUNAR SOIL
NT MUD
NT PERMAFROST
NT SANDS
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems [DE92-017864] 01 p0139 N93-10817
FLASH: A finite element computer code for variably saturated flow [DE92-018038] 01 p0084 N93-10868
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1 [AD-A254619] 03 p0611 N93-12906
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report [PB92-218791] 03 p0714 N93-12982
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
Evaluation of a soil fixative to retard particle entrainment: A laboratory study [UCRL-LR-109806] 04 p0915 N93-14877
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions [AD-A256276] 05 p1208 N93-16510
Human impacts on soil carbon dynamics of deep-rooted Amazonian forests and effect of land use change on the carbon cycle in Amazon soils [NASA-CR-191219] 05 p1202 N93-16748
Soil organic matter dynamics and the global carbon cycle [DE93-001367] 05 p1203 N93-17197
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors [AD-A258020] 06 p1496 N93-17917
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia [AD-A257847] 06 p1566 N93-18346
Bibliographic study of georadar principles, applications, advantages, and inconvenience [CR-35/91] 06 p1509 N93-18993
Active synthetic soil [NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
Effect of the concentration of two types of sediment on water colorimetry and reflectance [INPE-5331-PRE/1729] 06 p1568 N93-19822
Delineate subsurface structures with ground penetrating radar [DE93-000474] 07 p1886 N93-21664
Environmental projects. Volume 14: Removal of contaminated soil and debris [NASA-CR-192803] 08 p2384 N93-22803
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer [OEFZS-4632] 08 p2375 N93-24456
Development of a cone penetrometer for measuring spectral characteristics of soils in situ 09 p2776 N93-25570
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils [PB93-166965] 10 p3067 N93-26605
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky [PB93-182244] 11 p3474 N93-30825
Preferential flow effects on chemical transport and retardation in soils [PB93-190668] 12 p3723 N93-31204
Chemical dehalogenation treatment: Base-Catalyzed Decomposition Process (BCDP) [PB93-182939] 12 p3751 N93-31432
MSATT Workshop on Chemical Weathering on Mars [NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
Effect of DCB extraction on Mossbauer and spectral data for a Hawaiian palagonitic soil (PN-9): Iden tification of pigmentary phases 12 p3864 N93-31950
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951
Chemical transport during formation and alteration of Martian impact and volcanic deposits 12 p3865 N93-31953
Infrared optical properties of Mars soil analog materials: Palagonites 12 p3866 N93-31957
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960
Chemical reactivity of the Martian soil 12 p3867 N93-31963
In-situ bioventing: Two US EPA and Air Force sponsored field studies [PB93-194231] 12 p3754 N93-32089
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils [PB93-172948] 12 p3715 N93-32408

SOL-GEL PROCESSES

Preparation, optical and laser properties of Nd-doped sol-gel silica [DE92-019378] 02 p0461 N93-11602
Laser densification and doping of sol-gel glasses [AD-A254566] 03 p0604 N93-12644
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis [NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification [NASA-TM-103969] 03 p0528 N93-12896
Aerogels, emulsions, and composites: Controlling structure with organic sol-gel chemistry [DE92-019575] 03 p0550 N93-12931
Fluids, gels, and glasses under extreme conditions of pressure and temperature [AD-A255675] 04 p0847 N93-14166
Preliminary investigations of metal liquid-like films and coatings derived from them [AD-A255477] 04 p0849 N93-14489
Reliability of sol-gel derived ferroelectric memories [AD-A255358] 04 p0991 N93-14560

Ultrastructure processing and environmental stability of advanced structural and electronic materials
[AD-A256153] 04 p0831 N93-14665
Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16928
Fiber coating by sputtering for high temperature composites
[AD-A258119] 06 p1476 N93-17897
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Molecular-scale hybrid polymer ceramics
06 p1496 N93-18487
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Microgravity processing of ceramic composites
07 p1809 N93-21115
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
Ultrafast frequency agile optical materials: Organically doped sol-gel glasses
[AD-A260525] 08 p2241 N93-24201
Passive vibration damping materials: Piezoelectric ceramics composites for vibration damping applications
[AD-A260792] 09 p2727 N93-25690
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Materials studies for preventing corrosion in condensing environments
[PB93-185478] 11 p3327 N93-30815

SOLAR ACTIVITY
NT FACULAE
NT SOLAR FLARES
NT SOLAR PROMINENCES
NT SOLAR STORMS
NT SPICULES
NT SUNSPOTS
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
Solar-geophysical data number 569, January 1992. Part 1: (Prompt reports). Data for December, November 1991, and late data
[PB92-158880] 01 p0190 N93-10771
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 570, February 1992. Part 2: (Comprehensive reports). Data for August 1991 and miscellaneous
[PB92-170398] 01 p0190 N93-10774
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Solar-geophysical data number 571, March 1992. Part 2: (Comprehensive reports). Data for September 1991 and miscellaneous
[PB92-177070] 01 p0190 N93-10776
On the nature of the small-scale plasma structures in the solar active phenomena 01 p0183 N93-10925
Rotational aperture synthesis: A proposal for ground-based observations 01 p0178 N93-10947
The effects of magnetic storm phases on F-layer irregularities from auroral to equatorial latitudes
[AD-A253905] 02 p0361 N93-11282
Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
EURECA
[ESA-F-26] 03 p0522 N93-12964
Solar prediction analysis
[NASA-CR-184422] 03 p0769 N93-13014
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra
04 p1017 N93-14230
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Solar-geophysical data number 578, October 1992. Part 1: (Prompt reports). Data for September, August 1992 and late data
[PB93-134013] 08 p2556 N93-23227
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Solar-geophysical data number 580, December 1992. Part 1: (Prompt reports). Data for November, October 1992, and late data
[PB93-150332] 08 p2558 N93-24335
Nonlinear techniques for forecasting solar activity directly from its time series 09 p2603 N93-24716
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Physics of solar activity
[NASA-CR-193139] 10 p3217 N93-27114
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513
Solar-geophysical data number 582, February 1993. Part 2: (Comprehensive reports). Data for August 1992 and miscellaneous
[PB93-174043] 10 p3218 N93-27514
Development of a system for accurate forecasting of solar activity
[AD-A262450] 10 p3218 N93-27827
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679
Radio observations of coronal streamers
12 p3870 N93-31359
Morphology of coronal loop interactions
12 p3873 N93-31379
Active region studies with coordinated SOHO, microwave, and magnetograph observations
12 p3873 N93-31380
First ionization potential fractionation
12 p3878 N93-31411
Coronal abundances in solar active regions measured by the Solar Maximum Mission flat crystal spectrometer
12 p3879 N93-31416
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France)
12 p3880 N93-31420
The SOHO interdisciplinary science matrix
12 p3880 N93-31426
Solar-geophysical data number 583, March 1993. Part 1: (Prompt reports). Data for February, January 1993, and late data
[PB93-188894] 12 p3881 N93-31436
Solar-geophysical data number 583, March 1993. Part 2: (Comprehensive reports). Data for September 1992 and miscellaneous
[PB93-188902] 12 p3881 N93-31437

SOLAR ACTIVITY EFFECTS
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
Radar studies of high latitude convection flows
03 p0648 N93-12626
A radio frequency user's guide to the Space Environment Services Center geophysical alert broadcasts
[PB92-220631] 03 p0562 N93-12979
Global zones of particle precipitation as observed by EXOS-C
[AD-A256397] 04 p0917 N93-15466
On the variation of the Nimbus 7 total solar irradiance
[NASA-TP-3316] 04 p1049 N93-15532
Long-term variations in the geomagnetic activity level. 1: A connection with solar-wind sources
[NOTA-INTERNA-978] 05 p1399 N93-17631
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin
06 p1710 N93-19192
Solar maximum mission/ultraviolet spectrometer and polarimeter studies
[NASA-CR-192463] 08 p2555 N93-23011
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Remote sensing of inner heliospheric plasmas
[AD-A260337] 08 p2558 N93-24268
Bit hit/solar activity correlation study
[AD-A261381] 09 p2896 N93-26340
Origin of the solar wind and coronal mass ejections
12 p3856 N93-31702

SOLAR AND HELIOSPHERIC OBSERVATORY
U SOHO MISSION

SOLAR ARRAYS
NT SOLAR BLANKETS
Hubble Space telescope thermal cycle test report for large solar array samples with BSFR cells (Sample numbers 703 and 704)
[NASA-TM-108373] 01 p0104 N93-10809
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
Photovoltaic power system for a lunar base
04 p0806 N93-14930
On some kinematic and mass characteristics of foldable solar arrays 04 p0812 N93-14957
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
The use of plasma ashers and Monte Carlo modeling for the projection of atomic oxygen durability of protected polymers in low Earth orbit 04 p0819 N93-15596
On-orbit deployment anamolies: What can be done?
04 p0821 N93-15603
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988

Hypervelocity impact effects on solar cells
[NASA-CR-192444] 06 p1571 N93-18601
Passive damping of a solar array
[AD-A258976] 06 p1559 N93-19096
Video guidance sensor 07 p1812 N93-21409
Automating an orbiter approach to Space Station Freedom to minimize plume impingement 08 p2149 N93-22305
Interagency Advanced Power Group Solar Photovoltaic Panel Fall Meeting minutes
[DE93-006188] 08 p2376 N93-22330
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
Structural load control during construction 09 p2669 N93-26409
A photovoltaic catenary-tent array for the Martian surface
[NASA-CR-191144] 10 p2976 N93-26703
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
A PWM current-source inverter for interconnection between a photovoltaic array and the utility line
[EUT-91-E-253] 10 p3065 N93-27227
Electrical power system WP-04 10 p2968 N93-27804
Miniaturized Cassegrainian solar array development 10 p2968 N93-27808
Fuel cell technology for lunar surface operations 10 p3067 N93-27965
Atomic oxygen effects on LDEF experiment AO171 10 p3138 N93-28281
Developing an inflatable solar array 11 p3264 N93-28714
Solar Array Module Plasma Interaction Experiment (SAMPIE) 11 p3265 N93-28716
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758

SOLAR ATMOSPHERE
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
EUV complementary instrumentation for SIMURIS 01 p0014 N93-10938
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Resonance absorption of MHD surface waves with applications to the solar atmosphere 04 p1048 N93-14157
Theoretical studies of the physics of the solar atmosphere
[NASA-CR-191357] 04 p1049 N93-15085
Atmospheric tides in the middle atmosphere
[INPE-5436-PUD/053] 06 p1583 N93-19791
Observation of impulsive acoustic events and the excitation of solar oscillations
[AD-A259788] 08 p2557 N93-23454
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346
The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
COSTEP: Comprehensive suprathermal and energetic particle analyser for SOHO: Scientific goals and data description 12 p3869 N93-31353
CDS and SUMER observations of fine structure and dynamics of loops: Experience from HRTS 12 p3873 N93-31376
Static and dynamic loop models and their observational signatures 12 p3873 N93-31377
What can we learn from the shape of loops? 12 p3874 N93-31386
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere 12 p3878 N93-31413
Nonlinear interaction of Alfven waves in solar atmosphere 12 p3860 N93-31724
Study of an optimized configuration for interferometric imaging of complex and extended solar structures 12 p3849 N93-31780

SOLAR AZIMUTH
U AZIMUTH
U SOLAR POSITION

SOLAR BLANKETS
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
Developing an inflatable solar array 11 p3264 N93-28714

SOLAR CELLS
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
Hubble Space telescope thermal cycle test report for large solar array samples with BSFR cells (Sample numbers 703 and 704)
[NASA-TM-108373] 01 p0104 N93-10809
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Admittance spectroscopy of copper indium diselenide/cadmium sulfide solar cells 02 p0344 N93-11214
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Parameterization of solar cells
[NASA-TM-105885] 02 p0295 N93-12301
Development of large-area monolithically integrated silicon-film photovoltaic modules
[DE92-010600] 03 p0637 N93-12838
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Cost analysis methodology: Photovoltaic Manufacturing Technology Project
[DE92-016441] 03 p0639 N93-13528
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Advanced photovoltaic power system technology for lunar base applications 03 p0641 N93-14004
Computer based satellite design
[AD-A255315] 04 p0816 N93-14536
NREL photovoltaic subcontract reports: Abstracts and document control information
[DE92-016408] 04 p0907 N93-14817
A high intensity solar cell invention: The edge-illuminated Vertical Multi-Junction (VMJ) solar cell
[DE92-019015] 04 p0907 N93-15224
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
LDEF solar cell radiation effects analysis
[NASA-CR-192458] 05 p1195 N93-16374
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
Development of a commercial photovoltaic concentrator module
[DE93-002594] 05 p1196 N93-16655
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
Results of the 1992 NASA/JPL Balloon Flight Solar Cell Calibration Program
[NASA-CR-191630] 05 p1197 N93-16698
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
Sun sensor implementation using solar power arrays
[AD-A257627] 05 p1198 N93-17717
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Indium phosphide photovoltaic technology 06 p1572 N93-18476
Hypervelocity impact effects on solar cells
[NASA-CR-192444] 06 p1571 N93-18601
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Second Workshop Role of Point Defects/Defect Complexes in Silicon Device Fabrication
[DE92-016424] 06 p1675 N93-19467
The status of photovoltaic concentrator development
[DE93-002298] 06 p1571 N93-19474
Spin dependent photocurrents in ribbon solar cells
[DE93-002486] 06 p1572 N93-19623
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20466
Solar cell calibration by balloon flight 07 p1800 N93-20479
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Outline of SCM data processing system onboard ETS-5 07 p1802 N93-20489
Laser scribing system for amorphous silicon solar cells
[AD-A259287] 07 p1910 N93-20608
Low-temperature emitter-passivation for silicon solar cells
[DE93-002483] 07 p1987 N93-21487
Interagency Advanced Power Group Solar Photovoltaic Panel Fall Meeting minutes
[DE93-006188] 08 p2376 N93-22330
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Thin silicon solar cells
[DE93-007420] 08 p2376 N93-22532
Battery compatibility with photovoltaic charge controllers
[DE93-005373] 08 p2377 N93-22537
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
In-situ characterization of growth and interfaces in a-Si:H devices
[DE93-000051] 08 p2504 N93-22928
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Research on the stability, electronic properties, and structure of a-Si:H and its alloys
[DE93-000050] 08 p2505 N93-22969
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Solar collector manufacturing activity 1991
[DE93-006559] 08 p2382 N93-24032
Basic studies of 3-5 high efficiency cell components
[DE92-010563] 08 p2382 N93-24432

Research on high efficiency, large-area CuInSe2-based thin-film modules
[DE93-000077] 08 p2513 N93-24433
New concepts for high efficiency energy conversion: The avalanche heterostructure and superlattice solar cells
[DE92-010592] 09 p2758 N93-25098
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Non-H2Se, ultra-thin CIS devices
[DE93-000078] 09 p2759 N93-25253
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
Diffusion length variation in 0.5- and 3-MeV-proton-irradiated, heteroepitaxial indium phosphide solar cells
[NASA-TM-106147] 10 p3030 N93-27002
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Silicon-Film(tm) on ceramic solar cells
[DE93-009608] 10 p3065 N93-27108
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626
High efficiency low cost GaAs/Ge cell technology
10 p2968 N93-27809
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules
10 p3066 N93-27962
Linearly connected solar power satellite
10 p2949 N93-28019
Gallium arsenide-based ternary compounds and multi-band-gap solar cell research
[DE93-000084] 10 p3065 N93-28056
Study of the Staebler-Wronski degradation effect in a-Si:H based p-i-n solar cell
[NASA-CR-193076] 10 p3066 N93-28406
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
New III-V cell design approaches for very high efficiency
[DE93-000097] 11 p3464 N93-28971
The effect of the low Earth orbit environment on space solar cells: Results of the Advanced Photovoltaic Experiment (S0014) 11 p3467 N93-29686
LEO effects on candidate solar cell cover materials
11 p3467 N93-29687
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207
Growth and development of GaInAsP for use in high-efficiency solar cells
[DE93-000098] 11 p3465 N93-30208
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891
Large-area, triple-junction a-Si alloy production scale-up
[DE93-010007] 12 p3750 N93-32177
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201

SOLAR COLLECTORS
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
The 1992 DOE/Sandia crystalline photovoltaic technology project review meeting
[DE92-018544] 02 p0344 N93-10989
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors
[DE92-015946] 02 p0348 N93-11823
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Mirror alignment techniques for point-focus solar concentrators
[DE92-019643] 02 p0348 N93-12074
Reliability analysis of a utility-scale solar power plant
[DE92-016550] 02 p0348 N93-12312
Process designed for experimentation for increased-caliper Fresnel lenses
[DE92-019464] 03 p0709 N93-12918
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087
An overview of current activities at the National Solar Thermal Test Facility
[DE92-041160] 05 p1196 N93-16553
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Electrical characterization of electrophoretically coated aluminum samples for photovoltaic concentrator application
[DE93-003229] 05 p1197 N93-17468
The status of photovoltaic concentrator development
[DE93-002298] 06 p1571 N93-19474
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
The Photovoltaic Manufacturing Technology Project, phase 1
[DE92-010597] 08 p2380 N93-23302
Photovoltaics Performance and Reliability Workshop
[DE93-000017] 08 p2380 N93-23303
A review of the experience gained in 10 years operation of Gould's solar industrial process heat system
[DE93-003991] 08 p2381 N93-23970
Solar collector manufacturing activity 1991
[DE93-006559] 08 p2382 N93-24032
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Advanced solar dynamic technology program
10 p2968 N93-27806
Advanced photovoltaic power systems using tandem GaAs/GaSb concentrator modules
10 p3066 N93-27962
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
STRV1-b flight experiment 11 p3265 N93-28723
Solar energy emplacement developer
11 p3230 N93-29732
Modification of flux profiles using a faceted concentrator
[DE93-000087] 11 p3464 N93-29925
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Thermal effects testing at the National Solar Thermal Test Facility
[DE93-009825] 11 p3465 N93-30391
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 1
[PB93-174787] 12 p3748 N93-31070

SOLAR CONSTANT
EURECA
[ESA-F-26] 03 p0522 N93-12964

SOLAR CONVECTION (ASTRONOMY)
Thermoconvective instability in the solar core
03 p0771 N93-13849
Observation of impulsive acoustic events and the excitation of solar oscillations
[AD-A259788] 08 p2557 N93-23454

SOLAR CONVERTERS
U SOLAR GENERATORS

SOLAR COOLING
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels
[DE92-040999] 05 p1195 N93-16087
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 1
[PB93-174787] 12 p3748 N93-31070
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 1
[PB93-174803] 12 p3748 N93-31104
International Energy Agency Solar Heating and Cooling Program
[DE93-010175] 12 p3750 N93-32282

SOLAR CORONA
NT CORONAL HOLES
NT CORONAL LOOPS
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
Planned observations at high resolution from space
01 p0177 N93-10903
Transition region dynamics 01 p0180 N93-10907
Ultra-high observations of the prominence-corona transition region 01 p0180 N93-10908
Coronal and solar wind Alfven wave propagation
01 p0180 N93-10909
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope 01 p0181 N93-10915
High resolution observations of solar ejecta
01 p0181 N93-10916
EUV complementary instrumentation for SIMURIS
01 p0014 N93-10938
Obtaining high resolution XUV coronal images
01 p0014 N93-10939
Plasma properties of solar coronal active regions
02 p0489 N93-12342
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
Resonance absorption of MHD surface waves with applications to the solar atmosphere
04 p1048 N93-14157
Solar flares: The onset of magnetic reconnection and the structure of radiative slow-mode shocks
04 p1048 N93-14859
A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Determination of coronal magnetic fields from vector magnetograms
[NASA-CR-191386] 06 p1744 N93-18869
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Theory of coronal streamer formation
[DE93-003736] 07 p2102 N93-21967
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
SUMER: Solar Ultraviolet Measurements of Emitted Radiation 08 p2541 N93-23931
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
Two-dimensional and three-dimensional time-dependent MHD model of extended corona
11 p3653 N93-30496
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
SOHO overview and preparation for operations
12 p3867 N93-31344
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345

The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
Solar corona synoptic observations from SOHO with an extreme ultraviolet imaging telescope 12 p3868 N93-31348
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy 12 p3868 N93-31350
Theory of coronal streamer formation 12 p3869 N93-31355
Streamer eclipse observations 12 p3869 N93-31357
Radio observations of coronal streamers 12 p3870 N93-31359
Predicting Ly-alpha intensities in coronal streamers 12 p3870 N93-31360
A model for coronal streamer observations using the SOHO coronagraph instrumentation 12 p3870 N93-31361
Modelling the large scale structure of the solar corona 12 p3870 N93-31362
Ly-alpha radiation from coronal transients 12 p3870 N93-31363
Observational constraints on coronal hole density model 12 p3871 N93-31364
Observations of stationary radio sources: Coronal polar plumes? 12 p3871 N93-31365
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366
Simulated O VI Doppler dimming measurements of coronal outflow velocities 12 p3871 N93-31367
Speeds and accelerations of coronal mass ejections 12 p3871 N93-31368
Preliminary observations of solar type 2 bursts with the new radiospectrograph in Tremsdorf (Germany) 12 p3872 N93-31370
Eclipse observations of the outer solar corona and the SOHO mission 12 p3872 N93-31371
The solar corona structures as inferred from July 11, 1991 total solar eclipse observation 12 p3872 N93-31372
Observation of a coronal streamer at meter and decimeter wavelengths 12 p3872 N93-31373
Models of coronal streamers at meter-decameter wavelengths 12 p3872 N93-31374
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375
CDS and SUMER observations of fine structure and dynamics of loops: Experience from HRTS 12 p3873 N93-31376
The prominence-corona interface: Models and observations 12 p3873 N93-31378
The physics of solar prominences 12 p3874 N93-31383
Observations of the quiet Sun from the soft x ray telescope on Yohkoh 12 p3874 N93-31388
Observations of the solar corona with a high resolution EUV imaging spectrograph 12 p3875 N93-31390
A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection 12 p3876 N93-31399
Fast computation of magnetohydrostatic equilibria using Euler potentials and multigrid methods 12 p3877 N93-31401
Temperature measurements in the inner corona 12 p3877 N93-31402
General properties of the polarization of the Fe 14 5303 A coronal emission line 12 p3877 N93-31404
Microflares observed with UVSP and HXIS 12 p3877 N93-31405
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406
Abundance determination in the quiet corona 12 p3877 N93-31407
Photospheric abundances 12 p3878 N93-31408
Energetic particle observations and the abundances of elements in the solar corona 12 p3878 N93-31410
Coronal abundances in solar active regions measured by the Solar Maximum Mission flat crystal spectrometer 12 p3879 N93-31416
The July 11, 1991 solar corona observed in polarized white light: Preliminary results 12 p3879 N93-31417
Objectives of RESIK solar concave soft x ray spectrometer for Coronas-F mission 12 p3879 N93-31418
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France) 12 p3880 N93-31420
Measuring electron temperature in the extended corona 12 p3880 N93-31422
Design for a complete SOHO mission under the ISTP 12 p3880 N93-31424
Study of the Solar-Terrestrial System [ESA-SP-346] 12 p3852 N93-31674
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679
Reconnection in the solar corona 12 p3855 N93-31695
Origin of the solar wind and coronal mass ejections 12 p3856 N93-31702
Multiple flows in the solar transition region 12 p3857 N93-31704
Coronal mass ejecta and flares: A statistical study 12 p3859 N93-31716
Possible manifestation of the critical ionization velocity phenomenon in the solar corona 12 p3861 N93-31726

SOLAR CORPUSCULAR RADIATION
NT SOLAR ELECTRONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
Radiation dose to critical body organs for October 1989 proton event [NASA-TP-3237] 03 p0520 N93-12876
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition [ESA-SP-348] 12 p3867 N93-31343
Theory of coronal streamer formation 12 p3869 N93-31355
Modeling solar coronal streamers 12 p3869 N93-31356
Streamer eclipse observations 12 p3869 N93-31357
Ground-based coronagraphic observations of solar streamers 12 p3870 N93-31358
Radio observations of coronal streamers 12 p3870 N93-31359
Predicting Ly-alpha intensities in coronal streamers 12 p3870 N93-31360
A model for coronal streamer observations using the SOHO coronagraph instrumentation 12 p3870 N93-31361
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366
Observation of a coronal streamer at meter and decimeter wavelengths 12 p3872 N93-31373
Models of coronal streamers at meter-decameter wavelengths 12 p3872 N93-31374
Interplanetary hydrogen gas as a monitor of the Sun's corpuscular and radiative output 12 p3878 N93-31412

SOLAR COSMIC RAYS
Data evaluation, analysis, and scientific study [NASA-CR-184396] 03 p0769 N93-13475
Study of high energy particles and protective layers for materials [CTN-93-60613] 05 p1124 N93-16545
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data [PB93-174035] 10 p3218 N93-27513
A double-peaked solar flare: Conclusions on particle transport 12 p3879 N93-31415

SOLAR CYCLES
Solar prediction analysis [NASA-CR-184422] 03 p0769 N93-13014
On the variation of the Nimbus 7 total solar irradiance [NASA-TP-3316] 04 p1049 N93-15532
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22 [AD-A258172] 06 p1744 N93-17922
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events [NASA-TP-3300] 06 p1746 N93-19109
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models [AD-A258572] 07 p1997 N93-20359
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22 [PB93-121846] 07 p2101 N93-21292
Global solar intensity oscillations near solar maximum 08 p2557 N93-23492
Chaotic dynamics of the solar cycle [AD-A260039] 08 p2557 N93-23644
Newly found evidence of Sun-climate relationships [NASA-TM-104583] 10 p3076 N93-27015
Development of a system for accurate forecasting of solar activity [AD-A262450] 10 p3218 N93-27827
Ionospheric control of the long-term occurrence of Pc1 pulsations observed on ground 12 p3860 N93-31722

SOLAR DISK
U SUN

SOLAR DYNAMIC POWER SYSTEMS
Experimental determination of in situ utilization of lunar regolith for thermal energy storage [NASA-CR-191050] 05 p1196 N93-16617
Solar concentrators for advanced solar-dynamic power systems in space [NASA-CR-187148] 08 p2204 N93-23017
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications [DLR-FB-92-09] 08 p2382 N93-24139
Space Station Freedom solar dynamic power generation 10 p2968 N93-27805
Advanced solar dynamic technology program 10 p2968 N93-27806
Fuel cell energy storage for Space Station enhancement 10 p2969 N93-27815
Thermal energy storage flight experiment in microgravity 11 p3265 N93-28720

SOLAR DYNAMICS
U HELIOSEISMOLOGY

SOLAR ECLIPSES
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope 01 p0181 N93-10915
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune [NASA-CR-192131] 07 p2099 N93-20732
National Center for Atmospheric Research, Fiscal Year 1991 [PB93-129914] 07 p2000 N93-21547
Annular Solar Eclipse of 10 May 1994 [NASA-RP-1301] 10 p3169 N93-27057
Streamer eclipse observations 12 p3869 N93-31357
Eclipse observations of the outer solar corona and the SOHO mission 12 p3872 N93-31371
The solar corona structures as inferred from July 11, 1991 total solar eclipse observation 12 p3872 N93-31372
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375
The July 11, 1991 solar corona observed in polarized white light: Preliminary results 12 p3879 N93-31417

SOLAR ELECTRIC PROPULSION
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
The 10 kW power electronics for hydrogen arcjets [NASA-TM-105614] 02 p0235 N93-12484
S/EV 1991: Solar and Electric Vehicle Symposium, Car and Trade Show [DE92-019890] 04 p0869 N93-15226
Electric propulsion 05 p1095 N93-16916
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle [NASA-CR-192492] 08 p2178 N93-22993
ELITE program: Electric insertion transfer experiment 11 p3264 N93-28709
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758

SOLAR ELECTRONS
Study of SMM flares in gamma-rays and neutrons [NASA-CR-191249] 03 p0769 N93-12930

SOLAR ENERGY
NEDO Solar Technology Subcommittee [DE92-526256] 02 p0347 N93-11845
Solar energy utilisation and evacuated tubular solar collectors 03 p0641 N93-14078
EMTP based stability analysis of space station electric power system in a test bed environment [NASA-TM-105845] 04 p0871 N93-15503
Open-cycle absorption solar cooling: Natural convection heat and mass transfer from falling films in vertical channels [DE92-040999] 05 p1195 N93-16087
A comparison of data from SOLMET/ERSATZ and the National Solar Radiation Data Base [DE93-000018] 05 p1399 N93-17174
S/EV 92 (Solar and Electric Vehicles): Proceedings, volume 1 [DE93-001501] 05 p1180 N93-17577
Interagency Advanced Power Group semi-annual compilation of briefs, September 1992 [DE93-000703] 06 p1571 N93-19613
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies [DE92-016446] 07 p1861 N93-21765

Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
Advanced energy systems and technologies - National R and D programme
[DE93-769943] 09 p2758 N93-25097
Electrical power integration for lunar operations
10 p2988 N93-27966
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Solar energy emplacement developer
11 p3230 N93-29732
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 2
[PB93-174795] 11 p3466 N93-30935
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 1
[PB93-174787] 12 p3748 N93-31070
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 1
[PB93-174803] 12 p3748 N93-31104
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 2
[PB93-174811] 12 p3748 N93-31105
Coronal mass ejecta and flares: A statistical study
12 p3859 N93-31716

SOLAR ENERGY ABSORBERS
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206

SOLAR ENERGY CONVERSION
NT PHOTOTHERMAL CONVERSION
NT PHOTOVOLTAIC CONVERSION
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Participation in multilateral effort to develop high performance integrated CPC evacuated collectors
[DE92-015946] 02 p0346 N93-11823
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
Reliability analysis of a utility-scale solar power plant
[DE92-016550] 02 p0348 N93-12312
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Solar thermal electric and biomass power: Program overviews, fiscal years 1990-1991
[DE92-010582] 05 p1193 N93-15850
Proceedings of the Sixteenth DOE Solar Photochemistry Research Conference
[DE93-001760] 05 p1193 N93-15899
An overview of current activities at the National Solar Thermal Test Facility
[DE92-041160] 05 p1196 N93-16553
Technologies --- space power sources
05 p1198 N93-16907
Fabrication of photovoltaic laser energy converterby MBE
[NASA-CR-4484] 06 p1571 N93-18866
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
A review of the experience gained in 10 years operation of Gould's solar industrial process heat system
[DE93-003991] 08 p2381 N93-23970
Study of the Staebler-Wronski degradation effect in a-Si:H based p-i-n solar cell
[NASA-CR-193076] 10 p3066 N93-28406
ASPEC: Solar power satellite
11 p3233 N93-29750
Low-cost, high-efficiency solar cells utilizing GaAs-on-Si technology
[DE93-000096] 11 p3464 N93-29965
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
Measurements and Characterization Branch
[DE93-000094] 11 p3465 N93-30207
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 1
[PB93-174803] 12 p3748 N93-31104

SOLAR FACULAE
U FACULAE

SOLAR FLARES
Solar-geophysical data number 569, January 1992. Part 1: (Prompt reports). Data for December, November 1991, and late data
[PB92-158880] 01 p0190 N93-10771
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 570, February 1992. Part 2: (Comprehensive reports). Data for August 1991 and miscellaneous
[PB92-170398] 01 p0190 N93-10774
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Solar-geophysical data number 571, March 1992. Part 2: (Comprehensive reports). Data for September 1991 and miscellaneous
[PB92-177070] 01 p0190 N93-10776
Energy build-up, transport, and release in solar flares
01 p0181 N93-10913
Small scale processes in solar and stellar plasmas
01 p0181 N93-10917
Observation of solar flares at high resolution
01 p0182 N93-10923
On the nature of the small-scale plasma structures in the solar active phenomena 01 p0183 N93-10925
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
Diagnostics of electron-heated solar flares
02 p0488 N93-11877
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
Radiation dose to critical body organs for October 1989 proton event
[NASA-TP-3237] 03 p0520 N93-12876
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
Solar prediction analysis
[NASA-CR-184422] 03 p0769 N93-13014
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
The 3-D description of vertical current sheets with application to solar flares
[SSL-PREPRINT-90-119] 03 p0770 N93-13477
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
A survey of solar flare energetic particle abundances and energy spectra 04 p1048 N93-14135
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Solar flares: The onset of magnetic reconnection and the structure of radiative slow-mode shocks
04 p1048 N93-14859
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
Characterization of radiation-induced damage in high performance polymers by electron paramagnetic resonance imaging spectroscopy
05 p1128 N93-16794
A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares
06 p1710 N93-19190
X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
Theory of coronal streamer formation
[DE93-003736] 07 p2102 N93-21967
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
A nitrate signal of solar flares in polar snow and ice
[AD-A260559] 08 p2558 N93-24284
Solar-geophysical data number 580, December 1992. Part 1: (Prompt reports). Data for November, October 1992, and late data
[PB93-150332] 08 p2558 N93-24335
Solar-geophysical data number 580, December 1992. Part 2: (Comprehensive reports). Data for June 1992, and miscellaneous
[PB93-150340] 08 p2558 N93-24558
Star tracker operation in a high density proton field
09 p2600 N93-24699
The generation of Langmuir waves by thick target electron beams in solar flares 09 p2861 N93-25730
Use of Taguchi design of experiments to optimize and increase robustness of preliminary designs
09 p2670 N93-26063
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538

Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513
Solar-geophysical data number 582, February 1993. Part 2: (Comprehensive reports). Data for August 1992 and miscellaneous
[PB93-174043] 10 p3218 N93-27514
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Solar flare MDH
[AD-A262275] 11 p3652 N93-28756
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744
A numerical model of interaction of coronal transients with the solar wind 12 p3874 N93-31385
3D reconstruction methods of coronal structures by radio observations 12 p3874 N93-31387
Pulse-beam heating in flare loops 12 p3875 N93-31392
Microflares observed with UVSP and HXIS 12 p3877 N93-31405
A double-peaked solar flare: Conclusions on particle transport 12 p3879 N93-31415
Solar-geophysical data number 583, March 1993. Part 1: (Prompt reports). Data for February, January 1993, and late data
[PB93-188894] 12 p3881 N93-31436
Solar-geophysical data number 583, March 1993. Part 2: (Comprehensive reports). Data for September 1992 and miscellaneous
[PB93-188902] 12 p3881 N93-31437
Solar coronal magnetic structure 12 p3852 N93-31676
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Reconnection in the solar corona 12 p3855 N93-31695
Coronal mass ejecta and flares: A statistical study 12 p3859 N93-31716
On the Bernstein modes generation in solar post-flare loops 12 p3859 N93-31718
Three-dimensional numerical simulation of interplanetary magnetic field changes at 1 AU as a consequence of simulated solar flares 12 p3860 N93-31723
Possible manifestation of the critical ionization velocity phenomenon in the solar corona 12 p3861 N93-31726

SOLAR FLUX
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Flux concentrations on solar dynamic components due to mispointing
[NASA-TM-105756] 07 p1982 N93-20261
Equatorial F-region electron densities over a solar cycle: Comparisons between observations and numerical models
[AD-A258572] 07 p1997 N93-20359
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
Status of the Soviet-American gallium experiment
[DE93-009067] 10 p3218 N93-28157
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935
Modification of flux profiles using a faceted concentrator
[DE93-000087] 11 p3464 N93-29925
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111

SOLAR FLUX DENSITY
NT SOLAR CONSTANT
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578

SOLAR FURNACES
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Modification of flux profiles using a faceted concentrator
[DE93-000087] 11 p3464 N93-29925
Thermal effects testing at the National Solar Thermal Test Facility
[DE93-009825] 11 p3465 N93-30391

SOLAR GENERATORS
NT SOLAR CELLS
NT SOLAR DYNAMIC POWER SYSTEMS
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Reliability analysis of a utility-scale solar power plant
[DE92-016550] 02 p0348 N93-12312
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Solar thermal electric and biomass power: Program overviews, fiscal years 1990-1991
[DE92-010582] 05 p1193 N93-15850
An overview of current activities at the National Solar Thermal Test Facility
[DE92-041160] 05 p1196 N93-16553
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
Technical examination and simulation of a photovoltaic system: Solar generator, battery, download
[ETN-93-94179] 11 p3466 N93-30573

SOLAR GRANULATION
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem 01 p0183 N93-10927
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334

SOLAR GRAVITATION
Rotational behavior of comet nuclei under gravitational perturbations 06 p1714 N93-19216
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
The detection of low-degree solar gravity mode oscillations by differential radius observations, 1986-1987 11 p3652 N93-28605
Thermal profiles of coronal loops: Gravitational considerations 12 p3873 N93-31381
Study of the second-order relativistic light deflection of the Sun using long-baseline fibre-linked interferometers: Laser-Interferometric Solar Relativity (LISOR) test 12 p3849 N93-31778

SOLAR HEATING
High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
Physics of coronal loops: Heating and reconnection 01 p0180 N93-10912
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
Solar water heating system for a lunar base 03 p0641 N93-14005
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 1
[PB93-174803] 12 p3748 N93-31104
Coronal heating: The role of resonant absorption 12 p3876 N93-31396
Solar coronal magnetic structure 12 p3852 N93-31676
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679
International Energy Agency Solar Heating and Cooling Program
[DE93-010175] 12 p3750 N93-32282

SOLAR HOUSES
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 1
[PB93-174803] 12 p3748 N93-31104

SOLAR INSTRUMENTS
NT SPECTROHELIOGRAPHS
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
High resolution observations: The state of the art and beyond 01 p0177 N93-10902
SUN: The Solar Ultraviolet Network 01 p0183 N93-10930
Detectors for the SIMURIS payload 01 p0014 N93-10937
EUV complementary instrumentation for SIMURIS 01 p0014 N93-10938
Investigations of the effects of contamination on UV optics 01 p0159 N93-10949
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
Accommodation aspects of SIMURIS on Space Station Freedom 01 p0014 N93-10954
Interferometer optical design for the Imaging Fourier Transform Spectrometer (IFTS) 01 p0159 N93-10955
Mechanical and thermal design of the SUN instrument 01 p0014 N93-10956
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
The SUN/SIMURIS interferometer 12 p3845 N93-31759

SOLAR INTERIOR
Thermoconvective instability in the solar core 03 p0771 N93-13849
Inverse problem with continuous parameters for solar oscillations 09 p2895 N93-25728
SOHO overview and preparation for operations 12 p3867 N93-31344
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345

SOLAR LASERS
U SOLAR-PUMPED LASERS

SOLAR LIMB
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection 12 p3876 N93-31399

SOLAR MAGNETIC FIELD
Solar-geophysical data number 569, January 1992. Part 1: (Prompt reports). Data for December, November 1991, and late data
[PB92-158880] 01 p0190 N93-10771
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Small-scale physics of convection and magnetic fields 01 p0179 N93-10905
Stellar and circumstellar evolution and activity 01 p0181 N93-10918
Polarimetry with an imaging FTS 01 p0014 N93-10934
Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
Optical design for a balloon-borne magnetograph
[NASA-CR-191003] 03 p0709 N93-13062
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Solar flares: The onset of magnetic reconnection and the structure of radiative slow-mode shocks 04 p1048 N93-14859
Polarization analysis of a balloon-borne solar magnetograph
[NASA-CR-191270] 05 p1167 N93-16458
The FNAS Gamma Ray Observatory
[NASA-CR-192423] 05 p1399 N93-16944
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922

A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Determination of coronal magnetic fields from vector magnetograms
[NASA-CR-191386] 06 p1744 N93-18869
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 578, October 1992. Part 1: (Prompt reports). Data for September, August 1992 and late data
[PB93-134013] 08 p2556 N93-23227
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
Beam position and total current monitor for heavy ion fusion beams
[DE93-007653] 09 p2851 N93-25325
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513
Development of a system for accurate forecasting of solar activity
[AD-A262450] 10 p3218 N93-27827
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345
Theory of coronal streamer formation 12 p3869 N93-31355
Modeling solar coronal streamers 12 p3869 N93-31356
Modelling the large scale structure of the solar corona 12 p3870 N93-31362
The physics of solar prominences 12 p3874 N93-31383
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
Dynamic formation and magnetic support of loop or arcade prominences 12 p3875 N93-31391
Temperature dependent morphology of untwisted coronal loops 12 p3875 N93-31393
Evolution and oscillations of coronal loops 12 p3876 N93-31395
The magnetothermal stability of radially stratified line-tied coronal loops 12 p3876 N93-31400
Fast computation of magnetohydrostatic equilibria using Euler potentials and multigrid methods 12 p3877 N93-31401
General properties of the polarization of the Fe 14 5303 A coronal emission line 12 p3877 N93-31404
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406
Automatic recognition of solar features 12 p3880 N93-31421
Solar-geophysical data number 583, March 1993. Part 1: (Prompt reports). Data for February, January 1993, and late data
[PB93-188894] 12 p3881 N93-31436
Development of a large field-of-view KD potassium di-deuterium phosphate modulator: Center Director's Discretionary Fund
[NASA-TM-108410] 12 p3824 N93-32378

SOLAR MAXIMUM MISSION
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results
[NASA-CR-192294] 08 p2180 N93-22683
Solar maximum mission/ultraviolet spectrometer and polarimeter studies
[NASA-CR-192463] 08 p2555 N93-23011
Microflares observed with UVSP and HXIS 12 p3877 N93-31405
Coronal abundances in solar active regions measured by the Solar Maximum Mission flat crystal spectrometer 12 p3879 N93-31416

SOLAR NEBULA
U SOLAR CORONA

SOLAR NEIGHBORHOOD
Heavy element abundances and massive star formation 10 p3172 N93-26709
Far-infrared line images of dwarf galaxies 10 p3186 N93-26797

SOLAR NEUTRINOS
A Polytropic solar model 02 p0487 N93-11264
Neutrino masses and solar neutrinos
[DE93-002416] 06 p1655 N93-18522
The GALLEX solar neutrino experiment
[DE93-003357] 07 p2102 N93-21962
Physics studies with ICARUS and a hybrid ionization and scintillation fiber detector
[DE93-003034] 08 p2482 N93-22986
GALLEX: First results and implications for neutrino physics
[DE93-004908] 08 p2483 N93-23977
An investigation of neutrino properties through study of the sun, supernovae, the early universe and lab data 09 p2898 N93-25180
The Sudbury Neutrino Observatory
[DE93-007697] 09 p2899 N93-25327
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
Status of the Soviet-American gallium experiment
[DE93-009067] 10 p3218 N93-28157
Neutrino oscillations and a new Faraday effect
[DE93-606111] 11 p3571 N93-30789
Planck scale effects in neutrino physics
[DE93-606133] 11 p3571 N93-30793
A 17 keV neutrino and large magnetic moment solution of the solar neutrino puzzle
[DE93-608264] 12 p3819 N93-31662

SOLAR NEUTRONS
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212

SOLAR NOISE
U SOLAR RADIO EMISSION

SOLAR OBSERVATORIES
NT OSO
NT PINHOLE OCCULTER FACILITY
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy 12 p3868 N93-31350
Eclipse observations of the outer solar corona and the SOHO mission 12 p3872 N93-31371
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France) 12 p3880 N93-31420
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859

SOLAR ORBITS
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud 06 p1706 N93-19159
A computer search for asteroid families 06 p1711 N93-19199
Dynamical timescales in the Jupiter family 06 p1712 N93-19201
Cometary orbital evolution in the outer planetary region 06 p1712 N93-19204
Comet nongravitational forces and meteoritic impacts 06 p1712 N93-19207
Long-term orbital evolution of short-period comets found in Project Cosmo-DICE 06 p1454 N93-19215
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits 09 p2602 N93-24706
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707

SOLAR OSCILLATIONS
Spatial distribution of line-of-sight velocities in a quiescent prominence 01 p0183 N93-10928
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
The detection and characterization of high frequency and high-wavenumber solar oscillations 07 p2100 N93-20291
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
The source of five-minute period photospheric umbral oscillations 08 p2548 N93-23214
Observation of impulsive acoustic events and the excitation of solar oscillations
[AD-A259788] 08 p2557 N93-23454
Global solar intensity oscillations near solar maximum 08 p2557 N93-23492
Inverse problem with continuous parameters for solar oscillations 09 p2895 N93-25728
The detection of low-degree solar gravity mode oscillations by differential radius observations, 1986-1987 11 p3652 N93-28605
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345
Evolution and oscillations of coronal loops 12 p3876 N93-31395
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679

SOLAR PHYSICS
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
High resolution observations: The state of the art and beyond 01 p0177 N93-10902
Prospects with SIMURIS 01 p0179 N93-10904
Small-scale physics of convection and magnetic fields 01 p0179 N93-10905
Chromospheric structure and dynamics 01 p0180 N93-10906
Physics of coronal loops: Heating and reconnection 01 p0180 N93-10912
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926
SUN: The Solar Ultraviolet Network 01 p0183 N93-10930
Interferometric imaging with the solar ultraviolet network 01 p0184 N93-10932
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
Solar-terrestrial physics and astrophysics 06 p1733 N93-18501
Space physics strategy: Implementation study. Volume 2: Program plan
[NASA-TM-108143] 06 p1453 N93-18544
Theoretical studies on the chromosphere, corona, and solar wind
[NASA-CR-192116] 06 p1745 N93-19932
The detection and characterization of high frequency and high-wavenumber solar oscillations 07 p2100 N93-20291
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376

Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
Solar-geophysical data number 578, October 1992. Part 1: (Prompt reports). Data for September, August 1992 and late data
[PB93-134013] 08 p2556 N93-23227
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Solar-geophysical data number 580, December 1992. Part 1: (Prompt reports). Data for November, October 1992, and late data
[PB93-150332] 08 p2558 N93-24335
European Space Science and Space Station Freedom
08 p2163 N93-24387
Solar-geophysical data number 580, December 1992. Part 2: (Comprehensive reports). Data for June 1992, and miscellaneous
[PB93-150340] 08 p2558 N93-24558
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Investigation of solar active regions at high resolution by balloon flights of the solar optical universal polarimeter, extended definition phase
[NASA-CR-192555] 10 p3217 N93-27029
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
Activities report of the Astronomical Society
[MITT-75] 11 p3629 N93-29008
NSSDC data listing
[NASA-TM-108264] 11 p3612 N93-29167
Streamer eclipse observations
12 p3869 N93-31357
Modelling the large scale structure of the solar corona
12 p3870 N93-31362
The physics of solar prominences
12 p3874 N93-31383
The SOHO interdisciplinary science matrix
12 p3880 N93-31426
The lunar interferometer for solar physics
12 p3847 N93-31768
Advanced lunar-based interferometer for solar observations 12 p3847 N93-31769
High resolution solar physics
12 p3848 N93-31775

SOLAR PLANETARY INTERACTIONS
NT SOLAR TERRESTRIAL INTERACTIONS
The time variability of Jupiter's synchrotron radiation
04 p0973 N93-14227
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere
04 p1033 N93-14338
The solar wind interaction with Venus
04 p1034 N93-14341
Sensitivity of modeled Cretaceous climate to insolation forcing created by varying Earth-Sun orbital relationships
08 p2411 N93-24578

SOLAR PLASMA (RADIATION)
U SOLAR WIND

SOLAR PONDS (HEAT STORAGE)
One-dimensional transient finite difference model of an operational salinity gradient solar pond
03 p0586 N93-13400

SOLAR POSITION
Lightcurve of comet Austin(1989c1) and its dust mantle development 06 p1707 N93-19167
Heliocentric distance dependencies of the C2 lifetime and C2 parent production rate in comet P/Brorsen-Metcalf (1989o) 06 p1711 N93-19195

SOLAR POWER GENERATION
U SOLAR GENERATORS

SOLAR POWER SATELLITES
First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977
An analysis of power beaming for the Moon and Mars
[NASA-CR-191072] 08 p2182 N93-22554
Choice of antenna geometry for microwave power transmission from solar power satellites
10 p2988 N93-27987
Linearly connected solar power satellite
10 p2949 N93-28019
ASPEC: Solar power satellite
11 p3233 N93-29750

SOLAR POWER SOURCES
U SOLAR GENERATORS

SOLAR POWERED AIRCRAFT
NASA advanced design program: Analysis, design, and construction of a solar powered aircraft
[NASA-CR-192040] 05 p1064 N93-17802
Solar powered multipurpose remotely powered aircraft
11 p3229 N93-29722

SOLAR PROBES
NT HELIOS 1
NT HELIOS 2

SOLAR PROMINENCES
Ultra-high observations of the prominence-corona transition region 01 p0180 N93-10908
The fine structure of prominences
01 p0180 N93-10910
Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911
Spatial distribution of line-of-sight velocities in a quiescent prominence 01 p0183 N93-10928
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Equilibrium and eruption of solar coronal magnetic structures 03 p0770 N93-13605
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
The prominence-corona interface: Models and observations 12 p3873 N93-31378
The physics of solar prominences
12 p3874 N93-31383
Radiative modeling of solar prominences, two-dimensional transfer plus partial frequency redistribution 12 p3875 N93-31389
Dynamic formation and magnetic support of loop or arcade prominences 12 p3875 N93-31391
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection 12 p3876 N93-31399
The magnetothermal stability of radially stratified line-tied coronal loops 12 p3876 N93-31400
Automatic recognition of solar features
12 p3880 N93-31421
Solar coronal magnetic structure
12 p3852 N93-31676
Retardation effects and the origin of filament oscillations 12 p3853 N93-31679

SOLAR PROPULSION
NT SOLAR ELECTRIC PROPULSION
NT SOLAR THERMAL PROPULSION

SOLAR PROTONS
Energy build-up, transport, and release in solar flares
01 p0181 N93-10913
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
Solar proton events of 1989: Effects on spacecraft solar arrays
[AD-A256457] 04 p1049 N93-15318
Mars surface radiation exposure for solar maximum conditions and 1989 solar proton events
[NASA-TP-3300] 06 p1746 N93-19109
Polar cap absorption events observed during the EISCAT operation in 1981-1989 06 p1727 N93-19556
EISCAT incoherent scatter radar observations and model studies on day to night variations in the ionospheric D-region during the PCA event of August 1989
06 p1728 N93-19557
Initial results from the low altitude experiments CP-6 and UP-1 06 p1728 N93-19558
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar wind heavy ions and proton/alpha particle relations observed onboard the Prognoz 7 satellite
12 p3879 N93-31414
Spectra and structure functions of temperature fluctuations in the inner solar wind
12 p3860 N93-31720

SOLAR RADIATION
NT SOLAR CORPUSCULAR RADIATION
NT SOLAR COSMIC RAYS
NT SOLAR ELECTRONS
NT SOLAR NEUTRINOS
NT SOLAR NEUTRONS
NT SOLAR PROTONS
NT SOLAR RADIO BURSTS
NT SOLAR RADIO EMISSION
NT SOLAR WIND
NT SOLAR X-RAYS
NT SUNLIGHT
Detectors for the SIMURIS payload
01 p0014 N93-10937
Ground-based high angular resolution observation of the Sun by interferometry in the visible
01 p0177 N93-10941
Ultraviolet radiation changes
02 p0352 N93-11098
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
[NASA-RP-1281] 02 p0367 N93-11168
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 2: Measurements
[GKSS-91/E/77-PT-2] 02 p0368 N93-11350
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
Phytoplankton photosynthesis in natural mixed layers
[AD-A255010] 03 p0671 N93-12871
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
Deep convection and its relation to the large-scale circulation in the tropical Pacific
03 p0654 N93-13725
Fiber optic data bus radiation effects study
[AD-A255821] 03 p0711 N93-14031
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra
04 p1017 N93-14230
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
[AD-A256328] 04 p0836 N93-15193
On the variation of the Nimbus 7 total solar irradiance
[NASA-TP-3316] 04 p1049 N93-15532
High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924

Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
A comparison of data from SOLMET/ERSATZ and the National Solar Radiation Data Base
[DE93-000018] 05 p1399 N93-17174
An investigation of the dependence of atmospheric radiative transfer on aerosol size distribution
[DE93-003333] 05 p1210 N93-17573
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
Solar extreme ultraviolet sensor and advanced langmuir probe
[NASA-CR-191972] 06 p1744 N93-18880
Geodynamic contributions to global climatic change
06 p1575 N93-18963
Dust and gas jets: Evidence for a diffuse source in Halley's coma 06 p1704 N93-19142
Formation of ions and radicals from icy grains in comets 06 p1708 N93-19172
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Calibration of field reference panel and radiometers used in FIFE 1989
[NASA-CR-192198] 07 p2100 N93-20045
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
ICRCCM. Phase 2: Verification and calibration of radiation codes in climate models
[DE93-005114] 08 p2402 N93-22408
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Evaluation of solar radiation measurement systems: EPRI/NREL
[DE93-000020] 08 p2380 N93-23304
Solar flares and magnetospheric particles: Investigations based upon the ONR-602 and ONR-604 experiments
[AD-A259781] 08 p2557 N93-23973
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Design and implementation of a computer based site operations log for the ARM Program
[DE93-002834] 08 p2400 N93-24255
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory
[AERONOMICA-ACTA-A-363-1991]
08 p2558 N93-24637
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization
09 p2600 N93-24695
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Analysis of LARI sensor system
[DE93-006334] 09 p2761 N93-24977
Computational and experimental studies on large scale solar heating
[DE93-769942] 09 p2758 N93-25096
Summary information and data sets for NREL's Solar Radiation Research Laboratory, 1981 - 1991
[DE93-000052] 09 p2898 N93-25101
Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222
Further analysis of ECOM-721 data
[AD-A260863] 09 p2774 N93-25790
ATMOS: Long term atmospheric measurements for mission to planet Earth
[NASA-TM-108720] 09 p2757 N93-26429
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Observations of IRAS F10214+4724 at the Nobeyama millimeter array 10 p3187 N93-26802
The ISM in the M82 starburst
10 p3202 N93-26887
Powering the superwind in NGC 253
10 p3203 N93-26893
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite
10 p2924 N93-27199
Molecular processes in comets
[NASA-CR-193143] 10 p3204 N93-27537
Spectral infrared hemispherical reflectance measurements for LDEF tray clamps
10 p3149 N93-28270
Optical characterization of LDEF contaminant film
10 p3149 N93-28274
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
Clouds and radiation: A primier
[AD-A263136] 11 p3482 N93-29479
Daily sum of the global radiation: Calculation method and verification of forecast
[KNMI-TR-138] 11 p3478 N93-30113
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346
Ly-alpha radiation from coronal transients
12 p3870 N93-31363
Observations of stationary radio sources: Coronal polar plumes? 12 p3871 N93-31365
Pulse-beam heating in flare loops
12 p3875 N93-31392
Abundance determination in the quiet corona
12 p3877 N93-31407
Interplanetary hydrogen gas as a monitor of the Sun's corpuscular and radiative output
12 p3878 N93-31412
Measuring electron temperature in the extended corona 12 p3880 N93-31422

SOLAR RADIATION SHIELDING
Sunshade support structure: Structure and testing
05 p1080 N93-15748
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
Contamination measurements on experiment M0003
10 p2998 N93-28273

SOLAR RADIO BURSTS
Solar-geophysical data number 570, February 1992. Part 2: (Comprehensive reports). Data for August 1991 and miscellaneous
[PB92-170398] 01 p0190 N93-10774
Solar-geophysical data number 571, March 1992. Part 2: (Comprehensive reports). Data for September 1991 and miscellaneous
[PB92-177070] 01 p0190 N93-10776
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 580, December 1992. Part 2: (Comprehensive reports). Data for June 1992, and miscellaneous
[PB93-150340] 08 p2558 N93-24558
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Solar-geophysical data number 582, February 1993. Part 2: (Comprehensive reports). Data for August 1992 and miscellaneous
[PB93-174043] 10 p3218 N93-27514
Preliminary observations of solar type 2 bursts with the new radiospectrograph in Tremsdorf (Germany)
12 p3872 N93-31370
Solar-geophysical data number 583, March 1993. Part 2: (Comprehensive reports). Data for September 1992 and miscellaneous
[PB93-188902] 12 p3881 N93-31437

SOLAR RADIO EMISSION
NT SOLAR RADIO BURSTS
Solar-geophysical data number 569, January 1992. Part 1: (Prompt reports). Data for December, November 1991, and late data
[PB92-158880] 01 p0190 N93-10771
Solar-geophysical data number 570, February 1992. Part 1: (Prompt reports). Data for January 1992, December 1991, and late data
[PB92-170380] 01 p0190 N93-10773
Solar-geophysical data number 571, March 1992. Part 1: (Prompt reports). Data for February, January 1992, and late data
[PB92-177062] 01 p0190 N93-10775
Solar-geophysical data number 574, June 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-218759] 03 p0769 N93-12803
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 578, October 1992. Part 1: (Prompt reports). Data for September, August 1992 and late data
[PB93-134013] 08 p2556 N93-23227
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513
Preliminary observations of solar type 2 bursts with the new radiospectrograph in Tremsdorf (Germany)
12 p3872 N93-31370
Solar-geophysical data number 583, March 1993. Part 1: (Prompt reports). Data for February, January 1993, and late data
[PB93-188894] 12 p3881 N93-31436

SOLAR RADIO WAVES
U SOLAR RADIO EMISSION

SOLAR RECEIVERS
U SOLAR COLLECTORS

SOLAR REFLECTORS
NT SOLAR COLLECTORS
Low Earth orbit atomic oxygen simulation for durability evaluation of solar reflector surfaces
04 p0819 N93-15594
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
Current performance and potential improvements in solar thermal industrial heat
[DE93-000048] 08 p2377 N93-22927
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
In orbit degradation of EUV optical components in the wavelength range 10-40 nm AO 138-3
11 p3582 N93-29691

SOLAR ROTATION
Pattern recognition applied to H(sub alpha) spectroheliograms solar rotation and meridional circulation 01 p0182 N93-10924

Global solar intensity oscillations near solar maximum
08 p2557 N93-23492

SOLAR SAILS
The Canadian Solar Sail Project
04 p0804 N93-14921
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite
10 p2925 N93-27203

SOLAR SEISMOLOGY
U HELIOSEISMOLOGY

SOLAR SELECTIVE COATINGS
U SELECTIVE SURFACES

SOLAR SENSORS
Sun sensor implementation using solar power arrays
[AD-A257627] 05 p1198 N93-17717
Solar extreme ultraviolet sensor and advanced langmuir probe
[NASA-CR-191972] 06 p1744 N93-18880
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory
09 p2600 N93-24697
Testing of the on-board attitude determination and control algorithms for SAMPEX
09 p2600 N93-24698
Accurate attitude determination of the LACE satellite
09 p2605 N93-24726
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors
09 p2606 N93-24733
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors
09 p2607 N93-24735
Long Duration Exposure Facility (LDEF) attitude measurements of the Interplanetary Dust Experiment
11 p3638 N93-29377

SOLAR SIMULATION
Spacecraft thermal design verification in Canada
04 p0808 N93-14940

SOLAR SIMULATORS
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201

SOLAR SPECTRA
Transition region dynamics 01 p0180 N93-10907
Observation of solar flares at high resolution
01 p0182 N93-10923
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926
Photovoltaic systems based on spectrally selective holographic concentrators, phase 1
[AD-A252811] 02 p0348 N93-12166
EURECA
[ESA-F-26] 03 p0522 N93-12964
A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222
The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889
A unique photon bombardment system for space applications 11 p3286 N93-28790
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
The effect of the low Earth orbit environment on space solar cells: Results of the Advanced Photovoltaic Experiment (S0014) 11 p3467 N93-29686
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035

SOLAR SPECTROMETERS
Solar Physics and Astrophysics at Interferometric Resolution
[ESA-SP-344] 01 p0179 N93-10901
Planned observations at high resolution from space
01 p0177 N93-10903
The solar ultraviolet network subtractive double monochromator 01 p0183 N93-10931
IFTS: The Imaging Fourier Transform Spectrometer
01 p0014 N93-10933
Detectors for the SIMURIS payload
01 p0014 N93-10937
Coronal abundances in solar active regions measured by the Solar Maximum Mission flat crystal spectrometer
12 p3879 N93-31416
Objectives of RESIK solar concave soft x ray spectrometer for Coronas-F mission
12 p3879 N93-31418
Some European activities in support of the SOHO mission 12 p3880 N93-31425

SOLAR STORMS
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744

SOLAR STREAMS
U SOLAR CORPUSCULAR RADIATION

SOLAR SYSTEM
Modeling the Jovian aurora
[NASA-CR-190696] 02 p0486 N93-11164
Giotto: The second encounter
[ESA-BR-83] 03 p0749 N93-12965
Zodiacal emission 03 p0772 N93-13147
Solar System Exploration Division Strategic Plan, volume 1. Executive summary and overview
[NASA-TM-107843] 03 p0513 N93-13265
Scientific experimentation afforded by the International Asteroid Mission 03 p0515 N93-13561
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
Space law and space resources
05 p1358 N93-16860
Space migrations: Anthropology and the humanization of space 05 p1229 N93-16862
Exobiology in Solar System Exploration
[NASA-SP-512] 06 p1590 N93-18545
Overview: Exobiology in solar system exploration
06 p1591 N93-18546
The solar system: Importance of research to the biological sciences 06 p1591 N93-18547
Extreme Ultraviolet Explorer: Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
The state of knowledge concerning the Kuiper belt
06 p1711 N93-19197
Dynamical timescales in the Jupiter family
06 p1712 N93-19201
Studies of extra-solar OORT clouds and the Kuiper disk
[NASA-CR-192759] 08 p2555 N93-22476
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
Solar system observations with HST
08 p2534 N93-23889
Spacewatch discovery of near-Earth asteroids
10 p3205 N93-26691
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
Workshop on Advanced Technologies for Planetary Instruments, part 1
[NASA-CR-193015] 11 p3639 N93-28764

SOLAR SYSTEM EVOLUTION
Encounters with protostellar disks
03 p0754 N93-13727
Minor satellites and the Gaspra encounter
06 p1719 N93-19255
Lunar and asteroid composition assessment using remote secondary ion mass spectrometry
[DE93-003839] 07 p2098 N93-21849
Studies of extra-solar OORT clouds and the Kuiper disk
[NASA-CR-192759] 08 p2555 N93-22476
Chaotic evolution of the solar system
[AD-A260055] 08 p2550 N93-23961

SOLAR TERRESTRIAL INTERACTIONS
Flank solar wind interaction
[NASA-CR-189285] 02 p0489 N93-12303
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Long-term variations in the geomagnetic activity level. 1: A connection with solar-wind sources
[NOTA-INTERNA-978] 05 p1399 N93-17631
North-south anisotropy during the quasi-stationary modulation of galactic cosmic rays
[NOTA-INTERNA-975] 05 p1400 N93-17647
Auroral energization and geomagnetic disturbances
06 p1584 N93-18499
Solar-terrestrial physics and astrophysics
06 p1733 N93-18501
The flow of plasma in the solar terrestrial environment
[NASA-CR-192106] 06 p1744 N93-18780
Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366
Solar-geophysical data number 576, August 1992. Part 1: (Prompt reports). Data for July, June 1992 and late data
[PB93-112530] 07 p2100 N93-21212
International Space Year in China
07 p1975 N93-21272
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Development of visual programming techniques to integrate theoretical modeling into the scientific planning and instrument operations environment of ISTP
[NASA-CR-192707] 07 p2042 N93-22004
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334
The German space science programme
08 p2536 N93-23903
SESC products and services user guide
[PB93-178879] 11 p3653 N93-29679
The SOHO interdisciplinary science matrix
12 p3880 N93-31426
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science
12 p3852 N93-31675
Detecting and tracking changes in solar wind conditions using interplanetary scintillation
12 p3857 N93-31703

SOLAR THERMAL ELECTRIC POWER PLANTS
An overview of current activities at the National Solar Thermal Test Facility
[DE92-041160] 05 p1196 N93-16553
Conversion efficiency in solar thermal systems
07 p1982 N93-20301

SOLAR THERMAL PROPULSION
Evaluation of transportation systems for advanced space flight missions
[ESA-TT-1256] 02 p0223 N93-11685
Beamed energy propulsion 05 p1095 N93-16917
Development of CPG dish-Stirling systems for remote power applications
[DE93-003251] 08 p2376 N93-22414

SOLAR WIND
Transition region dynamics 01 p0180 N93-10907
Coronal and solar wind Alfven wave propagation
01 p0180 N93-10909
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope 01 p0181 N93-10915
High resolution observations of solar ejecta
01 p0181 N93-10916
Small scale processes in solar and stellar plasmas
01 p0181 N93-10917
On the nature of the small-scale plasma structures in the solar active phenomena 01 p0183 N93-10925
Statistics of IMF B(z) events
[DE92-018372] 02 p0488 N93-11696
Flank solar wind interaction
[NASA-CR-189285] 02 p0489 N93-12303
A study of ion composition and dynamics at Comet Halley
[NASA-CR-188478] 03 p0751 N93-13465
Densities and abundances of hot cometary ions in the coma of P/Halley 03 p0752 N93-13466
Observations of solar wind ion charge exchange in the comet Halley coma 03 p0752 N93-13467
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
Synergism of He-3 acquisition with lunar base evolution 03 p0540 N93-13986
The thermosphere and ionosphere of Venus
04 p1026 N93-14307
The solar wind interaction with Venus
04 p1034 N93-14341
Lunar and asteroid composition using a remote secondary ion mass spectrometer
05 p1387 N93-17245
Long-term variations in the geomagnetic activity level. 1: A connection with solar-wind sources
[NOTA-INTERNA-978] 05 p1399 N93-17631
North-south anisotropy during the quasi-stationary modulation of galactic cosmic rays
[NOTA-INTERNA-975] 05 p1400 N93-17647
Cosmic ray decreases and magnetic clouds
06 p1564 N93-18071
The solar wind structures associated with cosmic ray decreases and particle acceleration in 1978-1982
06 p1565 N93-18072
Auroral energization and geomagnetic disturbances
06 p1584 N93-18499

Initial overview of disconnection events in Halley's Comet 1986 06 p1702 N93-19134
Plasma-beam instabilities in cometary ionospheres 06 p1704 N93-19141
Disturbances of both cometary and Earth's magnetospheres excited by single solar flares 06 p1710 N93-19190
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin 06 p1710 N93-19192
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
Solar wind velocity measurements with the EISCAT UHF antenna array 06 p1725 N93-19542
Force balance near an X line along which E (dot) is less than 0
[NASA-CR-192341] 07 p2071 N93-20362
Formation of auroral arcs via magnetosphere-ionosphere coupling
[AD-A258641] 07 p1998 N93-20363
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity 08 p2392 N93-23135
A modified flow/field model of the solar wind interaction with Mars 08 p2556 N93-23216
The solar wind control of reconnection at the dayside magnetopause 08 p2556 N93-23236
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
SUMER: Solar Ultraviolet Measurements of Emitted Radiation 08 p2541 N93-23931
Solar-geophysical data number 580, December 1992. Part 2: (Comprehensive reports). Data for June 1992, and miscellaneous
[PB93-150340] 08 p2558 N93-24558
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
The upper atmosphere and ionosphere of Mars 09 p2897 N93-26393
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Abundance of He-3 and other solar-wind-derived volatiles in lunar soil 10 p3209 N93-26692
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
Mithras studies of the boundary between open and closed field lines
[AD-A264758] 11 p3479 N93-30562
Proceedings of the First SOHO Workshop: Coronal Streamers, Coronal Loops, and Coronal and Solar Wind Composition
[ESA-SP-348] 12 p3867 N93-31343
SOHO overview and preparation for operations 12 p3867 N93-31344
UVCS: The ultraviolet coronograph spectrometer for SOHO 12 p3868 N93-31349
SWAN: A study of solar wind anisotropies 12 p3868 N93-31351
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
Energetic particle analyser ERNE 12 p3869 N93-31354
A model for coronal streamer observations using the SOHO coronagraph instrumentation 12 p3870 N93-31361
Modelling the large scale structure of the solar corona 12 p3870 N93-31362
Ly-alpha radiation from coronal transients 12 p3870 N93-31363
A numerical model of interaction of coronal transients with the solar wind 12 p3874 N93-31385
Temperature measurements in the inner corona 12 p3877 N93-31402
Solar wind abundances from Ulysses 12 p3878 N93-31409
Solar wind heavy ions and proton/alpha particle relations observed onboard the Prognoz 7 satellite 12 p3879 N93-31414
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers 12 p3880 N93-31423
Study of the Solar-Terrestrial System
[ESA-SP-346] 12 p3852 N93-31674
Energetics of ULF/ELF plasma waves in the solar wind and outer Earth's magnetosphere 12 p3826 N93-31689
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle 12 p3855 N93-31691
Can ULF fluctuations observed at the magnetopause play a role in anomalous diffusion? 12 p3855 N93-31693
On the solar wind-magnetosphere-ionosphere coupling: AMPTE/CCE particle data and the AE indices 12 p3856 N93-31701
Origin of the solar wind and coronal mass ejections 12 p3856 N93-31702
Detecting and tracking changes in solar wind conditions using interplanetary scintillation 12 p3857 N93-31703
Mass, momentum and energy transport from the Sun to the Earth by different types of the solar wind: Prognoz 7 observations 12 p3857 N93-31705
Solar wind penetration to geostationary altitude during the March 1991 magnetic storm 12 p3857 N93-31706
Spectra and structure functions of temperature fluctuations in the inner solar wind 12 p3860 N93-31720
Calibration of a detector system for solar energetic particles analysis 12 p3860 N93-31721
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission 12 p3860 N93-31725

SOLAR WIND VELOCITY
Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
Observations of the solar corona with a high resolution EUV imaging spectrograph 12 p3875 N93-31390
Temperature measurements in the inner corona 12 p3877 N93-31402
A diagnostic method for reconnecting magnetic fields in the solar corona 12 p3877 N93-31406

SOLAR X-RAYS
Solar-geophysical data number 570, February 1992. Part 2: (Comprehensive reports). Data for August 1991 and miscellaneous
[PB92-170398] 01 p0190 N93-10774
Solar-geophysical data number 571, March 1992. Part 2: (Comprehensive reports). Data for September 1991 and miscellaneous
[PB92-177070] 01 p0190 N93-10776
Solar-geophysical data number 569, January 1992. Part 2: (Comprehensive reports). Data for July 1991 and miscellaneous
[PB92-158898] 02 p0488 N93-11738
Study of SMM flares in gamma-rays and neutrons
[NASA-CR-191249] 03 p0769 N93-12930
G-133: A soft x ray solar telescope 03 p0510 N93-13171
A thermal/nonthermal approach to solar flares 03 p0771 N93-13639
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Solar-geophysical data number 577, September 1992. Part 2: Comprehensive reports, data for March 1992 and miscellaneous
[PB93-116952] 07 p2101 N93-21386
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
Solar-geophysical data number 579, November 1992. Part 2: (Comprehensive reports). Data for May 1992 and miscellaneous
[PB93-141711] 08 p2558 N93-24150
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Solar-geophysical data number 582, February 1993. Part 2: (Comprehensive reports). Data for August 1992 and miscellaneous
[PB93-174043] 10 p3218 N93-27514
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Observations of the quiet Sun from the soft x ray telescope on Yohkoh 12 p3874 N93-31388
Solar-geophysical data number 583, March 1993. Part 2: (Comprehensive reports). Data for September 1992 and miscellaneous
[PB93-188902] 12 p3881 N93-31437

SOLAR-PUMPED LASERS
Laser power transmission 05 p1175 N93-16910
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952

SOLDERED JOINTS
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes
[DE92-017042] 02 p0276 N93-11494
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
Copper/solder intermetallic growth studies
[AD-A259856] 08 p2232 N93-23955
Aqueous cleaning of flux residue from solder joints
[KCP-613-4803] 09 p2652 N93-26208
The 17th Annual Electronics Manufacturing Seminar proceedings
[AD-A261963] 11 p3409 N93-29435

SOLDERING
Robust solder joint attachment of coaxial cable leads to piezoelectric ceramic electrodes
[DE92-017042] 02 p0276 N93-11494
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Requirements for soldered electrical connections
[NHB-5300.4(3A-2)] 03 p0570 N93-12674
A study for the development of practices to protectively coat and join fibre epoxy composites for use in the Space Station Programme
[CTN-93-60626] 04 p0835 N93-15145
Establishment of high density installation technology 07 p1800 N93-20478
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024
Infrared vacuum soldering process for thick-film hybrid microcircuits
[DE93-007483] 08 p2285 N93-24451
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
The 17th Annual Electronics Manufacturing Seminar proceedings
[AD-A261963] 11 p3409 N93-29435
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370
Performance of thermal adhesives in forced convection 11 p3293 N93-30974

SOLDERS
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Requirements for soldered electrical connections
[NHB-5300.4(3A-2)] 03 p0570 N93-12674

Establishment of high density installation technology
07 p1800 N93-20478
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
A maskless flip-chip solder bumping technique
[DE93-009631] 10 p3021 N93-28372
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656

SOLENOIDS
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
Cryotribology: Development of cryotribological theories and application to cryogenic devices
[DE93-000404] 05 p1176 N93-16238
Study of magnetic bearings with high temperature superconductors, phase 3
[NASA-CR-192229] 06 p1551 N93-19378
Electromagnetic finite element analysis of a solenoid
[DE93-004635] 07 p1894 N93-21724
A solenoid with a low input power and a fast switching time
[DLR-FB-91-39] 08 p2278 N93-22661
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Magnetic field source for bi-chambered electron beam devices
[AD-A261316] 09 p2691 N93-26299

SOLID ARGON
U SOLIDIFIED GASES

SOLID CRYOGENS
Specific impulse calculations of high energy density solid cryogenic rocket propellants. 1. Atoms in solid H2
[AD-A263208] 11 p3341 N93-28517

SOLID ELECTROLYTES
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Effect of plasticizers on the properties of new ambient temperature solid polymer electrolytes
[AD-A254817] 03 p0545 N93-12754
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
Perovskite solid electrolytes for SOFC
[DE92-019981] 03 p0638 N93-13041
Alternative materials for solid oxide fuel cells: Factors affecting air-sintering of chromite interconnections
[DE92-019356] 03 p0638 N93-13082
Components and materials issues in polymer electrolyte fuel cells for transportation applications
[DE92-013384] 04 p0907 N93-15061
Jet vapor deposition of thin films for solid oxide and other fuel cell applications
[DE92-019980] 04 p0851 N93-15222
High temperature tubular solid oxide fuel cell development
[DE92-040253] 04 p0908 N93-15322
Contaminant effects in solid oxide fuel cells
[DE92-040255] 04 p0908 N93-15323
Solid polymer electrolytes for rechargeable batteries
[DE93-001603] 04 p0871 N93-15485
Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Proceedings of the Fourth Annual Fuel Cells Contractors Review Meeting
[DE92-001290] 08 p2378 N93-22934
Methane conversion by solid electrolyte membranes
[PB93-127041] 08 p2222 N93-23994
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
Thin rechargeable batteries for CMOS SRAM memory protection
09 p2694 N93-25583
Full system engineering design and operation of an oxygen plant
10 p3021 N93-26696
SOFC chromite sintering and electrolyte/air-electrode interface reactions
[DE93-008260] 10 p2995 N93-28229
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581
Polymer electrolyte fuel cells for transportation applications
[DE93-008721] 11 p3464 N93-29147
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774
New alternative for electricity production. Part 3: Electricity production from biomass and natural gas by a solid oxide fuel cell
[VTT-TIED-1397] 12 p3720 N93-31862
Advanced alternate planar geometry solid oxide fuel cells
[DE93-000248] 12 p3721 N93-32174

SOLID LUBRICANTS
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
LEO resistant thermal control materials and dry lubricants for the mobile servicing system
07 p1848 N93-20818
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Synthesis of new high performance lubricants and solid lubricants
[DE93-012237] 11 p3330 N93-28748

SOLID MECHANICS
Local-equilibrium formalism applied to mechanics of solids
[DE92-016852] 01 p0170 N93-10787
Development of user guidelines for a three-dimensional finite element pavement model
05 p1070 N93-16311
Micro mechanical behavior of pavements
05 p1070 N93-16312
On the solution of fluid flow and solid deformation interaction problems 08 p2291 N93-23178
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
Formulation and treatment of frictional contact problems using finite elements 09 p2717 N93-25412
Mechanics and control of multibody structural systems
[AD-A261576] 09 p2619 N93-26456
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Institute for Computational Mechanics in Propulsion (ICOMP)
[NASA-TM-106155] 10 p3111 N93-27061
Contact mechanics and the dynamics of manipulation
12 p3733 N93-31103

SOLID PHASES
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia
[DE92-040720] 05 p1319 N93-16391
A geometrical description of microstructure with application to Al powder metallurgy processing
06 p1489 N93-19061
Metastable SiC and SiGeC alloys by carbon implantation and solid phase epitaxy
[DE93-007594] 09 p2863 N93-25387
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Powder metallurgy: Solid and liquid phase sintering of copper 11 p3294 N93-30976

SOLID PROPELLANT COMBUSTION
NT SOLID PROPELLANT IGNITION
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
The effects of bypass air on boron carbide combustion in a solid fuel ramjet 02 p0245 N93-11136
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Modelling combustion zones in porous media
03 p0540 N93-13802
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
Development testing of throttleable ducted rockets
05 p1092 N93-17610
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
A model of concurrent flow flame spread over a thin solid fuel
[NASA-CR-191111] 09 p2663 N93-24946
Modeling of H2/N2O flames 09 p2627 N93-26026
Dark zone modeling of solid propellant flames
09 p2628 N93-26028
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Infrared fiber optic diagnostic for solid propellant combustion 09 p2628 N93-26031
Condensed-phase processes during solid propellant combustion. Part 4: Chemical and microscopic examination of laser-irradiated propellant samples
09 p2628 N93-26032
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
Flame response in oscillatory solid propellant combustion 09 p2630 N93-26041
Aerospace applications of metal combustion
10 p2920 N93-27175
Prediction of propellant behavior in spinning flow of a space motor 10 p2923 N93-27193
Computer-aided surface regression analysis
10 p2927 N93-27217
The effects of small changes in the input data on the determination of closed-bomb burning rates and surface area
[AD-A261969] 10 p3156 N93-27952
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
The outlook for understanding the combustion of solid propellants and what it will take
11 p3346 N93-30078
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080
Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085

SOLID PROPELLANT IGNITION
The First NASA Aerospace Pyrotechnic Systems Workshop
[NASA-CP-3169] 07 p1863 N93-20132
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
Laser diode ignition activities at Sandia National Laboratories 07 p1864 N93-20142
Aerospace applications of metal combustion
10 p2920 N93-27175

Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
Interfacial melting in cracked explosives
11 p3349 N93-30089

SOLID PROPELLANT ROCKET ENGINES
NT ADVANCED SOLID ROCKET MOTOR (STS)
NT SPACE SHUTTLE BOOSTERS
The 1992 JANNAF Propulsion Meeting, volume 1
[CPIA-PUBL-580-VOL-1] 01 p0015 N93-10001
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Facility for cold flow testing of solid rocket motor models 01 p0011 N93-10021
Feasibility evaluation of the monolithic braided ablative nozzle 01 p0019 N93-10023
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
Effects of the RSRM grain deformation on ballistic performance 01 p0020 N93-10027
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
Selection of rocket propulsion systems
01 p0022 N93-10034
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid-propellant rocket plumes
[AD-A256176] 05 p1090 N93-16015
ASRM case insulation design and development
[NASA-CR-191947] 05 p1090 N93-16605
National Aeronautics and Space Administration
05 p1358 N93-17091
Post-impact behavior of composite solid rocket motor cases 05 p1095 N93-17299
Thermostructural responses of carbon phenolics in a restrained thermal growth test 05 p1128 N93-17333
Semi-propellants for ducted rockets
05 p1092 N93-17612
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
Oscillatory internal flow fields studies --- flow oscillations in solid propellant rocket engines
[AD-A258005] 06 p1524 N93-17815
Data communication network at the ASRM facility
[NASA-CR-192085] 06 p1500 N93-17930
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
Performance of reinforced polymer ablators exposed to a solid rocket motor exhaust
[AD-A259341] 06 p1496 N93-19851
Space Shuttle: Status of advanced solid rocket motor program. Report to the Chair, Subcommittee on Government Activities and Transportation, Committee on Government Operations, House of Representatives
[GAO/NSIAD-93-26] 07 p1829 N93-20293
ASRM process development in aqueous cleaning
[NASA-CR-191949] 07 p1829 N93-21355
Solid rocket motors 08 p2174 N93-22094
Reliability of solid rocket motor cases and nozzles
08 p2176 N93-22103
Solid Propulsion Integrity Program (SPIP) for verifiable enhanced solid rocket motor reliability
08 p2176 N93-22104
A summary of laboratory testing performed to characterize and select an elastomeric O-ring material to be used in the redesigned solid rocket motors of the space transportation system
[NASA-TM-108395] 08 p2236 N93-22557
Terminology and assessment methods of solid propellant rocket exhaust signatures
[AGARD-AR-287] 08 p2204 N93-22998
Spirit 2 vehicle: (A26.780). Post flight report
[AD-A259991] 08 p2172 N93-24250
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
Particle behavior in solid propellant rocket motors and plumes
[AD-A260900] 09 p2624 N93-25913
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity
09 p2626 N93-26020
Determination of burn rate requirements from ASRM performance specifications 09 p2627 N93-26023
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
SRB environment evaluation and analysis. Volume 3: ASRB plume induced environments
[NASA-CR-192519] 09 p2631 N93-26054
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
Prediction of propellant behavior in spinning flow of a space motor 10 p2923 N93-27193
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
Postflight hardware evaluation 360T025 (RSRM-25, STS-46)
[NASA-CR-192562] 11 p3272 N93-30617
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix A: Insulation PFORs
[NASA-CR-192563] 11 p3272 N93-30618
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix B: Case, seals, and joints PFORs
[NASA-CR-192564] 11 p3272 N93-30619
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix E: Insulation postfire data
[NASA-CR-192566] 11 p3272 N93-30621
Postflight hardware evaluation 360T025 (RSRM-25, STS-46). Appendix D: Nozzle postfire data
[NASA-CR-192580] 11 p3289 N93-30648
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

SOLID PROPELLANTS
NT CASE BONDED PROPELLANTS
NT COMPOSITE PROPELLANTS
NT DOUBLE BASE ROCKET PROPELLANTS
NT HMX
NT HTPB PROPELLANTS
NT METAL PROPELLANTS
NT NITRAMINE PROPELLANTS
NT PLASTIC PROPELLANTS
NT SOLID ROCKET PROPELLANTS
Investigation of the stimulated release of gaseous ammonia from ammonium perchlorate by HTPB solid propellant bonding agents 01 p0019 N93-10026
Alternatives in clean propellants for large scale man-rated solid rocket motors 01 p0020 N93-10028
Scientific predictability of solid rocket performance: Analyses of the processing parameters
03 p0526 N93-13824
Department of Defense Explosives Safety Board Explosives Safety Seminar abstracts (1959-1990)
[AD-A250032] 05 p1128 N93-15932
International Workshop on Mathematical Methods in Combustion
[AD-A258161] 05 p1108 N93-17798
International Workshop on Mathematical Methods in Combustion
[AD-A258478] 06 p1482 N93-18312
Terminology and assessment methods of solid propellant rocket exhaust signatures
[AGARD-AR-287] 08 p2204 N93-22998
The 29th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-593-VOL-2] 09 p2624 N93-26005
Improved burn rate determination techniques
09 p2627 N93-26021
Dark zone modeling of solid propellant flames
09 p2628 N93-26028
Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Combustion/explosion chemistry of bulk materials
11 p3343 N93-30062
Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions
11 p3319 N93-30075
A summary of the JANNAF Workshop on Methods for Exchange of Gun Propellant Burning Rate Information
[AD-A264113] 12 p3713 N93-32030

SOLID ROCKET BINDERS
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
Multidimensional effects in composite propellant combustion 01 p0042 N93-10313
A preliminary investigation of the degradation and stabilisation of the energetic oxetane binder polyNIMMO
[RARDE-7/91] 02 p0273 N93-11376

SOLID ROCKET BOOSTERS (SPACE SHUTTLE)
U SPACE SHUTTLE BOOSTERS

SOLID ROCKET PROPELLANTS
NT DOUBLE BASE ROCKET PROPELLANTS
NT HMX
NT HTPB PROPELLANTS
NT METAL PROPELLANTS
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
The 28th JANNAF Combustion Subcommittee Meeting, volume 2
[CPIA-PUBL-573-VOL-2] 02 p0247 N93-11448
Soviet chemical propellant research and development
[PB92-195577] 02 p0275 N93-12147
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Propellant grain assembly for a gas generator
[AD-D015439] 04 p0854 N93-14801
Thermal decomposition of HNIW and HNIW-Based formulations
[AD-A255613] 04 p0854 N93-15011
The AlCl absorption feature in solid rocket plume radiation
[AD-A256645] 05 p1089 N93-15700
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes
[AD-A256784] 05 p1089 N93-15702
Development testing of throttleable ducted rockets
05 p1092 N93-17610
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215
Computer-aided surface regression analysis
10 p2927 N93-27217
Specific impulse calculations of high energy density solid cryogenic rocket propellants. 1. Atoms in solid H2
[AD-A263208] 11 p3341 N93-28517
Microstructural modeling of electrical breakdown in solid fuel propellants
[AD-A263466] 11 p3342 N93-29835
The outlook for understanding the combustion of solid propellants and what it will take
11 p3346 N93-30078
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080
Radiation/convection coupling in rocket motor and plume analysis
[NASA-CR-193288] 12 p3698 N93-31845

SOLID ROTATION
U ROTATING BODIES

SOLID SOLUTIONS
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269
Growth of solid solutions of aluminum nitride and silicon carbide by metalorganic chemical vapor deposition
[AD-A255000] 02 p0254 N93-12518
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933
Using nonlinear acoustics for nondestructive materials characterization and evaluation
[DE93-004447] 08 p2321 N93-22727
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216

Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407
Electron-microscopic investigations of irradiated and naturally aged aluminum alloy
[DE93-606752] 12 p3706 N93-31660

SOLID STATE

The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
Basic research in electronics (JSEP)
[AD-A256016] 04 p0869 N93-15257
Solid state research
[AD-A256965] 05 p1318 N93-16251
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Light-activated solid-state opening switch
[AD-A259770] 08 p2281 N93-23487
Active microparticle media
[AD-A259722] 08 p2487 N93-23639
Solid state research
[AD-A259726] 08 p2509 N93-24024
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596
Solid state research
[AD-A262874] 10 p3154 N93-28247
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878

SOLID STATE DEVICES

NT AVALANCHE DIODES
NT BIPOLAR TRANSISTORS
NT CHARGE COUPLED DEVICES
NT CHARGE TRANSFER DEVICES
NT CMOS
NT FIELD EFFECT TRANSISTORS
NT GALLIUM ARSENIDE LASERS
NT HETEROJUNCTION DEVICES
NT HIGH ELECTRON MOBILITY TRANSISTORS
NT JFET
NT JUNCTION DIODES
NT JUNCTION TRANSISTORS
NT LIGHT EMITTING DIODES
NT METAL OXIDE SEMICONDUCTORS
NT MIM (SEMICONDUCTORS)
NT MIS (SEMICONDUCTORS)
NT MODFETS
NT MSM (SEMICONDUCTORS)
NT MULTISPECTRAL LINEAR ARRAYS
NT PHOTODIODES
NT PHOTOTRANSISTORS
NT PHOTOVOLTAIC CELLS
NT RUBY LASERS
NT SCHOTTKY DIODES
NT SEMICONDUCTOR DEVICES
NT SEMICONDUCTOR LASERS
NT SILICON TRANSISTORS
NT SIS (SEMICONDUCTORS)
NT SIS (SUPERCONDUCTORS)
NT SOI (SEMICONDUCTORS)
NT SOLAR CELLS
NT SOLID STATE LASERS
NT SOS (SEMICONDUCTORS)
NT THERMISTORS
NT THYRISTORS
NT TRANSISTOR AMPLIFIERS
NT TRANSISTORS
NT VARACTOR DIODES
NT VARISTORS
NT YAG LASERS

High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
Space-qualified submillimeter radiometer
[NASA-CR-190886] 03 p0603 N93-13709
Application of gel-silica optics to laser technology and optical element fabrication
[AD-A255666] 04 p0883 N93-14131
Solid state research
[AD-A256019] 04 p0992 N93-14576
Photoelectrochemistry of electronic and electro-optical materials
[AD-A256239] 04 p0866 N93-14583
Solid state flight data recorder with rapid data access 04 p0795 N93-15167
Quasi-optical power combining of solid state millimeter-wave sources: A proposal for graduate fellowship
[AD-A256644] 05 p1143 N93-15909
Electrochemical and electrode properties of stabilized bismuth oxide ceramics
[ISBN-90-9003981-3] 05 p1125 N93-16570
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
High speed solid state circuit breaker 09 p2694 N93-25598
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
Solid state research
[AD-A262273] 10 p3154 N93-28237
Solid state research
[AD-A262874] 10 p3154 N93-28247
In situ characterization of interfacial and bulk properties of lithium polymer batteries using 4-probe DC techniques
[DE93-007699] 11 p3405 N93-28581
Electronics research report
[AD-A262733] 11 p3405 N93-28589
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830
A novel approach for new radiation sources based on solid state plasma instabilities
[AD-A263699] 11 p3588 N93-29382
Electronics research at the University of Texas at Austin. Appendix: JSEP sponsored publications
[AD-A262993] 11 p3409 N93-29485

SOLID STATE LASERS

NT GALLIUM ARSENIDE LASERS
NT RUBY LASERS
NT YAG LASERS

Geometrical transformation of linear diode-laser arrays for longitudinal pumping of solid-state lasers
[AD-A253415] 01 p0087 N93-10218
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
A study of small solid-state switched TEA CO2 lasers 03 p0607 N93-13814
Optics for diode array transverse pumped laser rod
[AD-D015436] 04 p0885 N93-14722
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
Development of a short pulse high power infrared laser
[NASA-TM-108146] 05 p1170 N93-15822
Possible application of transient electromagnetic pulses to high brightness e-guns
[DE92-040360] 05 p1138 N93-16100
Resonantly pumped, erbium-doped, GSGG, 2.8 micron, solid state laser with energy recycling and high slope efficiency
[AD-D015517] 05 p1174 N93-16610
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Tunable infrared and visible solid-state laser 06 p1543 N93-18473
Characterization of radiation damage in solids 06 p1659 N93-18478
Laser-based firing systems for prompt initiation of secondary explosives 07 p1864 N93-20143
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145
Laser diode initiated detonators for space applications 07 p1865 N93-20147
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
High-power optical coatings for a mega-Joule class ICF laser
[DE93-005821] 08 p2306 N93-22328
High power diode pumped solid state lasers
[DE93-005818] 08 p2307 N93-22691
Advances in nonlinear optical materials and devices
[NASA-CR-192681] 09 p2852 N93-25281
An active solid state ring laser gyroscope 09 p2709 N93-25291
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
Solid state research
[AD-A262874] 10 p3154 N93-28247
All solid-state high power visible laser
[NASA-CR-193163] 11 p3436 N93-28623
Design of the Nova Upgrade laser system for ignition fusion experiments
[DE93-009077] 11 p3436 N93-29097
Holmium quasi-two level laser
[AD-D015706] 11 p3440 N93-30427
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510

SOLID STATE PHYSICS

The third Workshop on Non-Crystalline Solids, programme and abstracts
[AD-A250739] 01 p0036 N93-10244
The magnetochemistry of supramolecular particles: The transition from the molecular to the solid-state
[AD-A253126] 01 p0153 N93-10338
High pressure and synchrotron radiation studies of solid state electronic instabilities
[DE92-015661] 01 p0168 N93-10630
Materials science and engineering at the Naval Research Laboratory: Research programs and 1990 publications
[PB92-199488] 02 p0238 N93-11422
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Innovative techniques for studying new materials and new developments in solid state physics
[AD-A256394] 04 p0996 N93-15465
Research programs at the Research Laboratory of Electronics 06 p1522 N93-19482
Proceedings of the 16th International Workshop on Condensed Matter Theories
[AD-A261078] 09 p2868 N93-26252
Solid state research
[AD-A262273] 10 p3154 N93-28237
Solid state research
[AD-A262874] 10 p3154 N93-28247
Research investigation directed toward extending the useful range of the electromagnetic spectrum
[AD-A262704] 10 p3028 N93-28393

SOLID SURFACES

NT CRYSTAL SURFACES

The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Drag on an oscillating rod in a non-Newtonian fluid
[DE92-014746] 02 p0308 N93-12492
Application of spin-sensitive electron spectroscopies to investigations of electronic and magnetic properties of solid surfaces and epitaxial systems
[DE92-018597] 02 p0470 N93-12499
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Scanning tunneling microscope studies of nickel oxyhydroxides 06 p1678 N93-18490
In-situ characterization of growth and interfaces in a-Si:H devices
[DE93-000051] 08 p2504 N93-22928

Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
SOLID SUSPENSIONS
Development of an expendable particle sensor
[AD-A261127] 09 p2710 N93-26044
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
SOLID WASTES
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes
09 p2769 N93-25571
Alternative processes for water reclamation and solid waste processing in a physical/chemical bioregenerative life support system 10 p2965 N93-27721
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
RCRA implementation plan, FY 1993
[PB93-176956] 12 p3752 N93-31877
SOLID-SOLID INTERFACES
Interface cracks in an orthotropic layered half-space under impact loading 01 p0047 N93-10482
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities
01 p0047 N93-10483
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Study and characterization of ceramic-metal bonds manufactured by solid state bonding techniques. Application to Ag/Al2O3
[ECL-91-19] 02 p0267 N93-11577
Polyethylene-terephthalate/aluminum adhesion
[ECL-91-33] 02 p0257 N93-11578
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites
04 p0864 N93-14190
Fracture analyses of thin films, interfaces, and joints
04 p0897 N93-14215
Preliminary design of composite joints
[DLR-MITT-92-05] 04 p0835 N93-15076
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
Powerful algorithm for inversion of geophysical reflection profiles
[ITN-93-85179] 05 p1267 N93-16743
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation
07 p1929 N93-20640
Batman-cracks. Observations and numerical simulations 07 p1936 N93-20681
Boundary element shape function for bimaterial interface cracks 07 p1939 N93-20701
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Formation of defect-free metal/semiconductor contacts
[AD-A259604] 08 p2284 N93-24151
Models of crack growth along polymer interfaces
09 p2728 N93-25750
Fundamental aspects of metal joining: The study of strong interfaces
[AD-A261293] 09 p2653 N93-26304
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991
SOLIDIFICATION
NT DIRECTIONAL SOLIDIFICATION (CRYSTALS)
NT MELT SPINNING
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
The physics of pattern formation at liquid interfaces
[DE92-016971] 02 p0462 N93-11747
Measurements of crystal growth kinetics at extreme deviations from equilibrium
[DE92-019744] 03 p0720 N93-12827
Investigation of microgravity effects on solidification phenomena of selected materials
03 p0510 N93-13168
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
A correlation of welding solidification parameters to weld macrostructure
[AD-A256702] 05 p1176 N93-16154
Study of FES/CAST/HGS
[NASA-CR-190945] 05 p1114 N93-16711
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Development of equipment and technique to study solidification in microgravity, phase 1
[CTN-93-60608] 05 p1132 N93-16729
Characterization of solidification and weldability of Fe-29Ni-17Co alloys
[DE93-000739] 05 p1115 N93-17059
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
Microstructural control of complex alloys
06 p1490 N93-18485
Principles of weld solidification and microstructures
[DE93-003012] 06 p1490 N93-19629
On the drag of model dendrite fragments at low Reynolds number
[NASA-TM-105916] 07 p1855 N93-19974
The production of high iron glasses by RST in microgravity 07 p1810 N93-21117
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports
[NASA-CR-192477] 08 p2302 N93-22349
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
Microstructure of rapidly-solidified lithium powders
[DE93-004765] 08 p2229 N93-22880
Space Station Furnace Facility. Experiment/Facility Requirements Document (E/FRD), volume 2, appendix 5
[NASA-CR-192476] 08 p2200 N93-23241
Thermodynamically-consistent phase-field models for solidification
[PB93-139012] 08 p2515 N93-24005
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Computation of complex solidification morphologies using a phase-field model
[PB93-156743] 09 p2869 N93-26547
Experiment/facility requirements document for the Space Station Furnace Facility. Section 1: Integrated configuration
[NASA-CR-192533] 10 p2958 N93-27147
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197
Development of a CFD code for casting simulation
[NASA-CR-192577] 11 p3427 N93-30492
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils
[PB93-172948] 12 p3715 N93-32408
SOLIDIFIED GASES
NT SOLID CRYOGENS
Experimental attempt to metallize hydrogen at very high pressures
[AD-A257086] 04 p0843 N93-15497
Specific impulse calculations of high energy density solid cryogenic rocket propellants. 1. Atoms in solid H2
[AD-A263208] 11 p3341 N93-28517
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086
SOLIDS
NT SOLID CRYOGENS
NT SOLIDIFIED GASES
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Sealant research for solid oxide fuel cells
[DE92-019044] 02 p0345 N93-11513
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Semi-quantitative model for the burning rate of solid materials
[PB92-213362] 03 p0539 N93-13641
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
Theoretical investigations of ultrafast phenomena in condensed matter
[AD-A258496] 06 p1661 N93-18088
Calibration methods for explosives detectors
07 p1773 N93-21911
Adaptive meshing in solids
[DE93-003238] 08 p2287 N93-22331
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Computer simulation of atomic collision processes in solids
[DE93-005106] 08 p2483 N93-23310
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-28360
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Some problems in the mechanics of solids with phase mixtures
[AD-A263652] 11 p3311 N93-29291
Representation and recognition with invariants and geometric constraint models
[AD-A263235] 11 p3529 N93-29493
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711

Rapidly activated dynamic phase transitions in nonlinear solids
[AD-A263601] 11 p3299 N93-29982
Metallization at detonation fronts in solids 11 p3319 N93-30087
Pulsed laser photoacoustic spectrometer for study of solid materials
[DE93-605290] 11 p3441 N93-31023

SOLIDS FLOW
A study of flow properties of wet solids using laser induced photochemical anemometry
[DE92-015483] 01 p0082 N93-10629
Studies of granular flow down an inclined chute
[DE92-018871] 03 p0577 N93-13074
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-28236
Dense inclined flows: Theory and experiments
[DE93-011452] 11 p3417 N93-28630

SOLITARY WAVES
The Third Potsdam-5 Kiev International Workshop on Nonlinear Processes in Physics
[AD-A249140] 02 p0430 N93-11420
The Peierls ground state, solitons and polarons in ring-containing polymers
[AD-A254914] 02 p0272 N93-12289
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Solitons and instantons in string theory 03 p0728 N93-13753
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Integrated photonics research technical digest series. Volume 10: Conference edition: Summaries of papers presented at the Integrated Photonics Research Topical Meeting
[AD-A255423] 04 p0981 N93-14506
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Kink-assisted mode hopping in a surface wave resonator
[AD-A256314] 05 p1207 N93-16264
Solitons on domain walls
[PREPRINT-876] 05 p1289 N93-16980
Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982
A method to generate integrable nonlinear equations of the Dirac-type and their N-soliton solutions
[PREPRINT-851] 05 p1270 N93-17071
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
Non-topological solitons in astrophysics and cosmology 07 p2096 N93-20292
ESR spectra of photoinduced defects in MX chain solids
[DE93-003692] 07 p2083 N93-21997
Plasma theory 08 p2496 N93-23262
Optical and magnetic signatures of localized excitations in pernigraniline: Role of neutral solitons
[AD-A260001] 08 p2243 N93-24443
From fractals to wormholes via string theory 09 p2871 N93-25742
Non-isospectral extension of the chiral model and its geometry
[SSCL-PREPRINT-735] 10 p3128 N93-28101
Localized solutions of N + 1 dimensional evolution equations
[SSCL-PREPRINT-753] 10 p3157 N93-28210
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Measurements of rare composite objects and high sensitivity searches for novel forms of matter produced in high energy heavy ion collisions
[DE93-009945] 11 p3574 N93-28569
Dynamics and photoexcitation in MX and MXX' chain solids
[AD-A264823] 11 p3561 N93-29711
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
Exciton solitary waves in molecular crystals
[DE93-608693] 12 p3827 N93-31100
A study of capillary and capillary-gravity wind waves: Their structures, distributions, and energy balances 12 p3771 N93-32215

SOLITONS
U SOLITARY WAVES

SOLUBILITY
Materials compatibility and lubricants research on CFC-refrigerant substitute: Miscibility of lubricants with refrigerants
[DE92-015118] 01 p0035 N93-10084
Water soluble polysiloxanes with pendant 1-oxypyridin-3-yl groups
[AD-A250637] 01 p0036 N93-10246
Effect of alloying elements on passivity and breakdown of passivity of Fe- and Ni-based alloys mechanistics aspects
[DE92-017316] 01 p0033 N93-10395
Basicity and optical basicities of slags
[NPL-DMM(A)-48] 02 p0447 N93-11408
Removal of THD from painted test panels by liquid systems
[AD-A255624] 04 p0850 N93-15064
Miscibility of lubricants with refrigerants
[DE93-000538] 05 p1122 N93-16244
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
Compatibility of refrigerants and lubricants with engineering plastics
[DE93-000541] 05 p1128 N93-17807
Characterization of the water soluble component of inedible residue from candidate CELSS crops
[NASA-TM-107557] 06 p1605 N93-18111
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Mechanisms of gas permeation through polymer membranes
[DE93-005960] 07 p1852 N93-21836
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Natural and Marangoni convection in two superposed immiscible liquid layers with horizontal heating 08 p2247 N93-22835
A method of measuring the interfacial tension of two liquids of the same mass volume: The cylindrical method 08 p2251 N93-22860
A gel-permeation chromatography study of electrochemically synthesized Poly(3-alkylthiophenes)
[AD-A259864] 08 p2239 N93-23957
Experimental and theoretical studies of reverse micelles in dense gases
[PB93-141901] 08 p2222 N93-24143
Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795
Water-soluble polyphosphazenes and their hydrogels
[AD-A264883] 11 p3340 N93-30909
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-014771] 12 p3711 N93-32293

SOLUTES
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Molecular properties and fate of organic chemicals
[AD-A260090] 08 p2207 N93-24412
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551

SOLUTIONS
NT AIR
NT AQUEOUS SOLUTIONS
NT COMPRESSED AIR
NT DETONABLE GAS MIXTURES
NT GAS MIXTURES
NT HIGH TEMPERATURE AIR
NT NUCLEAR EMULSIONS
NT PHOTOGRAPHIC EMULSIONS
NT SOLID SOLUTIONS
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Passivity and stress corrosion cracking of AISI 316 stainless steel in chloride-containing solutions
[ETN-92-92783] 05 p1113 N93-16580
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
Applications of laser light scattering in polymer dilute solution characterization
[AD-A263110] 11 p3335 N93-30007

SOLVATION
Solvation of cobalt salts by oligomeric polyethers
[AD-A254815] 03 p0545 N93-12753
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483
Energy storage in supercritical solvents 06 p1498 N93-18492
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Studies of the formation chemical reactivity and properties of small clusters application to an understanding of aerosol formation and heterogeneous chemistry
[DE93-005920] 08 p2221 N93-23309
The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation
[AD-A260284] 08 p2483 N93-24234
Molecular/polymeric magnetism
[DE93-008635] 09 p2847 N93-25114
A simple model for ion solvation with non additive cores
[AD-A263075] 11 p3566 N93-29143
Chromatographic and solvatochromic measurements on butyl rubbers
[AD-A263088] 11 p3334 N93-29795

SOLVENT EXTRACTION
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Innovative instrument design and applications in super-critical fluid chromatography and extraction 12 p3704 N93-32327

SOLVENTS
NT TETRAHYDROFURAN
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Softening of rigid polyvinyl chloride by high concentrations of aqueous solutions of methylene chloride
[AD-A255453] 04 p0848 N93-14486
Physical aging and solvent effects on the fracture of LaRC-TPI adhesives 05 p1128 N93-16766
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
Picosecond molecular-beam studies of chemical reactivity 06 p1659 N93-18483
Energy storage in supercritical solvents 06 p1498 N93-18492

Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Dual cure solventless coating process
[DE93-001351] 07 p1845 N93-20021
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems
[DE93-005115] 08 p2235 N93-22409
Printed wiring assembly cleanliness
[DE93-006040] 08 p2277 N93-22524
An alternative model for estimating liquid diffusion coefficients requiring no viscosity data
[NASA-TM-106079] 08 p2207 N93-23014
Experimental and theoretical studies of reverse micelles in dense gases
[PB93-141901] 08 p2222 N93-24143
A simple model for the dielectric behaviour of polar solvents in the mean spherical approximation
[AD-A260283] 08 p2483 N93-24261
Use of high-energy radiation for degradation of environmental pollutants
[PB93-149995] 08 p2390 N93-24636
Femtosecond dynamics in hydrogen-bonding solvents: Formamides
[DE93-003476] 09 p2643 N93-25123
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
Simulations of solvent effects on confined electrolytes
[AD-A262294] 10 p3133 N93-27677
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
Acid gas treating by aqueous alkanolamines
[PB93-176188] 11 p3471 N93-29676
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761

SOMMERFELD APPROXIMATION
An efficient method for analyzing microstrip antennas with a dielectric cover using a spectral domain moment method
[EUT-91-E-255] 10 p3026 N93-27228

SONAR
NT SONOBUOYS
Expert-system development in Soar: A tutorial
[AD-A254571] 03 p0682 N93-12645
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
Statistically calibrated transducer
[AD-D015408] 04 p0882 N93-14878
Sonar processing on CESAR
[FFI-92/7007] 04 p0974 N93-15074
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
ARID relative calibration experimental data and analysis 06 p1552 N93-19395
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
Pressure compensated transducer system with constrained diaphragm
[AD-D015580] 07 p1906 N93-20771
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708

SONDES
NT IONOSONDES
NT RADIOSONDES
NT RAWINSONDES
Application of nuclear well logging techniques to lunar resource assessment 05 p1385 N93-17234

SONIC BOOMS
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Laboratory study of effects of sonic boom shaping on subjective loudness and acceptability
[NASA-TP-3269] 02 p0434 N93-11620
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Effect of sonic boom asymmetry on subjective loudness
[NASA-TM-107708] 05 p1282 N93-16755
Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Subjective response to simulated sonic booms with ground reflections
[NASA-TM-107764] 11 p3561 N93-28692
Sonic boom problem for future highspeed aircraft
[ONERA-NT-1990-3] 11 p3241 N93-30020

SONIC FATIGUE
U ACOUSTIC FATIGUE

SONIC FLOW
U TRANSONIC FLOW

SONIC SPEED
U ACOUSTIC VELOCITY

SONOBUOYS
Embedded training capabilities for the LAMPS MK 3 system
[AD-A250697] 02 p0207 N93-11838
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133

SONOHOLOGRAPHY
U ACOUSTICAL HOLOGRAPHY

SONOLUMINESCENCE
Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188

SOOT
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
Structure and soot properties of non-buoyant laminar round-jet diffusion flames 07 p1853 N93-20190
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Selected microgravity combustion diagnostic techniques 07 p1853 N93-20194
Laser diagnostics for microgravity droplet studies 07 p1853 N93-20195
Contribution to the study of soot formation in combustion environments by optical methods based on light diffusion
[ECL-91-26] 08 p2218 N93-22697
Droplet combustion characteristics under microgravity and normal-gravity conditions 08 p2252 N93-23179
Photoacoustic determination of the single-scattering albedo of carbonaceous particulates 08 p2395 N93-23493
Measurements of soot formation and hydroxyl concentration in near critical equivalence ratio premixed ethylene flame
[NASA-CR-191099] 09 p2642 N93-25116
Detailed studies of soot formation in laminar diffusion flames for application to modeling studies
[AD-A264827] 11 p3317 N93-30667

SORBENTS
NT ABSORBENTS
NT ADSORBENTS
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534

SORET COEFFICIENT
Preparation results for a Marangoni-Benard experiment with Soret effect under microgravity conditions 07 p1805 N93-21088
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381

SORPTION
NT ADSORPTION
NT CHEMISORPTION
Three-stage sorption type cryogenic refrigeration systems and methods employing heat regeneration
[NASA-CASE-NPO-18366-1-CU] 03 p0558 N93-13422
Characterization of fiber reinforced phenolic composites 04 p0828 N93-14142
Analytical and experimental investigation of closed-cycle sorption cooling systems 04 p0874 N93-14476
High temperature sorbents for oxygen
[NASA-CASE-NPO-18409-1-CU] 06 p1483 N93-19025
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301

SORTING
U CLASSIFYING

SOS (SEMICONDUCTORS)
Very high temperature silicon on silicon pressure transducers 03 p0601 N93-13679

SOUND
U ACOUSTICS

SOUND ABSORPTION
U SOUND TRANSMISSION

SOUND BARRIER
U ACOUSTIC VELOCITY

SOUND DETECTING AND RANGING
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

SOUND DETECTORS
U SOUND TRANSDUCERS

SOUND FIELDS
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Motion measurement of acoustically levitated object
[NASA-CASE-NPO-18191-1-CU] 08 p2135 N93-24601
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
Experimental investigation of flow turning losses in unstable rocket motors 09 p2630 N93-26040
Simulation of boundary-layer transition: Receptivity to spike stage
[NASA-CR-191413] 10 p3040 N93-27588
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Evaluation of the scattered pressure due to infinite rigid cylinders, infinite elastic cylindrical shells, and rigid spheres in the presence of an ambient noise field
[AD-A264835] 11 p3563 N93-30899
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

SOUND FREQUENCIES
U ACOUSTIC FREQUENCIES

SOUND GENERATORS
Combat aircraft jet engine noise studies 01 p0150 N93-10679
Arbitrary waveform generator
[AD-D015346] 02 p0280 N93-11354
Dynamics and response of polymer-coated acoustic devices
[DE92-014289] 02 p0433 N93-11523
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
Pressure compensated transducer system with constrained diaphragm
[AD-D015580] 07 p1906 N93-20771
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310

Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317
SOUND HOLOGRAPHY
U ACOUSTICAL HOLOGRAPHY
SOUND INTENSITY
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310
SOUND LOCALIZATION
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229
SOUND MEASUREMENT
U ACOUSTIC MEASUREMENT
SOUND PERCEPTION
U AUDITORY PERCEPTION
SOUND PRESSURE
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
Acoustic fill factors for a 120 inch diameter fairing
[NASA-CR-189284] 02 p0434 N93-11634
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners 02 p0434 N93-11884
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Acoustic device and method for measuring gas densities
[NASA-CASE-NPO-18155-1-CU] 03 p0700 N93-13421
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Measurement and evaluation of blast overpressure during F-15A crew station vulnerability assessment test
[AD-A257152] 05 p1227 N93-16033
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
SOUND PROPAGATION
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Sound propagation over rigid porous layers 02 p0432 N93-11179
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Experimental examination of growing and newly submerged sea ice including acoustic probing of the skeletal layer
[AD-A254526] 03 p0669 N93-12599
Consecutive plate acoustic suppressor apparatus and methods
[NASA-CASE-LEW-15430-1] 05 p1282 N93-17051
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
Research summary
[NASA-CR-193082] 10 p3129 N93-27127
Collective dynamics in dense fluid mixtures 10 p3041 N93-28069
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Effects on health of noise disturbances due to air traffic 12 p3753 N93-31929
SOUND TRANSDUCERS
NT ELECTROACOUSTIC TRANSDUCERS
NT HYDROPHONES
NT LOUDSPEAKERS
NT MICROPHONES
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658
Pressure compensated transducer system with constrained diaphragm
[AD-D015580] 07 p1906 N93-20771
Optical fiber for acoustic sensor applications
[AD-A261580] 09 p2857 N93-26515
Acoustic transducer system
[AD-D015713] 11 p3562 N93-29279
Instrumentation for in-flight acoustic measurements in an engine inlet duct of a Fokker 100 aircraft
[NLR-TP-91200-U] 12 p3680 N93-32332
SOUND TRANSMISSION
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Problems in nonlinear acoustics: Rayleigh waves, pulsed sound beams, reflection of focused beams, waveguides, cooperative radiation of sound by buggies, acoustic streaming effects in standing waves, and spark-source lithotripter pulses
[AD-A256289] 04 p0974 N93-14458
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Comparison of methodologies for describing relaxation in nonequilibrium gaseous systems 05 p1165 N93-16786
Zero sound experiments in superfluid He3
[ISBN-951-22-0841-5] 08 p2476 N93-23005
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
Experiments in materials science from household items 11 p3293 N93-30971
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310
Transmission of sound through a rotor
[NLR-TP-92014-U] 12 p3683 N93-32386
SOUND VELOCITY
U ACOUSTIC VELOCITY
SOUND WAVES
NT AERODYNAMIC NOISE
NT AIRCRAFT NOISE
NT BLADE SLAP NOISE
NT ENGINE NOISE
NT ION ACOUSTIC WAVES
NT JET AIRCRAFT NOISE
NT LAMB WAVES
NT NOISE (SOUND)
NT PROPELLER NOISE
NT SONIC BOOMS
NT THERMAL NOISE
An implementation of the MVDR beamformer on the Intel iWarp system
[AD-A253641] 01 p0140 N93-10209
SBS applications study
[AD-A253779] 01 p0102 N93-10234
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156
Sound propagation over rigid porous layers 02 p0432 N93-11179
Near-field and far-field sound radiation from a line-driven fluid-loaded infinite flat plate having periodic and non-periodic attached rib stiffeners 02 p0434 N93-11884
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB] 02 p0333 N93-12204
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0831 N93-13951
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159
Statistically calibrated transducer
[AD-D015408] 04 p0882 N93-14878
Boundary element analysis of low frequency cavity acoustical problems
[MATHS-REPT-A-158] 04 p0974 N93-15073
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
A comparison of acoustic impedance measurement techniques
[AD-A255566] 05 p1282 N93-16061
Stability of weak double layers
[TRITA-EPP-91-01] 05 p1313 N93-17649
NPSNET: Aural cues for virtual world immersion
[AD-A257835] 06 p1503 N93-18417
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
User's reference guide for Noise Assessment Prediction System (NAPS)
[AD-A258865] 06 p1652 N93-19075
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Stimulated Brillouin backscattering for nonlinear ionic sound waves in laser plasmas
[ETN-93-93415] 07 p2074 N93-21208
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Interaction of externally-driven acoustic waves with compressible convection
[DE93-003800] 08 p2476 N93-22775
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
Low-frequency room responses. Part 2: Calculation methods and experimental results
[BBC-RD-1992/9-PT-2] 09 p2673 N93-25169
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
Far field rotor noise
[AD-A260703] 09 p2845 N93-25651
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
Nonlinear wave phenomena related to interactions in the ionosphere
[AD-A261450] 09 p2776 N93-26348
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond
[DE93-008073] 10 p3055 N93-26668
Roughness-induced generation of crossflow vortices in three-dimensional boundary layers
[NASA-CR-4505] 10 p2929 N93-27096
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
Collective dynamics in dense fluid mixtures 10 p3041 N93-28069

Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188
Jet mixer noise suppressor using acoustic feedback
[NASA-CASE-LEW-15170-1] 11 p3561 N93-28953
Feature based neural network acoustic transient signal classification
[AD-A263437] 11 p3562 N93-29816
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Acoustic-gravity waves from low-altitude localized disturbances
[AD-A264804] 11 p3479 N93-30593
A first approximation to the effects of mean flow on sound propagation through cylindrical capillary tubes
[MATHS-REPT-A-181] 12 p3815 N93-31599
Acoustic logging for structural and hydrogeological bedrock investigations
[VTT-JULK-762] 12 p3816 N93-31865
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868
Proceedings of the First Geological Materials Constitutive Modeling Workshop
[DE93-009161] 12 p3765 N93-32176
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238

SOUND-SOUND INTERACTIONS
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams
04 p0973 N93-14145

SOUNDERS
U SOUNDING

SOUNDING
NT ACOUSTIC SOUNDING
NT ATMOSPHERIC SOUNDING
NT BALLOON SOUNDING
NT IONOSPHERIC SOUNDING
NT MICROWAVE SOUNDING
NT ROCKET SOUNDING
NT SATELLITE SOUNDING
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708

SOUNDING ROCKETS
Experimental studies of ionospheric irregularities and related plasma processes
[NASA-CR-191271] 03 p0652 N93-13460
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Model profiles of atmospheric temperatures, pressures and densities in south-eastern Europe during maximum and mimimum solar activity 07 p1961 N93-21615

SOUNDS (TOPOGRAPHIC FEATURES)
NT MCMURDO SOUND
Remote sensing survey of Mississippi River-Gulf Outlet, Breton Sound disposal area, Plaquemines Parish, Louisiana
[AD-A263097] 11 p3459 N93-29146

SOURCE PROGRAMS
Regenerable biocide delivery unit, volume 2
[NASA-CR-185701-VOL-2] 10 p3082 N93-27360
Origin tracking
[CWI-CS-R9230] 10 p3100 N93-27994

SOUTH AFRICA
U REPUBLIC OF SOUTH AFRICA

SOUTH CAROLINA
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286

SOUTH DAKOTA
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557

SOUTH KOREA
Korea space program 07 p1976 N93-21276
Mugunghwa: The first Korean domestic satellite for FSS and DBS services 10 p3023 N93-26651

SOUTH VIETNAM
U VIETNAM

SOUTHEAST ASIA
Vegetation distribution of South East Asia
08 p2336 N93-22134

SOUTHERN HEMISPHERE
NT ANTARCTIC REGIONS
NT MCMURDO SOUND
NT ROSS ICE SHELF
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Baroclinic wave packets in models and observations
03 p0663 N93-13361
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
A Southern Hemisphere radar meteor orbit survey
06 p1701 N93-19121
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns
07 p2007 N93-20092

SOUTHERN OSCILLATION
Extreme climatic events in the Amazon Basin and their associations with the circulation of the global tropics
04 p0918 N93-14115
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Atmospheric and Geophysical Sciences Division: G-Division did you know?
[DE93-007412] 11 p3469 N93-28967
Coupled ocean-atmosphere GCM simulation of Southern Oscillation phenomena
[DE93-012583] 12 p3766 N93-32297

SOUTHERN SKY
Cordoba Durchmusterung, volume 1
[NASA-RP-1299-VOL-1] 10 p3170 N93-27116
Cordoba Durchmusterung, volume 2
[NASA-RP-1299-VOL-2] 10 p3170 N93-27117
Cordoba Durchmusterung, volume 3
[NASA-RP-1299-VOL-3] 10 p3170 N93-27118
Cordoba Durchmusterung, volume 4
[NASA-RP-1299-VOL-4] 10 p3170 N93-27119

SOVIET SATELLITES
NT MOLNIYA SATELLITES
NT VENERA SATELLITES
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060

SOVIET SPACECRAFT
NT BURAN SPACE SHUTTLE
NT MIR SPACE STATION
NT SALYUT SPACE STATION
NT SOYUZ SPACECRAFT
NT VENERA SATELLITES
JPRS report: Science and technology. Central Eurasia: Space. Development of Soviet spacecraft for manned missions
[JPRS-USP-92-003] 02 p0224 N93-11162
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
Earth resources and ecological spacecraft
08 p2361 N93-23777

SOVIET UNION
U U.S.S.R.

SOYBEANS
A trainable image pattern classification system for detection of damaged soybean seeds
02 p0201 N93-12208
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646

SOYUZ SPACECRAFT
Soviet automated rendezvous and docking system overview 07 p1818 N93-21444
Flight experiences on board Space Station Mir
08 p2157 N93-24355
SOYUZ escape trajectory analysis from Space Station Freedom
[NASA-CR-4508] 10 p2954 N93-27609

SPACE ADAPTATION SYNDROME
Adaptation to transient postural perturbations
[NASA-CR-190959] 05 p1227 N93-16699
Long duration human exposure to microgravity
07 p1802 N93-21073

SPACE BASED RADAR
Space based radar: Test of large space structures
04 p0808 N93-14941
Progress in DND's space-based radar R/D project
04 p0812 N93-14958
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Space radar altimetry development from ocean monitoring to land topography 07 p1965 N93-21640
A satellite-based Radar Wind Sounder (RAWS)
08 p2406 N93-23384
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
Array-fed reflector systems with limited scan
11 p3371 N93-30318

SPACE BASES
NT LUNAR BASES
NT SPACE COLONIES
The real world and lunar base activation scenarios
03 p0680 N93-14014
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
Space resources. Overview
[NASA-SP-509] 05 p1378 N93-16869
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Alternative scenarios utilizing nonterrestrial resources
05 p1379 N93-16872
Power system requirements 05 p1383 N93-16906
The transportation depot: An orbiting vehicle support facility 05 p1393 N93-17425
Developing a safe on-orbit cryogenic depot
05 p1393 N93-17426
The future of the US Space Industrial Base
07 p1789 N93-20044
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Options for a lunar base surface architecture
10 p3214 N93-27974
The use of automation and robotic systems to establish and maintain lunar base operations
10 p3111 N93-27982

SPACE BIOLOGY
U EXOBIOLOGY

SPACE CAPSULES
NT AURORA 7

SPACE CHARGE
Analysis of the prebuncher for the KEK 40-MeV proton linac
[DE92-514988] 02 p0444 N93-11525
On some practical consideration of the electron beam breakup transit time oscillator
[DE92-017406] 02 p0445 N93-11919
Divergence in intense ion beams caused by incomplete charge neutralization
[DE92-016891] 02 p0445 N93-12103
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Use of phonon echoes in the study of 2-6 compounds and dielectric Bi12GeO20:Cr 03 p0725 N93-13847
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272
Quantum chaos without classical counterpart
[PREPRINT-830] 05 p1331 N93-17215
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Simple optics description of the plasma sheath and plasma electrode region
[DE93-004851] 08 p2491 N93-22224
H(-) beam neutralization measurements in a solenoidal beam transport system
[DE93-005460] 08 p2481 N93-22908
Studies of the longitudinal instability with an electron beam
[DE93-006513] 08 p2282 N93-23695
Space charge layers in a double plasma machine
08 p2498 N93-24107
Observation of a charge limit for photocathode electron guns
[DE93-006948] 08 p2485 N93-24464
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024

Some problems of relativistic electrodynamics
[DE92-644738] 11 p3400 N93-30923

SPACE COLONIES
Habitat automation 02 p0391 N93-11976
The real world and lunar base activation scenarios 03 p0680 N93-14014
Lunar stepping stones to a manned Mars exploration scenario 03 p0767 N93-14016
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Considerations for lunar colony communications systems 10 p3030 N93-27983

SPACE COMMERCIALIZATION
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-006] 03 p0508 N93-13151
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop 03 p0761 N93-13977
Lunar surface mining for automated acquisition of helium-3: Methods, processes, and equipment 03 p0766 N93-14007
A basis of settlement: Economic foundations of permanent pioneer communities 03 p0741 N93-14019
A study for protein crystallization in microgravity
[REPT-3211-ER-02-VOL-1] 05 p1131 N93-16547
Properties and uses of concrete, appendix B 05 p1128 N93-16904
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Public space launch acquisition: A comparative case study
[AD-A258141] 06 p1455 N93-18083
Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Industrial aerospace activities 06 p1404 N93-19007
Expendable launch vehicles technology: A report to the US Senate and the US House of Representatives
[NASA-TM-108141] 06 p1456 N93-19375
Space station user development program: Future prospects 07 p1802 N93-21072
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc. 07 p2093 N93-21677
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
NASA's commercial research plans and opportunities 08 p2183 N93-22612
Office of Commercial Programs' research activities for Space Station Freedom utilization 08 p2191 N93-22647
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom 08 p2192 N93-22649
Consortium for materials development in space interaction with Space Station Freedom 08 p2192 N93-22650
Integration and use of Microgravity Research Facility: Lessons learned by the crystals by vapor transport experiment and Space Experiments Facility programs 08 p2193 N93-22652
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Outlook for the U.S. Space Program 08 p2153 N93-23159
Insurance cover for space ventures 08 p2344 N93-23510
The SPOT system development program: SPOT AVAL 08 p2360 N93-23769
The Marinfosec study: Use of ERS-1 for cruise and sailing boats 08 p2276 N93-23810
United Kingdom Earth observation programme 08 p2373 N93-23848
The contribution of the Italian Space Agency to the establishment of space services for the changing Earth 08 p2373 N93-23849
Conditions of access to Earth observation data: Legal aspects 08 p2373 N93-23853
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
Definition of a European promotion concept 08 p2162 N93-24381
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Space research in Sweden, 1990-1991 09 p2888 N93-25887
Space business indicators 09 p2886 N93-26158
Energy for lunar resource exploitation 10 p3212 N93-27961
US space commerce, 1991 11 p3625 N93-30695
Sandia National Laboratories 11 p3626 N93-30702
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644

SPACE COMMUNICATION
NT LUNAR COMMUNICATION
NT SATELLITE COMMUNICATION
NT SPACECRAFT COMMUNICATION
Chinese Space Science and Technology (selected articles)
[AD-A254099] 01 p0069 N93-10701
Implementation of educational broadcasting in space, phase 1
[CTN-93-60623] 05 p1332 N93-16735
Aerospace Sponsored Research
[ATR-91(8498)-1] 06 p1747 N93-18459
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites 06 p1507 N93-18921
The Telecommunications and Data Acquisition Report
[NASA-CR-191228] 06 p1511 N93-19413
Communications system evolutionary scenarios for Martian SEI support
[NASA-CR-192206] 07 p1879 N93-19962
The Goldstone solar system radar: A science instrument for planetary research
[NASA-CR-192793] 08 p2261 N93-22478
The Telecommunications and Data Acquisition Report
[NASA-CR-192887] 09 p2671 N93-24659
Management of space networks 09 p2672 N93-24671
Hydrogen masers for space 09 p2716 N93-24980
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983
Deep Space Network information system architecture study 09 p2679 N93-26126
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview 09 p2680 N93-26128
The 1992 United Nations Workshop on Space Communication for Development: Proceedings 10 p3022 N93-26640
Satellite communications service: Leased or owned transponders on domestic, regional, or global satellite systems? 10 p3024 N93-26654
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Considerations for lunar colony communications systems 10 p3030 N93-27983
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195
The Telecommunications and Data Acquisition Report
[NASA-CR-193144] 11 p3384 N93-29586

SPACE COOLING (BUILDINGS)
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049

SPACE DEBRIS
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
Contributions to CD Space Committee, 1991: Summary and analysis
[PB92-195312] 02 p0219 N93-11216
Compositional analysis and classification of projectile residues in LDEF impact craters
[NASA-TM-104750] 02 p0488 N93-11374
Dynamics of space debris 02 p0219 N93-11904
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Characterisation and dynamic modelling of the near-earth space particulate environment 04 p1019 N93-14637
Hypervelocity impact simulations of Whipple shields 04 p0821 N93-15604
Trade-offs in mass and effectiveness in satellite shielding: A design approach
[AD-A256693] 05 p1087 N93-16112
Hypervelocity impact effects on solar cells
[NASA-CR-191802] 05 p1196 N93-16680
A methodology for selective removal of orbital debris
[NASA-CR-192052] 06 p1459 N93-18154
Predicting multi-wall structural response to hypervelocity impact using the hull code
[NASA-CR-4486] 06 p1461 N93-18406
Hypervelocity impact effects on solar cells
[NASA-CR-192444] 06 p1571 N93-18601
Debris about asteroids: Where and how much? 06 p1703 N93-19136
The geocentric particulate distribution: Cometary, asteroidal, or space debris? 06 p1713 N93-19209
Research on advanced spacecraft 07 p1789 N93-20411
Satellite situation report, volume 32, no. 4
[NASA-TM-108203] 07 p1824 N93-20999
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
Hypervelocity impact tests and simulations of single Whipple bumper shield concepts at 10 km/s
[DE93-003999] 07 p1917 N93-21841
Whipple bumper shield results and CTH simulations at velocities in excess of 10 km/s
[DE93-006932] 08 p2182 N93-22583
Repeatability and uncertainty analyses of NASA/MSFC light gas gun test data
[NASA-CR-192496] 08 p2325 N93-23012
Impact experiments into multiple-mesh targets: Concept development of a lightweight collisional bumper
[NASA-TM-104764] 08 p2194 N93-23247
The space debris environment for remote sensing satellites 08 p2199 N93-23809
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
Approaches to dealing with meteoroid and orbital debris protection on the Space Station 10 p2971 N93-27838
Debris observation and arresting experiment satellite 10 p2949 N93-28023
Conceptual study of debris observation and arresting experiment satellite 10 p2950 N93-28024
Orbital Debris Environment Monitor (ODEM) 11 p3267 N93-28735
Proposal for a universal particle detector experiment 11 p3288 N93-28795
Report of the Meteoroid and Debris Special Investigation Group 11 p3638 N93-29355
Micrometeoroids and debris on LDEF 11 p3638 N93-29356
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets 11 p3638 N93-29358
Long Duration Exposure Facility (LDEF) experiment M0003 meteoroid and debris survey 11 p3638 N93-29361
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF 11 p3283 N93-29362
Characteristics of hypervelocity impact craters on LDEF experiment S1003 and implications of small particle impacts on reflective surfaces 11 p3283 N93-29363
Hypervelocity impact facility for simulating materials exposure to impact by space debris 11 p3283 N93-29365
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Interplanetary meteoroid debris in LDEF metal craters 11 p3638 N93-29372
Origin of orbital debris impacts on LDEF's trailing surfaces 11 p3283 N93-29373
Damage areas on selected LDEF aluminum surfaces 11 p3283 N93-29374
LDEF data: Comparisons with existing models 11 p3283 N93-29375
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379

An LDEF 2 dust instrument for discrimination between orbital debris and natural particles in near-Earth space
11 p3286 N93-29707
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507
An on-line expert system for diagnosing environmentally induced spacecraft anomalies using CLIPS
12 p3794 N93-32142

SPACE ENVIRONMENT
U AEROSPACE ENVIRONMENTS

SPACE ENVIRONMENT SIMULATION
NT NEUTRAL BUOYANCY SIMULATION
NT WEIGHTLESSNESS SIMULATION
KC-135 materials handling robotics
[NASA-CR-184430] 02 p0328 N93-11992
The Seventeenth Space Simulation Conference. Terrestrial Test for Space Success
[NASA-CP-3181] 04 p0819 N93-15593
Manned testing in a simulated space environment
04 p0820 N93-15602
Hypervelocity impact simulations of Whipple shields
04 p0821 N93-15604
A new approach for data acquisition at the JPL space simulators 04 p0821 N93-15606
Application of programmable logic controllers to space simulation 04 p0821 N93-15608
INTESPACE's new thermal-vacuum test facility: SIMMER 04 p0814 N93-15613
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Possible biomedical applications and limitations of a variable-force centrifuge on the lunar surface: A research tool and an enabling resource 05 p1224 N93-17458
Design of a radiator shade for testing in a simulated lunar environment
[NASA-CR-192080] 05 p1229 N93-17710
Chemical and physical effects in the bulk of cometary analogs 06 p1716 N93-19234
Recommended practices for in-space and ground laboratory. Atomic oxygen exposure and analysis
07 p1848 N93-20814
Space station protective coating development
07 p1848 N93-20816
LEO resistant thermal control materials and dry lubricants for the mobile servicing system
07 p1848 N93-20818
Multipurpose protective coatings for spacecraft applications 07 p1849 N93-20822
Contribution to the study of composite material behavior in space environment
[REPT-921-430-112] 07 p1833 N93-20869
Apparatus for simulating an exoatmospheric structure
[NASA-CASE-MSC-21975-1] 08 p2169 N93-22015
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
Ionospheric plasma flow about a system of electrically biased flat plates
[NASA-CR-191119] 08 p2194 N93-23131
Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752
Numerical and experimental analyses of large composite skeletal satellite systems 09 p2616 N93-25463
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201
Laboratory simulation of field-aligned currents
[NASA-CR-193091] 11 p3476 N93-28538
Lunar regolith penetrators and cutters
11 p3276 N93-29117
Radiation model predictions and validation using LDEF satellite data 11 p3573 N93-29641
Future directions for LDEF ionizing radiation modeling and assessments 11 p3573 N93-29642
Mathematical simulation of the induced (gamma)-radiation in structural materials of spaceships. Time dependence
[DE93-605312] 11 p3281 N93-31024
Mathematical simulation of the induced gamma-radiation in structural materials of spaceships
[DE93-606751] 12 p3688 N93-31076
Telescience pilot experiment results using telePODI
[NLR-TP-90326-U] 12 p3823 N93-31118

SPACE ERECTABLE STRUCTURES
NT BEACON SATELLITES
A new deployable mast 01 p0014 N93-10511
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
Analysis and test methods for the evaluation of deployment shock 05 p1082 N93-15760
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
Dynamic deployment analysis of a mesh antenna reflector 05 p1083 N93-15770
Dynamic of large reflectors 05 p1084 N93-15773
SHARC: Space Habitat, Assembly and Repair Center
[NASA-CR-192031] 06 p1606 N93-18153
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development 06 p1466 N93-18844
Pre-integrated truss space station and method of assembly
[NASA-CASE-MSC-22015-1] 07 p1823 N93-20042
Robot-friendly connector — space truss structures
[NASA-CASE-MSC-21864-1] 07 p1914 N93-20117
Research on large structure assembly technology: Research on deployable assembly structure
07 p1795 N93-20444
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience
07 p1816 N93-21429
Automated assembly of large space structures
10 p2971 N93-27842
A preliminary structural analysis of space-based inflatable tubular frame structures
10 p3086 N93-27849
Vibration control of flexible space structures in noisy environment 11 p3285 N93-30235

SPACE EXPLORATION
A comparison of multimegawatt electric propulsion options for Mars missions 01 p0023 N93-10043
Aerospace medicine and biology: A continuing bibliography with indexes (supplement 366)
[NASA-SP-7011(366)] 01 p0130 N93-10079
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
The search for life's origins: Progress and future directions in planetary biology and chemical evolution
[NASA-CR-190929] 02 p0487 N93-11603
The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP)
[NASA-CR-190995] 02 p0219 N93-11754
Remote systems development
02 p0330 N93-11971
Effect of inert propellant injection on Mars ascent vehicle performance
[NASA-CR-189238] 02 p0226 N93-12152
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
Solar System Exploration Division Strategic Plan, volume 1. Executive summary and overview
[NASA-TM-107843] 03 p0513 N93-13265
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Assessment of programs in space biology and medicine
[NASA-CR-190930] 03 p0672 N93-13327
International Asteroid Mission
03 p0513 N93-13548
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM
03 p0514 N93-13551
Chairmanship of the Neptune/Pluto Outer Planets Science Working Group
[NASA-CR-191288] 03 p0759 N93-13568
Lunar interferometric astronomy: Some basic questions 03 p0746 N93-13592
Lunar optical telescopes: An historical perspective
03 p0746 N93-13593
Horizon 2000: Seven years on
[ESA-BR-37-B] 03 p0516 N93-13855
Creating a foundation for a synergistic approach to program management 03 p0732 N93-14017
The Canadian Solar Sail Project
04 p0804 N93-14921
Human exploration: Moon/Mars mission
04 p0805 N93-14922
Applications of the mobile servicing system to the space exploration initiative 04 p0809 N93-14946
Directory of research projects: Planetary geology and geophysics program
[NASA-TM-4428] 04 p0864 N93-15638
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
Power systems for space exploration
[RAND-P-7768] 05 p1091 N93-16754
NASA/NSF Antarctic Science Working Group
05 p1222 N93-16802
NASA in the 21st century: A vision of greatness
05 p1073 N93-16858
The future of management: The NASA paradigm
05 p1350 N93-16859
Strategies for broadening public involvement in space developments 05 p1349 N93-16861
Space migrations: Anthropology and the humanization of space 05 p1229 N93-16862
The influence of culture on space developments
05 p1378 N93-16863
Future space development scenarios: Environmental considerations 05 p1073 N93-16864
Summer study postscript: A 1986 perspective
05 p1350 N93-16868
Space resources. Volume 1: Scenarios
[NASA-SP-509-VOL-1] 05 p1379 N93-16870
Baseline program 05 p1379 N93-16871
Alternative scenarios utilizing nonterrestrial resources
05 p1379 N93-16872
Impacts of sociopolitical conditions
05 p1379 N93-16873
Space resources. Volume 3: Materials
[NASA-SP-509-VOL-3] 05 p1379 N93-16875
Tethers 05 p1089 N93-16915
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
National Aeronautics and Space Administration
05 p1358 N93-17090
Joint Workshop on New Technologies for Lunar Resource Assessment
[NASA-CR-191918] 05 p1385 N93-17233
Updating and expanding the library of materials on NASA Spacelink electronic information system
05 p1340 N93-17282
Directions for future Earth-to-orbit vehicles
05 p1076 N93-17309
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Asteroid exploration and utilization: The Hawking explorer
[NASA-CR-192027] 06 p1699 N93-18164
Space education: Deriving benefits from industrial consortia
[NASA-TM-108593] 06 p1679 N93-18358
Exobiology in Solar System Exploration
[NASA-SP-512] 06 p1590 N93-18545
Overview: Exobiology in solar system exploration
06 p1591 N93-18546
MRSR: Rationale for a Mars Rover/Sample Return mission 06 p1593 N93-18560
Future NASA solar system exploration activities: A framework for international cooperation
06 p1453 N93-18562

Teaching, learning, and planetary exploration
[NASA-CR-192000] 06 p1734 N93-18569
An integrated mission planning approach for the Space Exploration initiative
[DE93-001512] 06 p1473 N93-18588
Near term NEP missions and systems 06 p1661 N93-18637
Space and surface power for the space exploration initiative: Results from project outreach
[NASA-CR-191254] 06 p1474 N93-18848
Extreme Ultraviolet Explorer. Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
Automated detection of asteroids in real-time with the Spacewatch telescope 06 p1698 N93-19239
A logistics and potential hazard study of propellant systems for a Saturn 5 derived heavy lift (three-stage core) launch vehicle 06 p1475 N93-19410
Communications system evolutionary scenarios for Martian SEI support
[NASA-CR-192206] 07 p1879 N93-19962
Research on lunar and planet development and utilization 07 p1789 N93-20412
Lecture materials for the CTOS/MCS introductory course
[NASA-CR-192734] 07 p2048 N93-21308
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
Nuclear concepts/propulsion 08 p2174 N93-22093
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
Autonomous prealignment of a docking mechanism 08 p2137 N93-22238
IMP: A performance code 08 p2139 N93-22245
Transportation systems analyses, volume 2
[NASA-CR-192486] 08 p2177 N93-22386
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Transportation systems analyses. Volume 1: Executive summary
[NASA-CR-192485] 08 p2179 N93-23008
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Geochemical mapping of the lunar surface using laser-induced ion mass spectrometry from landers and rovers
[DE93-003849] 08 p2554 N93-23292
Flight project data book, 1991
[NASA-TM-108656] 08 p2154 N93-23385
Space research as a tool to acquaint children and young people with science and technology 08 p2370 N93-23831
Horizon 2000 and European national programmes 08 p2534 N93-23885
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890
Cassini/Huygens: A mission to Saturn and Titan 08 p2539 N93-23918
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
Summary and recommendations on nuclear electric propulsion technology for the space exploration initiative
[NASA-TM-105707] 09 p2622 N93-24744
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
Space transfer vehicle concepts and requirements study. Volume 1: Executive summary
[NASA-CR-192524] 09 p2610 N93-25479
NASA Center for Intelligent Robotic Systems for Space Exploration
[NASA-CR-193208] 09 p2826 N93-25986
Evaluating science return in space exploration initiative architectures
[NASA-TP-3339] 09 p2897 N93-26094
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative
[NASA-TM-105705] 09 p2632 N93-26200
Electrical and Chemical Interactions at Mars Workshop. Part 2: Appendix
[NASA-CP-10093-PT-2] 09 p2897 N93-26392
Representative systems for space exploration 09 p2897 N93-26395
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Modeling and analysis tools 09 p2897 N93-26397
Mars exploration planning 09 p2898 N93-26399
Mars exploration program 10 p2976 N93-26909
Nuclear electric propulsion systems overview 10 p2955 N93-26970
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Scoping calculations of power sources for NEP 10 p2982 N93-26973
NEP processing, operations, and disposal 10 p2982 N93-26975
The 20 kWe NEP flight system 10 p2983 N93-26983
Innovative electric propulsion thruster modeling 10 p2984 N93-26989
NASA Discovery Program Workshop
[NASA-TM-108233] 10 p2948 N93-27290
The challenges and benefits of lunar exploration 10 p3211 N93-27957
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
AI in space: Past, present, and possible futures 10 p3111 N93-27988
Mars exploration mission 10 p2953 N93-28045
ROSETTA: The ESA sample return mission 10 p2953 N93-28049
Advanced collapsible tank for liquid containment
[NASA-CR-188247] 11 p3353 N93-28698
Workshop on Advanced Technologies for Planetary Instruments, part 1
[NASA-CR-193015] 11 p3639 N93-28764
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
Project WISH: The Emerald City 11 p3232 N93-29744
Sandia National Laboratories 11 p3626 N93-30702
Exploration technology prioritization 11 p3629 N93-30726
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034
Thulium heat sources for space power application
[DE93-002249] 12 p3691 N93-31168
Searching for exoplanets 12 p3846 N93-31760
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097

SPACE FLIGHT
NT APOLLO 17 FLIGHT
NT INTERPLANETARY FLIGHT
NT LONG DURATION SPACE FLIGHT
NT LUNAR FLIGHT
NT MANNED REENTRY
NT MANNED SPACE FLIGHT
NT RETURN TO EARTH SPACE FLIGHT
NT SPACE SHUTTLE MISSION 51-L
NT SPACE SHUTTLE MISSIONS
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Human factors dealing with the International Asteroid Mission 03 p0515 N93-13559
Long-duration isolation and confinement: Human factors issues and research requirements 05 p1223 N93-16808
The 1992 Research/Technology report
[NASA-TM-105924] 07 p1759 N93-20902
Problem solving for long term, global scenarios of space traffic
[ILR-MITT-265(1991)] 07 p1821 N93-20906
Summaries of the 1991 publications of DLR research reports and DLR communications
[ETN-93-92588] 07 p2103 N93-21022
A modular, programmable measurement system for physiological and spaceflight applications 08 p2305 N93-22201
Applicability of relative GPS to automated rendezvous between the space shuttle and space station 08 p2138 N93-22241
Space research as a tool to acquaint children and young people with science and technology 08 p2370 N93-23831
Physiological experiments within the project AustroMir 08 p2157 N93-24354
Flight experiences on board Space Station Mir 08 p2157 N93-24355
CogiMir: A study of cognitive functions in microgravity 08 p2159 N93-24364
Monitoring of cardiovascular parameters during the AustroMir space flight 08 p2160 N93-24367
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
Armstrong Laboratory space visual function tester program 11 p3267 N93-28739

SPACE FLIGHT FEEDING
A proposal to demonstrate production of salad crops in the Space Station Mockup Facility with particular attention to space, energy, and labor constraints
[NASA-CR-192815] 08 p2419 N93-23169

SPACE FLIGHT STRESS
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
Space flight and immune system 02 p0376 N93-11284
Cognitive and affective components of mental workload: Understanding the effects of each on human decision making behavior 05 p1226 N93-16783

SPACE GLIDERS
U LIFTING REENTRY VEHICLES

SPACE HABITATS
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Concrete structure construction on the Moon 03 p0559 N93-13989
Moon Park: A research and educational facility 03 p0519 N93-14015
Space resources. Volume 4: Social concerns
[NASA-SP-509-VOL-4] 05 p1377 N93-16857
The influence of culture on space developments 05 p1378 N93-16863
Life support and self-sufficiency in space communities 05 p1229 N93-16866
Human safety in the lunar environment 05 p1229 N93-16867
Inflatable habitation for the lunar base 05 p1229 N93-17442
Prefabricated foldable lunar base modular systems for habitats, offices, and laboratories 05 p1229 N93-17444
Lunar subsurface architecture enhanced by artificial biosphere concepts 05 p1230 N93-17448
Automation of closed environments in space for human comfort and safety
[NASA-CR-192045] 06 p1604 N93-17971
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192030] 06 p1605 N93-18018
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
SHARC: Space Habitat, Assembly and Repair Center
[NASA-CR-192031] 06 p1606 N93-18153
Pax permanent Martian base: Space architecture for the first human habitation on Mars, volume 5
[NASA-CR-192042] 06 p1606 N93-18156
Space transfer concepts and analysis for exploration missions
[NASA-CR-192482] 08 p2178 N93-22705
First Lunar Outpost support study
[NASA-CR-192843] 08 p2153 N93-23054
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
The use of automation and robotic systems to establish and maintain lunar base operations 10 p3111 N93-27982
Conceptual study on manned lunar surface site 10 p2950 N93-28029
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover 10 p2951 N93-28032
Lunar surface experiment system 10 p2951 N93-28034
Selenia: A habitability study for the development of a third generation lunar base 11 p3233 N93-29748

SPACE HEATING (BUILDINGS)
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049

SPACE INDUSTRIALIZATION
NT SPACE MANUFACTURING
NT SPACE PROCESSING

First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977
Space law and space resources
05 p1358 N93-16860
Summer study postscript: A 1986 perspective
05 p1350 N93-16868
Lunar exploration for resource utilization
05 p1380 N93-16877
Utilization of space resources in the space transportation system
05 p1384 N93-16912
Space education: Deriving benefits from industrial consortia
[NASA-TM-108593] 06 p1679 N93-18358
The future of the US Space Industrial Base
07 p1789 N93-20044
Energy for lunar resource exploitation
10 p3212 N93-27961
Future space activities: How can a baby having grown up too much in a cradle be dealt with?
10 p2948 N93-28015

SPACE INFRARED TELESCOPE FACILITY
National Aeronautics and Space Administration: Statement of the Space Science Working Group
07 p2094 N93-21682
Telescience Testbed Program: A study of software for SIRTF instrument control
[NASA-CR-192764] 08 p2442 N93-24476
Development of far infrared detection techniques
[NASA-CR-193153] 10 p3141 N93-27225
A broadband THz receiver for low background space applications
10 p3020 N93-27782

SPACE LABORATORIES
NT LONG DURATION EXPOSURE FACILITY
NT MANNED ORBITAL LABORATORIES
NT SKYLAB 1
NT SPACELAB
Development of the Aquatic Research Facility
07 p1807 N93-21100
CSAR-1: The first Canadian microgravity sounding rocket flight
07 p1807 N93-21103
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

SPACE LAW
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-006] 03 p0508 N93-13151
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304
Legal and political issues raised by the International Asteroid Mission
03 p0514 N93-13555
The province and heritage of mankind reconsidered: A new beginning
03 p0681 N93-14018
Space law and space resources
05 p1358 N93-16860
National Aeronautics and Space Administration
05 p1358 N93-17090
A post cold war assessment of US space policy
05 p1073 N93-17218
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
Post Cold War assessment of US space policy: A task group report
[PB93-139962] 08 p2532 N93-22900
Orbiting space debris: Dangers, measurement and mitigation
[AD-A260533] 08 p2196 N93-24279
Future of the US space industrial base: A task group report
[PB93-139954] 08 p2522 N93-24585

SPACE LOGISTICS
Habitat automation
02 p0391 N93-11976
Automated resupply of consumables: Enhancement of space commercialization opportunities
02 p0403 N93-11980
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation
[NASA-CR-192525] 09 p2611 N93-25510
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Dynamics of on-orbit construction process
09 p2669 N93-26406
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Space Station fluid management logistics
10 p2967 N93-27799
An engineer/constructor's view of lunar resource development
10 p3211 N93-27960
Earth to space power beaming: A new NASA technology initiative
10 p2988 N93-27964
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063

SPACE MAINTENANCE
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair
02 p0400 N93-11965
Decision rules for spaceborne operations planning
02 p0403 N93-11978
Automatic system for installation and replacement of Space Station components
[NASA-CASE-LEW-14906-1] 02 p0329 N93-12203
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads
03 p0509 N93-13165
A berthing and fastening strategy for orbital replacement units
08 p2151 N93-22317

SPACE MANUFACTURING
First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977
Lunar resource recovery: A definition of requirements
03 p0761 N93-13978
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development
05 p1087 N93-16539
Application of manufactured products
05 p1383 N93-16902
Properties and uses of concrete, appendix B
05 p1128 N93-16904
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Research on space component and material manufacturing experiments utilizing microgravity environment
07 p1791 N93-20422
Report on microgravity experiment by TR-1A rocket
[NASDA-EG-920021] 07 p1875 N93-21950
Development and mechanical properties of construction materials from lunar simulant
10 p3021 N93-26687
An integrated database with system optimization and design features
10 p3168 N93-26697
Energy for lunar resource exploitation
10 p3212 N93-27961
Space construction activities
[NASA-CR-192690] 11 p3274 N93-29108

SPACE MECHANICS
NT ASTRODYNAMICS
NT CELESTIAL MECHANICS
NT KEPLER LAWS
NT ORBITAL MECHANICS
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
On the invariant measure for the nonlinear Schroedinger equation
[DE92-644672] 11 p3551 N93-30912

SPACE MEDICINE
U AEROSPACE MEDICINE

SPACE MISSIONS
NT ASTEROID MISSIONS
NT CASSINI MISSION
NT CLUSTER MISSION
NT COMET RENDEZVOUS ASTEROID FLYBY MISSION
NT FLYBY MISSIONS
NT GIOTTO MISSION
NT MANNED MARS MISSIONS
NT MARS SAMPLE RETURN MISSIONS
NT SOHO MISSION
NT SOLAR MAXIMUM MISSION
NT ULYSSES MISSION
The early Earth Observing System reference handbook: Earth Science and Applications Division missions, 1990-1997
[NASA-TM-107963] 02 p0343 N93-11663
The development and technology transfer of software engineering technology at NASA. Johnson Space Center
02 p0396 N93-11943
Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Solar System Exploration Division Strategic Plan, volume 1. Executive summary and overview
[NASA-TM-107843] 03 p0513 N93-13265
Small planetary mission plan: Report to Congress
[NASA-TM-107809] 03 p0513 N93-13266
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
Introduction to the International Asteroid Mission
03 p0513 N93-13549
Engineering verification of the biomass production chamber
03 p0680 N93-13996
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
STS-49: Space shuttle mission report
[NASA-TM-108104] 04 p0815 N93-14736
Nutrition
05 p1222 N93-16805
Alternative scenarios utilizing nonterrestrial resources
05 p1379 N93-16872
Space resources. Volume 2: Energy, power, and transport
[NASA-SP-509-VOL-2] 05 p1383 N93-16905
The Prospector mission
[DE93-000656] 05 p1385 N93-17194
Conceptual analysis of a lunar base transportation system
05 p1392 N93-17415
Enabling lunar and space missions by laser power transmission
05 p1393 N93-17423
A lunar polar expedition
05 p1395 N93-17433
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Comet nucleus and asteroid sample return missions
[NASA-CR-192055] 06 p1699 N93-18171
Exobiology in Solar System Exploration
[NASA-SP-512] 06 p1590 N93-18545
Future NASA solar system exploration activities: A framework for international cooperation
06 p1453 N93-18562
Transportation and platforms perspective
06 p1453 N93-18636
Near term NEP missions and systems
06 p1661 N93-18637
Iterative refinement scheduling
06 p1635 N93-18669
Results of the Advanced Space Structures Technology Research Experiments (ASTREX) hardware and control development
06 p1466 N93-18844
The use of subcarriers in future DSN missions
06 p1507 N93-18915
Low cost missions to explore the diversity of near Earth objects
06 p1453 N93-19124
Chemical characterization of some aqueous leachates from crop residues in 'CELSS'
06 p1594 N93-19399
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
NASA issues
[GAO/OCG-93-27TR] 07 p2085 N93-20904
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Development of interactive multimedia applications
08 p2530 N93-22171
On-orbit operational scenarios, tools and techniques
08 p2143 N93-22271
Employing lighting techniques during on-orbit operations
08 p2151 N93-22319
A reactor-pumped laser as primary power for nuclear rocket engines
[DE93-005342] 08 p2203 N93-22501
Space technology research plans
08 p2184 N93-22613
Spacecraft materials and coatings experiments
08 p2189 N93-22637
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results
[NASA-CR-192294] 08 p2180 N93-22683
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
International cooperation and commitments in the ISY and beyond
08 p2154 N93-23164
COSPAR/SAFISY panel of experts on space science scientific program for the ISY
08 p2366 N93-23804
User support for the Spacelab mission D-2
08 p2155 N93-24340
Columbus precursor Spacelab missions
08 p2155 N93-24341
Payload operations for precursor mission E-1
08 p2155 N93-24342

The Eureca concept and missions
08 p2156 N93-24343
Selection of astronauts for European space missions
08 p2156 N93-24345
French Mir missions 08 p2156 N93-24348
The effect of missions and payload performance on the configuration of an orbital injection system design
08 p2156 N93-24349
The joint Austro-Soviet space project Austromir-91
08 p2157 N93-24353
User support for the Columbus precursor missions
08 p2162 N93-24380
Systems engineering considerations for operational support systems 09 p2666 N93-24689
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
NASA Microgravity Science and Applications Program [NASA-TM-108775] 09 p2663 N93-25194
An alternate approach to space missions involving a long tether 09 p2616 N93-25470
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation [NASA-CR-192525] 09 p2611 N93-25510
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Planetary data analysis and display system: A version of PC-McIDAS 09 p2880 N93-25806
STS-39 Space Shuttle mission report [NASA-CR-193063] 09 p2611 N93-25955
STS-37 Space Shuttle mission report [NASA-CR-193062] 09 p2612 N93-25956
STS-43 Space Shuttle mission report [NASA-CR-193064] 09 p2612 N93-25957
STS-40 Space Shuttle mission report [NASA-TM-108737] 09 p2612 N93-25958
STS-45 Space Shuttle mission report [NASA-CR-193054] 09 p2612 N93-25959
STS-47 Space Shuttle mission report [NASA-CR-193056] 09 p2612 N93-25960
An architecture for object-oriented intelligent control of power systems in space 09 p2823 N93-25968
STS-44 Space Shuttle mission report [NASA-TM-108735] 09 p2612 N93-25988
STS-42 Space Shuttle mission report [NASA-CR-193059] 09 p2613 N93-25989
STS-48 Space Shuttle mission report [NASA-CR-193060] 09 p2613 N93-25990
STS-46 Space Shuttle mission report [NASA-CR-193058] 09 p2613 N93-25991
STS-50 Space Shuttle mission report [NASA-CR-193057] 09 p2613 N93-25992
STS-52 Space Shuttle mission report [NASA-CR-193061] 09 p2613 N93-25993
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model
09 p2794 N93-26069
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support
09 p2815 N93-26075
Nuclear safety policy working group recommendations on nuclear propulsion safety for the space exploration initiative [NASA-TM-105705] 09 p2632 N93-26200
Representative systems for space exploration
09 p2897 N93-26395
Mars exploration planning 09 p2898 N93-26399
Mars exploration program 10 p2976 N93-26909
Solar System Exploration Division: Requirements for space nuclear propulsion 10 p2976 N93-26910
Nuclear electric propulsion systems overview
10 p2955 N93-26970
The 20 kWe NEP system studies
10 p2982 N93-26971
Conceptual definition of a 50-100 kWe NEP system for planetary science missions 10 p2982 N93-26972
Scoping calculations of power sources for NEP
10 p2982 N93-26973
European space programme
10 p2920 N93-27174
NASA Discovery Program Workshop [NASA-TM-108233] 10 p2948 N93-27290
Options for a lunar base surface architecture
10 p3214 N93-27974
Small Stirling dynamic isotope power system for robotic space missions [NASA-TM-105785] 11 p3287 N93-28686
The APX spectrometer for Martian missions
11 p3434 N93-28776
Detection of other planetary systems using photometry 11 p3632 N93-28791
The MESUR mission 11 p3649 N93-28816
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502
Technology transfer and space science missions
11 p3626 N93-30705
Technology transfer within the government
11 p3627 N93-30709
Technology transfer within the government
11 p3627 N93-30711
Objectives of RESIK solar concave soft x ray spectrometer for Coronas-F mission
12 p3879 N93-31418
Design for a complete SOHO mission under the ISTP
12 p3880 N93-31424
Coordination of the solar terrestrial science by the IACG: Inter-Agency Consultative Group for Space Science
12 p3852 N93-31675
Protocols for distributive scheduling
12 p3835 N93-32129
Scheduling with partial orders and a causal model
12 p3835 N93-32130

SPACE NAVIGATION
NT INTERPLANETARY NAVIGATION
A plan for spacecraft automated rendezvous [NASA-TM-108385] 04 p0813 N93-15392
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
Research on combined HOPE navigation technology
07 p1792 N93-20428
Research on highly functional guidance and control technology 07 p1795 N93-20445
Research on GPS utilization in space
07 p1780 N93-20453
Current and planned use of the Navstar Global Positioning System by NASA [NASA-TM-108190] 07 p1779 N93-21190
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station
07 p1780 N93-21413
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Results of prototype software development for automation of shuttle proximity operations
07 p1815 N93-21425
Autonomous docking ground demonstration
07 p1816 N93-21430
An overview of autonomous rendezvous and docking system technology development
07 p1816 N93-21431
Applicability of relative GPS to automated rendezvous between the space shuttle and space station
08 p2138 N93-22241
Autonomous rendezvous and capture system design
08 p2138 N93-22244
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
Space Shuttle Program: Automatic rendezvous, proximity operations, and capture (category 3)
08 p2143 N93-22269
An autonomous rendezvous and docking system using cruise missile technologies 08 p2143 N93-22272
Optical correlators for automated rendezvous and capture 08 p2143 N93-22273
Automatic rendezvous and capture system development in a manned environment 08 p2143 N93-22274
Performance capabilities of a Phase One Automatic Rendezvous and Capture System
08 p2144 N93-22275
Relative navigation requirements for automatic rendezvous and capture systems
08 p2144 N93-22276
Automated rendezvous and capture system
08 p2144 N93-22277
Onboard navigation rendezvous expert system
08 p2144 N93-22280
Autonomous docking ground demonstration (category 3) 08 p2145 N93-22282
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
Frequency and Time Forum [ESA-SP-340] 09 p2831 N93-24978
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
Geometric distortion analysis of a wide-field astrograph 09 p2621 N93-26111
Clementine sensor processing system
11 p3285 N93-28778
Reference equations of motion for automatic rendezvous and capture [NASA-CR-185676] 11 p3269 N93-29652
Attitude determination using GPS: Development of an all solid-state guidance, navigation, and control sensor for air and space vehicles based on the global positioning system 11 p3246 N93-30605
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103

SPACE OBSERVATIONS (FROM EARTH)
Successes of and prospects for ground-based interferometry 01 p0177 N93-10940
Ground-based high angular resolution observation of the Sun by interferometry in the visible
01 p0177 N93-10941
The CHARON program 01 p0177 N93-10942
Ground/space co-operation for interferometry
01 p0178 N93-10946
Rotational aperture synthesis: A proposal for ground-based observations 01 p0178 N93-10947
Asteroid search program 03 p0514 N93-13550
Groundbased near-IR observations of the surface of Venus 04 p1035 N93-14346
An application of artificial intelligence to automatic telescopes [NASA-TM-108115] 04 p0965 N93-15291
Ground-based observation of near-Earth asteroids
05 p1360 N93-16879
Lunar lava tube sensing 05 p1391 N93-17270
Activities report of the Institute of Space Physics [ETN-93-93360] 06 p1665 N93-17947
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
The eleven observations of comets between 687 AD and 1114 AD recorded in the Anglo Saxon Chronicle
06 p1698 N93-19205
The recovery of asteroids after two observations
06 p1698 N93-19206
Ground-based observations of 951 Gaspra: CCD lightcurves and spectrophotometry with the Galileo filters
06 p1698 N93-19212
The importance of guiding on the motion of a comet in astrometric observations 06 p1698 N93-19219
The flux of small asteroids near the Earth
06 p1715 N93-19225
Visual data of minor meteor showers limits of the method 06 p1715 N93-19229
The unusual lightcurve of 1990 TR
06 p1720 N93-19265
Near-Earth asteroids: Observer alert network and physical observations 10 p3168 N93-26699
Debris observation and arresting experiment satellite
10 p2949 N93-28023
Conceptual study of debris observation and arresting experiment satellite 10 p2950 N93-28024
Advanced research in sky surveillance: A search for low-luminosity objects [AD-A264832] 11 p3631 N93-30629
Ground-based coronagraphic observations of solar streamers 12 p3870 N93-31358
Radio observations of coronal streamers
12 p3870 N93-31359
The solar corona structures as inferred from July 11, 1991 total solar eclipse observation
12 p3872 N93-31372
Targets for Space-Based Interferometry [ESA-SP-354] 12 p3844 N93-31750
Prospects for Earth-based interferometry
12 p3845 N93-31755
Comparative aspects of Earth- and space-based interferometry 12 p3845 N93-31756
Searching for exoplanets 12 p3846 N93-31760
Prospects for imaging and astrometry on the ground and implications for space interferometry
12 p3848 N93-31776
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781
Exploring the limits of adaptive wavefront compensation for ground based astronomical interferometers
12 p3849 N93-31782

SPACE PERCEPTION
Eye movements and visual information processing [AD-A250198] 01 p0132 N93-10278
Psychophysical analyses of perceptual representations [AD-A255432] 04 p0936 N93-14510
Apparent opacity affects perception of structure from motion [AD-A260099] 08 p2488 N93-24054
Neural basis of motion perception [AD-A261452] 09 p2798 N93-26349
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1
11 p3502 N93-28857
The cube rotation test: A computer generated process for acquisition of mental spatial manipulator capability
12 p3776 N93-31237

SPACE PHOTOGRAPHY
U SPACEBORNE PHOTOGRAPHY

SPACE PLASMAS
NT SOLAR WIND
NT STELLAR WINDS

Simulation study of interactions of Space Shuttle-generated electron beams with ambient plasmas
[NASA-CR-190843] 01 p0159 N93-10066
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800
Studies of interactive plasma processes in the polar cusp
[NASA-CR-190892] 02 p0357 N93-10964
Plasma properties
[DE92-018635] 02 p0455 N93-12188
Plasma properties
[DE92-019962] 03 p0713 N93-12811
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156
CRRES: The combined release and radiation effects satellite program directory
[NASA-CR-184504] 05 p1076 N93-15713
Studies of the charging of a thin dust layer in a plasma 05 p1313 N93-17320
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
Radar-satellite studies of the high-latitude ionosphere
[AD-A257918] 06 p1576 N93-18214
Space plasma physics research
[NASA-CR-192158] 06 p1665 N93-18404
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail 06 p1704 N93-19147
The solar wind structure that caused a large-scale disturbance of the plasma tail of comet Austin 06 p1710 N93-19192
Fifth EISCAT Scientific Workshop: Programme and abstracts
[REPT-120(1991)] 06 p1722 N93-19518
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions 06 p1722 N93-19522
Observations of topside ionospheric ion outflows during auroral activity: Are they turbulence induced? 06 p1723 N93-19525
Introduction to ionospheric heating at Tromsoe (Norway). Part 2: Current scientific problems 06 p1724 N93-19532
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven 06 p1727 N93-19551
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985
Particle simulation of auroral double layers
[AD-A258577] 07 p1996 N93-20032
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
Magnetospheric space plasma investigations
[NASA-CR-192620] 07 p2074 N93-20914
Solar-geophysical data number 576, August 1992. Part 2: (Comprehensive reports). Data for February 1992 and miscellaneous
[PB93-112548] 07 p2100 N93-21213
Solar-geophysical data number 574, June 1992. Part 2: (Comprehensive reports). Data for December 1991 and miscellaneous
[PB92-218767] 07 p2101 N93-21346
Solar-geophysical data number 573, May 1992. Part 2: Comprehensive reports, data for November 1991 and miscellaneous
[PB92-213479] 07 p2101 N93-21376
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Solar-geophysical data number 575, July 1992. Part 2: (Comprehensive reports). Data for January 1992 and miscellaneous
[PB92-236009] 07 p2101 N93-21470
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity 08 p2392 N93-23135
The formation, structure, and evolution of plasmoids 08 p2547 N93-23210
Solar-geophysical data number 578, October 1992. Part 2: (Comprehensive reports). Data for April 1992 and miscellaneous
[PB93-134021] 08 p2556 N93-23243
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Observation of the extragalactic x ray background 08 p2535 N93-23892
Energetic particle acceleration and propagation in the heliosphere 08 p2539 N93-23921
The cold ionized shell around the old nova DQ Herculis 08 p2543 N93-23964
On the dynamics of space plasma
[AD-A259898] 08 p2497 N93-23987
Remote sensing of inner heliospheric plasmas
[AD-A260337] 08 p2558 N93-24268
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
Modelling of plasmaspheric flows 10 p3150 N93-28412
Plasma, magnetic, and electromagnetic measurements at nonmagnetic bodies 11 p3647 N93-28809
Development of Miniaturized Optimized Smart Sensors (MOSS) for space plasmas 11 p3286 N93-28828
Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure 12 p3688 N93-31157
Radiation from a dipole antenna into an inhomogeneous compressible and nonlinear space-plasma
[ESA-TT-1261] 12 p3716 N93-31341
Theory of coronal streamer formation 12 p3869 N93-31355
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366
Simulated O VI Doppler dimming measurements of coronal outflow velocities 12 p3871 N93-31367
Active region studies with coordinated SOHO, microwave, and magnetograph observations 12 p3873 N93-31380
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
Microflares observed with UVSP and HXIS 12 p3877 N93-31405
High resolution solar physics 12 p3848 N93-31775
High-latitude electric field studies using DMSP data
[AD-A265032] 12 p3763 N93-31996
A study of the magnetic field annihilation process in the magnetosphere and some geotechnical applications
[DE93-013172] 12 p3765 N93-32164

SPACE PLATFORMS
NT COLUMBUS SPACE STATION
NT EURECA (ESA)
NT LONG DURATION EXPOSURE FACILITY
NT MAN TENDED FREE FLYERS
NT SPACE STATION POLAR PLATFORMS
NT SYNCHRONOUS PLATFORMS

A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Science objectives for ground- and space-based optical/IR interferometry 03 p0746 N93-13590
Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573
Isostatic mounting platform 05 p1080 N93-15745
Acoustically induced vibration of platform mounted equipment containing printed circuit boards 05 p1082 N93-15762
Applied, theoretical modeling of space-based assembly, using expert system architecture for computer-aided engineering tool development 05 p1087 N93-16539
The transportation depot: An orbiting vehicle support facility 05 p1393 N93-17425
Mars Observer: Mission toward a basic understanding of Mars 06 p1592 N93-18557
Transportation and platforms perspective 06 p1453 N93-18636
The Mini-Mast CSI testbed: Lessons learned 06 p1461 N93-18819
A synopsis of test results and knowledge gained from the Phase-0 CSI evolutionary model 06 p1467 N93-18933
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
Research on rendezvous and docking technology 07 p1794 N93-20438
Principles and application tendency of remote sensing: Its principle, function, and utilization 07 p1978 N93-21540
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
Single stage to orbit/SDIO 08 p2173 N93-22086
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Combined space environment on spacecraft engineering materials
[NASA-CR-192536] 10 p2996 N93-28407
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field 11 p3266 N93-28725
Remote surface inspection system 12 p3739 N93-32099

SPACE POWER REACTORS
Lunar and Martian environmental interactions with nuclear power system radiators
[NASA-TM-105747] 02 p0230 N93-10965
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
Ground test facility for SEI nuclear rocket engines
[DE92-017418] 02 p0217 N93-11367
The NASA CSTI high capacity power project
[NASA-TM-105813] 02 p0221 N93-11398
A gas-cooled cermet reactor system for planetary base power
[DE92-018017] 02 p0443 N93-11433
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
A computer program for engineering simulations of space reactor system performance
[DE92-016400] 03 p0526 N93-13299
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
SAFSIM: A computer program for engineering simulations of space reactor system performance
[DE92-016328] 04 p0826 N93-14815
Advanced hybrid nuclear propulsion Mars mission performance enhancement
[DE93-001309] 05 p1090 N93-16177
Power systems for space exploration
[RAND-P-7768] 05 p1091 N93-16754
Nuclear energy technology 05 p1300 N93-16908
Space power reactor ground test in the Experimental Gas Cooled Reactor (EGCR) at Oak Ridge
[DE92-016788] 05 p1299 N93-17202
System model development for nuclear thermal propulsion
[NASA-TM-108215] 05 p1299 N93-17343
Power beaming providing a space power infrastructure
[DE93-000850] 05 p1092 N93-17363
Nuclear safety for the space exploration initiative
[NASA-CR-189180] 06 p1659 N93-18032
Space and surface power for the space exploration initiative: Results from project outreach
[NASA-CR-191254] 06 p1474 N93-18848
Environmental interactions and the SP-100 power system
[NASA-TM-105866] 06 p1474 N93-18877
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems
[NASA-CR-191023] 08 p2377 N93-22879
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
Nuclear electric propulsion for planetary science missions: NASA technology program planning
[NASA-TM-106139] 09 p2632 N93-26210

Representative systems for space exploration
09 p2897 N93-26395
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
The 20 kWe NEP system studies
10 p2982 N93-26971
The 100-500 kWe NEP systems
10 p2983 N93-26984
Nuclear electric propulsion options for piloted Mars missions 10 p2984 N93-26985
An evolution strategy for lunar nuclear surface power
10 p2988 N93-27963
Electrical power integration for lunar operations
10 p2988 N93-27966
Radionuclide inventories for short run-time space nuclear reactor systems
[DE93-004040] 10 p3138 N93-28058
Analysis of TOPAZ 2 and SPACE-R space nuclear power plants using a modified thermionic model
[AD-A262612] 11 p3286 N93-28474
NEP space test program objective
11 p3265 N93-28724
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Thermion: Verification of a thermionic heat pipe in microgravity 11 p3235 N93-29757
F2D: A two-dimensional compressible gas flow code
[DE93-003239] 12 p3723 N93-31169
The Thermionic Fuel Element Verification Program: Technical progress and future plans
[DE93-003797] 12 p3691 N93-31185

SPACE PROBES
NT GALILEO SPACECRAFT
NT GIOTTO MISSION
NT HELIOS 1
NT HELIOS 2
NT LUNAR PROBES
NT MAGELLAN SPACECRAFT (NASA)
NT MARS OBSERVER
NT MARS PROBES
NT PIONEER 10 SPACE PROBE
NT VENERA SATELLITES
NT VENUS PROBES
NT VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
NT VIKING ORBITER SPACECRAFT

Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM
03 p0514 N93-13551
Advanced on-chip divider for monolithic microwave VCO's
[NASA-CR-191355] 03 p0572 N93-13563
Cassini/Huygens: A mission to Saturn and Titan
08 p2539 N93-23918
ROSETTA: The ESA sample return mission
10 p2953 N93-28049
Spaceborne passive radiative cooler
11 p3378 N93-28802
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582
Role of the INTERBALL small scale investigations in the GGS program 12 p3859 N93-31717

SPACE PROCESSING
Materials processing in low gravity
[NASA-CR-184421] 02 p0276 N93-12401
Modeling of coalescence, agglomeration, and phase segregation in microgravity processing of bimetallic composite materials
[NASA-CR-191247] 03 p0556 N93-12728
Glass fiber processing for the Moon/Mars program: Center director's discretionary fund final report
[NASA-TM-108379] 03 p0551 N93-13115
A microgravity processing plant for the manufacturing of propellant and water from asteroid ore
03 p0515 N93-13558
Research and technology in support of IAM
03 p0515 N93-13562
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
ROMPS critical design review. Volume 2: Robot module design documentation
[NASA-CR-191614] 05 p1240 N93-16642
ROMPS critical design review. Volume 1: Hardware
[NASA-CR-191613] 05 p1240 N93-16673
Study of FES/CAST/HGS
[NASA-CR-190945] 05 p1114 N93-16711
Drop tube research
[NASA-CR-192420] 05 p1132 N93-16717
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Design for producing fiberglass fabric in a lunar environment
[NASA-CR-192068] 05 p1135 N93-17770
Protein crystal growth in low gravity
[NASA-CR-191770] 06 p1498 N93-17886
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Spacebound 1991
[CTN-93-60604] 07 p1802 N93-21070
Float zone processing of germanium crystals on the KC-135 microgravity aircraft 07 p1803 N93-21077
Recent results and new hardware developments for protein crystal growth in microactivity
[NASA-CR-191994] 07 p1875 N93-21356
ROMPS critical design review data package
[NASA-CR-191612] 07 p2041 N93-21472
Report on microgravity experiment by TR-1A rocket
[NASDA-EG-920021] 07 p1875 N93-21950
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
Materials science research in microgravity
08 p2191 N93-22645
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change
08 p2191 N93-22648
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom
08 p2192 N93-22649
Materials dispersion and biodynamics project research
08 p2192 N93-22651
Space Station Furnace Facility. Volume 2: Appendix 1: Contract End Item specification (CEI), part 1
[NASA-CR-192473] 08 p2303 N93-23083
Space Station Furnace Facility. Volume 3: Program cost estimate
[NASA-CR-192478] 08 p2200 N93-23237
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study
[NASA-CR-192472] 08 p2200 N93-23238
Space Station Furnace Facility. Experiment/Facility Requirements Document (E/FRD), volume 2, appendix 5
[NASA-CR-192476] 08 p2200 N93-23241
Gravity-related phenomena in materials science
08 p2161 N93-24372
Control of the concentration gradient during crystal growth from solution 08 p2165 N93-24395
The surface plasmon spectroscopy applications in microgravity: The measurement theory and preliminary experimental layout 08 p2165 N93-24396
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Melt-processing of lunar ceramics
10 p3007 N93-26685
Development of a material processing plant for lunar soil 10 p3021 N93-26694
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
Rapid Thermal Processing (RTP) of semiconductors in space
[NASA-CR-193110] 10 p3009 N93-28408
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field
11 p3266 N93-28725
Prometheus in space: Survey report of Research Committee on Functional New Material
12 p3710 N93-31728

SPACE PROGRAMS
NT APOLLO PROJECT
NT AUSTRALIAN SPACE PROGRAM
NT AUSTRIAN SPACE PROGRAM
NT BRAZILIAN SPACE PROGRAM
NT CANADIAN SPACE PROGRAM
NT CHINESE SPACE PROGRAM
NT EARTH RESOURCES PROGRAM
NT EUROPEAN SPACE PROGRAMS
NT FRENCH SPACE PROGRAM
NT GALILEO PROJECT
NT GERMAN SPACE PROGRAM
NT INDONESIAN SPACE PROGRAM
NT ISRAELI SPACE PROGRAM
NT ITALIAN SPACE PROGRAM
NT JAPANESE SPACE PROGRAM
NT MAGELLAN PROJECT (NASA)
NT NASA SPACE PROGRAMS
NT NATIONAL LAUNCH VEHICLE PROGRAM
NT NETHERLANDS SPACE PROGRAM
NT NORWEGIAN SPACE PROGRAM
NT PAKISTAN SPACE PROGRAM
NT PROJECT SETI
NT ROVER PROJECT
NT SKYLAB PROGRAM
NT SWEDISH SPACE PROGRAM
NT U.S.S.R. SPACE PROGRAM
NT UK SPACE PROGRAM
NT VIKING MARS PROGRAM

The first meeting of the Advisory Committee on the Future of the US Space Program (C-FUSSP)
[NASA-CR-190995] 02 p0219 N93-11754
Report on phase 2 of 1990 OSSA data census
[NASA-TM-107992] 03 p0735 N93-12991
Advanced technology for America's future in space. Executive summary
[NASA-TM-107969] 03 p0513 N93-13308
NASA in the 21st century: A vision of greatness
05 p1073 N93-16858
Strategies for broadening public involvement in space developments 05 p1349 N93-16861
Summer study postscript: A 1986 perspective
05 p1350 N93-16868
National Aeronautics and Space Administration
05 p1358 N93-17090
A post cold war assessment of US space policy
05 p1073 N93-17218
An evolving joint space campaign concept and the Army's role
[AD-A258112] 06 p1453 N93-18022
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Space is a different place
[AD-A258336] 06 p1453 N93-18219
Space education: Deriving benefits from industrial consortia
[NASA-TM-108593] 06 p1679 N93-18358
The future of the US space launch capability
06 p1456 N93-18865
The future of the US Space Industrial Base
07 p1789 N93-20044
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Korea space program 07 p1976 N93-21276
Space program in Malaysia 07 p1976 N93-21277
National space programs and application of the remote sensing data in Mongolia 07 p1976 N93-21278
Thailand ISY activities 07 p1977 N93-21282
Panel discussion: Roles of space program in the Asia Pacific region 07 p1819 N93-21286
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191991] 07 p2099 N93-21553
Environment Observation and Climate Modelling Through International Space Projects. Volume 1: Remote Sensing for Global Change, Climate Change and Atmosphere and Ocean Forecasting
[ESA-ISY-1-VOL-1] 07 p1953 N93-21569
Space technology research plans
08 p2184 N93-22613
The Eighth National Space Symposium
[ISBN-0-9616962-5-7] 08 p2153 N93-23156
Outlook for the U.S. Space Program
08 p2153 N93-23159
Industry perspectives 08 p2154 N93-23162
Public Congressional forum on space
08 p2154 N93-23165
Environment Observation and Climate Modelling Through International Space Projects. Navigation and Mobile Communications. Image Processing, GIS, and Space-Assisted Mapping
[ESA-ISY-2] 08 p2343 N93-23507
Insurance cover for space ventures
08 p2344 N93-23510
Environment Observation and Climate Modelling Through International Space Projects. Volume 3: Earth Observation Space Programmes, SAFISY Activities, Strategies of International Organisations, Legal Aspects
[ESA-ISY-1-VOL-3] 08 p2356 N93-23748
The scientific program of the Priroda project
08 p2360 N93-23771
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
Remarks and proposals to adapt some Earth observations space programmes in the period of transition of the countries of central/eastern Europe; focused on Romania 08 p2362 N93-23778

MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
The International Space Year programme 08 p2366 N93-23803
COSPAR/SAFISY panel of experts on space science scientific program for the ISY 08 p2366 N93-23804
NOAA participation in ISY Earth science and other activities 08 p2366 N93-23805
German contributions to the International Space Year ISY 1992 08 p2366 N93-23806
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
Earth observation programmes and plans of the Commission of the European Communities (CEC) 08 p2372 N93-23843
Mission to Planet Earth 08 p2372 N93-23845
NASDA's Earth observing programs and the contribution to resolving global environment programs 08 p2372 N93-23846
Canadian Earth observation program 08 p2373 N93-23847
Columbus programme overview 08 p2155 N93-24337
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
Environment Observation and Climate Modelling Through International Space Projects. Volume 2: Remote Sensing for Environmental Monitoring and Resource Management
[ESA-ISY-1-VOL-2] 09 p2737 N93-24775
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
Space research in Sweden, 1990-1991 09 p2888 N93-25887
A study of mapping exogenous knowledge representations into CONFIG 09 p2827 N93-26072
Space business indicators 09 p2886 N93-26158
Nuclear systems in space? Does/will the public accept them? 10 p2977 N93-26917
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
Future space activities: How can a baby having grown up too much in a cradle be dealt with? 10 p2948 N93-28015
Decision maker's guide to international space
[ANSER-STDN-93-4] 11 p3669 N93-29710
Proceedings of the Seventh Annual Summer Conference. NASA/USRA: University Advanced Design Program
[NASA-CR-192962] 11 p3227 N93-29712
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
Workshop conclusions: Technology transfer and the civil space program 11 p3628 N93-30721
Targets for Space-Based Interferometry
[ESA-SP-354] 12 p3844 N93-31750
Searching for exoplanets 12 p3846 N93-31760
Structure and properties of energetic materials
[AD-A265775] 12 p3713 N93-31800
The Army and military in space
[AD-A264581] 12 p3812 N93-32013
JSC flight experiment recommendation in support of Space Station robotic operations 12 p3691 N93-32121

SPACE RADIATION
U EXTRATERRESTRIAL RADIATION

SPACE RADIATORS
U SPACECRAFT RADIATORS

SPACE RENDEZVOUS
NT EARTH ORBITAL RENDEZVOUS
NT ORBITAL RENDEZVOUS

A plan for spacecraft automated rendezvous
[NASA-TM-108385] 04 p0813 N93-15392
Research on rendezvous and docking technology 07 p1794 N93-20438
Research on docking mechanism system test 07 p1794 N93-20439
NASA Automated Rendezvous and Capture Review. Executive summary
[NASA-TM-108597] 07 p1812 N93-21407
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421
A comparison of laser-based ranging systems for AR/C 07 p1814 N93-21422
A phase one AR/C system design 07 p1816 N93-21435
MMU applications for automated rendezvous and capture 07 p1817 N93-21438
Automated technologies needed to prevent radioactive materials from reentering the atmosphere 07 p1818 N93-21447
NASA MSFC hardware in the loop simulations of automatic rendezvous and capture systems 07 p1818 N93-21448
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
A comparison of laser based ranging systems for AR/C category 1: Hardware 08 p2144 N93-22278
Autonomous rendezvous targeting techniques for national launch system application 08 p2145 N93-22284
DGPS for space and return 08 p2146 N93-22286
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22287
Supervised autonomous rendezvous and docking systems technology evaluations 08 p2146 N93-22288
Magnetic end effectors for space operations 08 p2146 N93-22291
Piloting decision aid for spacecraft proximity operations 08 p2147 N93-22295
Spacecraft rendezvous operational considerations affecting vehicle systems design and configuration 08 p2147 N93-22296
Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904
Rendezvous, proximity operations and capture quality function deployment report
[NASA-TM-108752] 09 p2614 N93-25952
Vertical landing on an asteroid 10 p2924 N93-27202
ROSETTA: The ESA sample return mission 10 p2953 N93-28049
The +vbar breakout during approach to Space Station Freedom
[NASA-TM-104772] 11 p3269 N93-30135

SPACE SCIENCES
U AEROSPACE SCIENCES

SPACE SHUTTLE ASCENT STAGE

Investigation of separation in a strap-on Space Shuttle system
[AD-A262372] 10 p2956 N93-27693

SPACE SHUTTLE BOOSTERS
NT ADVANCED SOLID ROCKET MOTOR (STS)

Feasibility of using neutron radiography to inspect the Space Shuttle solid rocket booster aft skirt, forward skirt and frustum. Part 1: Summary report
[NASA-CR-184357] 02 p0231 N93-11173
ASRM case insulation design and development
[NASA-CR-191947] 05 p1090 N93-16605
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030
Space shuttle solid rocket booster main parachute damage reduction team report
[NASA-TM-4437] 06 p1455 N93-18067
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
Introduction of laser initiation for the 48-inch Advanced Solid Rocket Motor (ASRM) test motors at Marshall Space Flight Center (MSFC) 07 p1830 N93-20141
Advanced booster guidance studies
[NASA-CR-192336] 07 p1829 N93-20896
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation
[NASA-CR-192517] 09 p2631 N93-26053
SRB environment evaluation and analysis. Volume 2: RSRB joint filling test/analysis improvements
[NASA-CR-192518] 09 p2631 N93-26057
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285

SPACE SHUTTLE MAIN ENGINE

Formed platelets for low cost regeneratively cooled rocket combustion chambers 01 p0018 N93-10018
Improve SSME power balance model
[NASA-CR-184464] 01 p0026 N93-10756
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Implementation of a model based fault detection and diagnosis for actuation faults of the Space Shuttle main engine
[NASA-TM-105781] 02 p0221 N93-11401
A comparison of high cycle fatigue methodologies
[NASA-TM-103601] 02 p0233 N93-12148
An overview of reliability growth models and their potential use for NASA applications
[NASA-TP-3309] 04 p0895 N93-15433
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences 05 p1165 N93-17289
STME nozzle thermal analysis 05 p1095 N93-17291
Experimental investigation of a simulated LOX injector flow field and other nonintrusive measurement efforts 05 p1095 N93-17297
Neural network architectures to analyze OPAD data 05 p1262 N93-17336
System for Anomaly and Failure Detection (SAFD) system development
[NASA-CR-184475] 06 p1552 N93-17856
Identification and interpretation of patterns in rocket engine data
[NASA-CR-192100] 06 p1473 N93-18401
Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763
Technology test bed engine real-time failure control
[NASA-CR-192414] 06 p1474 N93-18879
NASA's Advanced solid rocket motor
[NASA-CR-191950] 06 p1475 N93-19825
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Analysis of the Space Shuttle main engine simulation
[NASA-CR-191063] 07 p1820 N93-20251
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Report of the SSME assessment team
[NASA-TM-108217] 07 p1830 N93-21645
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
A neural network-based estimator for the mixture ratio of the Space Shuttle Main Engine
[NASA-TM-106070] 09 p2622 N93-25089
Calculations of combustion response profiles and oscillations
[NASA-TM-106135] 09 p2623 N93-25236
Detection of bearing failure in mechanical devices using neural networks 09 p2822 N93-25965
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system
[NASA-TM-106118] 10 p2955 N93-27018
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
Additional support for the TDK/MABL computer program
[NASA-CR-193037] 11 p3526 N93-29028

High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
OPAD 1991 12 p3693 N93-31559
Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561
Structural reliability methods: Code development status 12 p3694 N93-31563
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569
Constitutive and damage material modeling in a high pressure hydrogen environment 12 p3696 N93-31577
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine 12 p3697 N93-31584
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230

SPACE SHUTTLE MISSION 51-L
Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident 07 p1820 N93-20036

SPACE SHUTTLE MISSIONS
NT SPACE SHUTTLE MISSION 51-L
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
Immunology presentation at the 1990 NASA/NSF Antarctica Biomedical Science Working Group 05 p1222 N93-16806
Space Station Freedom research capabilities 08 p2183 N93-22609
Commercial researcher perspective 08 p2184 N93-22615
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554
Description of the Joint Damping Experiment (JDX) 11 p3263 N93-28703
Effect of microgravity on several visual functions during STS Shuttle missions: Visual Function Tester-Model 1 (VFT-1) 11 p3268 N93-28740
Effect of microgravity on visual contrast threshold during STS Shuttle missions: Visual Function Tester-Model 2 (VFT-2) 11 p3268 N93-28741
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376

SPACE SHUTTLE ORBITAL FLIGHT TESTS
U SPACE TRANSPORTATION SYSTEM FLIGHTS

SPACE SHUTTLE ORBITAL FLIGHTS
U SPACE TRANSPORTATION SYSTEM FLIGHTS

SPACE SHUTTLE ORBITER 099
U CHALLENGER (ORBITER)

SPACE SHUTTLE ORBITER 102
U COLUMBIA (ORBITER)

SPACE SHUTTLE ORBITER 103
U DISCOVERY (ORBITER)

SPACE SHUTTLE ORBITER 104
U ATLANTIS (ORBITER)

SPACE SHUTTLE ORBITERS
NT ATLANTIS (ORBITER)
NT CHALLENGER (ORBITER)
NT COLUMBIA (ORBITER)
NT DISCOVERY (ORBITER)
NT ENDEAVOUR (ORBITER)
Reusable thermal protection system development: A prospective 02 p0227 N93-12448
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Predicted and tested performance of durable TPS 02 p0228 N93-12454
The Orbiter Stability Experiment on STS-40 03 p0508 N93-13159
Analysis of fluid/mechanical systems using EASY5 03 p0586 N93-13397
Space Shuttle orbiter modifications to support Space Station Freedom
[NASA-TM-108050] 03 p0520 N93-13455
Extra-vehicular activity translation tool
[NASA-CASE-MSC-21955-1] 04 p0891 N93-14842
Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report
[NASA-CR-167698] 04 p0815 N93-15474
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Rarefied-flow Shuttle aerodynamics model
[NASA-TM-107698] 07 p1759 N93-19976
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Analysis of Space Shuttle accelerometer data
[NLR-TP-90141-U] 07 p1821 N93-20744
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations 07 p1817 N93-21439
Entry Systems Panel deliberations 08 p2176 N93-22105
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
The real-time operations of the Space Shuttle Orbiter during rendezvous and proximity operations 08 p2139 N93-22249
Automated rendezvous and proximity operations 08 p2141 N93-22257
Onboard navigation rendezvous expert system 08 p2144 N93-22280
Automating an orbiter approach to Space Station Freedom to minimize plume impingement 08 p2149 N93-22305
Spacecraft materials and coatings experiments 08 p2189 N93-22637
Summary document of tasks performed on the Shuttle-C/NLS contract
[NASA-CR-192483] 08 p2179 N93-22995
Orbiter Autoland reliability analysis
[NASA-TM-4464] 08 p2194 N93-23139
From Ship to Shuttle: NASA Orbiter Naming Program, September 1988 - May 1989
[NASA-EP-276] 08 p2179 N93-23732
Dynamics of on-orbit construction process 09 p2669 N93-26406
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Structural load control during construction 09 p2669 N93-26409
Investigation of separation in a strap-on Space Shuttle system
[AD-A262372] 10 p2956 N93-27693
Space Station: Orbiter berthing 11 p3274 N93-29031
Space Shuttle Orbiter thermal protection system design and flight experience
[NASA-TM-104773] 12 p3727 N93-32198
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32228

SPACE SHUTTLE PAYLOADS
NT ASTRO MISSIONS (STS)
NT EARTH RADIATION BUDGET EXPERIMENT
NT GET AWAY SPECIALS (STS)
NT PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE
NT PLASMA INTERACTION EXPERIMENT
NT SPACELAB
NT X RAY ASTROPHYSICS FACILITY
The 1992 Shuttle Small Payloads Symposium
[NASA-CP-3171] 03 p0508 N93-13158
The DSI small satellite launcher 03 p0511 N93-13180
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Reusable Reentry Satellite (RRS) system design study
[NASA-CR-187897] 04 p0817 N93-14733
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Metrication report to the Congress. 1991 activities and 1992 plans
[NASA-TM-108603] 06 p1499 N93-18357
NASA PPO microgravity projects support
[NASA-CR-192460] 08 p2246 N93-22038
Demonstration plan for real time receiving and processing of flight data from the space transportation system
[NASA-TM-107725] 08 p2152 N93-22468
Flight project data book, 1991
[NASA-TM-108656] 08 p2154 N93-23385
Tethered Satellite System Contingency Investigation Board
[NASA-TM-108704] 09 p2616 N93-25231
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings
[NASA-TM-108721] 11 p3262 N93-28699
The MODE family of facility class experiments 11 p3263 N93-28705
Tank Pressure Control Experiment (TPCE) 11 p3264 N93-28712
In-STEP Two-Phase Flow (TPF) thermal control experiment 11 p3265 N93-28719
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Aerospace payload design and development
[AD-A264502] 11 p3289 N93-30402
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349

SPACE SHUTTLE SOLID ROCKET MOTORS
U SPACE SHUTTLE BOOSTERS

SPACE SHUTTLES
NT BURAN SPACE SHUTTLE
NT HERMES MANNED SPACEPLANE
Role of automation in the ACRV operations 02 p0230 N93-11977
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
VPPA weld model evaluation
[NASA-CR-184460] 03 p0611 N93-12919
First International Microgravity Laboratory
[NASA-TM-108007] 03 p0518 N93-13113
STS-49: Space shuttle mission report
[NASA-TM-108104] 04 p0815 N93-14736
Scheduling and rescheduling with iterative repair
[NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair
[NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling
[NASA-TM-108118] 04 p0965 N93-15289
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381
Heat flow in variable polarity plasma arc welds 05 p1181 N93-17280
Operational considerations for lunar transportation 05 p1392 N93-17418

Design of a resistive exercise device for use on the Space Shuttle
[NASA-CR-192079] 05 p1229 N93-17805
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Development of an intelligent hypertext manual for the space shuttle hazardous gas detection system
[NASA-CR-191898] 06 p1457 N93-18447
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
A simple grid generation technique for hypersonic flow around complex configuration 06 p1409 N93-19275
Numerical computations using multi-domain technique 06 p1409 N93-19277
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Computation of re-entry flows with two-temperature model 06 p1412 N93-19295
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
Hydrogen leak detection in the Space Shuttle 06 p1457 N93-19392
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401
Hurricane risk assessment to rollback or ride out a cost versus loss decision making approach 06 p1588 N93-19411
Toward a history of the space shuttle. An annotated bibliography
[NASA-TM-108647] 06 p1457 N93-19494
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Multiple-body simulation with emphasis on integrated Space Shuttle vehicle
[NASA-CR-192289] 07 p1821 N93-20234
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station 07 p1780 N93-21413
Six-Degree-of-Freedom Test Facility 07 p1817 N93-21443
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
Report of the SSME assessment team
[NASA-TM-108217] 07 p1830 N93-21645
Advanced Manned Launch System 08 p2172 N93-22084
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
Lunar transfer vehicle studies 08 p2173 N93-22087
Methods and means used in programming intelligent searches of technical documents 08 p2530 N93-22155
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
Applicability of relative GPS to automated rendezvous between the space shuttle and space station 08 p2138 N93-22241
Space Shuttle Program: Automatic rendezvous, proximity operations, and capture (category 3) 08 p2143 N93-22269
CTV rendezvous techniques 08 p2143 N93-22270
On-orbit operational scenarios, tools and techniques 08 p2143 N93-22271
Space Station Freedom research capabilities 08 p2183 N93-22609
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54
[NASA-TM-107558] 08 p2178 N93-22669
Task Analysis of Shuttle Entry and Landing Activities
[NASA-TM-104761] 08 p2178 N93-22702
Risk management in fly-by-wire systems
[NASA-TM-104757] 08 p2180 N93-22703
Debris/ice/TPS assessment and integrated photographic analysis of Shuttle Mission STS-53
[NASA-TM-107556] 08 p2179 N93-23085
Space transportation: The content and uses of Shuttle cost estimates. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-93-115] 08 p2531 N93-23097
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148
STS-39 Space Shuttle mission report
[NASA-CR-193063] 09 p2611 N93-25955
STS-37 Space Shuttle mission report
[NASA-CR-193062] 09 p2612 N93-25956
STS-43 Space Shuttle mission report
[NASA-CR-193064] 09 p2612 N93-25957
STS-40 Space Shuttle mission report
[NASA-TM-108737] 09 p2612 N93-25958
STS-45 Space Shuttle mission report
[NASA-CR-193054] 09 p2612 N93-25959
STS-47 Space Shuttle mission report
[NASA-CR-193056] 09 p2612 N93-25960
Multi-viewpoint clustering analysis 09 p2825 N93-25980
STS-44 Space Shuttle mission report
[NASA-TM-108735] 09 p2612 N93-25988
STS-42 Space Shuttle mission report
[NASA-CR-193059] 09 p2613 N93-25989
STS-48 Space Shuttle mission report
[NASA-CR-193060] 09 p2613 N93-25990
STS-46 Space Shuttle mission report
[NASA-CR-193058] 09 p2613 N93-25991
STS-50 Space Shuttle mission report
[NASA-CR-193057] 09 p2613 N93-25992
STS-52 Space Shuttle mission report
[NASA-CR-193061] 09 p2613 N93-25993
ASRM design philosophy and modelling challenges 09 p2627 N93-26022
External tank aerothermal design criteria verification
[NASA-CR-192514] 09 p2618 N93-26055
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting
[NASA-CR-192515] 09 p2614 N93-26152
Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Chronology of KSC and KSC related events for 1992
[NASA-TM-107561] 10 p3219 N93-27285
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
The Orbiter Experiments (OEX) program 11 p3266 N93-28731
An assessment of space shuttle flight software development processes
[NASA-CR-193179] 11 p3525 N93-28934
Multivariable control of the Space Shuttle Remote Manipulator System using linearization by state feedback
[NASA-CR-188248] 11 p3443 N93-29080
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
Payload flight assignments. NASA mixed fleet
[NASA-TM-108255] 11 p3268 N93-30133
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
An overview of the Kennedy Space Center robotics program 12 p3691 N93-32124
Ground Robotic Hand Applications for the Space Program study (GRASP)
[NASA-CR-193571] 12 p3737 N93-32235

SPACE SIMULATORS

Analysis of materials from MSFC LDEF experiments
[NASA-CR-184425] 02 p0252 N93-12215
Europe qualifies for space
[ESA-BR-64] 03 p0508 N93-12892
Spacecraft thermal design verification in Canada 04 p0808 N93-14940
An environmental testing facility for Space Station Freedom power management and distribution hardware 04 p0820 N93-15601
A new approach for data acquisition at the JPL space simulators 04 p0821 N93-15606
A new thermal vacuum facility at the Martin Marietta Waterton plant 04 p0814 N93-15607
From diffusion pumps to cryopumps: The conversion of GSFC's space environment simulator 04 p0814 N93-15611
INTESPACE's new thermal-vacuum test facility: SIMMER 04 p0814 N93-15613
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station 07 p1780 N93-21413
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111

SPACE STATION FREEDOM

Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application 01 p0023 N93-10042
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
Fifth Annual Workshop on Space Operations Applications and Research (SOAR 1991), volume 1
[NASA-CP-3127-VOL-1] 02 p0391 N93-11921
A state-based approach to trend recognition and failure prediction for the Space Station Freedom 02 p0230 N93-11925
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Space Station robotics planning tools 02 p0331 N93-11975
Role of automation in the ACRV operations 02 p0230 N93-11977
Decision rules for spaceborne operations planning 02 p0403 N93-11978
Space Station Freedom seal leakage rate analysis and testing summary: Air leaks in ambient versus vacuum exit conditions
[NASA-TM-103604] 02 p0328 N93-12149
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894
Assured crew return vehicle post landing configuration design and test
[NASA-CR-191253] 03 p0520 N93-12910
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Large programs may consume increasing share of limited future budgets. Report to Congressional Requesters
[GAO/NSIAD-92-278] 03 p0732 N93-13109
Space Station: Resolving conflict over integration contractor's role. Briefing report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/NSIAD-92-291BR] 03 p0732 N93-13111
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
Aerospace applications of SINDA/FLUINT at the Johnson Space Center 03 p0586 N93-13401
Space Shuttle orbiter modifications to support Space Station Freedom
[NASA-TM-108050] 03 p0520 N93-13455
Taking a global view
[ESA-BR-37-C] 03 p0516 N93-13856
Messengers in space
[ESA-BR-37-D] 03 p0516 N93-13857
A home port in space
[ESA-BR-37-E] 03 p0516 N93-13858
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
The next step forward
[ESA-BR-37-A] 03 p0517 N93-13861

Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Advanced sensors technology survey [NASA-CR-185691] 04 p0881 N93-14494
Autonomous power system brassboard [NASA-CR-189115] 04 p0867 N93-14798
A plan for spacecraft automated rendezvous [NASA-TM-108385] 04 p0813 N93-15392
Space Station Freedom data management system growth and evolution report [NASA-TM-103869] 04 p0816 N93-15477
An environmental testing facility for Space Station Freedom power management and distribution hardware 04 p0820 N93-15601
Overview of environmental test plans for Space Station Freedom work package 4 04 p0824 N93-15623
Space Station Freedom user's guide [NASA-TM-108105] 04 p0825 N93-15650
Space Station Freedom technology payload user operations facility concept [NASA-TM-107701] 05 p1350 N93-16373
National Aeronautics and Space Administration 05 p1358 N93-17091
Heat flow in variable polarity plasma arc welds 05 p1181 N93-17280
Design and analysis of seals for extended service life 05 p1181 N93-17283
Space environmental effects on polymers and composites 05 p1128 N93-17302
Directions for future Earth-to-orbit vehicles 05 p1076 N93-17309
A process for prototyping onboard payload displays for Space Station Freedom 05 p1073 N93-17315
Emergency egress requirements for caution and warning, logistics, maintenance, and assembly stage MB-6 of Space Station Freedom 05 p1089 N93-17323
Lunar base mission technology issues and orbital demonstration requirements on space station 05 p1392 N93-17416
Adaption of space station technology for lunar operations 05 p1392 N93-17417
Autonomous support for microorganism research in space [NASA-CR-192062] 05 p1223 N93-17780
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array [NASA-TM-105949] 06 p1459 N93-17988
Metrication report to the Congress [NASA-TM-108600] 06 p1499 N93-18281
Metrication report to the Congress [NASA-TM-108602] 06 p1499 N93-18356
Control/structure interaction during Space Station Freedom-Orbiter berthing 06 p1463 N93-18831
SSF loads and controllability during assembly 06 p1465 N93-18838
Optimization techniques applied to passive measures for in-orbit spacecraft survivability [NASA-CR-184486] 06 p1466 N93-18859
Controls-structures-interaction dynamics during RCS control of the Orbiter/SRMS/SSF configuration 06 p1468 N93-18934
Dark-cycle monitoring of biological subjects on Space Station Freedom [NASA-TM-103976] 06 p1500 N93-19103
Analysis of electromagnetic interference from power system processing and transmission components for Space Station Freedom [NASA-CR-192281] 06 p1470 N93-19890
Pre-integrated truss space station and method of assembly [NASA-CASE-MSC-22015-1] 07 p1823 N93-20042
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm 07 p1823 N93-20167
The world of NASA microgravity science 07 p1868 N93-20179
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
Fire safety practices in the Shuttle and the Space Station Freedom 07 p1825 N93-20204
Flux concentrations on solar dynamic components due to mispointing [NASA-TM-105756] 07 p1982 N93-20261
Radiological assessment for Space Station Freedom [NASA-TM-104758] 07 p2022 N93-20303
Effects of material degradation on large space structures dynamic response [AD-A258574] 07 p1823 N93-20324
Spacecraft interaction with ambient and self-generated plasma/neutral environment [AD-A258647] 07 p1823 N93-20364
Lewis Research Center battery overview 07 p1983 N93-20493
The 1992 Research/Technology report [NASA-TM-105924] 07 p1759 N93-20902
Environmental health discipline science plan [NASA-TM-108042] 07 p2024 N93-21369
Space human factors discipline science plan [NASA-TM-108023] 07 p2026 N93-21370
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
A phase one AR/C system design 07 p1816 N93-21435
Collision avoidance for CTV: Requirements and capabilities 07 p1817 N93-21437
Six-Degree-of-Freedom Test Facility 07 p1817 N93-21443
From Earth to Orbit: An assessment of transportation options [NASA-CR-192729] 07 p1821 N93-21477
National Aeronautics and Space Administration: Statement of Miguel A. Hernandez, Jr., Hernandez Engineering Co. 07 p2094 N93-21680
National Aeronautics and Space Administration: Statement of Len Ricks, Council of Engineers and Scientists Organizations 07 p2094 N93-21681
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy [NASA-TM-103992] 07 p2027 N93-21807
Space Station ECLSS integration analysis [NASA-CR-192470] 07 p2027 N93-22002
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Applicability of relative GPS to automated rendezvous between the space shuttle and space station 08 p2138 N93-22241
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom 08 p2140 N93-22252
Automated rendezvous and proximity operations 08 p2141 N93-22257
A PARC system for terminal docking 08 p2141 N93-22259
Results of prototype software development for automation of shuttle proximity operations 08 p2142 N93-22264
CTV rendezvous techniques 08 p2143 N93-22270
On-orbit operational scenarios, tools and techniques 08 p2143 N93-22271
Collision avoidance for CTV: Requirements and capabilities 08 p2147 N93-22294
Proposed CTV design reference missions in support of Space Station Freedom 08 p2148 N93-22300
Automating an orbiter approach to Space Station Freedom to minimize plume impingement 08 p2149 N93-22305
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308
The MSFC space station/space operations mechanism test bed 08 p2149 N93-22309
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2 [NASA-CR-192474] 08 p2302 N93-22347
Space Station Furnace Facility Core. Requirements definition and conceptual design study. Volume 2: Technical report. Appendix 6: Technical summary reports [NASA-CR-192477] 08 p2302 N93-22349
Space Station Freedom beta gimbal control via sensitivity models [NASA-TM-106000] 08 p2182 N93-22551
Space Station Freedom Utilization Conference [NASA-TM-108742] 08 p2182 N93-22606
Space Station Freedom Utilization Conference: Executive summary 08 p2182 N93-22607
Introduction to Space Station Freedom 08 p2182 N93-22608
Space Station Freedom research capabilities 08 p2183 N93-22609
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
How to get on board Space Station Freedom 08 p2183 N93-22611
NASA's commercial research plans and opportunities 08 p2183 N93-22612
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Commercial researcher perspective 08 p2184 N93-22615
Japanese plan for SSF utilization 08 p2184 N93-22616
Canadian Space Agency Space Station Freedom utilization plans 08 p2185 N93-22617
European research plans 08 p2185 N93-22618
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Remarks by NASA administrator Daniel S. Goldin 08 p2167 N93-22621
Life sciences utilization of Space Station Freedom 08 p2185 N93-22622
Life sciences recruitment objectives 08 p2186 N93-22623
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
Gravitational Biology Facility on Space Station: Meeting the needs of space biology 08 p2186 N93-22625
Gas-Grain Simulation Facility (GGSF) 08 p2186 N93-22626
Research opportunities with the Centrifuge Facility 08 p2187 N93-22627
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Crew health 08 p2187 N93-22630
Space Station Freedom as an engineering experiment station: An overview 08 p2187 N93-22631
Precursor Space Station Freedom experiments 08 p2188 N93-22632
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Modal identification experiment 08 p2188 N93-22635
Selected OAST/OSSA space experiment activities in support of Space Station Freedom 08 p2189 N93-22636
Spacecraft materials and coatings experiments 08 p2189 N93-22637
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Zero-G life support for Space Station Freedom 08 p2189 N93-22640
WP-2 attached payload accommodations 08 p2190 N93-22641
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Space Station Freedom combustion research 08 p2190 N93-22643
Microgravity fluid physics research in the Space Station Freedom era 08 p2191 N93-22644
Protein crystal growth in microgravity 08 p2191 N93-22646
Office of Commercial Programs' research activities for Space Station Freedom utilization 08 p2191 N93-22647
Commercial opportunities in bioseparations and physiological testing aboard Space Station Freedom 08 p2192 N93-22649
Consortium for materials development in space interaction with Space Station Freedom 08 p2192 N93-22650
Materials dispersion and biodynamics project research 08 p2192 N93-22651
Space transfer concepts and analysis for exploration missions [NASA-CR-192482] 08 p2178 N93-22705
Space Station Freedom Utilization Conference. Executive summary [NASA-TM-108709] 08 p2193 N93-23001
Transportation systems analyses. Volume 1: Executive summary [NASA-CR-192485] 08 p2179 N93-23008
Space Station Furnace Facility. Volume 2: Appendix 1: Contract End Item specification (CEI), part 1 [NASA-CR-192473] 08 p2303 N93-23083
A proposal to demonstrate production of salad crops in the Space Station Mockup Facility with particular attention to space, energy, and labor constraints [NASA-CR-192815] 08 p2419 N93-23169
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis [NASA-CR-192475] 08 p2199 N93-23224
Space Station Furnace Facility. Volume 1: Requirements definition and conceptual design study, executive summary [NASA-CR-192471] 08 p2199 N93-23225
Space Station Furnace Facility. Volume 3: Program cost estimate [NASA-CR-192478] 08 p2200 N93-23237
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study [NASA-CR-192472] 08 p2200 N93-23238
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. Economy [NASA-TM-103895] 08 p2430 N93-23240
Space Station Furnace Facility. Experiment/Facility Requirements Document (E/FRD), volume 2, appendix 5 [NASA-CR-192476] 08 p2200 N93-23241
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom [NASA-CR-191106] 08 p2258 N93-23430

Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
Space Station Freedom automation and robotics: An assessment of the potential for increased productivity
[NASA-TM-108714] 08 p2195 N93-24149
The prospects of the Columbus programme ten years after its initiation 08 p2155 N93-24338
European Space Science and Space Station Freedom 08 p2163 N93-24387
Attached payload issues 08 p2163 N93-24388
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Space Station Freedom assembly and operation at a 51.6 degree inclination orbit
[NASA-TM-107731] 09 p2615 N93-25174
Space biology research development
[NASA-CR-192830] 09 p2792 N93-25242
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
A genetic algorithm tool (splicer) for complex scheduling problems and the Space Station Freedom resupply problem 09 p2814 N93-25613
Estimating spares requirements for Space Station Freedom using the M-SPARE model
[AD-A260878] 09 p2617 N93-25630
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
The effects of video compression on acceptability of images for monitoring life sciences' experiments 09 p2805 N93-25930
Study of plate-fin heat exchanger and cold plate for the active thermal control system of Space Station 09 p2619 N93-26064
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
A vision architecture for the extravehicular activity retriever 09 p2827 N93-26071
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Model reduction for Space Station Freedom 09 p2620 N93-26081
Knowledge-based decision support for Space Station assembly sequence planning
[NASA-CR-193048] 09 p2599 N93-26095
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
Assured crew return vehicle man-systems integration standards
[NASA-CR-193065] 09 p2614 N93-26329
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
Regenerable biocide delivery unit, volume 1
[NASA-CR-185701-VOL-1] 10 p3081 N93-27122
Basic statistical analyses of candidate nickel-hydrogen cells for the Space Station Freedom
[NASA-TM-106111] 10 p3123 N93-27124
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Experiment/facility requirements document for the Space Station Furnace Facility. Section 1: Integrated configuration
[NASA-CR-192533] 10 p2958 N93-27147
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Advisory Committee on the Redesign of the Space Station
[NASA-TM-108760] 10 p2963 N93-27579
SOYUZ escape trajectory analysis from Space Station Freedom
[NASA-CR-4508] 10 p2954 N93-27609
Technology for Space Station Evolution. Volume 2: Data Management System/Environmental Control and Life Support Systems
[NASA-TM-108725] 10 p2963 N93-27704
Technology for Space Station evolution: The data management system 10 p2963 N93-27705
Space Station Freedom Software Support Environment 10 p2964 N93-27706
Validated fault tolerant architectures for Space Station 10 p2964 N93-27707
A fault-tolerant RISC microprocessor for spacecraft applications 10 p2964 N93-27708
High rate science data handling 10 p2964 N93-27709
Electronic neural networks 10 p2964 N93-27711
Space Station displays and controls technology evolution 10 p2964 N93-27712
Onboard system health assessment 10 p2965 N93-27716
Environmental control and life support system evolution 10 p2965 N93-27719
Technologies for ECLSS evolution 10 p2965 N93-27720
Alternative processes for water reclamation and solid waste processing in a physical/chemical bioregenerative life support system 10 p2965 N93-27721
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
JSC ECLSS R/T program overview 10 p2966 N93-27725
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
Extravehicular activity system 10 p2966 N93-27787
Man-systems distributed system for Space Station Freedom 10 p2966 N93-27788
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790
Simplified Aid For Crew Rescue (SAFR) 10 p2967 N93-27793
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Space Station fluid resupply 10 p2967 N93-27797
Space Station fluid management logistics 10 p2967 N93-27799
Technology for Space Station Evolution. Volume 4: Power Systems/Propulsion/Robotics
[NASA-TM-108727] 10 p2968 N93-27803
Electrical power system WP-04 10 p2968 N93-27804
Space Station Freedom solar dynamic power generation 10 p2968 N93-27805
Advanced solar dynamic technology program 10 p2968 N93-27806
Space Station Freedom electric power system evolutionary energy storage 10 p2968 N93-27807
Automation of Space Station module power management and distribution system 10 p2969 N93-27816
Space Station propulsion integrated propulsion test article 10 p2970 N93-27818
The mobile servicing system 10 p2970 N93-27821
Agent-independent planning 10 p2970 N93-27822
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Technology for Space Station Evolution. Volume 5: Structures and Materials/Thermal Control System
[NASA-TM-108728] 10 p2970 N93-27835
Structures for Space Station Freedom: Overview of current concept 10 p2970 N93-27836
Structural technology challenges for evolutionary growth of Space Station Freedom 10 p2970 N93-27837
An evolutionary construction facility for Space Station Freedom 10 p2971 N93-27839
Thermal systems 10 p2971 N93-27843
Advanced interface heat exchangers for the Space Station main thermal bus 10 p2971 N93-27844
Space Station Freedom central thermal control system evolution 10 p2972 N93-27845
Technology for Space Station Evolution. Executive summary and overview
[NASA-TM-108724] 10 p2972 N93-27854
Attitude control and stabilization technology discipline 10 p2972 N93-27855
Communications and tracking technology discipline 10 p2972 N93-27856
Data management system technology discipline 10 p2972 N93-27857
Environmental control and life support systems 10 p2972 N93-27858
Extravehicular activity technology discipline 10 p2972 N93-27859
Manned systems technology discipline 10 p2972 N93-27860
Fluid management system technology discipline 10 p2973 N93-27861
Power system technology discipline 10 p2973 N93-27862
Propulsion technology discipline 10 p2973 N93-27863
Robotics technology discipline 10 p2973 N93-27864
Structures and materials technology discipline 10 p2973 N93-27865
Thermal control system technology discipline 10 p2973 N93-27866
Space Station Furnace Facility. Volume 2: Summary of technical reports
[NASA-CR-192534] 10 p2973 N93-28323
Combined space environment on spacecraft engineering materials
[NASA-CR-192536] 10 p2996 N93-28407
Space Station: Orbiter berthing 11 p3274 N93-29031
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745
The +vbar breakout during approach to Space Station Freedom
[NASA-TM-104772] 11 p3269 N93-30135
Hypervelocity impact testing of the Space Station utility distribution system carrier
[NASA-TM-104771] 11 p3289 N93-30507
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034
Fuzzy Control/Space Station automation 12 p3688 N93-31440
Space Station Freedom attitude determination and control system overview 12 p3689 N93-31447
Hyperbaric treatment 12 p3689 N93-31454
Assessment of a human computer interface prototyping environment
[NASA-CR-192612] 12 p3784 N93-31849
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
JSC flight experiment recommendation in support of Space Station robotic operations 12 p3691 N93-32121
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138
Attention focussing and anomaly detection in real-time systems monitoring 12 p3730 N93-32139
Health maintenance facility system effectiveness testing
[NASA-TM-104737] 12 p3783 N93-32328
Microbiological and corrosion analysis of three urine pretreatment regimes with titanium 6A1-4V
[NASA-CR-192575] 12 p3783 N93-32356

SPACE STATION PAYLOADS

Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Space station evolution: Planning for the future
[NASA-TM-108596] 06 p1460 N93-18353
Space Station Freedom research capabilities 08 p2183 N93-22609
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
How to get on board Space Station Freedom 08 p2183 N93-22611
NASA's commercial research plans and opportunities 08 p2183 N93-22612
Canadian Space Agency Space Station Freedom utilization plans 08 p2185 N93-22617
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
WP-2 attached payload accommodations 08 p2190 N93-22641

Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Space Station Furnace Facility. Volume 3: Program cost estimate
[NASA-CR-192478] 08 p2200 N93-23237
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study
[NASA-CR-192472] 08 p2200 N93-23238
Flight project data book, 1991
[NASA-TM-108656] 08 p2154 N93-23385
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
Mir 1992: Scientific program and payload 08 p2157 N93-24351
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
Columbus payload requirements in human physiology 08 p2163 N93-24386
European Space Science and Space Station Freedom 08 p2163 N93-24387
Attached payload issues 08 p2163 N93-24388
Italian payload development status for Columbus 08 p2164 N93-24392
Earth observing system. Output data products and input requirements, version 2.0. Volume 1: Instrument data product characteristics
[NASA-TM-108770] 09 p2755 N93-25460
Earth observing system. Output data products and input requirements, version 2.0. Volume 2: Analysis of IDS input requirements
[NASA-TM-108771] 09 p2755 N93-25461
A magnetic isolation and pointing system for the astrometric telescope facility 10 p2960 N93-27563
Optical disk technology Spaceflight Optical Disk Recorder (SODR) 10 p2964 N93-27710
Environmental control and life support system evolution 10 p2965 N93-27719
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs
[ETN-93-93484] 11 p3268 N93-29063
The SUN/SIMURIS interferometer 12 p3845 N93-31759

SPACE STATION POLAR PLATFORMS
A home port in space
[ESA-BR-37-E] 03 p0516 N93-13858
Polar Platform structure development program 05 p1081 N93-15749
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Cooperation with Europe in NOAA operational satellite programs 08 p2357 N93-23754
Observations of atmospheric chemistry on the first European polar platform 08 p2361 N93-23776
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
The European polar platform and its Earth observation mission 08 p2363 N93-23784
Medium Resolution Imaging Spectrometer (MERIS) 08 p2363 N93-23785
An advanced scatterometer for the European polar platform 08 p2363 N93-23787
The radar altimeter instrument for POEM-1 mission 08 p2363 N93-23788
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1 08 p2363 N93-23789
The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790

SPACE STATION POWER SUPPLIES
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
EMTP based stability analysis of space station electric power system in a test bed environment
[NASA-TM-105845] 04 p0871 N93-15503
Space resources. Volume 2: Energy, power, and transport
[NASA-SP-509-VOL-2] 05 p1383 N93-16905
Power system requirements 05 p1383 N93-16906
Technologies --- space power sources 05 p1198 N93-16907
Nuclear energy technology 05 p1300 N93-16908
Thermal management in space 05 p1095 N93-16909
Laser power transmission 05 p1175 N93-16910
Real-time contingency handling in MAESTRO 06 p1638 N93-18683
Analysis of electromagnetic interference from power system processing and transmission components for Space Station Freedom
[NASA-CR-192281] 06 p1470 N93-19890
Lewis Research Center battery overview 07 p1983 N93-20493
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
AC/DC converter
[CA-PATENT-1-306-005] 08 p2205 N93-24205
Solar array electrical performance assessment for Space Station Freedom
[NASA-TM-106161] 10 p2984 N93-27039
Technology for Space Station Evolution. Volume 4: Power Systems/Propulsion/Robotics
[NASA-TM-108727] 10 p2968 N93-27803
Electrical power system WP-04 10 p2968 N93-27804
Space Station Freedom solar dynamic power generation 10 p2968 N93-27805
Advanced solar dynamic technology program 10 p2968 N93-27806
Space Station Freedom electric power system evolutionary energy storage 10 p2968 N93-27807
Miniaturized Cassegrainian solar array development 10 p2968 N93-27808
High efficiency low cost GaAs/Ge cell technology 10 p2968 N93-27809
Growing the Space Station's electrical power plant 10 p2969 N93-27810
Advanced modular power supplies for Space Station Freedom 10 p2969 N93-27811
Power beaming options for the Space Station 10 p2969 N93-27812
SPE (tm) regenerative hydrogen/oxygen fuel cells for extraterrestrial surface and microgravity applications 10 p2969 N93-27813
Fuel cell energy storage for Space Station enhancement 10 p2969 N93-27815
Automation of Space Station module power management and distribution system 10 p2969 N93-27816
Power system technology discipline 10 p2973 N93-27862

SPACE STATION PROPULSION
Design and operation of the US Space Station Freedom propulsion system 01 p0024 N93-10049
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
Technology for Space Station Evolution. Volume 4: Power Systems/Propulsion/Robotics
[NASA-TM-108727] 10 p2968 N93-27803
Space Station propulsion system 10 p2969 N93-27817
Space Station propulsion integrated propulsion test article 10 p2970 N93-27818
SPE (tm) electrolyzers for space propulsion 10 p2970 N93-27819
Propulsion technology discipline 10 p2973 N93-27863
Blowdown thrust profile prediction 12 p3689 N93-31448

SPACE STATION STRUCTURES
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Pre-integrated truss space station and method of assembly
[NASA-CASE-MSC-22015-1] 07 p1823 N93-20042
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm 07 p1823 N93-20167
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
Technology for Space Station Evolution. Volume 2: Data Management System/Environmental Control and Life Support Systems
[NASA-TM-108725] 10 p2963 N93-27704
Growing the Space Station's electrical power plant 10 p2969 N93-27810
Space teleoperations technology for Space Station evolution 10 p2970 N93-27823
FTS evolution 10 p2970 N93-27824
Structures for Space Station Freedom: Overview of current concept 10 p2970 N93-27836
Structural technology challenges for evolutionary growth of Space Station Freedom 10 p2970 N93-27837
Welding/brazing for Space Station repair 10 p2971 N93-27840
Structures and materials technology discipline 10 p2973 N93-27865
Space station attitude disturbance arising from internal motions 11 p3280 N93-29995

SPACE STATIONS
NT COLUMBUS SPACE STATION
NT MAN TENDED FREE FLYERS
NT MIR SPACE STATION
NT SALYUT SPACE STATION
NT SKYLAB 1
NT SPACE STATION FREEDOM
NT SPACE STATION POLAR PLATFORMS
Space Station: NASA's software development approach increases safety and cost risks. Report to the Chairman, Committee on Science, Space, and Technology, House of Representatives
[GAO/IMTEC-92-39] 01 p0012 N93-10081
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Automatic system for installation and replacement of Space Station components
[NASA-CASE-LEW-14906-1] 02 p0329 N93-12203
Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519
Large Deployable Reflector (LDR) system concept and technology definition study. Analysis of space station requirements for LDR
[NASA-CR-177414] 03 p0742 N93-12592
Space robotics: Recent accomplishments and opportunities for future research
[NASA-TM-107675] 03 p0694 N93-13442
A health care system for the Space Station
[NASA-TM-108093] 03 p0679 N93-13571
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Automation and robotics considerations for a lunar base 03 p0619 N93-14006
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606
Human exploration: Moon/Mars mission 04 p0805 N93-14922
Space law and space resources 05 p1358 N93-16860
Applications of living systems theory to life in space 05 p1229 N93-16865
Concrete: Potential material for Space Station 05 p1089 N93-16896
The transportation depot: An orbiting vehicle support facility 05 p1393 N93-17425
Developing a safe on-orbit cryogenic depot 05 p1393 N93-17426
The design of an adaptive attitude control system
[AD-A257632] 05 p1088 N93-17719
Project Wish: The Emerald City, phase 3
[NASA-CR-192081] 06 p1460 N93-18168
Space station evolution: Planning for the future
[NASA-TM-108596] 06 p1460 N93-18353
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Transportation and platforms perspective 06 p1453 N93-18636
Space station user development program: Future prospects 07 p1802 N93-21072
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station 07 p1780 N93-21413
Robust on-off pulse control of flexible space vehicles
[NASA-CR-192174] 07 p1824 N93-21644
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
Lunar transfer vehicle studies 08 p2173 N93-22087
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231
The role of smart systems in rendezvous, close proximity operations and docking maneuvers 08 p2150 N93-22310
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629

Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
The role of pyridoxine as a countermeasure for in-flight loss of lean body mass 09 p2796 N93-26068
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
Center for Space Construction Third Annual Symposium
[NASA-CR-192688] 09 p2669 N93-26405
Dynamics of on-orbit construction process
09 p2669 N93-26406
Interaction dynamics and control for orbital assembly
09 p2669 N93-26407
Controls for orbital assembly of large space structures
09 p2620 N93-26408
Structural load control during construction
09 p2669 N93-26409
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
Environmental control and life support system
10 p2965 N93-27718
Increased fire and toxic contaminant detection responsibility by use of distributed, aspirating sensors
10 p2965 N93-27722
Flight telerobotic servicer 10 p2970 N93-27820
Space Station: Information on National Security applications and cost. Report to the Honorable John W. Warner, US Senate
[GAO/NSIAD-93-208] 10 p3169 N93-27825
Approaches to dealing with meteoroid and orbital debris protection on the Space Station
10 p2971 N93-27838
Advanced automation of a prototypic thermal control system for Space Station 10 p2972 N93-27846
SPE water electrolyzers in support of the lunar outpost 10 p3088 N93-27977
Project WISH: The Emerald City
11 p3232 N93-29744
Workshop on Fuzzy Control Systems and Space Station Applications
[NASA-CR-193202] 12 p3688 N93-31439
Proximity operations in space station environment
12 p3689 N93-31449

SPACE STORAGE
Conceptual study of propellant storage and transfer engineering test satellite 10 p2950 N93-28025
The 1990-1991 project summaries
11 p3230 N93-29730

SPACE SUITS
NT EXTRAVEHICULAR MOBILITY UNITS
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
A comparison of hand grasp breakaway strengths and bare-handed grip strengths of the astronauts, SML 3 test subjects, and the subjects from the general population
[NASA-TP-3286] 05 p1225 N93-16619
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition
[NASA-TP-3297] 07 p2026 N93-20319

SPACE SURVEILLANCE (SPACEBORNE)
Spacecraft design project: High temperature superconducting infrared imaging satellite
[NASA-CR-192036] 06 p1458 N93-17887

SPACE SYSTEMS ENGINEERING
U AEROSPACE ENGINEERING

SPACE TECHNOLOGY EXPERIMENTS
Contributions to CD Space Committee, 1991: Summary and analysis
[PB92-195312] 02 p0219 N93-11216

SPACE TOOLS
TAQL: A problem space tool for expert system development
[AD-A253820] 01 p0175 N93-10826
Extra-vehicular activity translation tool
[NASA-CASE-MSC-21955-1] 04 p0891 N93-14842
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603

SPACE TRANSPORTATION
NT ADVANCED LAUNCH SYSTEM (STS)
NT SPACE TRANSPORTATION SYSTEM
The Space Station Freedom and space launch issues
[S-HRG-102-762] 02 p0225 N93-11908
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary
[NASA-CR-184473] 02 p0227 N93-12442
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Federal R/D funding by budget function: Fiscal years 1991-1993
[NSF-92-318] 03 p0740 N93-13312
The Second Conference on Lunar Bases and Space Activities of the 21st Century, volume 2
[NASA-CP-3166-VOL-2] 03 p0760 N93-13972
Space transfer vehicle concepts and requirements study, phase 2
[NASA-CR-192430] 05 p1075 N93-16660
NASA in the 21st century: A vision of greatness
05 p1073 N93-16850
Space resources. Volume 2: Energy, power, and transport
[NASA-SP-509-VOL-2] 05 p1383 N93-16905
Transport: Introduction 05 p1384 N93-16911
Modeling for health monitoring and control with applications to the Space Transportation Main Engine
05 p1095 N93-17298
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Lunar base mission technology issues and orbital demonstration requirements on space station
05 p1392 N93-17416
Operational considerations for lunar transportation
05 p1392 N93-17418
Electric propulsion for lunar exploration and lunar base development 05 p1392 N93-17419
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance
05 p1393 N93-17420
Advanced propulsion for LEO-Moon transport. 2: Tether configurations in the LEO-Moon system
05 p1393 N93-17421
Advanced propulsion for LEO-Moon transport. 3: Transportation model 05 p1393 N93-17422
The transportation depot: An orbiting vehicle support facility 05 p1393 N93-17425
Lunar lander conceptual design
05 p1394 N93-17428
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Conceptual design of a Mars transportation system
[NASA-CR-192039] 06 p1545 N93-18047
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
Launch system development in the Pacific Rim
[NASA-TM-108595] 06 p1455 N93-18170
Space station evolution: Planning for the future
[NASA-TM-108596] 06 p1460 N93-18353
Transportation and platforms perspective
06 p1453 N93-18636
Problem solving for long term, global scenarios of space traffic
[ILR-MITT-265(1991)] 07 p1821 N93-20906
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
Cargo vehicle architecture options
08 p2172 N93-22082
Lunar transfer vehicle studies
08 p2173 N93-22087
Mars transfer vehicle studies
08 p2173 N93-22088
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Propulsion Systems Panel deliberations
08 p2175 N93-22101
Thermal protection systems for space transportation vehicles 08 p2177 N93-22113
Some materials perspectives for space transportation systems 08 p2177 N93-22115
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Transportation systems analyses. Volume 1: Executive summary
[NASA-CR-192485] 08 p2179 N93-23008
Transportation technology program: Strategic plan
[NASA-TM-108706] 08 p2152 N93-23032
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
Saenger: A space transportation system for the 21st century
[ETN-93-93696] 08 p2126 N93-23363
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
Task 5: Architecture sensitivity to STME performance
[MCR-92-5010] 09 p2609 N93-26176
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Space transportation analysis and design (Reissue A)
[AD-A262752] 11 p3271 N93-28487
The Orbiter Experiments (OEX) program
11 p3266 N93-28731
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034
System study of tether technology with particular consideration of transport utilization possibilities in space transportation
[ILR-MITT-270(1992)] 12 p3685 N93-31207

SPACE TRANSPORTATION SYSTEM
NT ADVANCED LAUNCH SYSTEM (STS)
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
Development trends in space transportation systems: From Hermes to Saenger
[MBB-UK-0146-91-PUB] 02 p0223 N93-11007
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Space transportation booster engine configuration study. Volume 2: Design definition document and environmental analysis
[NASA-CR-184459] 02 p0234 N93-12441
Predicted and tested performance of durable TPS
02 p0228 N93-12454
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Reaching for the skies: The next generation
[ESA-BR-37-G] 03 p0516 N93-13859
The influence of lunar propellant production on the cost-effectiveness of cislunar transportation systems
03 p0556 N93-13983
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
Space transfer vehicle concepts and requirements. Volume 1: Executive summary
[NASA-CR-184488] 05 p1075 N93-16672
The influence of culture on space developments
05 p1378 N93-16863
Utilization of space resources in the space transportation system 05 p1384 N93-16912
Aluminum-fueled rockets for the space transportation system 05 p1095 N93-16913
CFD analysis on control of secondary losses in STME LOX turbines with endwall fences
05 p1165 N93-17289
STME nozzle thermal analysis
05 p1095 N93-17291
Directions for future Earth-to-orbit vehicles
05 p1076 N93-17309
Contamination signatures observed during the CIRRIS-1A mission
[AD-A258596] 07 p1820 N93-19982
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on advanced transportation systems
07 p1789 N93-20414
From Earth to Orbit: An assessment of transportation options
[NASA-CR-192729] 07 p1821 N93-21477
National Launch System: Structures and materials
08 p2172 N93-22083
Some materials perspectives for space transportation systems 08 p2177 N93-22115
Ten-year space launch technology plan
[NASA-TM-108701] 08 p2135 N93-22204
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226

Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
Transportation systems analyses, volume 2 [NASA-CR-192486] 08 p2177 N93-22386
Demonstration plan for real time receiving and processing of flight data from the space transportation system [NASA-TM-107725] 08 p2152 N93-22468
A summary of laboratory testing performed to characterize and select an elastomeric O-ring material to be used in the redesigned solid rocket motors of the space transportation system [NASA-TM-108395] 08 p2236 N93-22557
Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration [NASA-TM-4439] 08 p2108 N93-22558
Future of the US Space Launch capability: A task group report [PB93-139947] 08 p2171 N93-22899
Research and technology goals and objectives for integrated Vehicle Health Management (IVHM) [NASA-CR-192656] 08 p2152 N93-23033
Weather forecasting expert system study [NASA-CR-192929] 09 p2777 N93-24747
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces [NASA-CR-192527] 09 p2611 N93-25513
Knowledge-based decision support for Space Station assembly sequence planning [NASA-CR-193048] 09 p2599 N93-26095
Liquid Rocket Booster (LRB) for the Space Transportation System (STS) Systems Study. Amendment 13: Orientation meeting [NASA-CR-192515] 09 p2614 N93-26152
Assured crew return vehicle man-systems integration standards [NASA-CR-193065] 09 p2614 N93-26329
Electrical design of Space Shuttle payload G-534: The pool boiling experiment [NASA-TM-106143] 10 p2959 N93-27260
Advanced transportation system studies. Alternate propulsion subsystem concepts: Propulsion database [NASA-CR-192545] 10 p2987 N93-28325
Analysis of orbital system logistics in the cis-lunar space with particular consideration of life cycle costs [ETN-93-93484] 11 p3268 N93-29063
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation [NASA-CR-193016] 11 p3272 N93-31033
Technology transfer: Potential of BMFT concept for hypersonics [MBB-LME-202-S-PUB-0505] 12 p3843 N93-31045
Evaluation of future space transportation systems with regard to their reliability and costs [ESA-TT-1281] 12 p3687 N93-31593

SPACE TRANSPORTATION SYSTEM FLIGHTS

Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46 [NASA-TM-107552] 02 p0223 N93-12151
STS-49: Space shuttle mission report [NASA-TM-108104] 04 p0815 N93-14736
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space 05 p1181 N93-17284
Analysis of Waves in Space Plasma (WISP) near field simulation and experiment 05 p1313 N93-17324
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52 [NASA-TM-107554] 06 p1457 N93-19050
Toward a history of the space shuttle. An annotated bibliography [NASA-TM-108647] 06 p1457 N93-19494
Future space transportation systems. Part 1: Safety aspects. Part 2: Technical aspects [MBB-UK-0180-90-PUB-PT-1-2] 07 p1821 N93-20847
Results of prototype software development for automation of shuttle proximity operations 07 p1815 N93-21425
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations 07 p1817 N93-21439
Space assembled entry systems certification 08 p2176 N93-22106
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
Methods and means used in programming intelligent searches of technical documents 08 p2530 N93-22155
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177
Results of prototype software development for automation of shuttle proximity operations 08 p2142 N93-22264
Proposed CTV design reference missions in support of Space Station Freedom 08 p2148 N93-22300
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Translational controller results [NASA-CR-192320] 08 p2457 N93-22396
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54 [NASA-TM-107558] 08 p2178 N93-22669
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results [NASA-CR-192294] 08 p2180 N93-22683
Space transportation: The content and uses of Shuttle cost estimates. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives [GAO/NSIAD-93-115] 08 p2531 N93-23097
A genetic algorithm tool (splicer) for complex scheduling problems and the Space Station Freedom resupply problem 09 p2814 N93-25613
STS-39 Space Shuttle mission report [NASA-CR-193063] 09 p2611 N93-25955
STS-37 Space Shuttle mission report [NASA-CR-193062] 09 p2612 N93-25956
STS-43 Space Shuttle mission report [NASA-CR-193064] 09 p2612 N93-25957
STS-40 Space Shuttle mission report [NASA-TM-108737] 09 p2612 N93-25958
STS-45 Space Shuttle mission report [NASA-CR-193054] 09 p2612 N93-25959
STS-47 Space Shuttle mission report [NASA-CR-193056] 09 p2612 N93-25960
STS-44 Space Shuttle mission report [NASA-TM-108735] 09 p2612 N93-25988
STS-42 Space Shuttle mission report [NASA-CR-193059] 09 p2613 N93-25989
STS-48 Space Shuttle mission report [NASA-CR-193060] 09 p2613 N93-25990
STS-46 Space Shuttle mission report [NASA-CR-193058] 09 p2613 N93-25991
STS-50 Space Shuttle mission report [NASA-CR-193057] 09 p2613 N93-25992
STS-52 Space Shuttle mission report [NASA-CR-193061] 09 p2613 N93-25993
Distributed project scheduling at NASA: Requirements for manual protocols and computer-based support 09 p2815 N93-26075
Utilization of the graded universal testing system to increase the efficiency for assessing aerobic and anaerobic capacity 09 p2794 N93-26077
Ultraviolet Imaging Telescope (UIT) observations of galaxies 10 p3184 N93-26785
Electrical design of Space Shuttle payload G-534: The pool boiling experiment [NASA-TM-106143] 10 p2959 N93-27260
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-56 [NASA-TM-107560] 10 p2956 N93-27538
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors 10 p2971 N93-27841
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55 [NASA-TM-107559] 11 p3271 N93-29136
Enhanced reduction of velocity data obtained during CETA flight experiment [NASA-TM-4460] 11 p3431 N93-29209
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters [NASA-CR-188250] 12 p3690 N93-32228

SPACE VEHICLE CHECKOUT PROGRAM

Anik E spacecraft integration and test 04 p0808 N93-14939
Space based radar: Test of large space structures 04 p0808 N93-14941
Space craft verification at the David Florida Laboratory 04 p0809 N93-14943

SPACE VEHICLE CONTROL

U SPACECRAFT CONTROL

SPACE VEHICLES

U SPACECRAFT

SPACE WEAPONS

An indicator of message quality for a single optical sensor using a template based tracking algorithm [AD-A252704] 01 p0139 N93-10881
Strategic defense initiative: Estimates of brilliant pebbles' effectiveness are based on many unproven assumptions [AD-A256810] 05 p1277 N93-15679

SPACE-TIME CONTINUUM

U RELATIVITY

SPACE-TIME FUNCTIONS

Quantum tunneling and the change in the signature of the spacetime metric [DE92-634877] 01 p0165 N93-10225
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
On an origin of numerical diffusion: Violation of invariance under space-time inversion [NASA-TM-105776] 02 p0425 N93-11254
Spacetime singularities in string theory 02 p0472 N93-12530
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
Multiply connected spacetimes and closed timelike curves in semiclassical gravity 04 p0915 N93-14884
Spatio-temporal complexity and large-scale structures in problems of continuum mechanics [AD-A256410] 04 p0998 N93-15333
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center [NASA-CR-4474] 04 p0924 N93-15581
Mode analysis and Ward identities for perturbative quantum gravity in de Sitter space [DE92-040503] 05 p1328 N93-15940
Conservation laws for elastic systems with dissipation [AD-A257168] 05 p1280 N93-15999
Propagation velocity and space-time correlation of perturbations in turbulent channel flow [NASA-TM-103932] 09 p2695 N93-25082
Quasar redshifts and non-potential interactions [SSCL-PREPRINT-758] 10 p3205 N93-28143
Quantum field theory in spaces with closed time-like curves [DE93-010564] 11 p3605 N93-30481
Phase structure of three- and four-dimensional phi(exp 4) field theory [DE93-606069] 11 p3605 N93-30782
Beyond two dimensions [DE93-606084] 11 p3606 N93-30786
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background [DE93-606063] 11 p3606 N93-30808
A simple formula for reducing Feynman diagrams to scalar integrals [DE92-644717] 11 p3607 N93-30916
Fourth-rank gravity and cosmology [DE92-644722] 11 p3637 N93-30918
Topology and statistics in zero dimensions [DE93-604080] 11 p3607 N93-30932
Relativity theory in (2 + 2)-space [DE92-644671] 11 p3808 N93-30983
Spherically symmetric line element and Killing vectors in five-dimensional space [DE93-604132] 11 p3558 N93-30988
The geometry of complex space-times with torsion [DE92-641343] 11 p3608 N93-31003
2 + 1 gravity without dynamics [DE92-642587] 12 p3757 N93-31081
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles [DE93-608203] 12 p3818 N93-31240
A universal mass in (2+1)-dimensions [DE93-609888] 12 p3832 N93-31911

SPACE-TIME METRIC

U SPACE-TIME FUNCTIONS

SPACEBORNE ASTRONOMY

Solar Physics and Astrophysics at Interferometric Resolution [ESA-SP-344] 01 p0179 N93-10901
Planned observations at high resolution from space 01 p0177 N93-10903
Prospects with SIMURIS 01 p0179 N93-10904
Stellar and circumstellar evolution and activity 01 p0181 N93-10918
Tomographic/interferometric studies of active stars and binaries 01 p0182 N93-10920
Prospects in stellar and galactic observations with SIMURIS 01 p0182 N93-10921
Towards an ESA strategy for optical interferometry in space. Recommendations of the ESA Space Interferometry Study Team (SIST) 01 p0178 N93-10944
Report of the Lunar Interferometry Study Team (LIST) activities 01 p0178 N93-10945
Some possible space interferometry applications 01 p0178 N93-10957
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik [MPE-PREPRINT-215] 02 p0482 N93-11473
Rosat deep surveys 02 p0482 N93-11474
Stars in the Rosat all-sky survey 02 p0482 N93-11477

Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics
[ESA-ISY-3] 08 p2533 N93-23878
Status and early results of the Hipparcos astrometry project 08 p2533 N93-23879
The ROSAT all-sky x ray survey 08 p2533 N93-23880
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Gravitational lenses 08 p2534 N93-23883
ROSAT observations of supernova remnants and the interstellar medium 08 p2534 N93-23884
Horizon 2000 and European national programmes 08 p2534 N93-23885
Active galactic nuclei: The view from space 08 p2534 N93-23886
ROSAT observations of active galactic nuclei 08 p2534 N93-23888
Solar system observations with HST 08 p2534 N93-23889
Data analysis and archives in astronomy: A perspective view 08 p2535 N93-23896
X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898
HST imaging of the binary pulsar PSR1913+16 08 p2536 N93-23902
Ground-based optical support for gamma ray satellite activities 08 p2170 N93-23909
The Infrared Space Observatory (ISO) 08 p2170 N93-23912
The ROSAT archive 08 p2538 N93-23915
ROSAT observations in star forming regions 08 p2538 N93-23917
ASCHOT: Astrophysical Schmidt Orbital Telescope 08 p2539 N93-23919
Design and in orbit performance of the ROSAT PSPC 08 p2539 N93-23923
FIRST: Far Infrared and Submillimeter Space Telescope 08 p2540 N93-23924
Evidence for two types of sources creating Halley's coma 08 p2540 N93-23926
SAX overview 08 p2540 N93-23927
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO 08 p2540 N93-23929
INTEGRAL: International Gamma Ray Astrophysics Laboratory 08 p2170 N93-23932
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
White paper on science operations 10 p3165 N93-27047
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Space research in Germany 1990-1991
[ETN-93-93807] 11 p3654 N93-28477
The Ultraviolet Plume Instrument (UVPI) 11 p3285 N93-28784
Active region studies with coordinated SOHO, microwave, and magnetograph observations 12 p3873 N93-31380
Observations of the quiet Sun from the soft x ray telescope on Yohkoh 12 p3874 N93-31388
Targets for Space-Based Interferometry
[ESA-SP-354] 12 p3844 N93-31750
Visible and infrared imaging interferometry from space 12 p3844 N93-31753
Submillimeter interferometry 12 p3845 N93-31754
Comparative aspects of Earth- and space-based interferometry 12 p3845 N93-31756
Interferometry from the Moon 12 p3845 N93-31757
Space-based astrometric optical interferometry with POINTS 12 p3845 N93-31758
The SUN/SIMURIS interferometer 12 p3845 N93-31759
Space Interferometry Science Working Group 12 p3846 N93-31761
Report on the ESA Interferometry Study Team activities 12 p3846 N93-31762
SISTERS: A space interferometer for the search for terrestrial exo-planets by rotation shearing 12 p3846 N93-31764
Report of the submillimeter splinter group 12 p3847 N93-31770
Summary of the splinter session on optical and UV science 12 p3848 N93-31773
High resolution solar physics 12 p3848 N93-31775
Prospects for imaging and astrometry on the ground and implications for space interferometry 12 p3848 N93-31776
P Cyg envelope and prospects of interferometric observations 12 p3848 N93-31777
HARDI: A High Angular Resolution Deployable Interferometer 12 p3850 N93-31786
A concept of deployable tethered interferometer 12 p3691 N93-31787
Interferometer concepts for astrometry in space 12 p3691 N93-31788
Prospects for stellar physics: Structure and influence of circumstellar media 12 p3850 N93-31789

SPACEBORNE EXPERIMENTS
NT PHYSICS AND CHEMISTRY EXPERIMENT IN SPACE
NT PLASMA INTERACTION EXPERIMENT
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
A 26 kW arcjet system for on-orbit demonstration 01 p0021 N93-10031
Structure of thermocapillary flow in narrow cavities 01 p0061 N93-10552
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Some results of the oxidation investigation of copper and silver samples flown on LDEF 01 p0034 N93-10580
Polymer matrix composites on LDEF experiments M0003-9 and M0003-10 01 p0038 N93-10584
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites 01 p0038 N93-10585
Acceptance testing of the prototype electrometer for the SAMPIE flight experiment
[NASA-TM-105880] 01 p0013 N93-10841
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
High Temperature Superconductivity Space Experiment (HTSSE)
[AD-A253119] 02 p0288 N93-11239
A model to estimate the flux of background particles expected to accumulate on the collector foils of the interstellar gas experiment on the long duration exposure facility spacecraft
[AD-A254265] 02 p0489 N93-11815
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning
[NASA-CR-184410] 02 p0220 N93-12213
Chemical release and radiation effects experiment advanced planning and coordination
[NASA-CR-184439] 03 p0649 N93-12718
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
LDEF materials: An overview of the interim findings 03 p0546 N93-12770
LDEF atomic oxygen fluence update 03 p0546 N93-12771
LDEF yaw and pitch angle estimates 03 p0524 N93-12772
Surface contamination on LDEF exposed materials 03 p0547 N93-12776
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment 03 p0548 N93-12782
Element Material Exposure Experiment by EFFU 03 p0548 N93-12783
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads 03 p0509 N93-13165
Scientific experimentation afforded by the International Asteroid Mission 03 p0515 N93-13561
Spacelab J: Microgravity and life sciences
[NASA-CR-191353] 03 p0516 N93-13564
Spectral analysis of the shuttle glow. SPA II/IBSS Mission: AIS hardware
[PL-TR-92-2148] 04 p0814 N93-14697
Study of Fluid Experiment System (FES)/CAST/Holographic Ground System (HGS)
[NASA-CR-184483] 04 p0855 N93-14793
ISOCAM experiment cryogenic test results
[REPT-921-440-104] 04 p0825 N93-15140
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
Segment specification for the payload segment of the reusable reentry satellite: Rodent module version
[NASA-CR-187884] 04 p0824 N93-15630
LDEF: A bibliography with abstracts
[NASA-TM-107705] 04 p0813 N93-15646
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission
[NASA-TM-108034] 05 p1221 N93-15823
ROMPS critical design review. Volume 2: Robot module design documentation
[NASA-CR-191614] 05 p1240 N93-16642
Study of FES/CAST/HGS
[NASA-CR-190945] 05 p1114 N93-16711
Preliminary definition of experiments and procedures for terrestrial and space examination of flame structure
[APRL-X13-8] 05 p1105 N93-16728
A study of protein crystallization in microgravity. Phase 2: System specification for nucleation detection system for space facility
[DOC-3296-ER-01] 05 p1132 N93-16730
Measurements and calculations of the characteristics for a space-based neutron sensor
[DE93-001429] 05 p1399 N93-17067
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis 05 p1170 N93-17338
Autonomous support for microorganism research in space
[NASA-CR-192062] 05 p1223 N93-17780
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
Design of microcontroller software for a satellite-based ferroelectric capacitor experiment
[AD-A257960] 06 p1460 N93-18240
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
Structural control sensors for the CASES GTF 06 p1464 N93-18837
Laboratory and theoretical models of planetary-scale instabilities and waves 07 p2004 N93-20074
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127
Capabilities and constraints of typical space flight hardware 07 p1868 N93-20183
Research on space component and material manufacturing experiments utilizing microgravity environment 07 p1791 N93-20422
Materials Exposure in Low Earth Orbit (MELEO) experiment 07 p1848 N93-20817
Data handling in telescience experiments using the Prototype Optical Diagnostic Instrument (PODI)
[NLR-TP-90327-U] 07 p2090 N93-20917
Long duration human exposure to microgravity 07 p1802 N93-21073
Space life sciences overview 07 p1802 N93-21074
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
The development of an automated cell culture system for use in space life science research 07 p1804 N93-21085
Crystallization of a protein aboard the US Space Shuttle flight STS-31 07 p1804 N93-21086
Development of the Aquatic Research Facility 07 p1807 N93-21100
CSAR-1: The first Canadian microgravity sounding rocket flight 07 p1807 N93-21103
International and commercial sub-orbital program for microgravity research 07 p1807 N93-21104
The Wakeshield Facility: Free flyer and commercial experiment transporter programs 07 p1807 N93-21105
Elucidation of the role of gravity and gravity driven convection in the formation of silicon carbide/silicon nitride whiskers 07 p1808 N93-21107
Polymer foam cell growth in microgravity 07 p1808 N93-21108

An experiment on producing foam metals in a microgravity environment aboard NASA KC-135 aircraft
07 p1808 N93-21109
Pre Asia Pacific ISY Conference
[NASDA-CM-174] 07 p1975 N93-21270
Recent results and new hardware developments for protein crystal growth in microactivity
[NASA-CR-191994] 07 p1875 N93-21356
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc.
07 p2093 N93-21677
NASA PPO microgravity projects support
[NASA-CR-192460] 08 p2246 N93-22038
Space Station Furnace Facility preliminary Project Implementation Plan (PIP). Volume 2, appendix 2
[NASA-CR-192474] 08 p2302 N93-22347
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
Japanese plan for SSF utilization
08 p2184 N93-22616
Space life sciences perspectives for Space Station Freedom 08 p2185 N93-22619
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
Life sciences utilization of Space Station Freedom
08 p2185 N93-22622
Precursor SSF utilization: The MODE experiments
08 p2188 N93-22633
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Selected OAST/OSSA space experiment activities in support of Space Station Freedom
08 p2189 N93-22636
Spacecraft materials and coatings experiments
08 p2189 N93-22637
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Research objectives, opportunities, and facilities for microgravity science 08 p2190 N93-22642
Office of Commercial Programs' research activities for Space Station Freedom utilization
08 p2191 N93-22647
Integration and use of Microgravity Research Facility: Lessons learned by the crystals by vapor transport experiment and Space Experiments Facility programs
08 p2193 N93-22652
Flight project data book
[NASA-TM-108657] 08 p2152 N93-22870
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
Space Station Furnace Facility. Volume 2: Appendix 1: Contract End Item specification (CEI), part 1
[NASA-CR-192473] 08 p2303 N93-23083
Space Station Furnace Facility. Volume 3: Program cost estimate
[NASA-CR-192478] 08 p2200 N93-23237
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738
German participation within the international Earth observation mission Priroda 08 p2361 N93-23774
The world wide launching campaign for student rockets experimental payloads 08 p2368 N93-23820
Analysis of the results of the first year of operation of the Munich Dust Counter 08 p2537 N93-23910
User support for the Spacelab mission D-2
08 p2155 N93-24340
Mir 1992: Scientific program and payload
08 p2157 N93-24351
The joint Austro-Soviet space project Austromir-91
08 p2157 N93-24353
Physiological experiments within the project AustroMir
08 p2157 N93-24354
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Development and implementation of the MotoMir experiment on the Mir Space Station
08 p2159 N93-24363
AudiMir: Directional hearing at microgravity
08 p2159 N93-24365
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation
08 p2160 N93-24366
Influence of microgravity on immune system and genetic information 08 p2160 N93-24370
The Microgravity User Support Center (MUSC)
08 p2161 N93-24374
Microgravity Advanced Research and Support (MARS) Center update 08 p2161 N93-24375
The refined decentralized concept and development support 08 p2162 N93-24378
The USO-concept applied to a biological model experiment 08 p2162 N93-24379
Training concept for crew, end user, and ground centre personnel in the Columbus utilisation programme
08 p2162 N93-24382
Payload operations 08 p2163 N93-24384
CEBAS-Aquarack: An artificial aquatic animal plant ecosystem as a tool for basic research in the Columbus Space Station 08 p2166 N93-24401
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402
Gravity and root morphogenesis
08 p2166 N93-24403
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission
09 p2603 N93-24717
The Columbus Metrology Science Team: Report on activities 09 p2670 N93-24987
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Tethered Satellite System Contingency Investigation Board
[NASA-TM-108704] 09 p2616 N93-25231
Laser ignition application in a space experiment
[NASA-TM-106133] 09 p2664 N93-25337
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
MIT Space Engineering Research Center
[NASA-CR-192879] 09 p2821 N93-25833
STS-45 Space Shuttle mission report
[NASA-CR-193054] 09 p2612 N93-25959
STS-42 Space Shuttle mission report
[NASA-CR-193059] 09 p2613 N93-25989
STS-50 Space Shuttle mission report
[NASA-CR-193057] 09 p2613 N93-25992
STS-52 Space Shuttle mission report
[NASA-CR-193061] 09 p2613 N93-25993
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
Battery selection for Space Shuttle experiments
[NASA-TM-106142] 10 p2958 N93-27038
Electrical design of Space Shuttle payload G-534: The pool boiling experiment
[NASA-TM-106143] 10 p2959 N93-27260
Superfluid helium needs and resupply on Space Station 10 p2968 N93-27802
Midcourse Space Experiment (MSX) environmental assessment
[AD-A262460] 10 p3127 N93-27830
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors
10 p2971 N93-27841
Controlled Structures Technology Steering Committee Workshop
[NASA-CR-192992] 10 p3058 N93-27888
The Middeck Active Control Experiment (MACE)
10 p3059 N93-27896
The Middeck Active Control Experiment (MACE): Identification for robust control 10 p3059 N93-27898
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Artificial gravity experiment satellites
10 p2949 N93-28018
Lunar surface experiment system
10 p2951 N93-28034
The Middeck Active Control Experiment (MACE)
10 p3061 N93-28173
LDEF: 69 Months in Space. Part 3: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-3] 10 p3219 N93-28254
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Selected results for LDEF thermal control coatings
10 p3008 N93-28279
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings
[NASA-TM-108721] 11 p3262 N93-28699
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
In-step inflatable antenna experiment
11 p3263 N93-28701
Description of the Joint Damping Experiment (JDX)
11 p3263 N93-28703
Adaptive structures flight experiments
11 p3263 N93-28704
The MODE family of facility class experiments
11 p3263 N93-28705
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP)
11 p3264 N93-28711
Tank Pressure Control Experiment (TPCE)
11 p3264 N93-28712
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713
Solar Array Module Plasma Interaction Experiment (SAMPIE) 11 p3265 N93-28716
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
Sodium sulfur technology program NaSTEC
11 p3265 N93-28718
In-STEP Two-Phase Flow (TPF) thermal control experiment 11 p3265 N93-28719
Thermal energy storage flight experiment in microgravity 11 p3265 N93-28720
Cryogenic Heat Pipe Experiment (CRYOHP)
11 p3265 N93-28721
STRV1-b flight experiment 11 p3265 N93-28723
NEP space test program objective
11 p3265 N93-28724
The Optical Properties Monitor (OPM): A multipurpose optical laboratory in space 11 p3266 N93-28729
The Orbiter Experiments (OEX) program
11 p3266 N93-28731
NPB cesium space experiment
11 p3267 N93-28733
Environmental monitors in the Midcourse Space Experiments (MSX) 11 p3286 N93-28826
FNAS CRRES program completion
[NASA-CR-192468] 11 p3476 N93-29032
LDEF materials data bases
[NASA-TM-107757] 11 p3290 N93-29067
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Progress report on the Heavy Ions in Space (HIIS) experiment 11 p3573 N93-29645
LDEF: 69 Months in Space. Part 4: Second Post-Retrieval Symposium
[NASA-CP-3194-PT-4] 11 p3665 N93-29682
LDEF Space Plasma-High Voltage Drainage Experiment post-flight results 11 p3414 N93-29690
LDEF space optics handbook
11 p3582 N93-29695
Retrievable payload carrier, next generation Long Duration Exposure Facility: Update 1992
11 p3283 N93-29705
QuickStar: System design, capabilities, and tactical applications of a small, smart space system
11 p3284 N93-29905
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-193224] 11 p3281 N93-30038
The middeck 0-gravity dynamics experiment
[NASA-CR-4500] 11 p3281 N93-30376
Aerospace payload design and development
[AD-A264502] 11 p3289 N93-30402
Telescience pilot experiment results using telePODI
[NLR-TP-90326-U] 12 p3823 N93-31118
Potential low-cost telerobotics flight experiments
12 p3737 N93-32120
Refine research plan for use of Atlas data
[NASA-CR-192611] 12 p3766 N93-32349
Towards distributed control systems for experiments under micro gravity
[NLR-TP-92027-U] 12 p3714 N93-32387

SPACEBORNE LASERS

Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Sampling properties of a spaceborne lidar (ATLID)
07 p1961 N93-21618
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture
08 p2139 N93-22250
Basic design of a spaceborne hydrogen maser
09 p2716 N93-25024
Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging
09 p2713 N93-25389

Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823

SPACEBORNE PHOTOGRAPHY
NT SATELLITE-BORNE PHOTOGRAPHY
Earth observation photography: Looking back 20 years after Skylab 03 p0509 N93-13164
Manned observations technology development, FY 1992 report
[NASA-CR-185704] 03 p0597 N93-13373
Earth resources and ecological spacecraft 08 p2361 N93-23777

SPACEBORNE TELESCOPES
NT HUBBLE SPACE TELESCOPE
NT INFRARED SPACE OBSERVATORY (ISO)
NT LARGE DEPLOYABLE REFLECTOR
NT SPACE INFRARED TELESCOPE FACILITY
NT X RAY ASTROPHYSICS FACILITY
EUV complementary instrumentation for SIMURIS 01 p0014 N93-10938
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593
The ALEXIS experiment: Current status and performance
[DE92-018601] 03 p0524 N93-13516
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core 05 p1082 N93-15759
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure 05 p1084 N93-15775
Assessment of the lunar surface layer and in situ materials to sustain construction-related applications 05 p1388 N93-17253
A study of the Lute Metering Structure 05 p1189 N93-17294
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Very high energy gamma ray extension of GRO observations
[NASA-CR-192407] 07 p2094 N93-20746
Flight project data book
[NASA-TM-108657] 08 p2152 N93-22870
ORFEUS: Scientific targets and optical performance 08 p2537 N93-23905
ASCHOT: Astrophysical Schmidt Orbital Telescope 08 p2539 N93-23919
FIRST: Far Infrared and Submillimeter Space Telescope 08 p2540 N93-23924
Shuttle PRCS plume contamination analysis for Astro-2 mission
[NASA-CR-193828] 10 p2986 N93-27240
A magnetic isolation and pointing system for the astrometric telescope facility 10 p2960 N93-27563
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
The SUN/SIMURIS interferometer 12 p3845 N93-31759
A concept of deployable tethered interferometer 12 p3691 N93-31787

SPACECRAFT
Mars transfer vehicle studies 08 p2173 N93-22088
Mini-satellite exploration of very near Earth space fuel objects
[DE93-005253] 08 p2195 N93-24057
Readings in Systems Engineering
[NASA-SP-6102] 09 p2665 N93-24678

SPACECRAFT ANTENNAS
Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-190948] 03 p0561 N93-12655
The numerical simulation of the inflation process of space rigidized antenna structures 05 p1083 N93-15771
A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423
Research on phased array antenna 07 p1795 N93-20446
Research on beam compression technology 07 p1795 N93-20447
Ka-band feed arrays for spacecraft reflector antennas with limited scan capability: An overview 09 p2680 N93-26128
In-step inflatable antenna experiment 11 p3263 N93-28701
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195
Signal-to-noise ratio losses in full spectrum combining of signals with a downconverted subcarrier 11 p3386 N93-29599

SPACECRAFT CABIN ATMOSPHERES
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
Atmospheric control systems 12 p3689 N93-31456

SPACECRAFT CHARGING
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Study of plasma environments for the integrated Space Station electromagnetic analysis system
[NASA-CR-192513] 03 p0522 N93-13152
Electrostatic charging of spacecraft in geosynchronous orbit
[DRA-TM-SPACE-389] 08 p2181 N93-22489
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
SCATHA mission termination report 09 p2605 N93-24725
Plasma sheath effects on ion collection by a pinhole
[NASA-TM-106098] 09 p2615 N93-25090
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
Detailed component design for a Compact Environmental Anomaly Sensor (CEASE)
[AD-A261729] 09 p2620 N93-26248
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 1
[AD-A262783] 10 p2974 N93-28401
Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 2
[AD-A262784] 10 p2974 N93-28402
Solar Array Module Plasma Interaction Experiment (SAMPIE) 11 p3265 N93-28716
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
USU center of excellence in theory and analysis of the geo-plasma environment
[AD-A264750] 11 p3590 N93-30585
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure 12 p3688 N93-31157

SPACECRAFT CHARGING AT HIGH ALTITUDE
U SCATHA SATELLITE

SPACECRAFT COMMUNICATION
NT SATELLITE COMMUNICATION
Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems 09 p2814 N93-25589
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
Communications and tracking technology discipline 10 p2972 N93-27856
Data management system technology discipline 10 p2972 N93-27857

SPACECRAFT COMPONENTS
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT MARS EXCURSION MODULE
NT SPACECRAFT MODULES
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Research on space component and material manufacturing experiments utilizing microgravity environment 07 p1791 N93-20422
Research on HOPE actuator power unit 07 p1792 N93-20430
Research on HOPE heat sink device 07 p1792 N93-20431
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Conceptual study of ETS-7 07 p1793 N93-20437
Research on docking mechanism system test 07 p1794 N93-20439
Research on space superconducting element technology 07 p1794 N93-20441
Research on space structure materials 07 p1794 N93-20443
Research on large structure assembly technology: Research on deployable assembly structure 07 p1795 N93-20444
Review on parts test data analyzing system 07 p1800 N93-20480
Safety validation test equipment operation 07 p1801 N93-20487
Review on safety validation test 07 p1802 N93-20488
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Linearly connected solar power satellite 10 p2949 N93-28019
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Conceptual study of lunar roving explorer 10 p2952 N93-28040
Lunar surface roving explorer 10 p2952 N93-28041
Lunar surface roving explorer 10 p2952 N93-28042
Mars revolving observation satellite 10 p2953 N93-28047
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250

SPACECRAFT COMPUTERS
U AIRBORNE/SPACEBORNE COMPUTERS

SPACECRAFT CONFIGURATIONS
NT SATELLITE CONFIGURATIONS
NT SPACE SHUTTLE ASCENT STAGE
A configuration development strategy for the NASP 01 p0009 N93-10011
Manned Mars System Study (MMSS): Mars transportation and facility study. Volume 1: Executive Summary
[NASA-CR-184473] 02 p0227 N93-12442
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
Assured crew return vehicle post landing configuration design and test
[NASA-CR-191253] 03 p0520 N93-12910
Computer based satellite design
[AD-A255315] 04 p0816 N93-14536
The Vulcain MK2 engine for Ariane 5 performance improvement
[ETN-93-93019] 06 p1472 N93-18145
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Report to Congress on the restructuring of the Earth Observing System
[PB93-108587] 07 p1978 N93-21506
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle
[NASA-CR-192492] 08 p2178 N93-22993
Concept of a small satellite for URM 08 p2199 N93-23922
The effect of missions and payload performance on the configuration of an orbital injection system design 08 p2156 N93-24349
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation
[NASA-CR-192525] 09 p2611 N93-25510
Conceptual study of fly-back booster 10 p2950 N93-28028
Lunar surface roving explorer 10 p2952 N93-28041
ROSETTA: The ESA sample return mission 10 p2953 N93-28049

Adaptive structures flight experiments
11 p3263 N93-28704

SPACECRAFT CONSTRUCTION MATERIALS
LDEF Materials Workshop 1991, part 2
[NASA-CP-3162-PT-2] 01 p0037 N93-10578
Space environmental effects on LDEF low Earth orbit exposed graphite reinforced polymer matrix composites
01 p0038 N93-10585
Identification and evaluation of lubricants, adhesives, and seals used on LDEF 01 p0039 N93-10588
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Erosion mechanisms in ceramic structures
[MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Predicted and tested performance of durable TPS
02 p0228 N93-12454
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center
02 p0228 N93-12455
LDEF materials: An overview of the interim findings
03 p0546 N93-12770
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Mechanics of composite materials for spacecraft
[AD-A255380] 04 p0831 N93-14550
Low Earth orbit atomic oxygen simulation for durability evaluation of solar reflector surfaces
04 p0819 N93-15594
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
Accelerated simulation of near-Earth-orbit polymer degradation 04 p0823 N93-15615
Spacecraft sustained load fracture control
05 p1077 N93-15724
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Picosecond studies of space optical materials
06 p1664 N93-18475
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on space component and material manufacturing experiments utilizing microgravity environment 07 p1791 N93-20422
Research on heat-resistance technology for HOPE
07 p1791 N93-20426
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Research on space structure materials
07 p1794 N93-20443
Survey and review on adhesives
07 p1799 N93-20475
Review on parts test data analyzing system
07 p1800 N93-20480
Safety validation test equipment operation
07 p1801 N93-20487
Review on safety validation test
07 p1802 N93-20488
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Protection of Materials and Surface Finishes from the Low Earth Orbit Space Environment
[CTN-93-60605] 07 p1847 N93-20810
Recommended practices for in-space and ground laboratory. Atomic oxygen exposure and analysis
07 p1848 N93-20814
An overview of space qualification requirements for new materials 07 p1830 N93-20815
Space station protective coating development
07 p1848 N93-20816
Materials Exposure in Low Earth Orbit (MELEO) experiment 07 p1848 N93-20817
Protective coating development for Space Station Freedom at McDonnell Douglas
07 p1849 N93-20820
Atomic oxygen resistant SiOx coated Kapton for Space Station Freedom, and alternate coatings
07 p1849 N93-20821
Multipurpose protective coatings for spacecraft applications 07 p1849 N93-20822
Touchstone for success: The Materials and Processes laboratories, ESTEC
[ESA-BR-52-REV] 07 p1830 N93-20926
Measurement of the expansion coefficient between -150 C and +150 C for material composites for space applications
[REPT-921-430-115] 07 p1833 N93-20939
Structures and materials technologies for hypersonic vehicles: Lessons from Hermes experience
[REPT-921-430-108] 07 p1824 N93-21042
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Assessment of single-pulse laser damage to structural materials for spacecraft
[AD-A259387] 07 p1911 N93-21267
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A]
07 p1783 N93-21479
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
Spacecraft materials and coatings experiments
08 p2189 N93-22637
Long Duration Space Materials Exposure (LDSE)
08 p2189 N93-22638
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST
[NASA-CR-192354] 08 p2230 N93-23193
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
Research projects
[NRC-LTR-ST-1883] 08 p2571 N93-24652
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Composite materials for the extravehicular mobility unit 09 p2642 N93-26060
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Effects of spacecraft materials outgassing products on cryogenic surfaces
[AD-A262671] 10 p2963 N93-27686
Technology for Space Station Evolution. Volume 5: Structures and Materials/Thermal Control System
[NASA-TM-108728] 10 p2970 N93-27835
Structures and materials technology discipline
10 p2973 N93-27865
LDEF materials overview 10 p2997 N93-28255
Combined space environment on spacecraft engineering materials
[NASA-CR-192536] 10 p2996 N93-28407
The Optical Properties Monitor (OPM): A multipurpose optical laboratory in space 11 p3266 N93-28729
Low Earth orbital mission aboard the Space Test Experiments Platform (STEP-3)
11 p3267 N93-28732
Induced activation study of LDEF
11 p3572 N93-29632

SPACECRAFT CONTAMINATION
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
LDEF Materials Workshop 1991, part 1
[NASA-CP-3162-PT-1] 03 p0545 N93-12769
Materials SIG quantification and characterization of surface contaminants 03 p0546 N93-12773
Z306 molecular contamination ad hoc committee results 03 p0546 N93-12774
Long Duration Exposure Facility (LDEF) contamination modeling 03 p0547 N93-12775
Surface contamination on LDEF exposed materials
03 p0547 N93-12776
Sources and transport of silicone NVR
03 p0547 N93-12777
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Characterization of selected LDEF: Exposed polymer films and resins 03 p0549 N93-12787
Contamination analysis of SSF candidate materials
[NASA-CR-184431] 03 p0709 N93-12894
Spectral analysis of the shuttle glow. SPA II/IBSS Mission: AIS hardware
[PL-TR-92-2148] 04 p0814 N93-14697
Control of on-orbit contamination for the Argos (P91-1) satellite 04 p0823 N93-15617
An interim overview of LDEF materials findings
[NASA-TM-107664] 06 p1493 N93-18329
Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340
Space environmental interactions for the space exploration initiative 09 p2897 N93-26396
Modeling and analysis tools 09 p2897 N93-26397
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Shuttle PRCS plume contamination analysis for Astro-2 mission
[NASA-CR-193828] 10 p2986 N93-27240
Effects of spacecraft materials outgassing products on cryogenic surfaces
[AD-A262671] 10 p2963 N93-27686
LDEF materials overview 10 p2997 N93-28255
An XPS study of space-exposed polyimide film
10 p3007 N93-28267
Surface analyses of composites exposed to the space environment on LDEF 10 p2993 N93-28268
Surface characterization of selected LDEF tray clamps
10 p3001 N93-28271
Contamination on LDEF: Sources, distribution, and history 10 p2998 N93-28272
Contamination measurements on experiment M0003
10 p2998 N93-28273
Optical characterization of LDEF contaminant film
10 p3149 N93-28274
Environmental Verification Experiment for the Explorer Platform (EVEEP) 11 p3266 N93-28726
Return flux experiment 11 p3266 N93-28727
Low Earth orbital mission aboard the Space Test Experiments Platform (STEP-3)
11 p3267 N93-28732
Proposal for a universal particle detector experiment
11 p3286 N93-28795
New results from FRECOPA analysis
11 p3448 N93-29688
A high thrust density, C60 cluster, ion thruster
[AD-A264405] 12 p3691 N93-31188

SPACECRAFT CONTROL
NT SATELLITE ATTITUDE CONTROL
NT SATELLITE CONTROL
NLS cargo transfer vehicle propulsion system
01 p0023 N93-10041
Numerical simulation of large actively controlled space structures 01 p0013 N93-10308
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Rapid maneuvering of large flexible orbiting systems
02 p0225 N93-11885
A state-based approach to trend recognition and failure prediction for the Space Station Freedom
02 p0230 N93-11925
Requirements and opportunities for satellite autonomy
02 p0230 N93-11926
Spacecraft attitude control using a smart control system 02 p0230 N93-11932
Interactive collision detection
02 p0400 N93-11963
Space Station robotics planning tools
02 p0331 N93-11975
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
Hypersonic vehicle control law development using H infinity and mu-synthesis
[NASA-TM-107689] 03 p0504 N93-13068
An inverse dynamics approach to trajectory optimization for an aerospace plane
[NASA-CR-191277] 03 p0500 N93-13305
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Robust nonlinear feedback guidance for an aerospace plane: A geometric approach 04 p0803 N93-14835
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Adaptive structures for precision controlled large space systems 05 p1078 N93-15730
Spacecraft command and control using AI planning techniques. The O-Plan2 project
[AD-A257395] 05 p1258 N93-16008
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Electrical actuation technology bridging, volume 2
[NASA-CR-191706] 05 p1148 N93-16757

Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938
Controls and guidance research
06 p1451 N93-19454
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121
An electromagnetically-controlled Precision Orbital Tracking Vehicle (POTV)
[AD-A259143] 07 p1823 N93-20129
Research on HOPE flight control technology
07 p1787 N93-20427
Research on combined HOPE navigation technology
07 p1792 N93-20428
Research on highly functional guidance and control technology 07 p1795 N93-20445
Research on GPS utilization in space
07 p1780 N93-20453
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 6: Controls and guidance
[NASA-TM-108654] 07 p2085 N93-20774
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts
[NASA-TM-108598] 08 p2135 N93-22226
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
Cargo transfer vehicle RCS propellant contamination issues 08 p2136 N93-22228
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space
08 p2136 N93-22229
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Six-Degree-of-Freedom Test Facility
08 p2136 N93-22231
A strongly goal-directed close-range vision system for spacecraft docking 08 p2136 N93-22232
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Autonomous prealignment of a docking mechanism
08 p2137 N93-22238
US automated rendezvous and capture capabilities review. Remote umbilical system abstract
08 p2138 N93-22239
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation
08 p2138 N93-22242
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Autonomous rendezvous and capture system design
08 p2138 N93-22244
CTV rendezvous techniques 08 p2143 N93-22270
Space Station Freedom beta gimbal control via sensitivity models
[NASA-TM-106000] 08 p2182 N93-22551
Nonlinear attitude control of spacecraft and momentum management of control moment gyros
08 p2195 N93-23506
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Flight Mechanics/Estimation Theory Symposium, 1992
[NASA-CP-3186] 09 p2599 N93-24694
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Analysis of the Command and Control Segment (CCS) attitude estimation algorithm 09 p2604 N93-24722
Optimal cooperative power-limited rendezvous
09 p2607 N93-24904
A survey of life support system automation and control
[NASA-TM-103977] 09 p2667 N93-25085
Aerospace vehicle model simplification for feedback control 09 p2596 N93-25292
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems
09 p2814 N93-25589
An autonomous satellite architecture integrating deliberative reasoning and behavioural intelligence
09 p2823 N93-25970
Dynamics of on-orbit construction process
09 p2669 N93-26406
Controls for orbital assembly of large space structures
09 p2620 N93-26408
Structural load control during construction
09 p2669 N93-26409
Mechanics and control of multibody structural systems
[AD-A261576] 09 p2619 N93-26456
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle
[NASA-TP-3335] 10 p2955 N93-27016
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1
[NASA-TP-3347] 10 p2959 N93-27162
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
Minimum effort interception of multiple targets
10 p2925 N93-27205
Advanced actuators for the control of large space structures 10 p2962 N93-27572
Attitude control and stabilization technology discipline
10 p2972 N93-27855
The Middeck 0-gravity Dynamics Experiment (MODE)
10 p3010 N93-27893
MODE: Structural Test Article (STA)
10 p3059 N93-27894
Lunar surface roving explorer
10 p2952 N93-28042
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Adaptive structures flight experiments
11 p3263 N93-28704
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707
Clementine sensor processing system
11 p3285 N93-28778
Controls for space structures
11 p3275 N93-29112
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
Attitude- and Orbit Control Subsystem concepts for TACSATS 11 p3284 N93-29906
Efficient Reorientation Maneuvers for Spacecraft with Multiple Articulated Payloads
[NASA-CR-193142] 11 p3279 N93-29988
Space station attitude disturbance arising from internal motions 11 p3280 N93-29995
Path planning control 12 p3685 N93-31451
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32228

SPACECRAFT DESIGN
NT SATELLITE DESIGN
Plug nozzle propulsion system
01 p0017 N93-10013
JPRS report: Science and technology. Central Eurasia: Space. Development of Soviet spacecraft for manned missions
[JPRS-USP-92-003] 02 p0224 N93-11162
Requirements and applications for robotic servicing of military space systems 02 p0230 N93-11953
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Shear joint capability versus bolt clearance
[NASA-TM-108378] 02 p0342 N93-12419
Predicted and tested performance of durable TPS
02 p0228 N93-12454
Space transportation booster engine configuration study. Volume 1: Executive Summary
[NASA-CR-184457] 02 p0235 N93-12523
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Assured crew return vehicle post landing configuration design and test
[NASA-CR-191253] 03 p0520 N93-12910
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
Engineering and architectural issues associated with the asteroid mission 03 p0514 N93-13556
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Proceedings of the Sixth CASI Conference on Astronautics
[CTN-92-60336] 04 p0804 N93-14920
The Canadian Solar Sail Project
04 p0804 N93-14921
Spacecraft thermal design verification in Canada
04 p0808 N93-14940
Vehicle/payload interface specification for the reusable reentry satellite
[NASA-CR-187883] 04 p0824 N93-15631
System specification for the reusable reentry satellite
[NASA-CR-187882] 04 p0824 N93-15632
Integration of CAD tools in space vehicle design
05 p1079 N93-15739
Reusable Reentry Satellite (RRS): Launch tradeoff study
[NASA-CR-186395] 05 p1086 N93-15803
Experimenter's data package for the descending layers rocket
[NASA-TM-108591] 05 p1207 N93-16461
Space transfer vehicle concepts and requirements. Volume 2, book 2: Appendix
[NASA-CR-184490] 05 p1075 N93-16556
An optimization-based integrated controls-structures design methodology for flexible space structures
[NASA-TP-3283] 05 p1087 N93-16615
Space transfer vehicle concepts and requirements study, phase 2
[NASA-CR-192430] 05 p1075 N93-16660
Multidisciplinary design optimization using response surface analysis 05 p1065 N93-16796
Conceptual analysis of a lunar base transportation system 05 p1392 N93-17415
Operational considerations for lunar transportation
05 p1392 N93-17418
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance
05 p1393 N93-17420
Advanced propulsion for LEO-Moon transport. 2: Tether configurations in the LEO-Moon system
05 p1393 N93-17421
Lunar lander stage requirements based on the Civil Needs Data Base 05 p1394 N93-17427
Lunar lander conceptual design
05 p1394 N93-17428
Flowfield computations over the Space Shuttle orbiter with a proposed canard at a Mach number of 5.8 and 50 deg angle of attack
[AD-A258058] 05 p1057 N93-17756
Spacecraft design project: High temperature superconducting infrared imaging satellite
[NASA-CR-192036] 06 p1458 N93-17887
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan
[NASA-CR-192037] 06 p1733 N93-17999
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
Conceptual design of a Mars transportation system
[NASA-CR-192039] 06 p1545 N93-18047
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
SHARC: Space Habitat, Assembly and Repair Center
[NASA-CR-192031] 06 p1606 N93-18153
Asteroid exploration and utilization: The Hawking explorer
[NASA-CR-192027] 06 p1699 N93-18164
The design of a common lunar lander
[NASA-CR-192026] 06 p1459 N93-18165
Lunar scout: A Project Artemis proposal
[NASA-CR-192076] 06 p1460 N93-18167
Comet nucleus and asteroid sample return missions
[NASA-CR-192055] 06 p1699 N93-18171
Dynamics of aerospace vehicles
[NASA-CR-192179] 06 p1440 N93-18396
Physical insight into the simultaneous optimization of structure and control 06 p1461 N93-18821

Integrated design of the CSI evolutionary structure: A verification of the design methodology
06 p1463 N93-18830
Atlas mission planner's guide
[AD-A258845] 06 p1470 N93-19366
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121
Research and development activities of the TsukubaSpace Center
[NASDA-TK-GC0066] 07 p1789 N93-20410
Research on lunar and planet development and utilization 07 p1789 N93-20412
Research on HOPE 07 p1791 N93-20423
Orbit re-entry experiment vehicle development
07 p1792 N93-20432
Conceptual study of ETS-7 07 p1793 N93-20437
Research on docking mechanism system test
07 p1794 N93-20439
Research on large structure assembly technology: Research on deployable assembly structure
07 p1795 N93-20444
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle
[NASA-CR-192297] 07 p1901 N93-20767
Low cost attitude control system scanwheel development
[NASA-CR-191324] 07 p1824 N93-21003
Numerical methods for aerothermodynamic design of hypersonic space transport vehicles
[MBB-FE-211-S-PUB-0481] 07 p1781 N93-21056
Development of the Aquatic Research Facility
07 p1807 N93-21100
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking
07 p1780 N93-21426
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Spacecraft rendezvous operational considerations affecting vehicle systems design and configuration
08 p2147 N93-22296
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Space Station Freedom research capabilities
08 p2183 N93-22609
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Multidisciplinary optimization of a controlled space structure using 150 design variables
[NASA-CR-4502] 08 p2125 N93-22799
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 2: Draft final
[NASA-CR-192489] 08 p2178 N93-22959
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle
[NASA-CR-192492] 08 p2178 N93-22993
Preliminary analysis techniques for ring and stringer stiffened cylindrical shells
[NASA-TM-108399] 08 p2326 N93-23104
Space Station Furnace Facility. Volume 2: Requirements definition and conceptual design study. Appendix 3: Environment analysis
[NASA-CR-192475] 08 p2199 N93-23224
Space Station Furnace Facility. Volume 1: Requirements definition and conceptual design study, executive summary
[NASA-CR-192471] 08 p2199 N93-23225
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
JEM program status 08 p2155 N93-24339
The Eureca concept and missions
08 p2156 N93-24343
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Reusable reentry satellite system specification. Volume 1-9
[NASA-CR-192969] 08 p2196 N93-24543
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Space Station Freedom assembly and operation at a 51.6 degree inclination orbit
[NASA-TM-107731] 09 p2615 N93-25174
Space transfer vehicle concepts and requirements study. Volume 2, book 1: STV concept definition and evaluation
[NASA-CR-192525] 09 p2611 N93-25510
Space transfer vehicle concepts and requirements study. Volume 2, book 2: System and program requirements trade studies
[NASA-CR-192526] 09 p2611 N93-25511
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
Space transfer vehicle concepts and requirements study. Volume 3, book 1: Program cost estimates
[NASA-CR-192529] 09 p2611 N93-25514
Advanced life support study. Modification 10: ECLSS logistical support analysis for Space Station Freedom
[NASA-CR-192481] 09 p2801 N93-25888
National Launch System. Task 4: System architecture options analysis
[MCR-92-5011] 09 p2609 N93-26098
Lunar NTR vehicle design and operations study
10 p2978 N93-26922
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
The 20 kWe NEP system studies
10 p2982 N93-26971
An analytical optimization of electric propulsion orbit transfer vehicles
[NASA-CR-191129] 10 p2985 N93-27060
Cryogenic transfer module for geosynchronous orbit
10 p2920 N93-27176
Advisory Committee on the Redesign of the Space Station
[NASA-TM-108760] 10 p2963 N93-27579
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Technology for Space Station Evolution. Volume 2: Data Management System/Environmental Control and Life Support Systems
[NASA-TM-108725] 10 p2963 N93-27704
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
Technology for Space Station Evolution. Volume 5: Structures and Materials/Thermal Control System
[NASA-TM-108728] 10 p2970 N93-27835
Structures for Space Station Freedom: Overview of current concept 10 p2970 N93-27836
PROBE (Precision Reflector Orbital Build Experiment): A proposed flight experiment to study EVA assembly of precision segmented reflectors
10 p2971 N93-27841
Interferometer testbed: Overview and hardware summary 10 p3058 N93-27889
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Conceptual study of fly-back booster
10 p2950 N93-28026
Fly-back booster 10 p2950 N93-28027
Conceptual study of fly-back booster
10 p2950 N93-28028
Conceptual study of manned lunar transportation system 10 p2951 N93-28030
Manned lunar surface site: Conceptual study on pressurized lunar surface operation rover
10 p2951 N93-28032
Conceptual study of lunar roving explorer
10 p2952 N93-28040
Lunar surface roving explorer
10 p2952 N93-28041
Lunar surface roving explorer
10 p2952 N93-28042
Conceptual study of lunar landing modules
10 p2952 N93-28043
Outline of Mars explorer system
10 p2953 N93-28048
ROSETTA: The ESA sample return mission
10 p2953 N93-28049
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Conceptual design of a two-stage-to-orbit vehicle
11 p3228 N93-29716
The design of two-stage-to-orbit vehicles
11 p3228 N93-29719
ASUR 11 p3228 N93-29720
Lunar lander ground support system
11 p3230 N93-29729
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736
Project Copernicus: An Earth observing system
11 p3231 N93-29738
Project WISH: The Emerald City
11 p3232 N93-29744
The lightcraft project 11 p3233 N93-29749
B and T: Lunar landers 11 p3234 N93-29751
RS Landers: Lunar lander 11 p3234 N93-29753
SPECS: Orbital debris removal
11 p3234 N93-29754
Mars Aquarius Mission and Titan Explorer
11 p3235 N93-29756
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759
Space Generic Open Avionics Architecture (SGOAA) reference model technical guide
[NASA-CR-188246] 11 p3285 N93-31032
Space transfer concepts and analyses for exploration missions, phase 3
[NASA-CR-192584] 11 p3268 N93-31034
EHF military communication satellite alternatives study
[SS/L-TR00775] 12 p3716 N93-31311
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
Space-based astrometric optical interferometry with POINTS 12 p3845 N93-31758
Applications of structural optimization methods to fixed-wing aircraft and spacecraft in the 1980s
[NASA-TM-103939] 12 p3740 N93-32212
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

SPACECRAFT DOCKING

Autoguidance video sensor for docking
02 p0230 N93-11954
The transportation depot: An orbiting vehicle support facility 05 p1393 N93-17425
The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Research on rendezvous and docking technology
07 p1794 N93-20438
Research on docking mechanism system test
07 p1794 N93-20439
NASA Automated Rendezvous and Capture Review. Executive summary
[NASA-TM-108597] 07 p1812 N93-21407
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture
07 p1812 N93-21408
Approach range and velocity determination using laser sensors and retroreflector targets
07 p1812 N93-21410
Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
TRAC based sensing for autonomous rendezvous
07 p1813 N93-21412
Applicability of relative GPS to automated rendezvous between the space shuttle and Space Station
07 p1780 N93-21413
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
Autonomous pre-alignment of a docking mechanism
07 p1814 N93-21418
A berthing and fastening strategy for orbital replacement units 07 p1814 N93-21420
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421

Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Results of prototype software development for automation of shuttle proximity operations 07 p1815 N93-21425
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 07 p1780 N93-21426
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience 07 p1816 N93-21429
Autonomous docking ground demonstration 07 p1816 N93-21430
An overview of autonomous rendezvous and docking system technology development 07 p1816 N93-21431
An autonomous rendezvous and docking system using cruise missile technology 07 p1816 N93-21432
On-orbit demonstrations of automated closure and capture using ESA-developed proximity operations technologies and an existing serviceable NASA Explorer platform spacecraft 07 p1816 N93-21433
A method for modeling contact dynamics for automated capture mechanisms 07 p1816 N93-21434
A phase one AR/C system design 07 p1816 N93-21435
MMU applications for automated rendezvous and capture 07 p1817 N93-21438
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 07 p1817 N93-21440
Experimental validation of docking and capture using space robotics testbeds 07 p1817 N93-21441
On-orbit operational scenarios, tools, and techniques 07 p1817 N93-21442
Six-Degree-of-Freedom Test Facility 07 p1817 N93-21443
Soviet automated rendezvous and docking system overview 07 p1818 N93-21444
Supervised autonomous rendezvous and docking system technology evaluation 07 p1818 N93-21445
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
NASA MSFC hardware in the loop simulations of automatic rendezvous and capture systems 07 p1818 N93-21448
Space shuttle program: Automatic rendezvous, proximity operations, and capture 07 p1818 N93-21449
MSFC Three Point Docking Mechanism design review [NASA-CR-192462] 08 p2181 N93-22013
Multi-beam range imager for autonomous operations 08 p2310 N93-22160
NASA Automated Rendezvous and Capture Review. A compilation of the abstracts [NASA-TM-108598] 08 p2135 N93-22226
Demonstration of automated proximity and docking technology 08 p2135 N93-22227
Hybrid neural network and fuzzy logic approaches for rendezvous and capture in space 08 p2136 N93-22229
An automated system for spacecraft proximity operations 08 p2136 N93-22230
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231
A strongly goal-directed close-range vision system for spacecraft docking 08 p2136 N93-22232
Manned versus unmanned rendezvous and capture 08 p2137 N93-22234
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Autonomous prealignment of a docking mechanism 08 p2137 N93-22238
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
Autonomous rendezvous and docking: A commercial approach to on-orbit technology validation 08 p2138 N93-22242
Real-time simulations for automated rendezvous and capture 08 p2138 N93-22243
Autonomous rendezvous and capture system design 08 p2138 N93-22244
Laser docking sensor engineering model 08 p2139 N93-22247
Autonomous rendezvous and docking operations of unmanned expendable cargo transfer vehicles (e.g. Centaur) with Space Station Freedom 08 p2140 N93-22252
TRAC based sensing for autonomous rendezvous 08 p2140 N93-22253
Flight Support System (FSS) docking and umbilical services systems 08 p2140 N93-22254
Automated rendezvous and proximity operations 08 p2141 N93-22257
A PARC system for terminal docking 08 p2141 N93-22259
Design and fabrication of an autonomous rendezvous and docking sensor using off-the-shelf hardware 08 p2141 N93-22260
Results of prototype software development for automation of shuttle proximity operations 08 p2142 N93-22264
Soviet automated rendezvous and docking system overview 08 p2142 N93-22265
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
Video guidance sensor for autonomous capture 08 p2142 N93-22267
Space Shuttle Program: Automatic rendezvous, proximity operations, and capture (category 3) 08 p2143 N93-22269
CTV rendezvous techniques 08 p2143 N93-22270
An autonomous rendezvous and docking system using cruise missile technologies 08 p2143 N93-22272
Automatic rendezvous and capture system development in a manned environment 08 p2143 N93-22274
Performance capabilities of a Phase One Automatic Rendezvous and Capture System 08 p2144 N93-22275
Relative navigation requirements for automatic rendezvous and capture systems 08 p2144 N93-22276
Automated rendezvous and capture system 08 p2144 N93-22277
An overview of autonomous rendezvous and docking system technology development at General Dynamics 08 p2145 N93-22281
Autonomous docking ground demonstration (category 3) 08 p2145 N93-22282
Supervised autonomous rendezvous and docking systems technology evaluations 08 p2146 N93-22288
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics 08 p2147 N93-22293
Automated rendezvous and docking with video imagery 08 p2148 N93-22298
Six degree of freedom simulation system for evaluating automated rendezvous and docking spacecraft 08 p2148 N93-22299
The development of an autonomous rendezvous and docking simulation using rapid integration and prototyping technology 08 p2148 N93-22302
Photonic correlator pattern recognition: Application to autonomous docking 08 p2148 N93-22303
Simulation models for autonomous rendezvous and capture 08 p2149 N93-22304
Contact dynamics testing of automated three point docking mechanism 08 p2149 N93-22306
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
Proximity operations considerations affecting spacecraft design 08 p2149 N93-22308
The MSFC space station/space operations mechanism test bed 08 p2149 N93-22309
The role of smart systems in rendezvous, close proximity operations and docking maneuvers 08 p2150 N93-22310
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
Automatic rendezvous system testing at the Flight Robotics Laboratory 08 p2150 N93-22312
Electro-optical rendezvous and docking sensors 08 p2150 N93-22314
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 08 p2151 N93-22316
A berthing and fastening strategy for orbital replacement units 08 p2151 N93-22317
Fully autonomous navigation for the NASA cargo transfer vehicle 08 p2151 N93-22318
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
Methods for modeling contact dynamics of capture mechanisms 08 p2151 N93-22320
AR/D image processing system 08 p2152 N93-22321
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Translational controller results [NASA-CR-192320] 08 p2457 N93-22396
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Special approach/docking testcase results [NASA-CR-192294] 08 p2180 N93-22683
Application of fuzzy logic-neural network based reinforcement learning to proximity and docking operations: Attitude control results [NASA-CR-192291] 08 p2458 N93-23084
Ionospheric plasma flow about a system of electrically biased flat plates [NASA-CR-191119] 08 p2194 N93-23131
Rendezvous, proximity operations and capture quality function deployment report [NASA-TM-108752] 09 p2614 N93-25952
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1 [NASA-TP-3347] 10 p2959 N93-27162
Communications and tracking technology discipline 10 p2972 N93-27856
Space Station: Orbiter berthing 11 p3274 N93-29031
Controls of interaction dynamics of orbital assembly 11 p3275 N93-29111
Controls for space structures 11 p3275 N93-29112
Reference equations of motion for automatic rendezvous and capture [NASA-CR-185676] 11 p3269 N93-29652
The 1990/1991 project summaries 11 p3229 N93-29725

SPACECRAFT ELECTRONIC EQUIPMENT

Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL) [NASA-CR-185698] 01 p0014 N93-10960
Research and development activities of the TsukubaSpace Center [NASDA-TK-GC0066] 07 p1789 N93-20410
Development of satellite borne nickel hydrogen battery experiment equipment for ETS-6 07 p1793 N93-20435
Research on space superconducting element technology 07 p1794 N93-20441
Development of high heat radiation printed boards 07 p1796 N93-20456
Review on aluminum electrolytic condensers development 07 p1797 N93-20457
Improvement of LC feedthrough filters 07 p1797 N93-20458
Review on surface mounting components (wire wound chip resistors) development 07 p1797 N93-20459
Development of transistors (equivalent to 2SC3321) 07 p1797 N93-20460
Development of power MOSFET (150 W class) 07 p1797 N93-20461
Development of high speed rectifier diodes 07 p1798 N93-20463
Review on Schottky barrier diode development 07 p1798 N93-20464
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
Review on upgrading efficiency of silicon solar battery cells 07 p1798 N93-20466
Development of radiation resistant HCMOSIC 07 p1798 N93-20467
Development of radiation resistant linear IC (equivalent to mu PC 806) 07 p1798 N93-20468
Development of high density hybrid IC 07 p1798 N93-20469
Development of 256 kbit PROM 07 p1799 N93-20470
Development of 256 kbit SRAM 07 p1799 N93-20471
Development of 10 k gate-gate array 07 p1799 N93-20472
Development of 32 bit MPU 07 p1799 N93-20473
Review on radiation resistant 32 bit MPU 07 p1799 N93-20474
Research on large capacity Ni-Cd batteries 07 p1799 N93-20476
Research on Ni-H2 batteries 07 p1800 N93-20477
Establishment of high density installation technology 07 p1800 N93-20478
Industrial IC evaluation test: 256 kbit EEPROM 07 p1800 N93-20481
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Research on single event resistance evaluation technology: Research by heavy ion irradiation 07 p1801 N93-20483
Research on single event resistance evaluation technology: Single event resistance evaluation by SEM 07 p1801 N93-20484
Research on single event phenomenon on semiconductor devices 07 p1801 N93-20485

Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
Derating requirements applicable to electronic, electrical, and electro-mechanical components for ESA space systems
[ESA-PSS-01-301-ISSUE-2] 07 p1893 N93-21194
Field programmable gate arrays: Evaluation report for space-flight application
[NASA-CR-192796] 08 p2432 N93-23042
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Fractal determination of parameters in lightning and ESD model 09 p2686 N93-24893
Ultra stable oscillators for satellite applications 09 p2621 N93-25027
Preliminary results of a newly designed mini-OCXO oscillator especially dedicated to space applications 09 p2621 N93-25028
Microwave synthesizers in space 09 p2693 N93-25038
Total dose tests for the PROMICS-3 instrument
[VTT-TIED-1203] 11 p3411 N93-30108

SPACECRAFT ENVIRONMENTS
Findings of a review of spacecraft fire safety needs
[NASA-CR-189181] 03 p0523 N93-13715
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions 08 p2249 N93-22850
DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371
EnviroNET 09 p2886 N93-26398
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201
Lightweight modular instrumentation for planetary applications 11 p3286 N93-28787
Proposal for a universal particle detector experiment 11 p3286 N93-28795

SPACECRAFT EQUIPMENT
NT SPACECRAFT ELECTRONIC EQUIPMENT
Transient behavior of heat pipe with thermal energy storage under pulse heat loads 03 p0588 N93-13743
Preparing for the future
[ESA-BR-37-H] 03 p0517 N93-13860
Lunar surface rovers 05 p1390 N93-17262
Determination of pyrotechnic functional margin 07 p1863 N93-20134
Research on advanced Earth observing sensors 07 p1790 N93-20416
Research on two phase fluid loop type heat rejection technology 07 p1791 N93-20421
Research and development of K-band intersatellite communication experiment equipment onboard ETS-6 07 p1793 N93-20434
Research on equipment life extension technology 07 p1793 N93-20436
Conceptual study of ETS-7 07 p1793 N93-20437
Research on space robot technology 07 p1794 N93-20440
Research on space coolers 07 p1794 N93-20442
Research on phased array antenna 07 p1795 N93-20446
Research on beam compression technology 07 p1795 N93-20447
Research on data handling technology 07 p1795 N93-20448
Research on satellite-borne high speed data recorder 07 p1795 N93-20449
Manufacture of ADEOS borne technical data acquisition equipment 07 p1796 N93-20451
Operational support for ETS-5 secondary operational phase 07 p1796 N93-20455
Review on parts test data analyzing system 07 p1800 N93-20480
Detailed component design for a Compact Environmental Anomaly Sensor (CEASE)
[AD-A261729] 09 p2620 N93-26248
Magnetic bearings: Fifty years of progress 10 p2959 N93-27556
Magnetic bearing turbomachinery case histories and applications for space related equipment 10 p2959 N93-27557
Minimizing error in predicting the reliability of on-board satellite systems
[AD-A262212] 10 p2963 N93-27650
Future Space Activity Workshop: Lunar Base Workshop 1992
[JTN-93-80420] 10 p2948 N93-28014
Manned engineering test satellites 10 p2948 N93-28016
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Linearly connected solar power satellite 10 p2949 N93-28019
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Lunar surface experiment system 10 p2951 N93-28034
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites 10 p2952 N93-28037
Moon revolving observation satellite 10 p2952 N93-28038
Conceptual study of lunar roving explorer 10 p2952 N93-28040
Lunar surface roving explorer 10 p2952 N93-28041
Lunar surface roving explorer 10 p2952 N93-28042
Mars revolving observation satellite 10 p2953 N93-28047
Spaceborne passive radiative cooler 11 p3378 N93-28802

SPACECRAFT GLOW
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
Spectral analysis of the shuttle glow. SPA II/IBSS Mission: AIS hardware
[PL-TR-92-2148] 04 p0814 N93-14697
Spectral analysis of the shuttle glow: AIS science support
[PL-TR-92-2172] 04 p0815 N93-14698
Spacecraft glow and the EISG/skirt experiment 11 p3266 N93-28728

SPACECRAFT GUIDANCE
Autoguidance video sensor for docking 02 p0230 N93-11954
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
A plan for spacecraft automated rendezvous
[NASA-TM-108365] 04 p0813 N93-15392
Robust approximate optimal guidance strategies for aeroassisted orbital transfer missions 05 p1074 N93-16518
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Controls and guidance research 06 p1451 N93-19454
Research on HOPE flight control technology 07 p1787 N93-20427
Research on combined HOPE navigation technology 07 p1792 N93-20428
Research on highly functional guidance and control technology 07 p1795 N93-20445
Research on GPS utilization in space 07 p1780 N93-20453
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 6: Controls and guidance
[NASA-TM-108654] 07 p2085 N93-20774
Neighboring suboptimal control for vehicle guidance 08 p2171 N93-22011
Autonomous rendezvous and capture system design 08 p2138 N93-22244
On-orbit demonstration of automated closure and capture using ESA-developed proximity operations technologies and an existing, serviceable NASA Explorer Platform spacecraft 08 p2142 N93-22266
Space Shuttle Program: Automatic rendezvous, proximity operations, and capture (category 3) 08 p2143 N93-22269
CTV rendezvous techniques 08 p2143 N93-22270
An autonomous rendezvous and docking system using cruise missile technologies 08 p2143 N93-22272
Optical correlators for automated rendezvous and capture 08 p2143 N93-22273
Automatic rendezvous and capture system development in a manned environment 08 p2143 N93-22274
Performance capabilities of a Phase One Automatic Rendezvous and Capture System 08 p2144 N93-22275
Relative navigation requirements for automatic rendezvous and capture systems 08 p2144 N93-22276
Automated rendezvous and capture system 08 p2144 N93-22277
A comparison of laser based ranging systems for AR/C category 1: Hardware 08 p2144 N93-22278
New developments in astrodynamics algorithms for autonomous rendezvous 08 p2144 N93-22279
Onboard navigation rendezvous expert system 08 p2144 N93-22280
An overview of autonomous rendezvous and docking system technology development at General Dynamics 08 p2145 N93-22281
Autonomous docking ground demonstration (category 3) 08 p2145 N93-22282
Rendezvous radar for the orbital maneuvering vehicle 08 p2145 N93-22283
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536
Computationally efficient algorithms for real-time attitude estimation 09 p2602 N93-24709
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode 09 p2605 N93-24724
Trajectory optimization for the National aerospace plane
[NASA-CR-192954] 09 p2589 N93-25670
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
Reference equations of motion for automatic rendezvous and capture
[NASA-CR-185676] 11 p3269 N93-29652
Stanford Aerospace Research Laboratory research overview 12 p3690 N93-32103

SPACECRAFT INSTRUMENTS
NT MULTISPECTRAL LINEAR ARRAYS
NT SATELLITE INSTRUMENTS
Remote sounding of the Martian atmosphere 01 p0189 N93-10378
Autonomous star sensing and pattern recognition for spacecraft attitude determination 01 p0177 N93-10876
Planned observations at high resolution from space 01 p0177 N93-10903
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning
[NASA-CR-184410] 02 p0220 N93-12213
The extremely low frequency wave analyzer
[AD-A255178] 02 p0366 N93-12378
Effects of ionizing radiation on selected optical materials: An overview
[DE93-001324] 05 p1300 N93-15660
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
Research on equipment life extension technology 07 p1793 N93-20436
Conceptual study of ETS-7 07 p1793 N93-20437
Research on highly functional guidance and control technology 07 p1795 N93-20445
Preliminary OARE absolute acceleration measurements on STS-50
[NASA-TM-107724] 08 p2182 N93-22587
GEOTAIL Spacecraft historical data report
[NASA-TM-108710] 08 p2194 N93-23168
Observations of atmospheric chemistry on the first European polar platform 08 p2361 N93-23776
The first mission of the ESA Earth observation polar platform 08 p2362 N93-23783
The European polar platform and its Earth observation mission 08 p2363 N93-23784
Medium Resolution Imaging Spectrometer (MERIS) 08 p2363 N93-23785
An advanced scatterometer for the European polar platform 08 p2363 N93-23787
The radar altimeter instrument for POEM-1 mission 08 p2363 N93-23788
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1 08 p2363 N93-23789

The design of the ESA Multiband Imaging Microwave Radiometer MIMR 08 p2364 N93-23790
Global ozone monitoring experiment 08 p2364 N93-23793
IASI (Infrared Atmospheric Sounding Interferometer): Programme objectives and status 08 p2364 N93-23794
Millimeter wave Atmospheric Sounder (MAS) 08 p2364 N93-23795
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23796
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data 08 p2365 N93-23802
Canadian Earth observation program 08 p2373 N93-23847
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics [ESA-ISY-3] 08 p2533 N93-23878
The Infrared Space Observatory (ISO) 08 p2170 N93-23912
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO 08 p2540 N93-23929
Remote sensing of inner heliospheric plasmas [AD-A260337] 08 p2558 N93-24268
Drift scintillation meter for the defense meteorological satellite program [AD-A259993] 08 p2410 N93-24299
LOGION: Operation of a liquid metal ion emitter module under microgravity 08 p2158 N93-24359
Migmas/A: Test of a scanning ion microscope onboard the Soviet Space Station Mir 08 p2158 N93-24360
Remote sensing experiment FEM: A multisensoral dataset for radiometric and geometric analysis 08 p2158 N93-24361
European Space Science and Space Station Freedom 08 p2163 N93-24387
Earth observing system. Output data products and input requirements, version 2.0. Volume 1: Instrument data product characteristics [NASA-TM-108770] 09 p2755 N93-25460
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument [NASA-TM-4449] 09 p2689 N93-25618
Future Space Activity Workshop: Lunar Base Workshop 1992 [JTN-93-80420] 10 p2948 N93-28014
Manned engineering test satellites 10 p2948 N93-28016
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Linearly connected solar power satellite 10 p2949 N93-28019
Study of satellite microminiaturization technology 10 p2949 N93-28020
Study of satellite microminiaturization technology 10 p2949 N93-28021
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Lunar surface experiment system 10 p2951 N93-28034
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
Moon revolving observation satellites 10 p2952 N93-28037
Moon revolving observation satellite 10 p2952 N93-28038
Conceptual study of lunar roving explorer 10 p2952 N93-28040
The Orbiter Experiments (OEX) program 11 p3266 N93-28731
Workshop on Advanced Technologies for Planetary Instruments, part 1 [NASA-CR-193015] 11 p3639 N93-28764
Clementine sensor processing system 11 p3285 N93-28778
Pluto fast flyby mission and science overview 11 p3649 N93-28818
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
Environmental monitors in the Midcourse Space Experiments (MSX) 11 p3286 N93-28826
Advanced Earth Observing Satellite (ADEOS) 11 p3279 N93-29648
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission 12 p3860 N93-31725

SPACECRAFT LANDING
NT HORIZONTAL SPACECRAFT LANDING
NT LUNAR LANDING
NT MARS LANDING
NT PLANETARY LANDING
Reusable Reentry Satellite (RRS): Recovery tradeoff study [NASA-CR-186396] 04 p0825 N93-15658
Task Analysis of Shuttle Entry and Landing Activities [NASA-TM-104761] 08 p2178 N93-22702
Orbiter Autoland reliability analysis [NASA-TM-4464] 08 p2194 N93-23139
Statistical modeling of software reliability [NASA-CR-192986] 10 p3092 N93-27087
Design, building, and testing of the postlanding systems for the assured crew return vehicle 11 p3229 N93-29726
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation [NASA-CR-193016] 11 p3272 N93-31033

SPACECRAFT LAUNCHING
NT LIFTOFF (LAUNCHING)
The Space Station Freedom and space launch issues [S-HRG-102-762] 02 p0225 N93-11908
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-46 [NASA-TM-107552] 02 p0223 N93-12151
Weather impacts on space operations [AD-A253720] 02 p0371 N93-12170
Advanced two-phase heat transfer systems 02 p0229 N93-12459
EURECA [ESA-F-26] 03 p0522 N93-12964
The DSI small satellite launcher 03 p0511 N93-13180
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
Reusable Reentry Satellite (RRS): Launch tradeoff study [NASA-CR-186395] 05 p1086 N93-15803
IRD dropout study [NASA-CR-192413] 05 p1139 N93-16381
LOLA: The lunar operations landing assembly [NASA-CR-192043] 06 p1734 N93-18038
Public space launch acquisition: A comparative case study [AD-A258141] 06 p1455 N93-18083
Flame-front kinetics 06 p1485 N93-18481
Time management situation assessment (TMSA) 06 p1639 N93-18692
The future of the US space launch capability 06 p1456 N93-18865
Analysis of Titan 4 launch responsiveness [AD-A259021] 06 p1456 N93-18950
Low cost missions to explore the diversity of near Earth objects 06 p1453 N93-19124
Automatically calibrating admittances in KATE's autonomous launch operations model 06 p1456 N93-19401
Optimal guidance law development for an advanced launch system [NASA-CR-192189] 07 p1820 N93-20313
Numerical computation of complex multi-body Navier-Stokes flows with applications for the integrated Space Shuttle launch vehicle [NASA-CR-192297] 07 p1901 N93-20767
From Earth to Orbit: An assessment of transportation options [NASA-CR-192729] 07 p1821 N93-21477
Advanced Manned Launch System 08 p2172 N93-22084
Advanced Crew Rescue Vehicle/Personnel Launch System 08 p2173 N93-22085
Single stage to orbit/SDIO 08 p2173 N93-22086
Ten-year space launch technology plan [NASA-TM-108701] 08 p2135 N93-22204
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-54 [NASA-TM-107558] 08 p2178 N93-22669
Future of the US Space Launch capability: A task group report [PB93-139947] 08 p2171 N93-22899
Characterizing the uncertainty in holddown post load measurements [NASA-TP-3332] 08 p2304 N93-23731
Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3 [NASA-TM-101641] 08 p2180 N93-24522
Reusable reentry satellite system specification. Volume 1-9 [NASA-CR-192969] 08 p2196 N93-24543
What is a system? NASA's phased project description 09 p2665 N93-24681
Practical aspects of transfer from GTO to lunar orbit 09 p2604 N93-24719
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum [DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Development of models for predicting the triggering of lightning by launch vehicles 09 p2610 N93-24899
CRRES: Combined release and radiation effects satellite program summary [NASA-CR-192469] 09 p2774 N93-25886
Space research in Sweden, 1990-1991 09 p2888 N93-25887
Inferring heuristic classification hierarchies from natural language input 09 p2825 N93-25979
National Launch System. Task 4: System architecture options analysis [MCR-92-5011] 09 p2609 N93-26098
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle [NASA-TP-3335] 10 p2955 N93-27016
The design and evolution of the beta two-stage-to-orbit horizontal takeoff and landing launch system [NASA-TM-106118] 10 p2955 N93-27018
Study of basic physical processes in liquid and solid rocket propulsion [NASA-CR-192550] 10 p2986 N93-27146
Space transportation analysis and design (Reissue A) [AD-A262752] 11 p3271 N93-28487
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node [NASA-TM-104566-VOL-2] 11 p3486 N93-28497
Benefits of in situ propellant utilization for a Mars sample return mission [NASA-TM-106243] 11 p3341 N93-28695
NEP space test program objective 11 p3265 N93-28724
DSN support of Mars Observer 11 p3385 N93-29598
TACSAT ground control and data collection 11 p3388 N93-29895
Launch vehicles for lightweight TACSAT deployment 11 p3271 N93-29903
Spacecraft and launch systems for TACSAT applications 11 p3284 N93-29904
QuickStar: System design, capabilities, and tactical applications of a small, smart space system 11 p3284 N93-29905
Electric propulsion for lightsats: A review of applications and advantages 11 p3290 N93-29907
Payload flight assignments. NASA mixed fleet [NASA-TM-108255] 11 p3268 N93-30133
A representative survey of US space systems and methods for estimating their costs [AD-A264159] 11 p3272 N93-30881
Flammability and explosion limits of H2 and H2/CO: A literature review [AD-A264896] 12 p3702 N93-31064

SPACECRAFT MAINTENANCE
Generic Propellant Transfer Unit 01 p0011 N93-10046
Extravehicular activity compatibility evaluation of developmental hardware for assembly and repair of precision reflectors [NASA-TP-3246] 01 p0013 N93-10744
A state-based approach to trend recognition and failure prediction for the Space Station Freedom 02 p0230 N93-11925
Requirements and opportunities for satellite autonomy 02 p0230 N93-11926
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Intelligent diagnostics systems 02 p0393 N93-11931
Space Shuttle orbiter modifications to support Space Station Freedom [NASA-TM-108050] 03 p0520 N93-13455
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
A concept for a supervised autonomous robot 04 p0810 N93-14950
Scheduling and rescheduling with iterative repair [NASA-TM-108120] 04 p0965 N93-15287
Rescheduling with iterative repair [NASA-TM-108119] 04 p0965 N93-15288
Learning to improve iterative repair scheduling [NASA-TM-108118] 04 p0965 N93-15289
Rescheduling with iterative repair 06 p1637 N93-18679
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231

Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
Flight Support System (FSS) docking and umbilical services systems 08 p2140 N93-22254
Research and technology goals and objectives for Integrated Vehicle Health Management (IVHM) [NASA-CR-192656] 08 p2152 N93-23033
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program [NASA-TM-106006] 10 p3055 N93-27025
The resupply interface mechanism 10 p2968 N93-27800
The mobile servicing system 10 p2970 N93-27821
Welding/brazing for Space Station repair 10 p2971 N93-27840
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever [NASA-CR-193301] 12 p3777 N93-31844
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118
JSC flight experiment recommendation in support of Space Station robotic operations 12 p3691 N93-32121
On the design of fault-tolerant robotic manipulator systems 12 p3737 N93-32125
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance [AD-A265868] 12 p3685 N93-32319

SPACECRAFT MANEUVERS
NT ORBITAL MANEUVERS
Electric propulsion applications 01 p0020 N93-10029
NLS cargo transfer vehicle propulsion system 01 p0023 N93-10041
Rapid maneuvering of large flexible orbiting systems 02 p0225 N93-11885
Robust rendezvous maneuver point conditions [NASA-CR-190996] 03 p0517 N93-12690
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Constraint checking during error recovery 08 p2445 N93-22169
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 08 p2151 N93-22316
SCATHA mission termination report 09 p2605 N93-24725
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
External tank aerothermal design criteria verification [NASA-CR-192514] 09 p2618 N93-26055
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle [NASA-TP-3335] 10 p2955 N93-27016
Efficient Reorientation Maneuvers for Spacecraft with Multiple Articulated Payloads [NASA-CR-193142] 11 p3279 N93-29988
Attitude stabilization of a rigid spacecraft using two momentum wheel actuators 11 p3280 N93-29990
Efficient reorientation of a deformable body in space: A free-free beam example 11 p3280 N93-29994

SPACECRAFT MODELS
Long Duration Exposure Facility (LDEF) contamination modeling 03 p0547 N93-12775
System test approach for the SAX satellite 04 p0824 N93-15622
Dynamics of aerospace vehicles [NASA-CR-192179] 06 p1440 N93-18396
Rarefied-flow Shuttle aerodynamics model [NASA-TM-107698] 07 p1759 N93-19976
COLD-SAT dynamic model [NASA-TM-105185] 07 p1822 N93-19988
Multiple-body simulation with emphasis on integrated Space Shuttle vehicle [NASA-CR-192289] 07 p1821 N93-20234
Space Station Freedom beta gimbal control via sensitivity models [NASA-TM-106000] 08 p2182 N93-22551
Modal identification experiment 08 p2188 N93-22635
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration [NASA-TM-107729] 08 p2327 N93-23235
Design manual for two-phase components of spacecraft thermal management systems [AD-A260027] 08 p2196 N93-24439
Rate determination from vector observations 09 p2603 N93-24713
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715

SPACECRAFT MODULES
NT LUNAR LANDING MODULES
NT LUNAR MODULE
NT MARS EXCURSION MODULE
Assured crew return vehicle post landing configuration design and test [NASA-CR-191253] 03 p0520 N93-12910
Service module structure of ISO spacecraft testing and design qualification 05 p1080 N93-15747
Experiment module/support module interface specification for the reusable reentry satellite [NASA-CR-187885] 05 p1086 N93-15805
Adaption of space station technology for lunar operations 05 p1392 N93-17417
Project Columbiad: Mission to the Moon. Book 2, volume 3: Stage configuration designs; volume 4: Program plan [NASA-CR-192037] 06 p1733 N93-17999
Providing structural modules with self-integrity monitoring [NASA-CR-190887] 06 p1555 N93-18374
National Aeronautics and Space Administration: Statement of Chester Lee, Spacehab, Inc. 07 p2093 N93-21677
National launch system overview with focus on cargo transfer vehicle 08 p2137 N93-22236
Japanese plan for SSF utilization 08 p2184 N93-22616
Conceptual design for the Space Station Freedom fluid physics/dynamics facility [NASA-TM-103663] 09 p2618 N93-26209
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Manned engineering test satellites 10 p2948 N93-28016
Space Station Furnace Facility. Volume 2: Summary of technical reports [NASA-CR-192534] 10 p2973 N93-28323

SPACECRAFT MOTION
The dynamics and control of large flexible asymmetric spacecraft 09 p2617 N93-25525
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1 [NASA-TP-3347] 10 p2959 N93-27162
On symmetric central configurations with application to satellite motion about rings 11 p3652 N93-31000
A new method for measuring the speed of the bow shock 12 p3854 N93-31687

SPACECRAFT ORBITAL ASSEMBLY
U ORBITAL ASSEMBLY

SPACECRAFT ORBITS
NT GEOSYNCHRONOUS ORBITS
NT PARKING ORBITS
NT POLAR ORBITS
NT SATELLITE ORBITS
NT TRANSFER ORBITS
Robust rendezvous maneuver point conditions [NASA-CR-190996] 03 p0517 N93-12690
PEX: A reactive procedure based decision maker [REPT-921-440-105] 04 p0999 N93-15118
Control of on-orbit contamination for the Argos (P91-1) satellite 04 p0823 N93-15617
Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414
Electrostatic charging of spacecraft in geosynchronous orbit [DRA-TM-SPACE-389] 08 p2181 N93-22489
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters 09 p2676 N93-26106
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Detail design of Mars transfer orbit 10 p2953 N93-28046
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376

SPACECRAFT PERFORMANCE
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
System specification for the reusable reentry satellite [NASA-CR-187882] 04 p0824 N93-15632
Atlas mission planner's guide [AD-A258845] 06 p1470 N93-19366
Research on advanced spacecraft testing technology 07 p1796 N93-20452
Conceptual study of fly-back booster 10 p2950 N93-28026

SPACECRAFT POWER SUPPLIES
Results from the testing and analysis of LDEF batteries 01 p0039 N93-10589
The NASA CSTI high capacity power project [NASA-TM-105813] 02 p0221 N93-11398
Autonomous power system: Integrated scheduling 02 p0235 N93-11948
Lunar PMAD technology assessment [NASA-CR-189225] 02 p0347 N93-12017
Design of small Stirling dynamic isotope power system for robotic space missions [NASA-TM-105919] 02 p0275 N93-12085
Nuclear fuels for very high temperature applications [DE92-018021] 02 p0446 N93-12129
Alternate electrode materials for the SP100 reactor [DE92-019570] 03 p0706 N93-12970
Efficiency of an AMTEC recirculating test cell, experiments, and projections [DE92-016811] 03 p0571 N93-13196
Reversible thermodynamic cycle for AMTEC power conversion [DE92-016814] 03 p0571 N93-13197
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
Activities of Space Power Insulation Inst. [AD-A255825] 03 p0574 N93-14034
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04) [NASA-SP-7085(04)] 04 p0817 N93-14606
Autonomous power system brassboard [NASA-CR-189115] 04 p0867 N93-14798
Energy loss analysis of an integrated space power distribution system [NASA-TM-105772] 04 p0854 N93-14834
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters [NASA-CR-189135] 04 p0891 N93-14916
Overview of environmental test plans for Space Station Freedom work package 4 04 p0824 N93-15623
Advanced hybrid nuclear propulsion Mars mission performance enhancement [DE93-001309] 05 p1090 N93-16177
Electrical actuation technology bridging, volume 2 [NASA-CR-191706] 05 p1148 N93-16757
Space resources. Volume 2: Energy, power, and transport [NASA-SP-509-VOL-2] 05 p1383 N93-16905
Power system requirements 05 p1383 N93-16906
Technologies — space power sources 05 p1198 N93-16907
Nuclear energy technology 05 p1300 N93-16908
Thermal management in space 05 p1095 N93-16909
Laser power transmission 05 p1175 N93-16910
Space power reactor ground test in the Experimental Gas Cooled Reactor (EGCR) at Oak Ridge [DE92-016788] 05 p1299 N93-17202
Enabling lunar and space missions by laser power transmission 05 p1393 N93-17423
Sun sensor implementation using solar power arrays [AD-A257627] 05 p1198 N93-17717
An integrated mission planning approach for the Space Exploration initiative [DE93-001512] 06 p1473 N93-18588
Scheduling lessons learned from the Autonomous Power System 06 p1636 N93-18671
Development of satellite borne nickel hydrogen battery experiment equipment for ETS-6 07 p1793 N93-20435
The 1992 NASA Aerospace Battery Workshop [NASA-CP-3192] 07 p1983 N93-20490
NASA Center update: Goddard Space Flight Center 07 p1983 N93-20491
NASA Center update: Jet Propulsion Laboratory 07 p1983 N93-20492
Lewis Research Center battery overview 07 p1983 N93-20493
Marshall Space Flight Center battery activity 07 p1983 N93-20494
COMSAT's destructive physical analysis of aerospace nickel-cadmium cells for NASA/Goddard Space Flight Center 07 p1983 N93-20495
Mechanisms for capacity fading in the NiH2 cell and its effects on cycle life 07 p1983 N93-20496
Migration of Co in nickel oxide/hydroxide of a nickel electrode in a Ni/H2 cell 07 p1983 N93-20497
Nickel hydrogen capacity loss 07 p1983 N93-20498
Capacity fade in nickel cadmium and nickel hydrogen cells 07 p1984 N93-20499
NiH2 capacity fade during early cycling 07 p1984 N93-20500
Characteristics of storage related capacity loss in Ni/H2 cells [STD/92-118] 07 p1984 N93-20501

Nickel hydrogen battery cell storage matrix test
07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503
Charge retention test experiences on Hubble Space Telescope nickel-hydrogen battery cells
07 p1984 N93-20504
Air Force Ni-Cd cell qualification program update
07 p1984 N93-20505
Electrical characterization of the Magellan batteries after storage 07 p1984 N93-20506
TOPEX/Poseidon battery performance
07 p1984 N93-20507
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
NiCd cell reliability in the mission environment
07 p1985 N93-20510
The 2.5 inch nickel-hydrogen development
07 p1985 N93-20512
Hubble Space Telescope nickel hydrogen battery system briefing 07 p1985 N93-20513
An overview of eight years of activity developing French nickel-hydrogen technology 07 p1985 N93-20514
High specific energy, high capacity nickel-hydrogen cell design 07 p1986 N93-20516
Eagle-Picher SPV development
07 p1986 N93-20517
Nickel-hydrogen CPV battery update
07 p1986 N93-20518
Battery Review Board 07 p1986 N93-20519
Development of nickel-metal hydride cell
07 p1986 N93-20521
Phase-change composites TES for nickel-hydrogen batteries 07 p1987 N93-20524
The Galileo PPS expert monitoring and diagnostic prototype
[NASA-CR-191914] 07 p1828 N93-21823
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
08 p2137 N93-22237
Modelling a single phase voltage controlled rectifier using Laplace transforms
[NASA-TM-106005] 08 p2474 N93-23016
Solar concentrators for advanced solar-dynamic power systems in space
[NASA-CR-187148] 08 p2204 N93-23017
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 3: Space power and thermal management
[NASA-TM-108652] 08 p2519 N93-23109
Plasma chamber testing of APSA coupons for the SAMPIE flight experiment
[NASA-TM-106084] 08 p2195 N93-23742
Mechanical Working Group meeting minutes --- power generation and delivery systems
[DE93-004884] 08 p2571 N93-24435
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Laser beamed power: Satellite demonstration applications
[NASA-CR-190793] 09 p2623 N93-25132
The interaction of high voltage systems with the environments of the Moon and Mars
[NASA-TM-106107] 09 p2618 N93-26148
DC-DC power converter research for Orbiter/Station power exchange
[NASA-CR-192939] 09 p2633 N93-26425
A photovoltaic catenary-tent array for the Martian surface
[NASA-CR-191144] 10 p2976 N93-26703
NEP power subsystem modeling
10 p2982 N93-26974
NEP systems model 10 p2984 N93-26986
Systems analysis on laser beamed power
[NASA-CR-193206] 10 p3047 N93-27036
Enhanced plasma current collection from weakly conducting solar array blankets
[NASA-TM-106168] 10 p2958 N93-27081
Basic statistical analyses of candidate nickel-hydrogen cells for the Space Station Freedom
[NASA-TM-106111] 10 p3123 N93-27124
Ofeq-2 orbit, attitude, and flight evaluation
10 p2924 N93-27198
Low Earth orbital atomic oxygen environmental simulation facility for space materials evaluation
[NASA-TM-106128] 10 p2989 N93-27266
Evolution of Space Station EMU PLSS technology recommendations 10 p2966 N93-27790
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814
Conceptual study of the moon revolving observation satellites 10 p2952 N93-28036
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings
[NASA-TM-108721] 11 p3262 N93-28699
Developing an inflatable solar array
11 p3264 N93-28714
Sodium-Sulfur Cell Technology flight experiment (SSCT) 11 p3264 N93-28715
Solar Array Module Plasma Interaction Experiment (SAMPIE) 11 p3265 N93-28716
The Photovoltaic Array Space Power Plus diagnostics (PASP Plus) flight experiment 11 p3265 N93-28717
Sodium sulfur technology program NaSTEC
11 p3265 N93-28718
NEP space test program objective
11 p3265 N93-28724
Evaluation of actuator energy storage and power sources for spacecraft applications
[NASA-CR-193226] 11 p3288 N93-29091
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354
The lightcraft project 11 p3233 N93-29749
Power beaming to communication satellites in GEO
[DE93-007608] 11 p3279 N93-29840
Change of solar cell element properties influenced by adsorbed atoms
[DE93-606694] 11 p3466 N93-30777

SPACECRAFT PRELAUNCH TESTS
U SPACE VEHICLE CHECKOUT PROGRAM

SPACECRAFT PROPULSION
NT ELECTROMAGNETIC PROPULSION
NT ELECTROSTATIC PROPULSION
NT ION PROPULSION
NT PLASMA PROPULSION
NT SOLAR ELECTRIC PROPULSION
NT SOLAR THERMAL PROPULSION
Power conditioning unit for 30 kWe class arcjet flight experiment 01 p0021 N93-10032
NLS cargo transfer vehicle propulsion system
01 p0023 N93-10041
Loading operations for spacecraft propulsion subsystems 01 p0011 N93-10047
DSP propulsion system launch configuration and related testing 01 p0024 N93-10048
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
Basic processes of plasma propulsion
[AD-A253929] 01 p0163 N93-10754
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Theoretical research program to study chemical reactions in AOTV bow shock tubes
[NASA-CR-188927] 02 p0439 N93-11851
Tutorial on nuclear thermal propulsion safety for Mars
[DE92-017946] 02 p0233 N93-12056
Nuclear thermal propulsion transportation systems for lunar/Mars exploration
[NASA-TM-105870] 02 p0233 N93-12363
Manned Mars System Study (MMSS): Mars transportation and facility infrastructure study. Volume 2: Technical report
[NASA-CR-184474] 02 p0227 N93-12443
The 10 kW power electronics for hydrogen arcjets
[NASA-TM-105614] 02 p0235 N93-12484
Briefing notes on propulsion stability codes ADMIT, NYQUIST, and SSFREQ
[NASA-CR-184449] 03 p0525 N93-12874
The Proteus Navier-Stokes code
03 p0585 N93-13396
Aeronomy coexperiments on drag-free satellites with proportional thrusters: GP-B and STEP
03 p0518 N93-13922
The Canadian Solar Sail Project
04 p0804 N93-14921
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Low thrust chemical rocket technology
[NASA-TM-105927] 04 p0827 N93-15572
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Reusable Reentry Satellite (RRS): Propulsion system trade study
[NASA-CR-186527] 05 p1087 N93-16720
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Space resources. Volume 2: Energy, power, and transport
[NASA-SP-509-VOL-2] 05 p1383 N93-16905
Transport: Introduction 05 p1384 N93-16911
Advanced propulsion for LEO-Moon transport. 1: A method for evaluating advanced propulsion performance
05 p1393 N93-17420
Advanced propulsion for LEO-Moon transport. 2: Tether configurations in the LEO-Moon system
05 p1393 N93-17421
Advanced propulsion for LEO-Moon transport. 3: Transportation model 05 p1393 N93-17422
Lunar He-3, fusion propulsion, and space development 05 p1393 N93-17424
Lunar lander conceptual design
05 p1394 N93-17428
In situ propellant production: Alternatives for Mars exploration
[NASA-CR-187192] 05 p1130 N93-17799
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
Vulcain: A cryogenic engine for Ariane 5
[ETN-93-93022] 06 p1472 N93-18082
Flame-front kinetics 06 p1485 N93-18481
Propulsion diagnostics 06 p1475 N93-18482
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
Near term NEP missions and systems
06 p1661 N93-18637
The MPD thruster program at JPL
06 p1666 N93-18638
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Review of recent work on MPD thrusters at MIT
06 p1666 N93-18641
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
Scaling and applied field studies of MPD thrusters with laser diagnostics 06 p1667 N93-18643
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991
Shuttle orbiter with telescoping main propulsion unit and payload
[NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual
[NASA-CR-189653-VOL-2-REV]
07 p1821 N93-20121
Priorities for microgravity combustion research and goals for workshop discussions 07 p1869 N93-20186
Research on advanced transportation systems
07 p1789 N93-20414
Atomic hydrogen propellants: Historical perspectives and future possibilities
[NASA-TM-106053] 07 p1829 N93-20614
Space transfer with ground-based laser/electric propulsion
[NASA-TM-106060] 07 p1829 N93-20615
Thruster configurations for maneuvering heavy payloads 07 p1813 N93-21415
On-orbit operational scenarios, tools, and techniques
07 p1817 N93-21442
CSTI Earth-to-orbit propulsion research and technology program overview 08 p2174 N93-22090
Advanced rocket propulsion 08 p2174 N93-22091
Space propulsion 08 p2174 N93-22092
Thruster configurations for maneuvering heavy payloads 08 p2150 N93-22313
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 1: Draft final
[NASA-CR-192488] 08 p2177 N93-22348
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document. Volume 1: Major trades. Book 2: Draft final
[NASA-CR-192489] 08 p2178 N93-22959
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 3: Nuclear thermal rocket vehicle
[NASA-CR-192491] 08 p2178 N93-22960

Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 5: Nuclear electric propulsion vehicle
[NASA-CR-192493] 08 p2178 N93-22990
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 4: Solar electric propulsion vehicle
[NASA-CR-192492] 08 p2178 N93-22993
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 2: Cryo/aerobrake vehicle
[NASA-CR-192490] 08 p2179 N93-23251
Cycle O(CY1991) NLS trade studies and analyses report. Book 2, part 2: Propulsion
[NASA-CR-184472-BK-2-PT-2] 08 p2259 N93-23715
Development of arcjet and ion propulsion for spacecraft stationkeeping
[NASA-TM-106102] 08 p2204 N93-23747
PROMISS user manual, appendix 1
[NASA-CR-192990] 08 p2333 N93-24530
Summary and recommendations on nuclear electric propulsion technology for the space exploration initiative
[NASA-TM-105707] 09 p2622 N93-24744
Space exploration initiative candidate nuclear propulsion test facilities
[NASA-TM-105710] 09 p2622 N93-24753
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
Stationary plasma thruster evaluation in Russia
[NASA-CR-192823] 09 p2859 N93-25206
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
The design of a propulsion system using vent gas from a liquid helium cryogenic system
09 p2623 N93-25539
Nuclear electric propulsion for planetary science missions: NASA technology program planning
[NASA-TM-106139] 09 p2632 N93-26210
Nuclear Propulsion Technical Interchange Meeting, volume 1
[NASA-CP-10116-VOL-1] 10 p2976 N93-26908
DOD requirements for space nuclear thermal propulsion 10 p2976 N93-26911
Focused technology: Nuclear propulsion 10 p2976 N93-26912
Overview of DOE space nuclear propulsion programs 10 p2977 N93-26913
Space Nuclear Thermal Propulsion (SNTP) program 10 p2977 N93-26914
Systems overview 10 p2977 N93-26915
Requirements management and control 10 p2977 N93-26916
Rover/NERVA-derived near-term nuclear propulsion 10 p2977 N93-26918
Advanced propulsion engine assessment based on a cermet reactor 10 p2977 N93-26919
Babcock and Wilcox assessment of the Pratt and Whitney XNR2000 10 p2977 N93-26920
Lunar NTR vehicle design and operations study 10 p2978 N93-26922
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Overview of NASA/DOE/DOD interagency modeling team and activities 10 p2980 N93-26952
SAFSIM overview 10 p2981 N93-26959
Kinetic: A system code for analyzing nuclear thermal propulsion rocket engine transients 10 p2981 N93-26960
Next generation system modeling of NTR systems 10 p2981 N93-26961
Rocket engine numerical simulator 10 p2981 N93-26962
Facilities 10 p2954 N93-26963
Plum Brook facilities 10 p2954 N93-26964
Space nuclear thermal propulsion: Evaluation of PIPET at the INEL's CTF 10 p2955 N93-26967
Space Nuclear Thermal Propulsion (SNTP) Air Force facility 10 p2955 N93-26968
Nuclear electric propulsion systems overview 10 p2955 N93-26970
NEP processing, operations, and disposal 10 p2982 N93-26975
NEP technology: FY 1992 milestones (NASA LeRC) 10 p2983 N93-26977
Power management and distribution technology 10 p2983 N93-26978
Radiator technology 10 p2983 N93-26979
The 20 kWe NEP flight system 10 p2983 N93-26983
NEP systems model 10 p2984 N93-26986
GPS system simulation methodology 10 p2984 N93-26990
Institute for Computational Mechanics in Propulsion (ICOMP)
[NASA-TM-106155] 10 p3111 N93-27061
Collection of papers of the 31st Israel Annual Conference on Aviation and Astronautics
[ITN-93-85187] 10 p2919 N93-27166
Vertical landing on an asteroid 10 p2924 N93-27202
Propulsion needs for lunar/Mars missions 10 p2967 N93-27798
The resupply interface mechanism 10 p2968 N93-27800
Orbital storage and supply of subcritical liquid nitrogen 10 p2968 N93-27801
Earth to space power beaming: A new NASA technology initiative 10 p2988 N93-27964
Advanced Earth-to-orbit propulsion technology information, dissemination and research
[NASA-CR-192561] 11 p3287 N93-28680
A new facility for advanced rocket propulsion research
[NASA-TM-106193] 11 p3270 N93-28696
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings
[NASA-TM-108721] 11 p3262 N93-28699
ELITE program: Electric insertion transfer experiment 11 p3264 N93-28709
Advanced engine study program
[NASA-CR-187217] 11 p3287 N93-28946
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion 11 p3310 N93-29125
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354
Fusion energy for space: Feasibility demonstration. A proposal to NASA
[NASA-TM-109227] 12 p3825 N93-31309
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Overview of the fatigue/fracture/life prediction working group program at the Lewis Research Center 12 p3696 N93-31574
NASA's progress in nuclear electric propulsion technology
[NASA-TM-106272] 12 p3698 N93-31858
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178

SPACECRAFT RADIATORS
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150
Thermal management in space 05 p1095 N93-16909
Research on two phase fluid loop type heat rejection technology 07 p1791 N93-20421
Research on HOPE heat sink device 07 p1792 N93-20431
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
The 100-500 kWe NEP systems 10 p2983 N93-26984
Conceptual study on manned engineering test satellites 10 p2949 N93-28017
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329

SPACECRAFT RECOVERY
Reusable Reentry Satellite (RRS): Recovery tradeoff study
[NASA-CR-186396] 04 p0825 N93-15658
TALON and CRADLE: Systems for the rescue of tumbling spacecraft and astronauts 08 p2142 N93-22268
DGPS for space and return 08 p2146 N93-22286
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22287
Advanced underwater lift device
[NASA-CR-185709] 08 p2169 N93-22877
Group Task Force on Satellite Rescue and Repair
[NASA-TM-108713] 08 p2193 N93-23040

SPACECRAFT REENTRY
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Concept of overall operation of H-2 Orbiting Plane (HOPE) 07 p1791 N93-20424
Orbit re-entry experiment vehicle development 07 p1792 N93-20432
Entry Systems Panel 08 p2175 N93-22097
Entry Systems Panel deliberations 08 p2176 N93-22105
Reentry systems: Material technology needs 08 p2176 N93-22108
Flexible thermal protection materials for entry systems 08 p2177 N93-22111
Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration
[NASA-TM-4439] 08 p2108 N93-22558
Analysis of reentry into the White Sands Missile Range (WSMR) for the LifeSat mission 09 p2603 N93-24717
Multi-viewpoint clustering analysis 09 p2825 N93-25980
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078

SPACECRAFT RELIABILITY
Molded nozzle technology for large solid rocket motors 01 p0019 N93-10024
RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025
Study of hydraulic actuation system for Space Shuttle main engine propellant valves
[NASA-CR-193136] 10 p3050 N93-27112
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

SPACECRAFT RENDEZVOUS
U SPACE RENDEZVOUS

SPACECRAFT SENSORS
U SPACECRAFT INSTRUMENTS

SPACECRAFT SHIELDING
A computational study of projectile melt in impact with typical Whipple shields
[DE92-017137] 01 p0092 N93-10635
Predicted and tested performance of durable TPS 02 p0228 N93-12454
LDEF atomic oxygen fluence update 03 p0546 N93-12771
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
Predictions of dose from electrons in space
[NASA-CR-191617] 04 p1051 N93-15580
Ablative thermal protection structure design of ballistic reentry spacecraft
[AD-A256908] 05 p1087 N93-16027
Trade-offs in mass and effectiveness in satellite shielding: A design approach
[AD-A256693] 05 p1087 N93-16112
Effects of radiobiological uncertainty on shield design for a 60-day lunar mission
[NASA-TM-4422] 06 p1746 N93-18014
Optimization techniques applied to passive measures for in-orbit spacecraft survivability
[NASA-CR-184486] 06 p1466 N93-18859
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Propulsion Systems Panel 08 p2174 N93-22096
Space assembled entry systems certification 08 p2176 N93-22106
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233
New approach to the interaction of cosmic rays with nuclei in spacecraft shielding and the human body
[DE93-006263] 08 p2559 N93-22544
Impact experiments into multiple-mesh targets: Concept development of a lightweight collisional bumper
[NASA-TM-104764] 08 p2194 N93-23247
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Method for retarding oxidation of an organic substrate
[NASA-CASE-LEW-15306-2] 10 p3006 N93-28425
Ablative shielding for hypervelocity projectiles
[NASA-CASE-MSC-21884-1] 11 p3331 N93-29088

New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376
Absorbed dose measurements and predictions on LDEF 11 p3573 N93-29636
Light-heavy ion measurements in CR-39 located on the Earth side of LDEF 11 p3573 N93-29638
Three-dimensional shielding effects on charged particle fluences measured in the P0006 experiment of LDEF 11 p3573 N93-29639
Overview of the Systems Special Investigation Group investigation 11 p3318 N93-29683
Beta/gamma Monte Carlo transport in repetitive structures of satellite systems [DE93-007610] 11 p3281 N93-30509

SPACECRAFT STABILITY
Spacecraft flight control system design selection process for a geostationary communication satellite [NASA-TP-3289] 02 p0222 N93-11002
Spacecraft detumbling through energy dissipation 09 p2600 N93-24696
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft 09 p2617 N93-25527
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1 [NASA-TP-3347] 10 p2959 N93-27162
Attitude stabilization of bias momentum satellites 10 p2923 N93-27195
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite 10 p2925 N93-27203
The dynamics and control of space tethers 11 p3274 N93-28629
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710
Controls for space structures 11 p3275 N93-29112
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization 11 p3279 N93-29989

SPACECRAFT STRUCTURES
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
Innovative methods in the dynamics of large space structures [AD-A254630] 03 p0521 N93-12579
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Wake characterization: Full flow simulation of space structures in low earth orbit 03 p0497 N93-13970
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report [NASA-CR-167698] 04 p0815 N93-15474
Offloading techniques for large deployable space structures 04 p0821 N93-15605
Spacecraft Structures and Mechanical Testing, volume 2 [ESA-SP-321-VOL-2] 05 p1076 N93-15718
Modal identification of mechanical structures by means of tuned base-motion excitation 05 p1077 N93-15721
Structural development of flight systems 05 p1078 N93-15727
Sunshade support structure: Structure and testing 05 p1080 N93-15748
Polar Platform structure development program 05 p1081 N93-15749
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
The use of reverberant-room acoustic testing for spacecraft structures and their payloads 05 p1085 N93-15786
Environmental tailoring: A major perspective for mechanical testing for future space projects 05 p1086 N93-15787
An optimization-based integrated controls-structures design methodology for flexible space structures [NASA-TP-3283] 05 p1087 N93-16615
Spacecraft sustained load fracture control [NLR-TP-91093-U] 05 p1088 N93-17537
Development of magnetostrictive active members for control of space structures [NASA-CR-190846] 06 p1460 N93-18322
Providing structural modules with self-integrity monitoring [NASA-CR-190887] 06 p1555 N93-18374
Dynamics of aerospace vehicles [NASA-CR-192179] 06 p1440 N93-18396
Predicting multi-wall structural response to hypervelocity impact using the hull code [NASA-CR-4486] 06 p1461 N93-18406
The development and testing of the Lens Antenna Deployment Demonstration (LADD) test article 06 p1463 N93-18829
C-SIDE: The control-structure interaction demonstration experiment 06 p1467 N93-18931
Modal characterization of the ASCIE segmented optics testbed: New algorithms and experimental results 06 p1469 N93-18940
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
Structures research 06 p1447 N93-19453
Shuttle orbiter with telescoping main propulsion unit and payload [NASA-CASE-LAR-13586-1] 07 p1821 N93-20115
Research on advanced spacecraft 07 p1789 N93-20411
Research on Earth observing satellite system: Conceptual study of Advanced Earth Observing Satellite-2 (ADEOS-2) 07 p1790 N93-20415
Research on HOPE 07 p1791 N93-20423
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Conceptual study of ETS-7 07 p1793 N93-20437
Research on docking mechanism system test 07 p1794 N93-20439
Research on large structure assembly technology: Research on deployable assembly structure 07 p1795 N93-20444
Structures and materials technologies for hypersonic vehicles: Lessons from Hermes experience [REPT-921-430-108] 07 p1824 N93-21042
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment [MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479
Apparatus for simulating an exoatmospheric structure [NASA-CASE-MSC-21975-1] 08 p2169 N93-22016
A modal test of a space-truss for structural parameter identification [DE93-004043] 08 p2323 N93-22518
System identification of the JPL micro-precision interferometer truss [DE93-004044] 08 p2323 N93-22519
Precursor SSF utilization: The MODE experiments 08 p2188 N93-22633
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638
Multidisciplinary optimization of a controlled space structure using 150 design variables [NASA-CR-4502] 08 p2125 N93-22799
Research projects [NRC-LTR-ST-1883] 08 p2571 N93-24652
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors 09 p2604 N93-24723
The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE) 09 p2599 N93-25835
Model reduction for Space Station Freedom 09 p2620 N93-26081
Expert systems for assembly sequence evaluation 09 p2669 N93-26411
Mechanics and control of multibody structural systems [AD-A261576] 09 p2619 N93-26456
A low-mass faraday cup experiment for the solar wind [NASA-CR-193210] 10 p3217 N93-27078
Advanced actuators for the control of large space structures 10 p2962 N93-27572
Technology for Space Station Evolution. Volume 5: Structures and Materials/Thermal Control System [NASA-TM-108728] 10 p2970 N93-27835
Controlled Structures Technology Steering Committee Workshop [NASA-CR-192992] 10 p3058 N93-27888
Interferometer testbed: Overview and hardware summary 10 p3058 N93-27889
Finite element model and identification procedure 10 p3058 N93-27890
A stochastic approach to robust broadband structural control 10 p3058 N93-27892
The Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-27893
The Middeck Active Control Experiment (MACE) 10 p3059 N93-27896
The middeck active control experiment: Gravity and suspension effects 10 p3010 N93-27897
The Middeck Active Control Experiment (MACE): Identification for robust control 10 p3059 N93-27898
Strain actuated aeroelastic control 10 p3059 N93-27899
Manned engineering test satellites 10 p2948 N93-28016
Study of satellite microminiaturization technology 10 p2949 N93-28021
The 3rd Annual Controlled Structures Technology Symposium [NASA-CR-192993] 10 p3060 N93-28167
Optical interferometer testbed 10 p3060 N93-28168
The application of controlled structures technology to adaptive optics 10 p3060 N93-28170
Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-28171
Inhibiting multiple mode vibration in controlled flexible systems 10 p3061 N93-28172
The Middeck Active Control Experiment (MACE) 10 p3061 N93-28173
Robust control for uncertain structures 10 p3061 N93-28174
Active damping control of a flexible space structure using piezoelectric sensors and actuators [AD-A262884] 10 p2973 N93-28248
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
NASA/DOD Flight Experiments Technical Interchange Meeting Proceedings [NASA-TM-108721] 11 p3262 N93-28699
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Adaptive structures flight experiments 11 p3263 N93-28704
Upper atmosphere research satellite jitter study 11 p3264 N93-28708
Space construction activities [NASA-CR-192690] 11 p3274 N93-29108
Controls of interaction dynamics of orbital assembly 11 p3275 N93-29111
Controls for space structures 11 p3275 N93-29112
Structural load control during construction 11 p3275 N93-29113
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Design optimization of space structures 11 p3278 N93-29122
Analysis of LDEF micrometeoroid/debris data and damage to composite materials 11 p3309 N93-29366
Nonlinear attitude control of planar structures in space using only internal controls 11 p3280 N93-29991
Planar reorientation of a free-free beam in space using embedded electromechanical actuators 11 p3280 N93-29993
Mathematical simulation of the induced (gamma)-radiation in structural materials of spaceships. Time dependence [DE93-605312] 11 p3281 N93-31024

SPACECRAFT SURVIVABILITY
Emergency egress requirements for caution and warning, logistics, maintenance, and assembly stage MB-6 of Space Station Freedom 05 p1089 N93-17323
Optimization techniques applied to passive measures for in-orbit spacecraft survivability [NASA-CR-184486] 06 p1466 N93-18859

SPACECRAFT TEMPERATURE
Spacecraft thermal design verification in Canada 04 p0808 N93-14940
Engineering aspects of two-phase flow systems for heat transport 08 p2247 N93-22833
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834
Researches and developments on typical thermal technologies for space applications 08 p2248 N93-22845
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866

SPACECRAFT TRACKING
NT SATELLITE TRACKING
Space Station communications and tracking systems modeling and RF link simulation [NASA-CR-185684] 02 p0288 N93-12519
The Telecommunications and Data Acquisition [NASA-CR-191998] 06 p1504 N93-18897
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
Systems analysis for ground-based optical navigation 06 p1434 N93-18900
Demonstration of a joint US-Russian very long baseline interferometry tracking capability 06 p1458 N93-18911

Adaptive low-bandwidth tracking of Galileo and Pioneer 10 carriers 06 p1506 N93-18912
The goldstone real-time connected element interferometer 06 p1512 N93-19417
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy 06 p1512 N93-19418
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites 06 p1454 N93-19419
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
Deep-space navigation applications of improved ground-based optical astrometry 06 p1513 N93-19422
An electromagnetically-controlled Precision Orbital Tracking Vehicle (POTV) [AD-A259143] 07 p1823 N93-20129
Research on GPS utilization in space 07 p1780 N93-20453
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239
Automated target recognition and tracking using an optical pattern recognition neural network 08 p2138 N93-22240
Experimental validation of docking and capture using space robotics testbeds 08 p2149 N93-22307
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit 09 p2601 N93-24704
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Orbiter-orbiter and orbiter-lander tracking using same-beam interferometry 09 p2677 N93-26110
Geometric distortion analysis of a wide-field astrograph 09 p2621 N93-26111
Communications and tracking technology discipline 10 p2972 N93-27856
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823
The effect of clock, media, and station location errors on Doppler measurement accuracy 11 p3246 N93-29588

SPACECRAFT TRAJECTORIES
NT EARTH-MARS TRAJECTORIES
NT EARTH-MOON TRAJECTORIES
NT EARTH-VENUS TRAJECTORIES
NT INTERPLANETARY TRAJECTORIES
NT LUNAR TRAJECTORIES
Closed form low-thrust trajectories for Mars missions [DE92-017431] 02 p0232 N93-11766
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2 [NASA-CR-189703] 02 p0216 N93-12413
Robust rendezvous maneuver point conditions [NASA-CR-190996] 03 p0517 N93-12690
An inverse dynamics approach to trajectory optimization for an aerospace plane [NASA-CR-191277] 03 p0500 N93-13305
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases [NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide [NASA-CR-189653-VOL-1-REV] 04 p0815 N93-14794
Optimal impulsive trajectories for orbital rendezvous between elliptic orbits 04 p0813 N93-15103
Theory and computation of optimal low- and medium-thrust transfers [NASA-CR-191651] 05 p1090 N93-16428
Robust approximate optimal guidance strategies for aeroassisted orbital transfer missions 05 p1074 N93-16518
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization [AD-A258191] 06 p1631 N93-17860
Debris about asteroids: Where and how much? 06 p1703 N93-19136
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 2: Analytic manual [NASA-CR-189653-VOL-2-REV] 07 p1821 N93-20121
Operator-assisted planning and execution of proximity operations subject to operational constraints 07 p1817 N93-21436
The realtime operations of the space shuttle orbiter during rendezvous and proximity operations 07 p1817 N93-21439
An automated system for spacecraft proximity operations 08 p2136 N93-22230
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual [NASA-CR-185171] 08 p2205 N93-24536
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem 09 p2603 N93-24718
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904
Mars: The dynamics of orbiting satellites and gravity model development 09 p2896 N93-25439
External tank aerothermal design criteria verification [NASA-CR-192514] 09 p2618 N93-26055
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual [NASA-CR-192557] 10 p2957 N93-27592
SOYUZ escape trajectory analysis from Space Station Freedom [NASA-CR-4508] 10 p2954 N93-27609
MASTRE trajectory code update to automate flight trajectory design, performance predictions, and vehicle sizing for support of shuttle and shuttle derived vehicles: Programmers manual [NASA-CR-192558] 10 p2954 N93-28321
Double swingby at Earth-Moon for increase of excess velocity [ETN-93-94177] 11 p3270 N93-30582

SPACECREWS
A health care system for the Space Station [NASA-TM-108093] 03 p0679 N93-13571
The environmental control and life-support system for a lunar base: What drives its design 03 p0680 N93-13991
Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report [NASA-CR-167698] 04 p0815 N93-15474
Manned testing in a simulated space environment 04 p0820 N93-15602
Applications of living systems theory to life in space 05 p1229 N93-16865
Life support and self-sufficiency in space communities 05 p1229 N93-16866
Emergency egress requirements for caution and warning, logistics, maintenance, and assembly stage MB-6 of Space Station Freedom 05 p1089 N93-17323
Exploration of the utility of military man in space in the year 2025 [AD-A258378] 06 p1453 N93-18267
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress [AD-A258552] 06 p1612 N93-19955
Physiological responses to wearing the space shuttle launch and entry suit and the prototype advanced crew escape suit compared to the unsuited condition [NASA-TP-3297] 07 p2026 N93-20319
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
An on-orbit viewpoint of life sciences research 08 p2187 N93-22629
Crew health 08 p2187 N93-22630
Orbiter Autoland reliability analysis [NASA-TM-4464] 08 p2194 N93-23139
Selection of astronauts for European space missions 08 p2156 N93-24345
The European astronauts training programme 08 p2156 N93-24346
Training concept for crew, end user, and ground centre personnel in the Columbus utilisation programme 08 p2162 N93-24382
JPRS report: Science and technology. Central Eurasia: Life sciences [JPRS-ULS-92-022] 09 p2795 N93-25407
The application of integrated knowledge-based systems for the Biomedical Risk Assessment Intelligent Network (BRAIN) 09 p2799 N93-25595
Utilization of the graded universal testing system to increase the efficiency for assessing aerobic and anaerobic capacity 09 p2794 N93-26077
Automation and robotics human performance [NASA-CR-193049] 09 p2802 N93-26153
A comparison of low-gravity measurements on-board Columbia during STS-40 10 p2948 N93-26950
Nuclear electric propulsion operational reliability and crew safety study: NEP systems/modeling report 10 p2983 N93-26976
Engineering design constraints of the lunar surface environment 10 p3022 N93-27975
Radiation monitoring equipment dosimeter experiment 11 p3266 N93-28730

SPACELAB
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan [NASA-CR-190807] 02 p0223 N93-11101
Microbiological analysis of debris from STS-42 IML-1 by direct plating of rinse waters [NASA-TM-108375] 02 p0375 N93-12174
First International Microgravity Laboratory [NASA-TM-108007] 03 p0518 N93-13113
Spacelab J: Microgravity and life sciences [NASA-CR-191353] 03 p0516 N93-13564
SLS-1 flight experiments preliminary significant results [NASA-TM-108033] 03 p0520 N93-13613
STS-40 Spacelab Life Sciences 1 (SLS-1): The first dedicated spacelab life sciences mission [NASA-TM-108034] 05 p1221 N93-15823
Overview of NASA's microgravity combustion science and fire safety program 07 p1868 N93-20180
MIRAGE: The data acquisition, analysis, and display system 08 p2530 N93-22193
Space Station Freedom research capabilities 08 p2183 N93-22609
Opportunities for research on Space Station Freedom 08 p2183 N93-22610
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students [NASA-EP-285] 08 p2399 N93-24148
Columbus precursor Spacelab missions 08 p2155 N93-24341
Payload operations for precursor mission E-1 08 p2155 N93-24342
The Space Robot Technology Experiment (ROTEX) on Spacelab-mission D2 08 p2164 N93-24391
Spacelab, Spacehab, and Space Station Freedom payload interface projects 09 p2620 N93-26080
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
Electrical design of Space Shuttle payload G-534: The pool boiling experiment [NASA-TM-106143] 10 p2959 N93-27260

SPACELAB PAYLOADS
NT GEOPHYSICAL FLUID FLOW CELLS
An intelligent position-specific training system for mission operations [NASA-TM-108381] 03 p0691 N93-13156
User support for the Spacelab mission D-2 08 p2155 N93-24340
The strategic role of automation and robotics for Columbus utilization 08 p2164 N93-24389
Development of Arabidopsis thaliana grown under microgravity conditions 08 p2166 N93-24404
STS-40 Space Shuttle mission report [NASA-TM-108737] 09 p2612 N93-25958
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan [NASA-CR-193224] 11 p3281 N93-30038

SPACERS
In-service considerations affecting component life 04 p0800 N93-14898

SPACING
NT AIRCRAFT APPROACH SPACING
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct [PNR-90958] 02 p0433 N93-11321
An experimental investigation into flow induced acoustic resonances in an annular cascade [PNR-90959] 02 p0433 N93-11322
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight [AD-A254645] 03 p0676 N93-12662
Matrix cracking initiation stress in fiber-reinforced ceramic matrix composites 03 p0627 N93-13539
Gloved operator performance study [AD-A256894] 05 p1227 N93-16048
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators [NASA-TM-106030] 07 p1760 N93-19968

Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940

SPALLATION

The neutrino process and neutrino r-process [DE92-014304] 02 p0485 N93-12120

Laser-ablation processes [DE92-011226] 02 p0322 N93-12250

The nature of scales grown on binary Cr-Nb alloys [DE92-019283] 03 p0542 N93-13080

Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates [DE93-003825] 08 p2325 N93-22872

The search for cold dark matter using germanium detectors 10 p3205 N93-28250

Cosmogenic radionuclides on LDEF: An unexpected Be-10 result 11 p3573 N93-29643

SPALLING

Study of the dynamic degradation under the action of a shock wave induced by pulsed laser 02 p0319 N93-12037

Hypervelocity impact effects on solar cells [NASA-CR-191802] 05 p1196 N93-16680

Assessment of single-pulse laser damage to structural materials for spacecraft [AD-A259387] 07 p1911 N93-21267

Tests of Hercules/Ultramet CVD coatings in hot hydrogen [DE93-005533] 08 p2237 N93-22909

SPANWISE BLOWING

Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip 03 p0496 N93-13822

Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing 12 p3683 N93-31068

SPARK GAPS

High-voltage pulse generator capable of 200 J at 5 kV [AD-A262111] 10 p3031 N93-27673

SPARK IGNITION

Pulse combustor with controllable oscillations [DE93-002003] 05 p1108 N93-17757

Flame-front kinetics 06 p1485 N93-18481

Controlling chaos in spark-ignition engines [DE93-005754] 08 p2312 N93-22761

Formation and control of combustion pollutants from gasoline-fueled spark-ignition motor vehicle engines [PB93-141042] 08 p2314 N93-23275

SPARK SHADOWGRAPH PHOTOGRAPHY

U SHADOWGRAPH PHOTOGRAPHY

SPARKS

Tool grinding and spark testing 11 p3291 N93-30954

SPAS (ESA PLATFORMS)

U SHUTTLE PALLET SATELLITES

SPATIAL DEPENDENCIES

A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions 01 p0066 N93-10575

A neural network based approach for machine fault diagnosis [VTT-TIED-1274] 11 p3543 N93-29998

SPATIAL DISTRIBUTION

NT STAR DISTRIBUTION

Enhanced magnetic field production during oblique hypervelocity impacts 01 p0108 N93-10129

Spatial distribution of line-of-sight velocities in a quiescent prominence 01 p0183 N93-10928

Development of a tactile perceived attitude transducer [AD-A253724] 02 p0385 N93-11081

Implementing system simulation of C3 systems using autonomous objects [NASA-CR-190845] 02 p0283 N93-11716

Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space [AD-A253993] 02 p0224 N93-11736

Measurement of the density distributions in quenched polycarbonate specimens by a quantitative Schlieren-optical technique 02 p0270 N93-11989

Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997

Gain in a confined aluminum plasma 02 p0320 N93-12043

Zodiacal emission 03 p0772 N93-13147

Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369

Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380

The spatial distribution of coronae on Venus 04 p1043 N93-14383

Effects of spatial luminance nonuniformities on visual-task performance and subjective uniformity [AD-A255989] 04 p0936 N93-14416

Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision [AD-A256059] 04 p0937 N93-14580

Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance [DE92-019170] 04 p0911 N93-15272

Complex temporal and spatial patterns in nonequilibrium processes [DE93-001845] 05 p1281 N93-17531

Microcomputer simulation of a fourier approach to optical wave propagation [AD-A257598] 05 p1305 N93-17796

About distribution and origin of the peculiar group of sporadic meteors 06 p1700 N93-19115

P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157

Collisional and dynamic evolution of dust from the asteroid belt 06 p1707 N93-19165

On the asteroidal jet-stream Flora A 06 p1710 N93-19185

Particle emission from artificial cometary materials 06 p1710 N93-19188

The spatial distribution of large cometary meteoroids in the inner solar system 06 p1712 N93-19208

Spatial and temporal variations in the column density distribution of comet Halley's CN coma 06 p1717 N93-19238

The vicinity of Jupiter: A region to look for comets 06 p1719 N93-19253

Stratiform clouds and their interaction with atmospheric motion [NASA-CR-192280] 07 p2002 N93-20038

Knitted carbon fiber reinforced thermoplastics: Structural characterization with image analysis 07 p1839 N93-21163

Dynamics of stellar populations in galactic disks [MITT-SER-A-234] 07 p2097 N93-21300

Simulation method for stationary Gaussian random functions based on the sampling theorem [PB93-127496] 07 p2059 N93-21818

Analysis of IUE observations of hydrogen in comets [NASA-CR-192693] 08 p2548 N93-23231

Prototype for a regional data management system, a step towards a regional land use project 08 p2353 N93-23571

Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM 08 p2354 N93-23573

Normal modes of the atmosphere as estimated by principal oscillation patterns and derived from quasi-geostrophic theory [MPIM-81] 08 p2397 N93-23857

ROSAT observations in star forming regions 08 p2538 N93-23917

Ultrafast frequency agile optical materials: Organically doped sol-gel glasses [AD-A260525] 08 p2241 N93-24201

Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS 09 p2751 N93-24855

The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553

The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735

Emission line galaxies in a narrow strip toward Perseus 10 p3201 N93-26877

Fractional brownian motion, wavelets, and infrared detector noise [AD-A262956] 10 p3129 N93-28290

Ground clutter measurements for surface-sited radar [AD-A262472] 11 p3379 N93-28655

Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523

Encoding spatial images: A fuzzy set theory approach 11 p3511 N93-29527

Utility of a ghost horizon and climb/dive ladder line tapering on a head-up display [AD-A264401] 11 p3508 N93-30167

SPATIAL FILTERING

Dual waveband signal processing system [AD-D015493] 05 p1139 N93-16438

A fuzzy logic based controller for the automated alignment of a laser-beam-smoothing spatial filter [NASA-TM-105994] 06 p1540 N93-18091

Adaptive filters for monitoring localized brain activity from surface potential time series [DE93-003795] 08 p2420 N93-22774

Optimum space-time processing in non-stationary environments [ISBN-0-315-56985-9] 08 p2274 N93-24620

Neural nets for aligning optical components in harsh environments: Beam smoothing spatial filter as an example 12 p3693 N93-31557

SPATIAL ISOTROPY

U ISOTROPY

U SPATIAL DISTRIBUTION

SPATIAL ORIENTATION

U ATTITUDE (INCLINATION)

SPATIAL RESOLUTION

Edge ion dynamics in H-mode discharges in D3-D [DE92-016255] 01 p0162 N93-10619

Some possible space interferometry applications 01 p0178 N93-10957

Initial laboratory evaluation of color video cameras [DE92-018274] 02 p0311 N93-11673

Nuclear magnetic resonance microscopy: New theoretical and technical developments 02 p0313 N93-11907

Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966

Laser surface profilometer with sub-Angstrom resolution [DE92-018926] 02 p0317 N93-12011

Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy 02 p0254 N93-12050

Spatial resolution enhancement of SSM/I microwave brightness temperatures and its impact on rainfall retrieval algorithms [AD-A254382] 03 p0661 N93-12861

Motion errors and compensation possibilities 03 p0563 N93-13052

The CHARA optical array 03 p0744 N93-13581

Temperature measurements with micrometer spatial resolution [AD-A255897] 03 p0603 N93-14086

Venus gravity: Summary and coming events 04 p1042 N93-14377

High speed imaging for flash radiography using PIN diodes [DE92-040959] 04 p0882 N93-15381

Recent diagnostic development for the Los Alamos Inertial Fusion Program [DE92-040362] 05 p1306 N93-15849

Atomic resolution imaging and analysis with the STEM [DE92-041304] 05 p1166 N93-16150

Texture segmentation in aerial photographs and satellite images [ITN-93-85174] 05 p1191 N93-16738

Spatio-temporal masking: Hyperacuity and local adaptation [AD-A257934] 06 p1595 N93-18006

Numerical experiments on consistent horizontal and vertical resolution for atmospheric models and observing systems 06 p1563 N93-18718

High-resolution observations of the spatial and velocity distribution of cometary hydrogen 06 p1703 N93-19135

Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529

STARE: A new coherent radar in Scandinavia 06 p1517 N93-19572

The BICORE project 06 p1517 N93-19587

Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408

Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630

Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California [PB93-118495] 07 p1994 N93-21805

Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations [NASA-TM-107726] 08 p2108 N93-22552

The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548

Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772

Method for enhancing of the spatial resolution of the passive radiometric systems 08 p2365 N93-23799

Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring 09 p2750 N93-24853

High speed x ray gating cameras for ICF imaging applications [DE93-007500] 09 p2709 N93-25515

Commercial applications multispectral sensor system 09 p2758 N93-25615

Detecting the scale and resolution effects in remote sensing and GIS 09 p2756 N93-25707

Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184

High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135

Results on Monte-Carlo simulations of a microstrip gas counter [NIKHEF-H/92-10] 10 p3040 N93-27541

Characterization of laboratory generated turbulence by optical phase measurements
[AD-A262596] 11 p3480 N93-28465
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Resolution-enhanced mapping spectrometer 11 p3434 N93-28794
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring 12 p3835 N93-32132

SPECIES DIFFUSION
The extent and status of mangroves in Mombasa district, Kenya: A case study based on remote sensing 09 p2746 N93-24826
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603

SPECIFIC GRAVITY
U DENSITY (MASS/VOLUME)

SPECIFIC HEAT
Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
Classical fluids of negative heat capacity
[DE92-040507] 05 p1329 N93-15943
Pulse combustor with controllable oscillations
[DE93-002003] 05 p1108 N93-17757
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Low-temperature specific heat of several high-temperature superconductors in the superconducting and mixed states 08 p2507 N93-23397
Magnetic response of certain curved graphitic geometries
[DE93-003694] 08 p2243 N93-24500

SPECIFIC IMPULSE
Electric Propulsion Space Experiment (ESEX): Spacecraft design issues for high-power electric propulsion 01 p0021 N93-10030
10 kW power electronics for hydrogen arcjets 01 p0021 N93-10033
Long life monopropellant hydrazine thruster evaluation for Space Station Freedom application 01 p0023 N93-10042
Experiments and analysis concerning the use of external burning to reduce aerospace vehicle transonic drag 02 p0235 N93-12537
Numerical study of cathode emission constraints on cylindrical self-field MPD thruster performance
[NASA-CR-190795] 04 p0826 N93-15370
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Development of arcjet and ion propulsion for spacecraft stationkeeping
[NASA-TM-106102] 08 p2204 N93-23747
Computational fluid dynamics for nuclear thermal propulsion 10 p2979 N93-26930
An analytical optimization of electric propulsion orbit transfer vehicles
[NASA-CR-191129] 10 p2985 N93-27060
Specific impulse calculations of high energy density solid cryogenic rocket propellants. 1. Atoms in solid H2
[AD-A263208] 11 p3341 N93-28517

SPECIFICATIONS
NT EQUIPMENT SPECIFICATIONS
NT FUNCTIONAL DESIGN SPECIFICATIONS
Raster graphics validation
[PB92-196070] 01 p0137 N93-10441
The theoretical background to BS7167: 1990 specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714
Requirements Specification Language (RSL) and supporting tools
[NASA-CR-189700] 02 p0405 N93-12345
A methodology for systems requirements specification and traceability for large real time complex systems
[AD-A254738] 02 p0419 N93-12358
Formal specification of the VIPER microprocessor in HOL
[RSRE-90009] 02 p0405 N93-12430
Specification of adaptive aiding systems
[AD-A254537] 03 p0499 N93-12602
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Flight termination systems commonality standard
[AD-A255349] 04 p0789 N93-14517
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
Outline for reusable reentry satellite system specification, volumes 1 - volume 9
[NASA-CR-185958] 05 p1086 N93-15791
Towards formal specification and proof of finite element software within the ATES development systems
[ISBN-90-9004337-3] 05 p1239 N93-16572
On the nature of bias and defects in the software specification process 05 p1244 N93-17166
Fine-grain incremental implementation of algebraic specifications
[CWI-CS-R9159] 05 p1270 N93-17489
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Interactive specification acquisition via scenarios: A proposal 05 p1249 N93-17512
Model-based software design 05 p1249 N93-17514
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
Formal development of Ada programs using Z and Anna: A case study
[AD-A235698] 06 p1623 N93-18847
Aircraft performance in practice 06 p1403 N93-19004
Creating and manipulating formalized software architectures to support a domain-oriented application composition system
[AD-A258900] 06 p1626 N93-19335
Formalization and transformation of informal analysis models into executive REFINE (tm) specifications
[AD-A258901] 06 p1627 N93-19442
Issues in requirements elicitation
[AD-A258932] 06 p1627 N93-19448
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Formalizing structured file services for the data storage and retrieval subsystem of the data management system for Spacestation Freedom
[NASA-CR-192293] 07 p2089 N93-20315
Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
An overview of space qualification requirements for new materials 07 p1830 N93-20815
Specifying and modifying the Graphics Manager and the Graphic Calculator in D2M2edit
[REPT-91-56] 07 p2037 N93-20851
Nondestructive inspection of in-service aircraft
[ETN-93-93059] 07 p1763 N93-20928
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Verification methods of the behavioral specifications: Study and implementation
[ETN-93-92687] 07 p2044 N93-21064
Formal specification and timing analysis of high-integrity real-time systems
[REPT-92-041] 07 p2028 N93-21185
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351
Accurate test limits with estimated parameters
[MEMO-1024] 07 p1877 N93-21397
Space Generic Open Avionics Architecture (SGOAA) standard specification
[NASA-CR-188245] 08 p2199 N93-23003
LOTOS specification style for OSI
[MEMO-INF-92-46] 08 p2448 N93-23357
Bipartitioning of LOTOS specifications
[MEMO-INF-92-50] 08 p2439 N93-23359
ESA ERS 1 product specification
[ESA-SP-1149] 08 p2200 N93-23389
Reusable reentry satellite system specification. Volume 1-9
[NASA-CR-192969] 08 p2196 N93-24543
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
Raster graphics: A tutorial and implementation guide
[PB93-145233] 08 p2443 N93-24562
TP protocol from specification to implementation
[MEMO-INF-92-42] 08 p2443 N93-24582
Languages for requirements specifications
[RSRE-MEMO-4585] 09 p2810 N93-25453
Description of an adder board
[TR-92-09] 10 p3027 N93-27904
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
Specification and generation of a lambda-calculus environment
[CWI-CS-R9233] 10 p3101 N93-27997
Concept document of the repository-based software engineering program: A constructive appraisal
[NASA-CR-193125] 11 p3526 N93-29027
Optical coherent phase diversity systems
[ISBN-90-9004897-9] 11 p3578 N93-29270
On the evaluation of fuzzy quantified queries in a database management system 11 p3517 N93-29569
Automatic synthesis of protocol specifications 11 p3356 N93-30228
Hitchhiker: Customer Accommodations and Requirements Specifications (CARS)
[NASA-TM-109225] 12 p3834 N93-31644
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
The reuse of large-scale components
[REPT-92-95] 12 p3793 N93-32419

SPECIMEN GEOMETRY
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Studies on numerical and experimental determination of energy release rate for composite laminates 03 p0533 N93-13752
Fracture at Cu/sapphire interfaces
[DE93-003816] 07 p1857 N93-21779
Crack deflection at bi-material interfaces
[DE93-003712] 08 p2332 N93-24479

SPECIMENS
In-plane ESPI measurements in hostile environments
[PNR-90919] 02 p0309 N93-11320
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
An experimental approach to size effect in rotating bending fatigue 07 p1922 N93-20339
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088

SPECKLE HOLOGRAPHY
Self-Referenced Speckle Holography (SRSH) image reconstruction performance
[AD-A262487] 10 p3045 N93-27661

SPECKLE INTERFEROMETRY
Successes of and prospects for ground-based interferometry 01 p0177 N93-10940
Ground-based high angular resolution observation of the Sun by interferometry in the visible 01 p0177 N93-10941
Fringe analysis of in-plane displacements on high speed rotating components
[PNR-90920] 02 p0334 N93-11022
In-plane strain measurement on high speed rotating components using pulsed laser ESPI
[PNR-90975] 02 p0315 N93-11064
In-plane ESPI measurements in hostile environments
[PNR-90919] 02 p0309 N93-11320
The CHARA optical array 03 p0744 N93-13581
Elastic and plastic strain measurement in high temperature environment using laser speckle 03 p0600 N93-13673

SPECKLE PATTERNS
In-plane ESPI measurements in hostile environments
[PNR-90919] 02 p0309 N93-11320
Laser-based strain measurements for high temperature applications 03 p0601 N93-13675
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Progress in speckle-shift strain measurement 12 p3693 N93-31558

SPECTRA
NT ABSORPTION SPECTRA
NT ATOMIC SPECTRA
NT BALMER SERIES
NT CONTINUOUS SPECTRA
NT ELECTROMAGNETIC SPECTRA
NT ELECTRONIC SPECTRA
NT EMISSION SPECTRA
NT ENERGY SPECTRA
NT FRAUNHOFER LINES
NT GAMMA RAY SPECTRA
NT H ALPHA LINE
NT H BETA LINE
NT INFRARED SPECTRA
NT K LINES
NT LINE SPECTRA
NT LYMAN SPECTRA
NT MASS SPECTRA
NT MICROWAVE SPECTRA
NT MOLECULAR SPECTRA
NT NEUTRON SPECTRA
NT NOISE SPECTRA
NT OXYGEN SPECTRA
NT PHOTOLUMINESCENT BANDS
NT PLASMA SPECTRA
NT POWER SPECTRA
NT RADIATION SPECTRA
NT RADIO SPECTRA
NT RAMAN SPECTRA
NT ROTATIONAL SPECTRA
NT RYDBERG SERIES
NT SHOCK SPECTRA
NT SOLAR SPECTRA
NT SPECTRAL BANDS
NT STELLAR SPECTRA
NT ULTRAVIOLET SPECTRA
NT VEGARD-KAPLAN BANDS
NT VIBRATIONAL SPECTRA
NT VISIBLE SPECTRUM
NT X RAY SPECTRA
Automatic cloud classification from multi-spectral satellite data over oceanic regions
[AD-A253670] 01 p0126 N93-10292
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. Iifornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
Multiresolution analysis by infinitely differentiable compactly supported functions
[AD-A256526] 04 p0969 N93-15398
A two-pass physics-based global lighting model 04 p0957 N93-15570
Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514
Fixed and data adaptive kernels in Cohen's class of time-frequency distributions
[AD-A257979] 06 p1649 N93-18195
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Toward a parallel recursive spectral bisection mapping tool
[DE93-006632] 09 p2816 N93-25414
Parallelizing the spectral transform method: A comparison of alternative parallel algorithms
[DE93-008664] 09 p2816 N93-25521
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Complex auditory signals
[AD-A261491] 09 p2846 N93-26374
OLYMPUS/ACTS scintillation experiment at the Lewis Research Center 09 p2685 N93-26481
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Benchmark eigenvalue spectrum calculations with anisotropic effects
[DE93-006387] 11 p3548 N93-28891
Precision optical interferometry in space
[NASA-CR-193264] 11 p3630 N93-29163
4D interconnect experimental development
[AD-A264298] 11 p3540 N93-30895
Systematic variations in the spectral properties of bright regions on Mars 12 p3864 N93-31951

SPECTRAL ABSORPTION
U ABSORPTION SPECTRA

SPECTRAL ANALYSIS
U SPECTRUM ANALYSIS

SPECTRAL BANDS
NT ABSORPTION SPECTRA
NT FRAUNHOFER LINES
NT PHOTOLUMINESCENT BANDS
NT VEGARD-KAPLAN BANDS
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Imaging IR spectrometer, phase 2
[NASA-CR-190848] 03 p0597 N93-13424
Application of improved HNO3 band model parameters to South Pole atmospheric emission measurements 03 p0647 N93-13723
High resolution absolute absorption cross sections of NO2 at 295, 573, and 673 K at visible wavelengths: Comprehensive data tables
[AD-A255261] 04 p0839 N93-14530
Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792
Free radical and overtone spectroscopy
[NASA-CR-192136] 07 p1850 N93-21555
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111

SPECTRAL CORRELATION
Periodicities in pulsar microstructure 02 p0484 N93-11230
Semiclassical analysis spectral correlations in mesoscopic systems
[DE92-634887] 02 p0471 N93-11780
Implementation of the one bit spectral correlation algorithm
[AD-A257748] 05 p1141 N93-17671
The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Intensity correlation of ionizing background at high redshifts 10 p3181 N93-26768

SPECTRAL EMISSION
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
The spectra of accretion discs in active galactic nuclei 05 p1368 N93-17111
The central engine of AGN's and its cosmological evolution 05 p1372 N93-17138
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A
[ESA-SP-1153-VOL-A] 07 p2096 N93-21007
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
The Amsterdam Pulse Stretcher AmPS as a photon source 10 p3139 N93-28338
The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
Atomic and molecular line observations of galaxies 12 p3847 N93-31771

SPECTRAL ENERGY DISTRIBUTION
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
Periodicities in pulsar microstructure 02 p0484 N93-11230
Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ion-ion two-stream instabilities 02 p0361 N93-11272
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
ROSAT-IUE All Sky Survey (RIASS): First results on active galaxies 05 p1369 N93-17117
Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130
The 10-year monitoring of the compact radio sources in the nuclear regions of M82 05 p1362 N93-17137
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1
[HU-SEFT-1991-09] 05 p1300 N93-17598
Search for pp decay to neutral H decay to (neutral Z)(neutral Z) decay to (mu +)(mu -)(mu +)(mu -) at the LHC
[NOTA-INTERNA-970] 05 p1300 N93-17644
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar 06 p1732 N93-19582
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322
IUE-ULDA access guide no. 3: International Ultraviolet Explorer-Uniform Low Dispersion Archive: Normal galaxies
[ESA-SP-1152] 07 p2094 N93-20541
Complex auditory signals
[AD-A261491] 09 p2846 N93-26374

SPECTRAL LINE WIDTH
Experimental studies of x ray laser spectral profiles: Observation of gain narrowing and saturation behavior
[DE92-019603] 02 p0316 N93-11659
Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507
The Baldwin effect in complete optically selected samples of quasars 05 p1363 N93-17159
Interpretation of incoherent scatter spectral width changes in the D-region during an auroral precipitation event 06 p1728 N93-19560
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
The liquid crystal polarimeter for solid-state imaging of solar vector magnetic fields
[AD-A260029] 08 p2483 N93-24251
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Noise measurements in single-mode GaAlAs diode lasers 09 p2716 N93-25067
Intensity correlation of ionizing background at high redshifts 10 p3181 N93-26768
Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

SPECTRAL LINES
U LINE SPECTRA

SPECTRAL METHODS
Numerical study of the small scale structures in Boussinesq convection
[NASA-CR-189695] 01 p0145 N93-10758
Inverse spectral transform for the 2 + 1-dimensional Gardner equation
[MATHS-REPT-A-138] 02 p0425 N93-11323
Spurious modes in spectral collocation methods with two non-periodic directions
[NASA-CR-189713] 02 p0427 N93-12298

Solution of compressible Navier-Stokes equations using spectral methods on arbitrary two-dimensional domains
03 p0593 N93-14041

Numerical simulation of thermal convection in a rectangular duct flow heated from its bottom
05 p1161 N93-16820

A discrete Neumann system
[PREPRINT-870] 05 p1279 N93-16968

Contribution to the solution of moment equations at two points by the spectral integral methods
[ECL-92-19] 06 p1525 N93-18096

LES turbulence modeling using DNS data base
06 p1409 N93-19274

New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A259331] 06 p1516 N93-19850

Research in computational fluid dynamics and analysis of algorithms
[NASA-CR-192309] 07 p1901 N93-20748

SSG 3.113: Spectral gravity field modelling methods
07 p1971 N93-20978

Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132

Studies of the analyte-carrier interface in flow injection analysis
[DE93-008374] 09 p2644 N93-25311

An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386

Incompressible spectral-element method: Derivation of equations
[NASA-TM-106109] 09 p2708 N93-26554

Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669

Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586

Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers
11 p3416 N93-28612

A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214

Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948

On the Chebyshev collocation approximation and domain decomposition
[FFI-92/7032] 12 p3807 N93-31598

Determination of the electrostatic Green's function for stratified media
[REPT-92-067] 12 p3716 N93-31607

Numerical analysis of the spectral domain of transmission lines in dielectric layers
[REPT-92-068] 12 p3716 N93-31608

SPECTRAL NOISE
U WHITE NOISE

SPECTRAL RECONNAISSANCE
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216

Remote sensing of agricultural vegetation: Status and perspectives 11 p3458 N93-28922

SPECTRAL REFLECTANCE
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818

Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258

A two-pass physics-based global lighting model
04 p0957 N93-15570

An expert system shell for inferring vegetation characteristics: Implementation of additional techniques (task E)
[NASA-CR-190999] 05 p1191 N93-16685

An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687

An expert system shell for inferring vegetation characteristics
[NASA-CR-191207] 05 p1191 N93-16691

COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264

Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009

A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793

Near infrared reflectance spectra: Applications to problems in asteroid-meteorite relationships
06 p1698 N93-19210

Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792

Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822

Data analysis for bark and leaf reflectance measurements
[AD-A258598] 07 p1966 N93-19983

In-situ determination of optical properties of sea water and particle characteristics in the Corfu Sea (Mediterranean): Report on the first joint campaign of the Mito project
[BCRS-92-04] 07 p2018 N93-20741

End-to-end tests of satellite data
07 p1953 N93-21571

Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data
07 p1955 N93-21578

ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782

Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783

Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803

Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing
09 p2751 N93-24859

Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860

Forest damage detection and reflection of conifers: From micro to field level 09 p2752 N93-24864

Scale dependence in the reflectance of deciduous woodland: Evidence from a helicopter-mounted spectroradiometer 09 p2752 N93-24865

Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869

Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570

Composition of near-Earth asteroids
10 p3205 N93-26690

Spectral infrared hemispherical reflectance measurements for LDEF tray clamps
10 p3149 N93-28270

Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417

Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830

An unusual spectral unit in West Candor Chasma: Evidence for hydrothermal or aqueous alteration?
12 p3863 N93-31942

Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments
12 p3863 N93-31943

Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954

SPECTRAL RESOLUTION
Some possible space interferometry applications
01 p0178 N93-10957

Morphology and physics of supernova remnants
02 p0482 N93-11476

Imaging IR spectrometer, phase 2
[NASA-CR-190848] 03 p0597 N93-13424

Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar
03 p0653 N93-13614

Radiometric design of sensors and quantitative evaluation of remote sensing data in the optical spectral region
[DLR-FB-92-01] 05 p1191 N93-16514

Precision and resolution in spectroscopic model fitting
[ISBN-90-6275-756-6] 05 p1104 N93-16582

High spectral resolution measurements for the ARM Program
[DE93-002772] 05 p1209 N93-16924

Lunar resources using moderate spectral resolution visible and near-infrared spectroscopy: Al/Si and soil maturity 05 p1387 N93-17247

An in situ technique for elemental analysis of lunar surfaces 05 p1388 N93-17254

Deimos: A reddish, D-type asteroid spectrum
06 p1706 N93-19163

Requirements and projects for high-resolution atmospheric sounding 07 p1959 N93-21607

European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820

Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801

The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766

Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781

Resolution-enhanced mapping spectrometer
11 p3434 N93-28794

SPECTRAL SENSITIVITY
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200

Pre-phase A: Development of a far-ultraviolet photometric- and spectroscopic-survey small-explorer experiment
[NASA-CR-192092] 06 p1698 N93-18415

SPECTRAL SIGNATURES
NT MICROWAVE SIGNATURES

Optical signatures of cooling flows in isolated early-type galaxies 04 p1017 N93-14243

X ray spectral structure of Seyfert galaxies
05 p1366 N93-17098

High-energy laser-particle interaction
06 p1543 N93-18469

Vibration monitoring with artificial neural networks
[DE93-003543] 07 p1952 N93-21992

Vibration monitoring of EDF rotating machinery using artificial neural networks
[DE93-003557] 07 p1952 N93-21993

ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764

Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda
08 p2361 N93-23772

Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers
09 p2738 N93-24776

Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817

Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848

Measuring the intensity of nitrogen fertilization of grassland by means of remote sensing
09 p2751 N93-24859

Combining spectral information with crop rotation knowledge for crop classifications
09 p2752 N93-24861

The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720

A comparison of the dynamical signatures of coronal heating mechanisms 12 p3875 N93-31394

Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561

SPECTRAL THEORY
Refinement and testing of the radiative transfer parameterization in the PL global spectral model
[AD-A256840] 05 p1212 N93-15960

Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675

A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet
[DE93-005251] 08 p2293 N93-23300

On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276

Prediction of global cloud cover with a very high resolution global spectral model
[AD-A261047] 09 p2785 N93-25777

A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214

SPECTROGRAMS
Pattern recognition applied to H(sub alpha) spectroheliograms solar rotation and meridional circulation 01 p0182 N93-10924

Analysis of CCD images of the coma of comet P/Halley
[NASA-CR-191384] 04 p1020 N93-14814

SPECTROGRAPHS
MSDP imaging spectroscopy for high resolution solar physics 01 p0183 N93-10926

X-UV spectroscopy temporal resolution
02 p0318 N93-12028

Analysis of the instrument operation of a focal circle spectrograph and numerical reconstitution of the spectrum emitted by a plasma column 02 p0321 N93-12051

Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891

The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
LISA: A limb imaging spectrograph for airglow 04 p0811 N93-14952
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189
Design concept for an IR mapping spectrometer for the Pluto fast flyby mission 11 p3285 N93-28779
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Pulse discriminator for crosstalk rejection in a multi-channel isochromat photoemission spectroscopy
[REPT-92-062] 12 p3719 N93-31253
Preliminary observations of solar type 2 bursts with the new radiospectrograph in Tremsdorf (Germany) 12 p3872 N93-31370
CDS and SUMER observations of fine structure and dynamics of loops: Experience from HRTS 12 p3873 N93-31376
Underneath coronal loops: MSDP observations coordinated with SERTS 4 and NIXT flights 12 p3876 N93-31397
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779

SPECTROHELIOGRAPHS
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189

SPECTROHELIOSCOPES
U SPECTROHELIOGRAPHS

SPECTROMETERS
NT GAMMA RAY SPECTROMETERS
NT IMAGING SPECTROMETERS
NT INFRARED SPECTROMETERS
NT LASER SPECTROMETERS
NT MASS SPECTROMETERS
NT MICROWAVE SPECTROMETERS
NT NEUTRON SPECTROMETERS
NT SOLAR SPECTROMETERS
NT SPECTROHELIOGRAPHS
NT TIME OF FLIGHT SPECTROMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
NT ULTRAVIOLET SPECTROMETERS
Interpretation of measurements from the suprathermal electron spectrometer on the NEED-2 rocket
[FFI-92/7009] 02 p0357 N93-11129
Comparison of passive-remote and conventional Fourier transform infrared systems for continuously monitoring incinerator emissions
[DE92-015225] 02 p0355 N93-12098
Artificial intelligence and neural networks applied to ion mobility spectrometry
[DE92-017508] 03 p0690 N93-12559
Elementary particle physics research
[DE92-019746] 03 p0702 N93-12655
Indiana University High Energy Physics Group, task C
[DE92-040458] 03 p0707 N93-13002
Applications of the Los Alamos High Energy Transport code
[DE92-017408] 03 p0704 N93-13281
Experimental testing of four correction algorithms for the forward scattering spectrometer probe
[NASA-TM-105906] 03 p0597 N93-13307
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
Lunar UV-visible-IR mapping interferometric spectrometer 05 p1390 N93-17265
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163
A hyperspectral image analysis workbench for environmental science applications
[DE93-000603] 06 p1574 N93-19469
Heavy ion backscattering spectrometry for high sensitivity
[DE93-002489] 06 p1484 N93-19624
Experimental investigations of undulator radiation compatability
[ETN-93-92566] 07 p2066 N93-20880
New methods and instrumentation for the characterization of biopolymers using electrospray ionization-mass spectrometry
[DE93-005100] 08 p2239 N93-23323
Earth's mysterious atmosphere. ATLAS 1: Teachers guide with activities
[NASA-EP-282] 08 p2396 N93-23733
Global ozone monitoring experiment 08 p2364 N93-23793
Condensation on cooled surfaces of optical devices at the cosmic conditions 09 p2753 N93-24869
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
The APX spectrometer for Martian missions 11 p3434 N93-28776
Prototype backscatter Moessbauer spectrometer for measurement of Martian surface mineralogy 11 p3648 N93-28812
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
Investigations of self-pumped phase conjugate laser beams and coherence length
[AD-A263438] 11 p3438 N93-29789
Reaction mechanism studies of heavy ion induced nuclear reactions
[DE93-010496] 11 p3569 N93-29807
Research and education by SF cyclotron facility
[DE93-753135] 11 p3576 N93-30002
Polarization experiments with hadronic and electromagnetic probes
[DE93-011375] 11 p3392 N93-30126
Operation of a 20-channel grating polychromator diagnostic system and its application to sawtooth observations in JT-60U
[DE93-764388] 11 p3590 N93-30398
Calibration of ORFEUS echelle spectrometer
[ETN-93-94201] 12 p3691 N93-31048
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

SPECTROMETRY
U SPECTROSCOPY

SPECTROPHOTOMETERS
NT INFRARED SPECTROPHOTOMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
A new instrument for the study of mesospheric gravity waves through nightglow observations 03 p0656 N93-13789
Variable path length spectrophotometric probe
[DE92-019834] 04 p0881 N93-14716
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
Fiber optic chemical sensors for characterizing the carbon cycle in ocean margin regions
[DE93-011442] 11 p3489 N93-30056

SPECTROPHOTOMETRY
NT STELLAR SPECTROPHOTOMETRY
Determination of Sandoz black aluminum coloring dye, olive aluminum coloring dye, and sodium dichromate aluminum sealing solutions by UV-visible spectrophotometry
[AD-A253639] 01 p0029 N93-10207
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Ground-based observations of 951 Gaspra: CCD lightcurves and spectrophotometry with the Galileo filters 06 p1698 N93-19212
Determination of atomic oxygen fluence using spectrophotometric analysis of infrared transparent witness coupons for long duration exposure tests
[NASA-TM-106021] 08 p2206 N93-22605
Review of results from the Hopkins Ultraviolet Telescope aboard the Astro-1 mission 08 p2535 N93-23891
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations 08 p2536 N93-23901
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
The nature of faint emission-line galaxies 10 p3173 N93-26716
Multi-filter spectrophotometry simulations 10 p3201 N93-26881

SPECTROPOLARIMETERS
U POLARIMETERS

SPECTRORADIOMETERS
A trainable image pattern classification system for detection of damaged soybean seeds 02 p0201 N93-12208
Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258
Development of moored oceanographic spectroradiometer
[NASA-CR-190883] 03 p0670 N93-13708
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data 07 p1954 N93-21576
Remote sensing geology 09 p2744 N93-24815

SPECTROSCOPES
U SPECTROMETERS

SPECTROSCOPIC ANALYSIS
Alternate spectrometric oil analysis techniques
[AD-A253355] 01 p0029 N93-10101
Infrared investigations of pristine polypyrrole. Is the polymer called polypyrrole really Poly (Pyrrole-Co-Hydroxypyrrole)?
[AD-A249746] 01 p0036 N93-10243
A new ellipsometry technique for interface analysis: Application to Si-SiO2
[AD-A253143] 01 p0167 N93-10415
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
The microstructural characterization of an Al-Li-Cu-Mg alloy (8090) metal-matrix composite
[RAE-TM-MAT/STR-1139] 01 p0034 N93-10802
Analysis of interplanetary dust experiment detectors and other witness plates
[NASA-CR-190818] 01 p0032 N93-10852
Elemental analyses of hypervelocity microparticle impact sites on interplanetary dust experiment sensor surfaces 01 p0032 N93-10853
Contaminant interferences with SIMS analyses of microparticle impactor residues on LDEF surfaces 01 p0032 N93-10854
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
Signal-to-noise assessment and measurement in spectroscopies with particular reference to Auger and x ray photoelectron spectroscopies
[NPL-DMM(A)-45] 02 p0247 N93-11396
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
On-line analysis of chemical composition using an FT-Raman spectrometer in the near-IR
[DE92-016503] 02 p0253 N93-12311
Characterization of underivatized pterins by laser desorption Fourier transform mass spectrometry
[DE92-016785] 02 p0323 N93-12514
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
High-resolution investigation of degenerate four-wave mixing in the (gamma)(0,0) band of nitric oxide
[DE92-005312] 03 p0537 N93-13232
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949

The effect of a seawater environment on the galvanic corrosion behavior of graphite/epoxy composites coupled to metals
[AD-A256072] 04 p0830 N93-14232
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer
04 p1027 N93-14312
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Fluorescence detection for gel and capillary electrophoresis
[DE92-040585] 05 p1102 N93-16020
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
Electron energy loss investigation of hole-plasmon excitation following the in situ doping of Si(111) by boron
[AD-A256924] 05 p1310 N93-16503
Precision and resolution in spectroscopic model fitting
[ISBN-90-6275-756-6] 05 p1104 N93-16582
Spectroscopic investigation of the vibrational quasi-continuum arising from internal rotation of a methyl group
[DE92-040509] 05 p1104 N93-16586
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Spectroscopy of highly charged multi-electron ions
[DE93-001617] 05 p1291 N93-17181
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400
The 4th International Symposium on Analysis and Detection of Explosives: Programs and abstracts
[AD-A258029] 05 p1129 N93-17751
Spectroscopic wear detector
[NASA-CASE-LEW-15200-1] 06 p1474 N93-18856
Diffraction peaks in x ray spectroscopy: Friend or foe?
[DE93-002482] 07 p2081 N93-21486
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
Isotope identification of purified xenon and krypton by low-background gamma spectroscopy
[DE93-004585] 08 p2217 N93-22339
Plasma focus 08 p2496 N93-23264
Organic Optoelectronic Materials: A Topical Workshop
[AD-A259695] 08 p2488 N93-23662
Experimental and theoretical study of the iodine-singlet oxygen reaction for use in a high power chemical laser (COIL)
[ONERA-P-1992-3] 08 p2309 N93-24137
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
Development of resonance ionization spectroscopy for genome mapping and DNA sequencing using stable isotopes as DNA labels
[DE93-007815] 09 p2793 N93-26587
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
The production and destruction of negative ions
[DE93-010527] 11 p3564 N93-28665
The APX spectrometer for Martian missions
11 p3434 N93-28776
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
Elastic and reactive collisions of atoms and molecules with neutral alkali clusters
[DE93-009313] 11 p3566 N93-29206
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
The 2nd International symposium on electrochemical impedance spectroscopy (extended abstracts)
[AD-A262994] 11 p3312 N93-29462
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Single-shot femtosecond spectroscopy: A methodology for observation of solid-state chemical reactions
11 p3319 N93-30075
Bayesian analysis of SOHO spectra
12 p3876 N93-31398
EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984
Si/SiO2 interface studies by immersion ellipsometry
[AD-A265151] 12 p3710 N93-31991
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

SPECTROSCOPIC TELESCOPES

High resolution imaging at Palomar
03 p0745 N93-13584
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
CDS and SUMER observations of fine structure and dynamics of loops: Experience from HRTS
12 p3873 N93-31376
The International Stratospheric Laboratory for Astrophysics (ISLA): The cosmic microscope
12 p3846 N93-31765

SPECTROSCOPY

NT ABSORPTION SPECTROSCOPY
NT ASTRONOMICAL SPECTROSCOPY
NT AUGER SPECTROSCOPY
NT AURORAL SPECTROSCOPY
NT ELECTRON SPECTROSCOPY
NT FLAME SPECTROSCOPY
NT GAS SPECTROSCOPY
NT HOLOGRAPHIC SPECTROSCOPY
NT INFRARED SPECTROSCOPY
NT LASER SPECTROSCOPY
NT MAGNETIC SPECTROSCOPY
NT MASS SPECTROSCOPY
NT MOLECULAR SPECTROSCOPY
NT OPTICAL EMISSION SPECTROSCOPY
NT PHOTOACOUSTIC SPECTROSCOPY
NT PHOTOELECTRON SPECTROSCOPY
NT RADIO SPECTROSCOPY
NT RAMAN SPECTROSCOPY
NT SECONDARY ION MASS SPECTROMETRY
NT SPECTROPHOTOMETRY
NT SPECTROSCOPIC ANALYSIS
NT STELLAR SPECTROPHOTOMETRY
NT ULTRAVIOLET SPECTROSCOPY
NT X RAY SPECTROSCOPY
Chromospheric structure and dynamics
01 p0180 N93-10906
Radiation damage by high energy electrons in GaAs: A DLTS (deep level transient spectroscopy) examination
[HMI-B-494] 02 p0442 N93-11028
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
Admittance spectroscopy of copper indium diselenide/cadmium sulfide solar cells
02 p0344 N93-11214
Plasma properties of solar coronal active regions
02 p0489 N93-12342
Analysis of IMS spectra using neural networks
[DE92-017511] 03 p0691 N93-12791
Spectroscopic studies of low-density gas in the Galactic disk and halo 03 p0753 N93-13499
Spectroscopic observations of the night airglow from 3000 A to 9200 A 03 p0658 N93-13891
Diffusing wave spectroscopy
04 p0980 N93-14169
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Photoelectrochemical fabrication of spectroscopic diffraction gratings, phase 2
[NASA-CR-190875] 05 p1300 N93-15692
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
QCD spectroscopy and phenomenology with improved actions
[PREPRINT-857] 05 p1106 N93-17015
An exploratory study of meson spectroscopy and matrix elements with an improved fermion action at beta = 6.0
[PREPRINT-850] 05 p1290 N93-17070
Positron lifetime spectroscopy for investigation of thin polymer coatings
[NASA-TM-4421] 06 p1491 N93-17945
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
Picosecond studies of space optical materials
06 p1664 N93-18475
Emission spectra of selected SSME elements and materials
[NASA-RP-1286] 06 p1656 N93-18763
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
Electrical, magnetic and, spectroscopic properties of (TTF)5Fe(NO3)3
[AD-A259378] 06 p1485 N93-19854
Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949
Thirteen new BL Lacertae objects discovered by an efficient x ray/radio/optical technique
07 p2095 N93-20796
High frequency spectroscopy for collision excited helium atom fine structure of 1s4f configuration
[ETN-93-92560] 07 p2062 N93-20875
Spectroscopy of highly-ionized atoms using position-sensitive detection
[DE93-002914] 08 p2482 N93-22985
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
The surface plasmon spectroscopy applications in microgravity: The measurement theory and preliminary experimental layout 08 p2165 N93-24396
Scale dependence in the reflectance of deciduous woodland: Evidence from a helicopter-mounted spectroradiometer 09 p2752 N93-24865
Ion trap frequency standard research at PTB
09 p2841 N93-25050
Photomodulation spectroscopy of photocarrier dynamics, electronic defects and morphology of conducting polymers
[DE93-010140] 09 p2655 N93-25524
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
The surface characterization of a series of hydroxybenzenes on Ag(111): An EELS and TDS study
[DE93-007541] 09 p2647 N93-26595
Velocity resolved spectroscopy of molecular hydrogen emission in NGC6240 10 p3187 N93-26801
Coherent systems in the terahertz frequency range: Elements, operation, and examples
10 p3011 N93-27727
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
X ray and gamma ray spectroscopy of solids under pressure
[DE93-010966] 10 p2996 N93-29360
Excited states in electronic structure calculations
[DE93-007704] 11 p3592 N93-28642
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747
Quantum lattice fluctuations in a 1-dimensional charge-density-wave material: Luminescence and resonance Raman studies of an MX solid
[DE93-007362] 11 p3593 N93-28966
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Examination of shock induced chemical reactions in liquids using time-resolved optical spectroscopy
11 p3318 N93-30073
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
The Large Angle Spectroscopic Coronagraph (LASCO): Visible light coronal imaging and spectroscopy
12 p3868 N93-31350
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars
12 p3865 N93-31954

DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984

SPECTRUM ANALYSIS
NT CEPSTRAL ANALYSIS
NT FLAME SPECTROSCOPY
NT MAXIMUM ENTROPY METHOD

Evolutionary spectra of time-dependent discretized systems to time-frequency modulated random excitations 01 p0055 N93-10524

Non-self-similar clustering of galaxies
[MPE-PREPRINT-212] 02 p0484 N93-11338

Operator's guide for VAXGAP, a gamma-ray spectrum analysis package
[DE92-019096] 02 p0407 N93-11356

Stationary time series analysis using information and spectral analysis
[AD-A257279] 02 p0425 N93-11431

X-UV spectroscopy temporal resolution
02 p0318 N93-12028

Analysis of the instrument operation of a focal circle spectrograph and numerical reconstitution of the spectrum emitted by a plasma column 02 p0321 N93-12051

Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426

CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656

Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258

A thermal/nonthermal approach to solar flares
03 p0771 N93-13639

Application of Fourier Transform-infrared spectroscopy (FT-IR) for materials analysis
[AD-A255727] 04 p0838 N93-14435

Spectral analysis of the shuttle glow. SPA II/IBSS Mission: AIS hardware
[PL-TR-92-2148] 04 p0814 N93-14697

Spectral analysis of the shuttle glow: AIS science support
[PL-TR-92-2172] 04 p0815 N93-14698

Atomic data and spectral analysis of carbon, nitrogen, oxygen and silicon ions observed with the International Ultraviolet Explorer
[NASA-CR-191302] 04 p1012 N93-14761

Development of an automated scanning monochromator for sensitivity calibration of the MUSTANG instrument
[AD-A256830] 05 p1166 N93-15688

Vibration characterisation for low level disturbances induced in telecommunications spacecraft
05 p1078 N93-15733

Fixed points in spectral complexity
[AD-A256729] 05 p1263 N93-16068

Theory working group: Summary of the results
[PREPRINT-803] 05 p1297 N93-16423

Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data
05 p1165 N93-16792

Demonstration of a method for extracting 2D NMR information from a reduced set of selected 1D experiments
[ITN-93-85183] 05 p1105 N93-16854

Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095

X ray spectral structure of Seyfert galaxies
05 p1366 N93-17098

ROSAT x ray spectra of quasars with a range of continuum properties and redshift
05 p1362 N93-17128

Preliminary results on the properties of the EMSS AGN's as derived from the ROSAT all sky survey
05 p1362 N93-17129

Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130

Initial results from a ROSAT deep survey in Lynx
05 p1362 N93-17132

COMPAS: Compositional mineralogy with a photoacoustic spectrometer 05 p1390 N93-17264

Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588

Implementation of the one bit spectral correlation algorithm
[AD-A257748] 05 p1141 N93-17671

Artificial intelligence for geologic mapping with imaging spectrometers
[NASA-CR-192086] 06 p1564 N93-17979

The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251

Analysis of images and spectra of spacecraft-induced radiations
[AD-A257902] 06 p1473 N93-18340

The broad-band x ray spectral variability of Mkn 841
06 p1561 N93-18711

A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793

The Apollo 17 region: A compositional overview
06 p1736 N93-18796

Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972

Evidence of orbital forcing in 510 to 530 million year old shallow marine cycles, Utah and western Canada
06 p1582 N93-18975

The cyclic carbonates of the Latemar Massif: Evidence for the orbital forcing of a carbonate platform during the Middle Triassic 06 p1582 N93-18976

The first identification of C2 emission bands in comet Scorichenko-George (1989e1) spectrum
06 p1703 N93-19139

Ionospheric currents: Can the incoherent scatter plasma line spectrum provide routine current measurements?
06 p1724 N93-19533

D-region incoherent scatter spectra: Discrepancies between observations and current theory
06 p1728 N93-19559

Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations
06 p1584 N93-19568

Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT
06 p1729 N93-19569

The COSCAT experiment: EISCAT observations of coherent scatter at small aspect angles
06 p1517 N93-19573

EISCAT radar observations of enhanced incoherent scatter spectra: Their relation to red aurora and field-aligned currents 06 p1517 N93-19581

Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar
06 p1732 N93-19582

Naturally enhanced ion-acoustic waves in the auroral ionosphere observed with the EISCAT 933 MHz radar
06 p1732 N93-19586

Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609

Discussion of some aspects of the relationship between the agronomic and spectral variables of the coffee plantations
[INPE-5324-PRE/1722] 06 p1568 N93-19792

Accurate measurement of signals close to the noise floor on a spectrum analyzer
[AD-A258666] 06 p1516 N93-19949

X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266

An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592

Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930

Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237

Spectrum fatigue data in comparison to design curves in the long life regime 07 p1948 N93-21324

Advantages of tapering finite data records for spectral analysis
[PB93-116614] 07 p2092 N93-21475

A massive neutrino in nuclear beta decay?
[DE93-004718] 08 p2479 N93-22333

Data selection for fast projection techniques: A comparative study of direction finding performance
[AD-A259916] 08 p2262 N93-22814

The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829

Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893

A massive neutrino in nuclear beta decay?
[DE93-004706] 08 p2482 N93-22950

NTIA Microcomputer Spectrum Analysis Models (MSAM). Version 4.0, August 1992
[PB93-108348] 08 p2432 N93-23269

Spectral evolution during a complex gamma ray burst observed with BATSE 08 p2537 N93-23906

Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175

Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 4
[NASA-CR-192834] 09 p2769 N93-24910

Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 2
[NASA-CR-192833] 09 p2770 N93-25088

Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222

Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570

MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594

Estimation of coefficients in a rational function from observed values
[AD-A261126] 09 p2828 N93-25773

Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030

On the cross-stream spectral method for the Orr-Sommerfeld equation
[NASA-TM-107737] 09 p2845 N93-26086

Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372

Analysis of the IBSS spectra of Space Shuttle control engine exhaust
[AD-A261749] 09 p2632 N93-26373

A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718

13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293

Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514

Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604

Research and development of an airborne multispectral scanner to measure fire, terrestrial and atmospheric characteristics (50 channel)
[NASA-CR-193121] 11 p3456 N93-28620

Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces
11 p3434 N93-28769

Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing
11 p3641 N93-28773

Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207

Characterization of a space orbited incoherent fiber optic bundle 11 p3583 N93-29698

Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830

A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052

Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083

Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102

Enhanced resolution and de-aliasing techniques for fast Fourier transforms 11 p3358 N93-30240

The use of data turning in airborne radars
11 p3358 N93-30241

ELF/VLF spectrum measurements
11 p3398 N93-30745

Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801

ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010

Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035

On the feasibility of a transient dynamic design analysis
[AD-A264882] 12 p3733 N93-31101

QUASAR: An interactive program for spectrum analysis in personal computers
[DE93-609814] 12 p3786 N93-31248

Four dimensional reconstruction and analysis of plume images 12 p3694 N93-31561

Spectra and structure functions of temperature fluctuations in the inner solar wind
12 p3860 N93-31720

Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

Location of nanophase Fe-oxides in palagonitic soils: Implication for Martian pigments
12 p3863 N93-31943

SPECULAR REFLECTION
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Algorithms for the detection and elimination of specular aliasing 04 p0954 N93-15544
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
A radiosity approach realistic image synthesis system
[AD-A259082] 07 p2032 N93-20406
Enhanced backscattering from rough surfaces
[AD-A261000] 09 p2676 N93-25855
Formulation of Ames 24E2 IR-black coating
[NASA-TM-102864] 11 p3629 N93-29453
A program to determine the pointing angle to a specular point
[AD-A262777] 11 p3630 N93-29460

SPEECH
NT CONVERSATION
NT PHONEMES
NT PHONETICS
NT WORDS (LANGUAGE)
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
Perception and the temporal properties of speech
[AD-A261439] 09 p2686 N93-26490
DARPA TIMIT acoustic-phonetic continous speech corpus CD-ROM. NIST speech disc 1-1.1
[PB93-173938] 10 p3026 N93-27403

SPEECH BASEBAND COMPRESSION
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
Advances in speech processing 06 p1517 N93-19771

SPEECH DISCRIMINATION
U SPEECH RECOGNITION

SPEECH RECOGNITION
Speech recognition systems and their military applications
[BR91882] 02 p0280 N93-11366
The development of the speaker independent ARM continuous speech recognition system
[RSRE-MEMO-4473] 02 p0280 N93-11383
Preliminary results on the use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4511] 02 p0280 N93-11384
The use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4512] 02 p0280 N93-11385
Transputer implementation of the TRACE model of speech recognition
[AD-A254747] 03 p0689 N93-12846
Machine Perception
[AGARD-LS-185] 03 p0692 N93-13238
Perception-based and machine-oriented signal processing within speech understanding systems 03 p0692 N93-13239
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
A segmental hidden Markov model for speech pattern processing
[AD-A258220] 06 p1501 N93-18023
Advances in speech processing 06 p1517 N93-19771
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft 06 p1610 N93-19772
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
Fly-by voice, a technology demonstration 06 p1444 N93-19918
A low-delay backward-adaptive CELP speech coder
[ISBN-0-315-60461-1] 08 p2274 N93-24618
Speech research
[AD-A260643] 09 p2675 N93-25639
The adult literacy evaluator: An intelligent computer-aided training system for diagnosing adult illiterates 09 p2799 N93-26082
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
Speech recognition by recursive stochastic modelling
[ISBN-90-9005038-8] 11 p3382 N93-29266
Improvement of the NRC automatic speech recognition system 11 p3355 N93-30221
The 1991 neural information processing systems: Natural and synthetic
[AD-A264754] 11 p3623 N93-30559
Examinations of perturbation reduction by automatic speech dependent recognition of separately spoken single words
[ETN-93-94180] 11 p3394 N93-30672
A segmental hidden Markov model for speech pattern processing
[RSRE-MEMO-4599] 12 p3716 N93-31610

SPEECHES
U LECTURES

SPEED
U VELOCITY

SPEED CONTROL
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Rotational speed control 12 p3689 N93-31457

SPEED INDICATORS
Effect of Reynolds number on the standards of a simplified anemoclinometric probe
[IMFL-91-31] 05 p1056 N93-17542

SPEED REGULATION
U SPEED CONTROL

SPEEDOMETERS
U SPEED INDICATORS

SPENT FUELS
Status and integration of the gas generation studies performed for the hydrogen safety program
[DE93-008518] 10 p2994 N93-27105
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022

SPERMATOZOA
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363

SPHERES
NT CELESTIAL SPHERE
NT FALLING SPHERES
NT ROTATING SPHERES
Laser and optical physics
[AD-A253619] 01 p0088 N93-10251
Polarized light scattering from perfect and perturbed surfaces and fundamental scattering systems
[AD-A253186] 01 p0158 N93-10445
Effect of assembly anomalies on the strain response of composites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Damping and scattering of electromagnetic waves by small ferrite spheres suspended in an insulator
[NASA-TM-105837] 02 p0286 N93-12366
Light scattering from a sphere on or near an interface 02 p0448 N93-12531
A new apparatus for continuous countercurrent flow of solids and liquids
[DE92-011675] 03 p0583 N93-13318
Relativistic dynamics of a charged sphere: Updating the Lorentz-Abraham model
[AD-A256107] 04 p0971 N93-14245
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
The role of the dipole-dipole interaction in the solvation of monoatomic monovalent ions on the basis of the mean spherical approximation
[AD-A260284] 08 p2483 N93-24234
Phase transitions at the fluid-solid interface in a model for the adsorption of hard spheres
[AD-A260304] 08 p2223 N93-24235
Effect of triplet correlations on the adsorption of a dense fluid onto a crystalline surface
[AD-A260306] 08 p2223 N93-24236
Collective dynamics in dense fluid mixtures 10 p3041 N93-28069
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157

SPHERICAL ANTENNAS
Progress in the development of broadband electric-field sensors for transient fields 11 p3369 N93-30306

SPHERICAL COORDINATES
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics 01 p0003 N93-10306
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Rapid exploration of curvilinear grids using direct volume rendering
[NASA-CR-192765] 09 p2808 N93-24944

SPHERICAL HARMONICS
Venus gravity: Summary and coming events 04 p1042 N93-14377
A computer program for predicting oceanic tidal currents
[NASA-TM-104578] 05 p1219 N93-15695
Modern seismic travel time tables and station corrections for P and S waves
[AD-A262536] 11 p3477 N93-29412
Evaluation of multi-dimensional flux models for radiative transfer in cylindrical combustion chambers 11 p3257 N93-29955

SPHERICAL SHELLS
Analysis of a medium size BOR radome
[AD-A253954] 01 p0069 N93-10418
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading 03 p0628 N93-13728
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Numerical models of planetary dynamos
[DE93-003848] 07 p2098 N93-21970
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea
[DE93-000796] 08 p2392 N93-22807
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Thermal convection in rotating systems and the band structure of the major planets 08 p2164 N93-24393
Simulation study of MHD dynamo: Convection in a rotating spherical shell
[NIFS-207] 09 p2860 N93-25356
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211

SPHERICAL TANKS
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497

SPHERICAL WAVES
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
Spherical wave reflection and transmission 08 p2487 N93-23499
The single-gap hollow spherical dipole in non-conducting media
[AD-A260017] 08 p2273 N93-24460

SPHEROIDS
NT OBLATE SPHEROIDS
NT PROLATE SPHEROIDS
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
A computer program to calculate planewave average specific absorption rate in a prolate spheroidal model
[AD-A258197] 06 p1502 N93-18249
The multicomponent structure of bulges 10 p3187 N93-26800

SPHEROMAKS
Theoretical studies on plasma heating and confinement
[DE93-007617] 08 p2499 N93-24452
Ion temperature measurements in the Maryland Spheromak 09 p2859 N93-25290

SPHERULES
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia 01 p0120 N93-10181

SPICULES
Momentum transport through the chromosphere 12 p3852 N93-31677

SPIKE ANTENNAS
U MONOPOLE ANTENNAS

SPIN
NT ELECTRON CAPTURE
NT ELECTRON SPIN
NT ISOTOPIC SPIN
NT METAL SPINNING
NT NUCLEAR SPIN
NT PARTICLE SPIN
NT SPIN-ORBIT INTERACTIONS
NT SPIN-SPIN COUPLING
Low-spin identical bands in odd-A nuclei
[DE92-041016] 05 p1287 N93-16600
Fluctuations and thermodynamic variables in mean field spin glass models
[PREPRINT-883] 05 p1330 N93-17019
Spin structures of Fe/Gd and Fe/Cr multilayers determined by polarized neutron reflectometry
[DE93-000510] 05 p1293 N93-17375
Spinning-current method for offset reduction in silicon Hall plates
[ISBN-90-6275-780-4/CIP] 10 p3152 N93-27873

Spin observables in large t elastic N-N scattering
[DE93-009211] 11 p3564 N93-28549
Technique for measuring the spin rate of kinetic energy projectiles
[AD-A264114] 12 p3717 N93-32031
Novel spin effects in quantum chromodynamics
[DE93-010955] 12 p3833 N93-32181

SPIN DECOUPLING
Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315

SPIN DYNAMICS
Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
High-energy magnetic excitations in Mn(sub 90)Cu(sub 10)
[DE93-001634] 06 p1488 N93-18706
Spin vector and shape of 532 Herculina 06 p1711 N93-19193
Frequency ratio lock up in the attitude drift of a dissipative axisymmetric gyrostat 07 p1908 N93-20725
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
Spin dependent phenomena in medium energy physics
[DE93-010972] 11 p3565 N93-28849

SPIN EXCHANGE
The physics of spin polarized gases
[AD-A261396] 09 p2850 N93-26288
A high field optical-pumping spin-exchange polarized deuterium source
[DE93-009208] 11 p3574 N93-28970
Proceedings of the Workshop on Spin-Charge Transfer Reaction in Atomic Collision Process for planning of next period of cascade project
[DE93-704290] 12 p3821 N93-31834

SPIN FORGING
U METAL SPINNING

SPIN GLASS
Supersymmetry in spin glass dynamics
[PREPRINT-843] 05 p1279 N93-16957
Fluctuations and thermodynamic variables in mean field spin glass models
[PREPRINT-883] 05 p1330 N93-17019
Ultrametricity in an inhomogeneous simplest spin glass model
[PREPRINT-819] 07 p2055 N93-21181
Number of saddle points of the energy surface in SK spin-glass
[SSCL-PREPRINT-726] 10 p3134 N93-28099

SPIN REDUCTION
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599

SPIN RESONANCE
A mechanism for capture into resonance
[PB93-145761] 08 p2469 N93-23648

SPIN STABILIZATION
Spacecraft flight control system design selection process for a geostationary communication satellite
[NASA-TP-3289] 02 p0222 N93-11002
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
Apparatus for simulating an exoatmospheric structure
[NASA-CASE-MSC-21975-1] 08 p2169 N93-22016
SCATHA mission termination report 09 p2605 N93-24725
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
Nonlinear stability analysis of the attitude motion of spin-stabilized thrusting spacecraft 09 p2617 N93-25527
Investigation of liquid sloshing in spin-stabilized satellites
[AD-A261671] 09 p2619 N93-26438
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710
Recent applications of CFD to the aerodynamics of Army projectiles
[AD-A262953] 11 p3240 N93-29512

SPIN TESTS
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
Guided Weapons Division Spin Table Facility: Spin table control system
[AD-A259214] 07 p1788 N93-20555

SPIN WAVES
U MAGNONS

SPIN-LATTICE RELAXATION
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Deuteron and oxygen-17 NMR studies of molecular motion in methanol-saturated Nafion membranes
[AD-A261579] 09 p2851 N93-26514
High pressure studies of hydrated nafion membranes: Dielectric relaxation and deuteron NMR
[AD-A263511] 11 p3332 N93-29342

SPIN-ORBIT INTERACTIONS
NT ELECTRON CAPTURE
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
Spin effects in electron-atom collisions 06 p1659 N93-18494

SPIN-SPIN COUPLING
Frequency ratio lock up in the attitude drift of a dissipative axisymmetric gyrostat 07 p1908 N93-20725
Phase separation and superconductivity in the Kondo-like spin-hole coupled model
[SSCL-PREPRINT-759] 10 p3153 N93-28144
Microscopic origin of marginal Fermi-liquid in strongly correlated spin systems
[DE93-608697] 12 p3827 N93-31163

SPINAL CORD
Improved head support stand adjustable by compoundturnbuckle
[AD-D015384] 04 p0936 N93-15249
Secondary injury factors and preventative treatment
[PB93-176014] 10 p3084 N93-27409

SPINE
The effect of variable seat back angles on human response to +Gz impact accelerations
[AD-A250673] 02 p0387 N93-11559
Evaluation of CKU-5/A ejection seat catapults under varied acceleration levels
[AD-A248021] 02 p0204 N93-12489
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199

SPINEL
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785

SPINNERS
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954

SPINNING (METALLURGY)
U METAL SPINNING

SPINOR GROUPS
On the Dirac equation in three dimensions
[DE93-609915] 12 p3813 N93-31181
Helicity amplitudes for matter-coupled gravity
[DE93-609932] 12 p3832 N93-32025

SPIRAL ANTENNAS
Electromagnetic scattering and radiation from microstrip patch antennas and spirals residing in a cavity
[NASA-CR-191284] 03 p0565 N93-13354
Finite difference time domain modeling of spiral antennas
[NASA-CR-192237] 06 p1503 N93-18586
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Electrical and infrared properties of thin niobium microbolometers near T(sub c) 10 p3020 N93-27779

SPIRAL GALAXIES
NT ANDROMEDA GALAXY
NT BARRED GALAXIES
NT MILKY WAY GALAXY
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
Molecular gas temperature and density in spiral galaxies 03 p0748 N93-13688
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster 04 p1016 N93-14194
ROSAT all sky survey observations of IRAS galaxies 05 p1362 N93-17133
HI in galaxy outskirts and the extragalactic ionizing flux 05 p1372 N93-17139
On the suitability of starburst galaxies as a contributor to the CXRB 05 p1373 N93-17147
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
The formation of enhanced, low-ionization emission in galactic halos 08 p2551 N93-24180
Numerical modeling of barred spiral galaxies 09 p2893 N93-25537
Far-infrared emission, gas, and ultraluminous HII regions in M101
[NASA-CR-192791] 09 p2890 N93-25755
Heavy element abundances and massive star formation 10 p3172 N93-26709
What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726
Environmental influences on galaxy evolution 10 p3175 N93-26727
Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781
Feeding IC 342: The nuclear spiral of a starburst galaxy 10 p3184 N93-26782
A radio continuum survey of edge-on spiral galaxies at 90 cm 10 p3185 N93-26790
Molecular gas temperature and density in spiral galaxies 10 p3185 N93-26792
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
The 158 micron (CII) mapping of galaxies: Probing the atomic medium 10 p3186 N93-26796
Far-infrared line images of dwarf galaxies 10 p3186 N93-26797
The fate of captured gas: NGC 3077 and star formation in the M81 system 10 p3186 N93-26798
Molecular gas content of galaxies in the Hydra-Centaurus supercluster 10 p3188 N93-26807
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2 10 p3188 N93-26811
Density wave triggered star formation in grand design spirals 10 p3190 N93-26820
Tidal interactions and the formation of Magellanic spiral galaxies 10 p3190 N93-26821
Cluster tidal fields: Effects on disk galaxies 10 p3191 N93-26824
High chemical abundances in stripped Virgo spiral galaxies 10 p3191 N93-26825
Declining rotation curves in interacting galaxies 10 p3192 N93-26829
The formation of low-ionization emission in the halo of NGC 891 10 p3198 N93-26864
The disk-halo interface in edge-on spirals 10 p3198 N93-26865
The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867
Can cluster environment modify the dynamical evolution of spiral galaxies? 10 p3201 N93-26880
Ly alpha and IR galaxy companions of high redshift damped Ly alpha QSO absorbers 10 p3201 N93-26882
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889
H1 in RSA galaxies 10 p3203 N93-26891
Powering the superwind in NGC 253 10 p3203 N93-26893

SPIRALS
Maximum life spiral bevel reduction design
[NASA-TM-105790] 02 p0323 N93-10982

SPIRALS (CONCENTRATORS)
Fluid separator
[NASA-CASE-MFS-28658-1] 05 p1163 N93-17039

SPLICING
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518

SPLINE FUNCTIONS
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538

An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
A contribution to the theory and practice of multivariate splines
[ISBN-90-9004534-1] 05 p1272 N93-17591
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension 08 p2318 N93-24184
Elastic curves on the sphere
[AD-A261057] 09 p2829 N93-26228
Closed G(sup 1)-continuous cubic Bezier surfaces
[CWI-CS-R9226] 10 p3095 N93-27390
Survey of continuities of curves and surfaces
[CWI-CS-R9202] 10 p3097 N93-27495
An algorithm for determining the approximation orders of multivariate periodic spline spaces
[MEMO-1061] 10 p3101 N93-28012
A method for intersection line calculation between parametric surfaces
[ETN-93-94178] 11 p3551 N93-30572
Curve interpolation with constrained length
[MEMO-1079] 12 p3804 N93-31467
Approximation orders of and approximation maps from local principal shift-invariant spaces
[AD-A265038] 12 p3808 N93-31999
Generalised curvature continuous rational cubics
[MATHS-REPT-A-180] 12 p3809 N93-32347

SPLINES
Algebra-geometric and differential geometric methods in solid geometric modeling
[AD-A253669] 01 p0145 N93-10870
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
Optimal design of composite hip implants using NASA technology 08 p2423 N93-22188
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001
Spline screw autochanger
[NASA-CASE-GSC-13435-1] 11 p3445 N93-29505
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913

SPLITS (GEOLOGY)
U GEOLOGICAL FAULTS

SPLITTING
Phase differences of the fields in a Ramsey resonator for submillimetric frequency standards 09 p2840 N93-25042

SPOILERS
A two-dimensional spoiler of arbitrary chordwise position in a low speed flow 08 p2127 N93-24211

SPOKES
Spokes in ring galaxies 10 p3202 N93-28685

SPONTANEOUS COMBUSTION
Test method for self-ignition of materials
[VTT-PUBS-96] 06 p1483 N93-18697

SPONTANEOUS EMISSION
Novel nonlinear laser diagnostic techniques
[AD-A254709] 02 p0323 N93-12335
The sapphire Cerenkov laser 03 p0605 N93-13365
Physical and chemical processes of the inner coma observed in mid-ultraviclet cometary spectra 04 p1017 N93-14230
IDA gamma ray laser: Investigation of the feasibility of developing a laser using nuclear transitions
[AD-A259476] 07 p1909 N93-20246
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002697] 07 p1912 N93-21955
Self-amplified spontaneous emission for short wavelength coherent radiation
[DE93-004724] 08 p2307 N93-22490
Energy transfer studies in interhalogen molecules
[AD-A262888] 10 p3137 N93-28375

SPORADIC E LAYER
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
Gravity waves and sporadic E layers as measured by EISCAT and AIS 06 p1724 N93-19530
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile 06 p1517 N93-19579
High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Meteor impacts, sporadic E layer formation and the incoherent scatter method
[IRF-SF-210] 12 p3852 N93-31624

SPORADIC METEOROIDS
Phobos and Deimos are sources of meteoroids 06 p1700 N93-19116
The Taurid meteoroid complex 09 p2889 N93-25536

SPORES
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274

SPOT (FRENCH SATELLITE)
SPOT panchromatic band simulation by linear combination of multispectral bands
[INPE-5295-PRE/1650] 01 p0157 N93-10311
Multispectral imagery: An essential tool for today's Naval operations
[AD-A257957] 06 p1565 N93-18216
Map production and updating using SPOT data and SPOT data derived products 08 p2348 N93-23536
Image maps 08 p2348 N93-23537
Comparison of mapping with different satellite images 08 p2348 N93-23540
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Mapping from SPOT data 08 p2349 N93-23544
The creation of a DEM from SPOT data 08 p2355 N93-23582
The SPOT program 08 p2360 N93-23766
The SPOT 4 satellite and beyond 08 p2360 N93-23767
SPOT 4 image ground segment 08 p2360 N93-23768
The SPOT system development program: SPOT AVAL 08 p2360 N93-23769
Protection of SPOT data and derived products under private agreements, the law and international conventions 08 p2373 N93-23851
Satellite remote sensing for environmental geology: The Bandung (West Java) experience 09 p2739 N93-24784
The use of SPOT data in natural disaster prevention and damage assessment 09 p2743 N93-24811
Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring 09 p2750 N93-24853
Geographical and topographical data from satellite images used in developing a digital road topology database 12 p3745 N93-31266
SPOT satellite mapping of Ice Stream B 12 p3760 N93-31887

SPOT WELDS
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030

SPRAY CHARACTERISTICS
Bipropellant spray combustion modeling in small rocket engines 03 p0556 N93-13924
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
Spray characteristics of two types of fuel injectors
[PB93-180859] 12 p3736 N93-32069

SPRAY NOZZLES
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223

SPRAYED COATINGS
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
A design of experiment study of plasma sprayed alumina-titania coatings
[DE92-017877] 02 p0271 N93-12168
A Taguchi experimental design study of twin-wire electric arc sprayed aluminum coatings
[DE92-018022] 02 p0262 N93-12494
Diagnostic behavior of the Wire Arc Plasma spray process
[DE93-000717] 05 p1308 N93-16229
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909
Device for applying powder coatings
[AD-A258229] 06 p1492 N93-18218
Development of fire protective coatings for GRP composites using plasma deposition technology, phase 2
[DREA-CR-91-453] 08 p2239 N93-23121
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294

SPRAYED PROTECTIVE COATINGS
U PROTECTIVE COATINGS
U SPRAYED COATINGS

SPRAYERS
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Experimental investigation of rocket injector atomization 02 p0248 N93-11454
Computational fluid dynamics combustion analysis evaluation
[NASA-CR-184326] 03 p0575 N93-12688
Measurements of cellular structure in spray detonation
[DE92-019580] 03 p0555 N93-12933
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Combustion of interacting droplet arrays in a microgravity environment 07 p1854 N93-20217
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Spray combustion experiments and numerical predictions
[NASA-TM-106069] 08 p2296 N93-23744
Aircraft fire protection system
[CA-PATENT-1-296-970] 08 p2118 N93-24592
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
INEL spray-forming research 09 p2658 N93-25562
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948
Development of a second generation spray combustion code 09 p2626 N93-26016
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130
Estimation of droplet collision frequency in a spray
[DE93-007991] 11 p3416 N93-28566
Pulse mitigation and heat transfer enhancement techniques. Volume 1: Spray cooling
[AD-A263495] 11 p3423 N93-29352

SPRAYING
NT ARC SPRAYING
NT FLAME SPRAYING
NT METAL SPRAYING
NT PLASMA SPRAYING
Progress report on conductive paints, 3 August - 30 September 1992
[DE93-001353] 06 p1494 N93-18530
Combustion experiments in reduced gravity with two-component miscible droplets 07 p1854 N93-20214
The electrospray: Fundamentals and combustion applications 07 p1855 N93-20218
INEL spray-forming research 09 p2658 N93-25562

SPRAYING APPARATUS
U SPRAYERS

SPRAYS
U SPRAYERS

SPREAD F
On the hierarchy of processes contributing to equatorial spread F 08 p2395 N93-23595
The longitudinal occurrence of equatorial F layer irregularities 08 p2266 N93-23605
Ionospheric structure specifications and systems effects
[AD-A263573] 11 p3476 N93-29343

SPREAD SPECTRUM TRANSMISSION
Comparison of synchronization techniques for the AFIT direct sequence spread spectrum system
[AD-A256440] 04 p0861 N93-15316
PACISM: A design aid for the development of the petite amateur Navy satellite
[AD-A256719] 05 p1086 N93-15977
Applications of the Petite Amateur Navy Satellite (PANSAT)
[AD-A258015] 05 p1089 N93-17769
Coded performance of a fast frequency-hopped noncoherent BFSK ratio statistic receiver over a Rician fading channel with partial-band interference
[AD-A257580] 06 p1501 N93-18181
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
Acquisition of direct sequence spread spectrum signals using digital signal processing techniques
[AD-A258974] 06 p1510 N93-19094

A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
A Biphase Shift Keying (BPSK), direct sequence, spread spectrum modem for Petite Amateur Navy Satellite (PANSAT)
[AD-A261301] 09 p2618 N93-26295
Geolocation of an electromagnetic emitter using a cyclostationary time difference of arrival technique
[AD-A261781] 09 p2686 N93-26603
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910
An improved Kalman filter excisor for suppressing narrowband Gaussian noise interference
[AD-A263020] 10 p3031 N93-27911
Multipath noise reduction spread spectrum signals
[NASA-CASE-NPO-18970-1-CU]
10 p3028 N93-28126
Theoretical bit error rate performance of the Kalman filter excisor for FM interference
[AD-A263018] 11 p3383 N93-29407
Electro-optic characterisation of extremely wide bandwidth electrical signals
[AD-A264202] 11 p3392 N93-30145
A satellite downlink spread spectrum timing beacon
11 p3362 N93-30267
Coding for frequency hopped spread spectrum satellite communications 11 p3365 N93-30283
Petite amateur naval satellite spacecraft digital control system: A hardware design
[AD-A265234] 12 p3690 N93-32061

SPREADING
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Modelling studies in support of open-ocean convection field programs
[AD-A258324] 06 p1589 N93-18255
Opposed-flow flame spreading in reduced gravity
07 p1854 N93-20206
Electrostatic fiber spreader
[AD-D015677] 09 p2640 N93-26143

SPRING (SEASON)
Passive microwave remote sensing of snow-covered floating ice during spring conditions in the Arctic and Antarctic
[ISBN-0-315-70444-6] 09 p2754 N93-25422

SPRINGS (ELASTIC)
On oscillatory motion of a spring-mass system subjected to piecewise constant forces 07 p1934 N93-20670
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987
SPRING2: Helical compression spring geometry generator program manual
[DREA-TC-92-314] 08 p2438 N93-23345

SPUTTERING
NT MAGNETRON SPUTTERING
Implanted contacts for diamond semiconductor devices
[AD-A245568] 01 p0165 N93-10274
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Sputter deposition and characterization of MoSi2/SiC composite coatings
[DE92-040326] 04 p0837 N93-15426
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
Lunar and asteroid composition using a remote secondary ion mass spectrometer
05 p1387 N93-17245
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications
07 p1838 N93-21158
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22064
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
Sputter ion plating on Ti6Al4V4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
Ion emission during high-energy sputtering of ammonium dinitramide and ammonium nitrate crystals and the determination of ion decomposition pathways using tandem mass spectrometry 11 p3318 N93-30066

SQUALLS
Numerical simulation of a squall line: Tests of a new cumulus parameterization scheme
03 p0662 N93-13124
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
A numerical investigation of squall lines
[ISBN-0-315-69244-8] 07 p2011 N93-20280
The structure and energetics of Amazon squall lines
08 p2404 N93-23166
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

SQUARE WAVES
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2]
04 p0992 N93-14795
SNR degradation in square-wave subcarrier downconversion 06 p1507 N93-18914
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
A frequency generating source: Frequency synthesizers 09 p2693 N93-25041
Bandwidth compression of noisy signals with square-wave subcarrier 09 p2678 N93-26120
Practical input optimization for aircraft parameter estimation experiments
[NASA-CR-191482] 10 p2946 N93-27264

SQUARE WELLS
Phase of the quantum harmonic oscillator with applications to optical polarization
10 p3142 N93-27322

SQUEEZED STATES (QUANTUM THEORY)
Decoherence of multimode thermal squeezed coherent states
[DE93-002627] 06 p1679 N93-19489
Interferometric measurement with squeezed light
[AD-A260910] 09 p2856 N93-26457
Which Q-analogue of the squeezed oscillator?
10 p3142 N93-27320
Distribution of photons in squeezed polymode light
10 p3143 N93-27325
Two photon annihilation operators and squeezed vacuum 10 p3143 N93-27326
Squeezed states of damped oscillator chain
10 p3143 N93-27329
The uncertainty principle in resonant gravitational wave antennae and quantum non-demolition measurement schemes 10 p3143 N93-27330
Decoherence of multimode thermal squeezed coherent states 10 p3145 N93-27344
The harmonic oscillator and nuclear physics
10 p3146 N93-27354
Squeezing phenomena in interacting electron-phonon systems
[SSCL-PREPRINT-727] 10 p3134 N93-28100
A squeezed state holomorphic phase space representation of equations of motion
[DE93-609835] 11 p3607 N93-30945
Information-theoretic and Wigner function approaches to the nonclassical states dynamics for the variable frequency harmonic oscillator
[DE93-608166] 12 p3813 N93-31301

SQUEEZING
U COMPRESSING

SQUID (DETECTORS)
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Y1Ba2Cu3O(7-delta) thin film dc SQUIDs (superconducting quantum interference device)
[ITN-92-85167] 03 p0723 N93-13362
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391

SR-71 AIRCRAFT
The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168

SRB (SOLID ROCKET BOOSTERS)
U SPACE SHUTTLE BOOSTERS

STABILITY
NT ACOUSTIC INSTABILITY
NT AERODYNAMIC STABILITY
NT AIRCRAFT STABILITY
NT ATTITUDE STABILITY
NT BAROCLINIC INSTABILITY
NT BOUNDARY LAYER STABILITY
NT COMBUSTION STABILITY
NT CONTROL STABILITY
NT DIMENSIONAL STABILITY
NT DIRECTIONAL STABILITY
NT DYNAMIC STABILITY
NT FLAME STABILITY
NT FLOW STABILITY
NT FREQUENCY STABILITY
NT GOERTLER INSTABILITY
NT GYROSCOPIC STABILITY
NT HOVERING STABILITY
NT LATERAL STABILITY
NT LONGITUDINAL STABILITY
NT MAGNETOHYDRODYNAMIC STABILITY
NT MAGNETOSPHERIC INSTABILITY
NT MOTION STABILITY
NT PHASE STABILITY (MATERIALS)
NT ROTARY STABILITY
NT SHELL STABILITY
NT SPACECRAFT STABILITY
NT STATIC STABILITY
NT STORAGE STABILITY
NT STRUCTURAL STABILITY
NT SYSTEMS STABILITY
NT THERMAL STABILITY
NT WEIBEL INSTABILITY
Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389
Yellow hypergiant interferometry: A clue to understanding evolutionary instability
01 p0182 N93-10919
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Silicide layer growth rates in Mo/Si multilayers
[DE92-019581] 03 p0721 N93-12972
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Parameter studies of helium-neon lasers at 543 nm
03 p0606 N93-13747
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Stability of differentially rotating stars
04 p1018 N93-14584
Generation, control, and transport of a 19-MeV, 700-kA pulsed electron beam
[DE92-019803] 04 p0978 N93-15277
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Stability of metal particle and metal particulate media
05 p1170 N93-16329
Morphology, properties, and stability of thermoplastic polymer blends
[ETN-92-92791] 05 p1124 N93-16491
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
On the stability of a stringy black hole
[PREPRINT-879] 05 p1365 N93-16983
Sintering silicon nitride
[NASA-CASE-LEW-15489-1] 05 p1126 N93-17062
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU]
05 p1150 N93-17277
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
Going stable in graph models
[ML-91-08] 05 p1274 N93-17786

Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
Solid state and the standard model
[NOTA-INTERNA-980] 06 p1653 N93-17932
Regimes of improved confinement and stability in D3-D obtained through current profile modifications
[DE93-002674] 06 p1667 N93-19618
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625
Explicit representations of Lyapunov functions for stable analytic systems
[RR-402] 07 p2051 N93-20737
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Stable clusters in the condensed state and some possibilities for gas phase clusters
[DE93-004446] 07 p2064 N93-21846
Hamiltonian structure of the Vlasov-Einstein system and the problem of stability for spherical relativistic star clusters
[DE93-006180] 08 p2546 N93-22507
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Stable, high-efficiency amorphous silicon solar cells with low hydrogen content
[DE93-000049] 08 p2377 N93-22750
The asymptotic spectra of banded Toeplitz and quasi-Toeplitz matrices
[NASA-TM-103900] 08 p2467 N93-22829
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
Stability and instability of thermocapillary convection in models of the float-zone crystal-growth process
[NASA-CR-192695] 08 p2252 N93-23122
Phase stability and electronic structure of transition-metal aluminides
[DE93-003584] 08 p2234 N93-24499
How can millisecond pulsars improve the long term stability of atomic time scales?
09 p2832 N93-24985
High-order cyclo-difference techniques: An alternative to finite differences
[NASA-TM-107745] 09 p2575 N93-25074
Transverse instabilities in a relativistic klystron two-beam accelerator
[DE93-007110] 09 p2852 N93-25375
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Spectra of stable sonoluminescence
[AD-A260621] 09 p2844 N93-25637
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361
Theoretical treatment of spin-forbidden and electronically nonadiabatic processes. Methods and applications
[AD-A261596] 09 p2851 N93-26525
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
The set of super-stable marriages forms a distributive lattice
[MEMO-1052] 10 p3125 N93-27907
Linear stability analysis in the numerical solution of initial value problems
[TW-92-07] 10 p3118 N93-27916
Visible spectrum of stable sonoluminescence
[AD-A262096] 10 p3032 N93-28188
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-006285] 11 p3406 N93-28944
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A263464] 11 p3411 N93-29833
Structure, adhesion, and stability of metal/oxide and oxide/oxide interfaces
[DE93-012930] 11 p3325 N93-30060
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Instabilities and nonstatistical behavior in globally coupled systems
[DE93-608185] 12 p3831 N93-31302
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites
12 p3862 N93-31937
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-013082] 12 p3715 N93-32163
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367

STABILITY AUGMENTATION
Experimental demonstration of offset control with an application to the tethered payload
01 p0014 N93-10521

STABILITY DERIVATIVES
NT PITCHING MOMENTS
NT ROLLING MOMENTS
NT YAWING MOMENTS
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
Determination of the stability and control derivatives of the F/A-18 HARV from flight data using the maximum likelihood method
[NASA-CR-191216] 03 p0503 N93-12903
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

STABILITY TESTS
NT FLIGHT STABILITY TESTS
NT WIND TUNNEL STABILITY TESTS
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
The role of turbomachinery testing for stability in distorted flow
[PNR-90943] 02 p0210 N93-11040
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment
03 p0614 N93-13452
Stability of the compressible reacting mixing layer
03 p0592 N93-13948
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Multiple model adaptive estimation applied to the VISTA F-16 with actuator and sensor failures, volume 2
[AD-A256569] 05 p1068 N93-16165
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Stability of mixing layers
[NASA-CR-192225] 07 p1897 N93-19980
Safety validation test equipment operation
07 p1801 N93-20487
An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades
[NASA-TM-4448] 08 p2125 N93-22486
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
Stability analysis and modeling of rotating flexible structures
[DE93-008493] 09 p2844 N93-25520
Aeroelastic response and aeromechanical stability of helicopters with elastically coupled composite rotor blades 09 p2588 N93-25530
Performance of a 12-GHz fiber-optic system for beam-waveguide antenna stability testing
09 p2677 N93-26113
Stability investigations of airfoil flow by global analysis
10 p2932 N93-27436
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
The onset of vortex turbulence
10 p2938 N93-28251
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
A spectral method determination of the first critical Rayleigh number for a low-Prandtl number crystal melt in a cylindrical container
[NASA-CR-193238] 11 p3594 N93-29214
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate
11 p3350 N93-30094
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598

STABILIZATION
NT SPIN STABILIZATION
NT THREE AXIS STABILIZATION
Advanced transport systems for electron beams in high-brightness accelerators and FEL's
[AD-A253314] 01 p0088 N93-10286
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
A preliminary investigation of the degradation and stabilisation of the energetic oxetane binder polyNIMMO
[RARDE-7/91] 02 p0273 N93-11376
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels
[DE92-018174] 02 p0431 N93-11598
Stabilization and projection methods for multibody dynamics
[PB92-133883] 03 p0698 N93-12890
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
An empirical approach to predicting long term behavior of metal particle based recording media
05 p1170 N93-16330
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
On the structure and stabilization mechanisms of planar and cylindrical premixed flames
07 p1853 N93-20199
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Initial trials results for image stabilisation using a rugged low noise gyroscope 08 p2255 N93-22021
Mechanisms and enhancement of flame stabilization
[DE93-006467] 08 p2219 N93-22709
Thermal decomposition and stabilization of ammonium dinitramide 09 p2630 N93-26038
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite
10 p2925 N93-27203
Correction and simplification to the order of a stabilizing regulator is sufficient a priori information for adaptive stabilization
[MEMO-1070] 10 p3110 N93-28155
Towards the formal design of self-stabilizing distributed algorithms
[RUU-CS-92-25] 10 p3102 N93-28165
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Stability, bifurcation, and control of Hamiltonian systems
[DE93-012103] 11 p3547 N93-28648
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957
Some results on feedback stabilization of a one-link flexible arm
[INRIA-RR-1682] 11 p3543 N93-30116

STABILIZED PLATFORMS
Enhanced orbital gyrocompassing by the optical flow sensed by an Earth-pointing camera
10 p2923 N93-27194
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308
Derivation of particulate directional information from analysis of elliptical impact craters on LDEF
11 p3283 N93-29362

STABILIZERS (FLUID DYNAMICS)
NT HORIZONTAL TAIL SURFACES
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575

STABLE OSCILLATIONS
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
STACKING FAULTS
U CRYSTAL DEFECTS
STAGE SEPARATION
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057
Space transfer vehicle concepts and requirements study. Volume 2, book 2: System and program requirements trade studies
[NASA-CR-192526] 09 p2611 N93-25511
STAGING (ROCKETS)
U STAGE SEPARATION
STAGNATION FLOW
Flow over a leading edge with distributed roughness 01 p0006 N93-10549
Single-station integral measures of atmospheric stagnation, ventilation, and recirculation
[DE93-001554] 05 p1203 N93-17050
Experiments on the impingement of an underexpanded jet on a flat plate 07 p1937 N93-20685
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
STAGNATION POINT
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions 03 p0657 N93-13793
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
Time-varying reconnection in a stagnation-point flow geometry 12 p3827 N93-31697
STAGNATION PRESSURE
Increase of stagnation pressure and enthalpy in shock tunnels 06 p1417 N93-18086
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
An experimental study of under-expanded jets 09 p2577 N93-25467
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368
STAGNATION REGION
U STAGNATION POINT
STAGNATION TEMPERATURE
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation
[NASA-CR-191112] 09 p2622 N93-24758
STAINLESS STEELS
NT AUSTENITIC STAINLESS STEELS
NT FERRITIC STAINLESS STEELS
NT MARTENSITIC STAINLESS STEELS
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Thermal stress and strain analysis in traveling autogenous welds
[DE92-019363] 02 p0326 N93-11556
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components
[DE92-018105] 02 p0260 N93-12158
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
Passivity and stress corrosion cracking of AISI 316 stainless steel in chloride-containing solutions
[ETN-92-92783] 05 p1113 N93-16580
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Generation of aerosolized particulate contamination by the wear of stainless steels
[DE93-000742] 05 p1115 N93-17047
UPT scenarios: Implications for system reliability 05 p1182 N93-17332
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606
Vacuum deposition of copper on Type 304L stainless steel
[DE93-002704] 06 p1489 N93-19614
X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631
Damage tolerance of a helicopter rotor high-strength steel 07 p1948 N93-21322
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Investigation of azimuthal stresses due to welding and cooldown
[DE93-005530] 08 p2324 N93-22708
Prediction of the quality of resistance welds by computer based color image analysis
[DE93-002402] 08 p2312 N93-22818
Formability of type 304 stainless steel sheet
[DE92-018619] 08 p2229 N93-22924
Damage analysis and fundamental studies for fusion reactor materials development
[DE93-008283] 08 p2499 N93-24516
Corrosion fatigue of iron-chromium-nickel alloys: Fracture mechanics, microstructure and chemistry
[DE93-007971] 08 p2234 N93-24566
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Fundamental aspects in the design of passive alloys
[DE93-009028] 11 p3320 N93-28545
An experimental investigation of radioactivity induced by ions associated with the operation of pulsed-power accelerators
[DE93-011478] 11 p3575 N93-29151
Effects of internal helium on mechanical properties of Nitronic (tm) 40 stainless steel
[DE93-009902] 11 p3324 N93-29265
Sensitivity of LDEF foil analyses using ultra-low background germanium vs. large NaI(Tl) multidimensional spectrometers 11 p3318 N93-29627
High mass resolution glow discharge mass spectrometry using an external ion source FT-ICR mass spectrometer
[AD-A264347] 11 p3314 N93-30166
Irradiation assisted stress corrosion cracking of stainless steel irradiated in FBR
[DE93-764495] 11 p3326 N93-30191
Compatibility studies of AISI type 316 stainless steel with lead-lithium eutectic alloy
[DE93-605281] 11 p3328 N93-31022
Corrosion-erosion of alloys exposed in fluidised bed combustors
[NPL-DMM(A)-80] 12 p3705 N93-31602
STAIRCASES
U STAIRWAYS
STAIRWAYS
Platform stair lift
[NASA-CASE-MFS-28772-1] 11 p3507 N93-29845
STAMPING
Method of local shaping of thermoplastics
[AD-A255913] 04 p0856 N93-15105
STANDARD ATMOSPHERES
U REFERENCE ATMOSPHERES
STANDARD DEVIATION
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
The GALLEX solar neutrino experiment
[DE93-003357] 07 p2102 N93-21962
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
Monte Carlo simulation of magnitude-angle error sources
[AD-A263738] 11 p3555 N93-29857
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
STANDARDIZATION
NT COMMONALITY
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
Advanced technology component derating
[AD-A253334] 01 p0072 N93-10357
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Syntax and lexis of the specification language Z
[RSRE-MEMO-4367] 02 p0414 N93-12326
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
Laser measurement techniques guide for a hazard evaluation
[AD-A254545] 03 p0604 N93-12610
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Standardization of precipitation static test methods and equipment for the Navy
[AD-A257025] 04 p0792 N93-15361
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
Increase of operational reliability by feedback experience/return in the technical and industrial field
[ETN-93-93014] 06 p1685 N93-18075
Metrication report to the Congress
[NASA-TM-108600] 06 p1499 N93-18281
Interactive object-oriented display technologies: A study of two CD-ROM-based DMA products
[AD-A258896] 06 p1625 N93-19081
New methodologies toward the integration of tolerancing in CAD/CAM systems
[PAPER-C-1-2] 07 p2035 N93-20825
NASA systems engineering handbook. Draft
[NASA-TM-108702] 07 p2086 N93-21188
Metric transition plans and activities of Federal Government Agencies
[PB92-222249] 07 p1878 N93-21468
Guideline requirements for serviceable spacecraft grasping/berthing/docking interfaces based on simulations and flight experience (survey paper) 08 p2150 N93-22311
A round-robin for particle electrophoresis standardization
[DE93-003018] 08 p2217 N93-22400
Space biology initiative program definition review. Trade study 6: Space Station Freedom/spacelab modules compatibility
[EEI-89-236] 08 p2418 N93-23081
Federal move to metric: Public Law, DoC and NIST
[PB93-139129] 08 p2258 N93-23284
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Modernization and unification: Strategic goals for NASA STI program
[NASA-TM-109186] 08 p2528 N93-24117
Raster graphics: A tutorial and implementation guide
[PB93-145233] 08 p2443 N93-24562
GPS standardization for the needs of time transfer 09 p2836 N93-25016
Guidelines for evaluating and expressing the uncertainty of NIST measurements results
[PB93-159465] 09 p2830 N93-26318
NDT standards from the perspective of the Department of Defense
[MTL-TR-92-68] 09 p2722 N93-26434
Standardization of automatic test equipment in the US Air force
[AD-A262076] 11 p3250 N93-29004
Optical media standards for industry 11 p3617 N93-30451
Evaluation of D-1 tape and cassette characteristics: Moisture content of Sony and Ampex D-1 tapes when delivered 11 p3435 N93-30466
Measurements over distributed high performance computing and storage systems 11 p3622 N93-30476

Proceedings of the meeting of the Intergovernmental US-Russian Business Development Committee's Standards Working Group
[PB93-179968] 11 p3610 N93-30822
Metrication: An economic wake-up call for US industry
[PB93-188969] 12 p3714 N93-31109
Manual for data administration
[PB93-182053] 12 p3834 N93-31431
Standardization Directory: FSC class and area assignments
[AD-A265686] 12 p3839 N93-31796

STANDARDS
NT FREQUENCY STANDARDS
NT REFERENCE ATMOSPHERES
Guide to the software requirements definition phase
[ESA-PSS-05-03-ISSUE-1] 01 p0136 N93-10316
Reliability assurance requirements for ESA space systems
[ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
On the development of a new fracture toughness procedure 01 p0059 N93-10541
A change of course: The importance to DoD of international standards for electronic commerce
[AD-A253199] 01 p0075 N93-10792
The technical background to standards for shackles
[NPL-DMM(A)-51] 02 p0325 N93-11325
The technical background to standards for eyebolts
[NPL-DMM(A)-52] 02 p0325 N93-11327
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet 02 p0482 N93-11373
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
Improved wide range expressions for displacements and inverse displacements for standard fracture toughness specimens
[AD-A254561] 03 p0622 N93-12643
Journal of Research of the National Institute of Standards and Technology, May-June 1992, volume 97, number 3
[PB92-217637] 03 p0898 N93-12805
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
The use of International Standards Organization ISO 9000 quality assurance standards in place of military standards
[AD-A256203] 04 p0894 N93-14500
Status of emerging standards for removable computer storage media and related contributions of NIST 04 p1003 N93-14778
Proposed revisions to RTCM SC-104 recommended standards for differential NAVSTAR/GPS service for carrier phase applications
[AD-A255276] 04 p0789 N93-15005
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
VHDL (VHSIC hardware description language) in the test environment
[VH-6] 04 p0948 N93-15267
IERS standards for 1992
[AD-A257973] 05 p1192 N93-17739
Development of a standard set of software indicators for aeronautical systems center
[AD-A258424] 06 p1616 N93-17863
Measurement process error determination and control
[DE93-002948] 06 p1553 N93-19753
Packet telecommand standard
[ESA-PSS-04-107-ISSUE-2] 07 p1884 N93-21001
Ground segment infrastructure standards
[ESA-PSS-07-0-ISSUE-1] 07 p1819 N93-21002
Reference model for the description of graphic data processing and for the integration of graphic systems with other data processing fields
[ETN-93-93417] 07 p2039 N93-21066
The total quality approach in the development of technical textiles 07 p1838 N93-21156
NASA systems engineering handbook. Draft
[NASA-TM-108702] 07 p2086 N93-21188
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Publications of the National Institute of Standards and Technology 1991 catalog
[PB92-217579] 07 p2091 N93-21344
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
High integrity software standards and guidelines
[PB93-114619] 07 p2042 N93-21687
A comparison of national standards for the performance evaluation of coordinate measuring machines in terms of length-based dimensional quantities
[PB93-139004] 08 p2256 N93-22079
The df: A proposed data format standard
[NASA-TM-4467] 08 p2430 N93-22810
Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895
Space Generic Open Avionics Architecture (SGOAA) standard specification
[NASA-CR-188245] 08 p2199 N93-23003
NIST measurement service for DC standard resistors
[PB93-139079] 08 p2280 N93-23205
The 77th National Conference on Weights and Measures
[PB93-130466] 08 p2258 N93-23270
European Telecommunications Standards Institute. Apreliminary analysis
[PB93-138824] 08 p2263 N93-23271
A European radionavigation plan? 08 p2124 N93-23513
The future role of satellite communications in an improved air traffic management 08 p2275 N93-23518
Zoning of aircraft: A review of the definitions 09 p2583 N93-24880
Improved PI-network measurement of all quartz crystal parameters by appropriate modelling of the test fixture 09 p2833 N93-24995
The measurement of the resonant frequency of quartz crystal units: An ongoing saga 09 p2833 N93-24996
Rubidium atomic frequency standards for GPS block 2R 09 p2836 N93-25014
Development of ASTM standards in support of advanced ceramics development
[DE93-003024] 09 p2654 N93-25361
An OSI architecture for the Deep Space Network 09 p2679 N93-26121
Proof of fault coverage for a formal protocol test procedure
[AD-A261612] 09 p2680 N93-26166
Handbook for the USAF space environment standard (MIL-STD-1809)
[AD-A262799] 10 p3074 N93-28379
OSI transaction processing standard: An introduction and outlines of implementation
[VTT-TIED-1250] 11 p3532 N93-29997
Consultative Committee for Space Data Systems recommendation for space data system standards: Telecommand. Part 2.1: Command operation procedures
[NASA-TM-108158] 11 p3393 N93-30371
Grand challenges in mass storage: A systems integrators perspective 11 p3620 N93-30467
NASA/FAA helicopter simulator workshop
[NASA-CP-3156] 11 p3236 N93-30673
Part 1: Executive summary 11 p3236 N93-30674
Calibration system for testing laboratory
[VTT-TIED-1401] 12 p3738 N93-31172
ENDF/B-6 neutron cross section measurement standards
[PB93-189868] 12 p3818 N93-31201
Temperature-electromotive force reference functions and tables for the letter-designated thermocouple types based on the ITS-90
[PB93-190338] 12 p3729 N93-31214
NIST scoring package certification procedures in conjunction with NIST special databases 2 and 6
[PB93-188126] 12 p3838 N93-31331
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430
Two new gas standards programs at the National Institute of Standards and Technology
[PB93-191427] 12 p3751 N93-31816
Standard Reference Materials: Handbook for SRM users
[PB93-183796] 12 p3699 N93-31830
The standards process: X3 information processing systems 12 p3840 N93-31966
The standards process: Technical committee X3B5 digital magnetic tape 12 p3840 N93-31967

STANDING WAVE RATIOS
Computer modeling of tactical high frequency antennas
[AD-A255176] 02 p0286 N93-12377

STANDING WAVES
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing 01 p0124 N93-10318
Computer modeling of tactical high frequency antennas
[AD-A255176] 02 p0286 N93-12377
Sensitivity studies of a standing-wave free-electron laser
[DE93-000575] 05 p1170 N93-15696
Kink-assisted mode hopping in a surface wave resonator
[AD-A256314] 05 p1207 N93-16264
Motion measurement of acoustically levitated object
[NASA-CASE-NPO-18191-1-CU] 08 p2135 N93-24601
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator
[DE93-010461] 11 p3575 N93-29870
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143

STANDS
U SUPPORTS

STAR CATALOGS
U ASTRONOMICAL CATALOGS

STAR CLUSTERS
NT GLOBULAR CLUSTERS
NT OPEN CLUSTERS
The dynamics of dense galactic nuclei 03 p0750 N93-13340
The central engine of AGN's and its cosmological evolution 05 p1372 N93-17138
Dissolution of tidally limited star clusters in galaxies by passing giant molecular clouds or other massive objects
[MITT-SER-A-232] 07 p2097 N93-21301
The optical counterparts of the x ray binaries in NGC 6712 and 47 Tucanae 08 p2538 N93-23914
A study of the large-scale infrared emission from a selected dark cloud
[NASA-CR-192775] 09 p2888 N93-25289
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function 09 p2894 N93-25559
A search for quasar protoclusters at z greater than 4 10 p3174 N93-26721
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
IRAS studies of galactic supershells 10 p3183 N93-26776
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
ROSAT detection of stellar x ray sources in the old open cluster M67
[MPE-PREPRINT-230] 11 p3631 N93-30578

STAR DISTRIBUTION
Stars in the Rosat all-sky survey 02 p0482 N93-11477
The stellar angular correlation: Clues to wide binary star properties 03 p0757 N93-14059
Dynamics of stellar populations in galactic disks
[MITT-SER-A-234] 07 p2097 N93-21300
ROSAT observations in star forming regions 08 p2538 N93-23917
Two protogalaxy candidates in one night 10 p3173 N93-26717
Searching for Lyman alpha emission from a possible Zel'dovich pancake 10 p3179 N93-26755
Star-dust geometries in galaxies: The effect of interstellar matter distributions on optical and infrared properties of late-type galaxies 10 p3185 N93-26788
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945

STAR FIELDS
U STAR DISTRIBUTION

STAR FORMATION
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
Evidence for cool gas and star formation in cluster cooling flows 03 p0751 N93-13380
Encounters with protostellar disks 03 p0754 N93-13727
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass 03 p0758 N93-14091
The structure and dynamics of an environment forming high-mass stars 04 p1014 N93-14113
A study of the abundance distributions along the minor axis of the Galactic bulge 04 p1015 N93-14136
Infrared studies of star-forming regions 06 p1696 N93-18497
The stellar populations of early-type galaxies in groups and clusters 08 p2549 N93-23491

ROSAT observations in star forming regions
08 p2538 N93-23917
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
Shells, outflows and star formation in the giant molecular cloud Monoceros R2 09 p2893 N93-25555
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function
09 p2894 N93-25559
The Evolution of Galaxies and Their Environment [NASA-CP-3190] 10 p3171 N93-26706
Heavy element abundances and massive star formation 10 p3172 N93-26709
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
Globular cluster formation in merging galaxies?
10 p3175 N93-26729
Distant radio galaxies in the near IR
10 p3177 N93-26742
Massive low surface brightness galaxies
10 p3178 N93-26746
Oxygen abundances in low surface-brightness galaxies 10 p3178 N93-26747
H II regions in the dwarf galaxy UGC-A 86
10 p3178 N93-26749
IRAS studies of galactic supershells
10 p3183 N93-26776
Starburst ages in HII galaxies
10 p3183 N93-26777
The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
Starbursts triggered by central overpressure in interacting galaxies 10 p3183 N93-26781
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
OB associations and giant molecular clouds in the galaxy 10 p3185 N93-26787
The environments of Seyfert and Markarian galaxies
10 p3185 N93-26789
CO deficiency in galaxies of the Fornax cluster?
10 p3185 N93-26791
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
The fate of captured gas: NGC 3077 and star formation in the M81 system 10 p3186 N93-26798
Ages, chemistry, and type 1A supernovae: Clues to the formation of the galactic stellar halo
10 p3187 N93-26803
Galactic oscillations 10 p3188 N93-26808
Is a local bar a good place to find a companion? The near infrared morphology of Maffei 2
10 p3188 N93-26811
The morphology of and locations of star formation in impact induced ring galaxies 10 p3189 N93-26816
The critical density for star formation in HII galaxies
10 p3189 N93-26817
Density wave triggered star formation in grand design spirals 10 p3190 N93-26820
Models of the Cartwheel ring galaxy: Spokes and starbursts 10 p3190 N93-26823
Radio jets in colliding galaxies: Testing the interaction-activity connection 10 p3191 N93-26828
On the nature of star formation in cooling flow ellipticals 10 p3193 N93-26838
Star formation in cooling flow galaxies
10 p3193 N93-26839
Jet induced star formation in centrally dominant galaxies? 10 p3193 N93-26840
Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
Nuclear activity and the environments of nearby radio galaxies 10 p3196 N93-26852
Long slit spectroscopy of NGC 5506
10 p3198 N93-26861
The ring around SN1987A 10 p3199 N93-26868
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds
10 p3201 N93-26878
Automata network models of galaxy evolution
10 p3201 N93-26879
Central star formation in early-type galaxies: Images and implications 10 p3202 N93-26883
Gas in merging galaxies 10 p3202 N93-26886
Evolution of molecular clouds
10 p3203 N93-26892
Powering the superwind in NGC 253
10 p3203 N93-26893
A (12)CO J = 2-1 map of the disk of Centaurus A: Evidence for large scale heating in the dust lane
10 p3204 N93-26894
The galactic center stellar population in the near infrared 10 p3204 N93-28080
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Models of star formation in interacting and merging disk galaxies 11 p3635 N93-30148
Young open clusters as probes of the star formation process 11 p3635 N93-30377
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419
The faintest stars 11 p3630 N93-30493
Dense gas in the monoceros OB1 dark cloud and its relationship to star formation 11 p3636 N93-30502
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563
CO lines toward NGC 2024 and other star forming regions: A closer look at the warm gas component
[MPE-PREPRINT-223] 11 p3637 N93-30639

STAR FORMATION RATE

A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
Multiwavelength analysis of starburst galaxies
08 p2539 N93-23920
Two searches for primeval galaxies
10 p3172 N93-26714
Low surface brightness galaxies and tidally triggered star formation 10 p3178 N93-26745
H II regions in the dwarf galaxy UGC-A 86
10 p3178 N93-26749
Low surface brightness galaxies
10 p3178 N93-26750
Luminosities of H alpha emitting regions in a pair of interacting galaxies in the Bootes void
10 p3188 N93-26812
The critical density for star formation in HII galaxies
10 p3189 N93-26817
Density wave triggered star formation in grand design spirals 10 p3190 N93-26820
Deep H alpha images of interacting galaxies
10 p3191 N93-26826
Long slit spectroscopy of NGC 5506
10 p3198 N93-26861
Automata network models of galaxy evolution
10 p3201 N93-26879

STAR TRACKERS

NT CCD STAR TRACKER
Burn phase corrections of maneuver ballistic missiles with star light
[AD-A254105] 01 p0012 N93-10814
Autonomous star sensing and pattern recognition for spacecraft attitude determination
01 p0177 N93-10876
The results of the in-flight attitude sensor calibration for the Arthur Holly Compton Gamma Ray Observatory
09 p2600 N93-24697
Star tracker operation in a high density proton field
09 p2600 N93-24699
The Hubble Space Telescope fine guidance system operating in the coarse track pointing control mode
09 p2605 N93-24724
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors
09 p2606 N93-24733
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors
09 p2607 N93-24735
An auto-guiding system for mid-sized telescopes
11 p3375 N93-30340
Space Station Freedom attitude determination and control system overview 12 p3689 N93-31447

STAR TRACKING

U STAR TRACKERS

STARBURST GALAXIES

A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
A multi-line study of the molecular interstellar medium on M82's starburst nucleus
[MPE-PREPRINT-213] 02 p0484 N93-11347
Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies
04 p1020 N93-14869
ROSAT all sky survey observations of IRAS galaxies
05 p1362 N93-17133
On the suitability of starburst galaxies as a contributor to the CXRB 05 p1373 N93-17147
Multiwavelength analysis of starburst galaxies
08 p2539 N93-23920
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
Heavy element abundances and massive star formation 10 p3172 N93-26709
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Correlation between low level fluctuations in the x ray background and faint galaxies 10 p3179 N93-26752
Starburst ages in HII galaxies
10 p3183 N93-26777
Starburst models of merging galaxies
10 p3183 N93-26778
The effect of massive stars on the ionized medium of extragalactic HII regions 10 p3183 N93-26779
Feeding IC 342: The nuclear spiral of a starburst galaxy 10 p3184 N93-26782
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
The Lyman alpha emission of starburst galaxies
10 p3184 N93-26784
Deep H alpha images of interacting galaxies
10 p3191 N93-26826
Optical and near infrared photometry of Butcher-Oemler clusters 10 p3195 N93-26847
Long slit spectroscopy of NGC 5506
10 p3198 N93-26861
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds
10 p3201 N93-26878
The ISM in the M82 starburst
10 p3202 N93-26887
Models of star formation in interacting and merging disk galaxies 11 p3635 N93-30148
The 12 UM contribution of nearby galaxies to the infrared background
[AD-A264336] 11 p3654 N93-30419
Near-infrared line imaging of NGC 6240: Global shock and nuclear starburst
[MPE-PREPRINT-226] 11 p3631 N93-30641

STARFIGHTER AIRCRAFT

U F-104 AIRCRAFT

STARK EFFECT

Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
Nuclear isomers as ultra-high-energy-density materials
[DE93-009076] 10 p3135 N93-28158
Start broadened profiles with self-consistent radiation transfer and atomic kinetics in plasmas produced by high intensity lasers
[DE93-008706] 11 p3586 N93-29093
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
An electrostatic mirror for neutral polar molecules
[DE93-609405] 12 p3818 N93-31228
The Optical Stark effect of the exciton due to dynamical coupling between quantized states of the electron and hole in quantum wells
[DE93-608520] 12 p3819 N93-31665

STARS

NT A STARS
NT ASYMPTOTIC GIANT BRANCH STARS
NT B STARS
NT BINARY STARS
NT BLACK HOLES (ASTRONOMY)
NT BLUE STARS
NT BROWN DWARF STARS
NT CARBON STARS
NT CATACLYSMIC VARIABLES
NT CEPHEID VARIABLES
NT COMPANION STARS
NT DOUBLE STARS
NT DWARF NOVAE
NT DWARF STARS
NT EARLY STARS
NT ECLIPSING BINARY STARS
NT FLARE STARS
NT GIANT STARS
NT HERCULES NOVA
NT HORIZONTAL BRANCH STARS
NT HOT STARS
NT INFRARED STARS
NT LATE STARS
NT M STARS
NT MAIN SEQUENCE STARS
NT MASSIVE STARS
NT METALLIC STARS
NT MIRA VARIABLES
NT NEUTRON STARS
NT NOVAE
NT O STARS
NT PRE-MAIN SEQUENCE STARS
NT PROTOSTARS
NT PULSARS
NT RADIO STARS

NT RED GIANT STARS
NT REFERENCE STARS
NT SUBGIANT STARS
NT SUN
NT SUPERGIANT STARS
NT SUPERNOVA 1987A
NT SUPERNOVAE
NT T TAURI STARS
NT VARIABLE STARS
NT WHITE DWARF STARS
NT WOLF-RAYET STARS
NT X RAY BINARIES
NT X RAY STARS
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Fifth fundamental catalogue. Part 2: The FK5 extension - new fundamental stars
[REPT-33(1991)] 08 p2542 N93-23346
Cordoba Durchmusterung, volume 1
[NASA-RP-1299-VOL-1] 10 p3170 N93-27116
Cordoba Durchmusterung, volume 2
[NASA-RP-1299-VOL-2] 10 p3170 N93-27117
Cordoba Durchmusterung, volume 3
[NASA-RP-1299-VOL-3] 10 p3170 N93-27118
Cordoba Durchmusterung, volume 4
[NASA-RP-1299-VOL-4] 10 p3170 N93-27119
Activities report of the Astronomical Society
[MITT-75] 11 p3629 N93-29008
Bonner Durchmusterung (Southern Durchmusterung)
[NASA-RP-1298-VOL-3] 11 p3630 N93-29811

STARSPOTS
NT SUNSPOTS

STARTERS
NT ENGINE STARTERS

STATE EQUATIONS
U EQUATIONS OF STATE

STATE ESTIMATION
Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
On-line aircraft state and parameter estimation 06 p1446 N93-19929
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375

STATE VECTORS
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061
Sequential design of a linear quadratic controller for the Deep Space Network antennas 09 p2679 N93-26123
Generalized probability model for calculation of interference to the Deep Space Network due to circularly Earth-orbiting satellites 09 p2679 N93-26127
Asymptotic properties of constrained Markov decision processes
[INRIA-RR-1598] 11 p3553 N93-28508
State vector splitting: A numerical scheme for the Euler equations 11 p3419 N93-29039
Testing concept of a taxiing control system, summary 12 p3676 N93-31278

STATIC AERODYNAMIC CHARACTERISTICS
Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622

STATIC CHARACTERISTICS
NT STATIC AERODYNAMIC CHARACTERISTICS
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827

STATIC DEFORMATION
A variational approach for coupled creeping-flow problems 01 p0062 N93-10557

STATIC ELECTRICITY
Standardization of precipitation static test methods and equipment for the Navy
[AD-A257025] 04 p0792 N93-15361
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901

STATIC FRICTION
An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529

STATIC LOADS
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
Failure of composite plates under static biaxial planar loading
[NASA-CR-191391] 04 p0903 N93-15653
Effects of interfacial debonding and fiber breakage on static and dynamic buckling of fibers embedded in matrices
[AD-A257326] 05 p1183 N93-15986
Hydrostatic pressure testing of graphite/epoxy cylinder C6-1
[DE93-000427] 05 p1185 N93-16240
Static-stress analysis of dual-axis safety vessel
[DE93-001860] 05 p1187 N93-17366
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Fatigue experiments of microconcrete beams under a running load 07 p1923 N93-20346
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Synergism between layer cracking and delaminations in MD-laminates of CFRE 07 p1842 N93-21520
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774
An improved spectral load balancing method
[DE93-007582] 09 p2810 N93-25386
Multidimensional spectral load balancing
[DE93-008362] 10 p3106 N93-26669
Axial impact of composites 11 p3297 N93-29078
Load test set-up for the Airmass Sunburst Ultra-Light Aircraft 11 p3249 N93-29776
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046

STATIC MODELS
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the Earth's radiation belts
[AD-A253287] 02 p0363 N93-11810

STATIC PRESSURE
NT HYDROSTATIC PRESSURE
The hemisphere-cylinder at an angle of attack 02 p0196 N93-11250
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Theoretical errors on airborne measurements of: Static pressure, impact temperature, air flow angle, air flow speed
[PB93-136406] 08 p2405 N93-23232
Horizontal stress in-situ by cone penetrometers and related studies
[AD-A260503] 08 p2401 N93-24418
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
The transient development of vortices over delta wings 09 p2576 N93-25269
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Analysis of fluctuating static pressure measurements in a large high Reynolds number transonic cryogenic wind tunnel
[NASA-TM-108722] 10 p2947 N93-27142
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587

STATIC STABILITY
NT DIMENSIONAL STABILITY
NT SHELL STABILITY
NT STRUCTURAL STABILITY
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395
Pitch control margin at high angle of attack-quantitative requirements (flight test correlation with simulation predictions)
[AD-A257418] 05 p1068 N93-16009

STATIC TESTS
Fracture/damage mechanics of composites: Static and fatigue properties
[DLR-MITT-92-03] 04 p0835 N93-15075
Standardization of precipitation static test methods and equipment for the Navy
[AD-A257025] 04 p0792 N93-15361
Sunshade support structure: Structure and testing 05 p1080 N93-15748
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Emergency vehicle alert system, phase 2
[NASA-CR-192464] 08 p2260 N93-22455
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901

STATIC THRUST
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160

STATICS
NT ELECTROSTATICS
NT HYDROSTATICS
NT MAGNETOHYDROSTATICS
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403

STATIONKEEPING
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Modification of Earth-satellite orbits using medium-energy pulsed lasers
[DE93-000858] 05 p1074 N93-16302
Coherent Doppler lidar for automated space vehicle rendezvous, stationkeeping and capture 07 p1812 N93-21408
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
Development of arcjet and ion propulsion for spacecraft stationkeeping
[NASA-TM-106102] 08 p2204 N93-23747
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
System of navigation by satellites with European coverage 11 p3284 N93-29897

STATIONS
NT AUTOMATIC WEATHER STATIONS
NT COLUMBUS SPACE STATION
NT CREW WORKSTATIONS
NT EARTH TERMINALS
NT GLOBAL TRACKING NETWORK
NT GROUND STATIONS
NT HYDROELECTRIC POWER STATIONS
NT INTEGRATED MISSION CONTROL CENTER
NT MAN TENDED FREE FLYERS
NT MIR SPACE STATION
NT PAYLOAD STATIONS
NT POLYSTATION DOPPLER TRACKING SYSTEM
NT SALYUT SPACE STATION
NT SKYLAB 1
NT SPACE STATION FREEDOM
NT SPACE STATION POLAR PLATFORMS
NT SPACE STATIONS
NT TRACKING STATIONS
NT WEATHER STATIONS
NT WORKSTATIONS

STATISTICAL ANALYSIS
NT AMPLITUDE DISTRIBUTION ANALYSIS
NT ANALYSIS OF VARIANCE
NT BIVARIATE ANALYSIS
NT CORRELATION COEFFICIENTS
NT COVARIANCE
NT DISCRIMINANT ANALYSIS (STATISTICS)
NT FACTOR ANALYSIS
NT GOODNESS OF FIT
NT LIKELIHOOD RATIO
NT MAXWELL-BOLTZMANN DENSITY FUNCTION
NT MULTIVARIATE STATISTICAL ANALYSIS
NT NONPARAMETRIC STATISTICS
NT NORMAL DENSITY FUNCTIONS
NT ORTHOGONALITY

NT POISSON DENSITY FUNCTIONS
NT PROBABILITY DENSITY FUNCTIONS
NT PROBABILITY DISTRIBUTION FUNCTIONS
NT QUANTILES
NT REGRESSION ANALYSIS
NT REGRESSION COEFFICIENTS
NT SEQUENTIAL ANALYSIS
NT STANDARD DEVIATION
NT STATISTICAL CORRELATION
NT STATISTICAL DECISION THEORY
NT STATISTICAL TESTS
NT VARIANCE (STATISTICS)
NT WEIBULL DENSITY FUNCTIONS

The problem of the selection of an a-posteriori error indicator based on smoothening techniques
[AD-A253401] 01 p0144 N93-10407

Order statistics and nonparametric statistics
[AD-A253574] 01 p0146 N93-10699

Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791

Change analysis
[AD-A253567] 01 p0146 N93-10795

Numerical study for the study of medium speed internal noise problems
[DILC-EST-TN-200] 02 p0432 N93-11156

Analysis of disease progression from clinical observations of US Air Force active duty members infected with the Human Immunodeficiency Virus: Distribution of AIDS survival time from interval censored observations
02 p0379 N93-11297

LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329

Statistical process for the automatic image analysis and its evaluation for object recognition and measurements
[SER-C-370] 02 p0407 N93-11345

The use of statistical measures to validate system dynamics models
[AD-A248569] 02 p0428 N93-11417

Stationary time series analysis using information and spectral analysis
[AD-A257279] 02 p0425 N93-11431

Diagnostic rhyme test statistical analysis programs
[RSRE-91026] 02 p0281 N93-11487

Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788

Dynamics of space debris 02 p0219 N93-11904

Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997

History of statistics in real time: Hammers and nails
[AD-A253521] 02 p0429 N93-12081

Change analysis and Fisher-Score change processes
[AD-A254707] 02 p0429 N93-12334

Static assignment of complex stochastic tasks using stochastic majorization
[NASA-CR-189716] 02 p0416 N93-12403

Research in statistical inference
[AD-A252928] 02 p0429 N93-12429

Active control of complex systems via dynamic (recurrent) neural networks
[AD-A254878] 02 p0422 N93-12439

Operating characteristic analysis for reliability growth programs
[AD-A254993] 02 p0333 N93-12510

Quality assessment of the A-posteriori error estimation in finite elements
[AD-A254767] 03 p0696 N93-12701

Obtaining medians and other quantiles with limited memory space
[AD-A254506] 03 p0683 N93-12722

You need this done by when? Increasing your efficiency with the SAS system
[DE92-017894] 03 p0683 N93-12792

Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877

Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-191246] 03 p0624 N93-13029

Statistical process management: An essential element of quality improvement
[DE92-019934] 03 p0619 N93-13036

From comparison density to two sample analysis
[AD-A253866] 03 p0698 N93-13064

Scientists, engineers, and technicians in manufacturing industries: 1989. Detailed statistical tables
[NSF-92-312] 03 p0730 N93-13437

Characteristics of recent science and engineering graduates: 1990. Detailed statistical tables
[NSF-92-316] 03 p0731 N93-13454

The use of degradation measures in assessing reliability 03 p0573 N93-13607

Bayesian estimation of system reliability under asymmetric loss 03 p0620 N93-13906

Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081

A surface pressure altitude prediction model
[AD-A255834] 03 p0668 N93-14082

Optimum pose measurements for kinematic parameters identification
[AD-A256307] 04 p0970 N93-14443

Evaluation and estimation of handling qualities via statistical modeling of pilot response data
[AD-A255324] 04 p0939 N93-14548

Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness
[AD-A255485] 04 p0935 N93-14789

Reliability modelling for non-electronic systems
[REPT-921-440-103] 04 p0894 N93-15139

Core support for the Board on Mathematical Sciences
[AD-A256333] 04 p0968 N93-15195

Predicting polymer properties by computational methods 2: A comparison of semi-empirical methods
[AD-A256856] 04 p0854 N93-15640

User's guide for the longitudinal scalogram analysis program
[AD-A256817] 05 p1232 N93-15682

Nonlinear adaptive control using backpropagating neural networks
[AD-A256828] 05 p1257 N93-15687

A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736

Acoustically induced vibration of platform mounted equipment containing printed circuit boards
05 p1082 N93-15762

Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808

Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883

On a symmetry of turbulence
[AD-A256647] 05 p1155 N93-15910

Fast high-resolution techniques applied to the Direction Of Arrival (DOA) of signals problem
[AD-A257331] 05 p1137 N93-15989

Random quadratic forms and the bootstrap for U-statistics
[W-9207] 05 p1275 N93-16356

Example of statistical techniques applied to analysis of landing ground roll distance measurements (linear regression, correlation coefficient and F-test)
[ESDU-92021] 05 p1061 N93-16635

Example of statistical techniques applied to analysis of measurements of the landing airborne manoeuvre. (Multiple linear regression with two independent variables and one dependent variable.)
[ESDU-92022] 05 p1062 N93-16636

Effect of sonic boom asymmetry on subjective loudness
[NASA-TM-107708] 05 p1282 N93-16755

Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196

Structure in gamma ray burst time profiles: Statistical Analysis 1 05 p1344 N93-17308

Reliability evaluation methodology for NASA applications 05 p1182 N93-17328

Fast neutron scattering near shell closures: Scandium
[DE93-002090] 05 p1294 N93-17485

Statistical fatigue analysis of the SH-60B servo beam rail component
[AD-A257474] 05 p1064 N93-17660

An introduction to the statistical analysis of engineering data
[ESDU-92040] 06 p1648 N93-17950

A segmental hidden Markov model for speech pattern processing
[AD-A258220] 06 p1501 N93-18023

Defect tolerance of hybrid pressure vessels: The total reliability versus total failure as an interpretation criterion
[ILR-MITT-272(1992)] 06 p1552 N93-18097

Fixed and data adaptive kernels in Cohen's class of time-frequency distributions
[AD-A257979] 06 p1649 N93-18195

The direct measurement of damping coefficients using an inverse eigenvalue method
[AD-A258214] 06 p1555 N93-18204

Set convergences in nonlinear analysis and optimization, abstracts
[AD-A258403] 06 p1645 N93-18221

The advantage of cyclic spectral analysis
[AD-A258307] 06 p1502 N93-18251

Comparison properties of stochastic decision free Petri nets
[INRIA-RR-1433] 06 p1649 N93-18646

Probabilistic methods in nuclear power plant component ageing analysis
[VTT-PUBS-94] 06 p1660 N93-18696

An introduction to the method of averaging
[AD-A258990] 06 p1647 N93-18889

Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907

An analysis of I/O efficient order-statistic-based techniques for noise power estimation in the HRMS sky survey's operational system 06 p1508 N93-18926

Detecting change as it occurs
[NASA-CR-191939] 06 p1574 N93-19484

Structure and dynamics of field-aligned currents inferred from EISCAT data 06 p1722 N93-19523

Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT
06 p1729 N93-19569

Enhanced ion-acoustic lines in EISCAT's common programmes 06 p1517 N93-19580

ARC.2: Linear regression in ABACUS
06 p1629 N93-19731

Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857

Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997

Mountain top measurements of beta(9.2 microns)
07 p2009 N93-20099

Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253

Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297

Probabilistic assessment of machine parts from Kymenite, austempered ductile iron
07 p1923 N93-20341

Statistical analysis of fatigue tests
07 p1923 N93-20343

Discrete statistical model of fatigue crack growth in a Ni-base superalloy, capable of life prediction
07 p1923 N93-20344

Least square methods for solving systems of inequalities with application to an assignment problem
[AD-A258682] 07 p2050 N93-20391

NiCd cell reliability in the mission environment
07 p1985 N93-20510

A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728

Load experience variability of fighter aircraft
[NLR-TP-89172-U] 07 p1781 N93-20742

Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837

Statistical Process Control (SPC) in FMS/CIM systems
[PAPER-C-3-4] 07 p2037 N93-20838

Climatological study of ozone in the boundary layer above Belgium
[MISC-SER-A-127] 07 p1989 N93-20925

SSG 4.120: Non-linear adjustment
07 p1973 N93-20986

Variance-covariance estimation and statistical testing of satellite networks
[PB92-225358] 07 p1824 N93-21048

Simulation of clear-sky outgoing longwave radiation over the oceans using operational analyses
07 p1956 N93-21586

The influence of high clouds on climate
07 p1956 N93-21588

Climatological use of long time series of data from the water vapour channel of Meteosat
07 p1958 N93-21601

Fault detection and isolation 08 p2106 N93-22568

Mapping the Universe: Statistical measures of the galaxy distribution
[ETN-93-93456] 08 p2542 N93-23116

Microwave line-of-sight channel measurements, channel modelling, and application of channel models to digital radio performance prediction
[ACTA-POL-SCAND-EL-69] 08 p2264 N93-23367

Digital processing for positioning with one satellite
08 p2270 N93-23629

Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650

Methods for analyzing extreme events under climate change
[PB93-146827] 08 p2387 N93-23651

The meaning and utility of confidence
[AD-A259646] 08 p2472 N93-23655

1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667

When networks disagree: Ensemble methods for hybrid neural networks
[AD-A260121] 08 p2460 N93-23701
Three dimensional object recognition using an unsupervised neural network: Understanding the distinguishing features
[AD-A260048] 08 p2461 N93-23712
The IUE archive(s) 08 p2535 N93-23895
Bayesian prediction of mean square errors with covariates
[AD-A259585] 08 p2470 N93-24064
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
New Micro- and macroscopic models of contact and friction
[AD-A259925] 08 p2319 N93-24442
Improvements in ERBS attitude determination without gyros 09 p2602 N93-24710
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter
09 p2606 N93-24732
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852
Interest of complementary data of coarse and high spatial resolution for agro-climatic crop monitoring
09 p2750 N93-24853
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS
09 p2751 N93-24855
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
Statistical modelling of software reliability
[NASA-CR-192985] 09 p2809 N93-25257
Multivariate statistical analysis software technologies for astrophysical research involving large data bases
09 p2878 N93-25796
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Implementation of quality improvement techniques for management and technical processes in the ACRV project 09 p2723 N93-26074
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
Statistical inference procedures for probability selection functions in long-term monitoring programs
[PB93-163012] 10 p3123 N93-26631
Annual review of aircraft accident data: US general aviation calendar year 1989
[PB93-160687] 10 p2940 N93-27033
Statistical modeling of software reliability
[NASA-CR-192986] 10 p3092 N93-27087
On the number of maxima in a discrete sample
[MEMO-COSOR-92-16] 10 p3112 N93-27235
Loudness and annoyance response to simulated outdoor and indoor sonic booms
[NASA-TM-107756] 10 p3130 N93-27271
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Brorfelde Geomagnetic Observatory: Magnetic results, 1990
[DMI-92-1] 10 p3073 N93-27833
Godhavn (Greenland) Geophysical Observatory: Magnetic results, 1985-1990
[DMI-92-2] 10 p3073 N93-27834
Age 60 Project: Consolidated database experiments
[HS-TR-8025-3C(R2)] 10 p3087 N93-27851
Statistical techniques for signal processing
[AD-A262731] 10 p3126 N93-28400
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Recording of forest surface in SAR-images with statistical methods in areas of pronounced relief
11 p3457 N93-28920
On the value of function evaluation location information in Monte Carlo simulation
[AD-A263662] 11 p3554 N93-29292
Characterization and optimization of a Hot Air Solder-Leveling System
[DE93-010188] 11 p3332 N93-29328
Study on various problems in statistical planning and inference
[AD-A262484] 11 p3554 N93-29411
Estimating the parameters of chaotic maps
[AD-A262574] 11 p3556 N93-29423
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Inverse problems: Fuzzy representation of uncertainty generates a regularization 11 p3516 N93-29563
Possibilistic measurement and set statistics
11 p3517 N93-29567
Gaussian membership functions are most adequate in representing uncertainty in measurements
11 p3520 N93-29584
Some statistical inference problems in linear models and variance components models and their applications
[AD-A264062] 11 p3555 N93-29923
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
Environmental studies: Mathematical, computational and statistical analyses
[AD-A264223] 11 p3473 N93-30360
Parametric and combinatorial problems in constrained optimization
[AD-A264229] 11 p3555 N93-30363
Use of statistics in computational chemistry
[AD-A264307] 11 p3315 N93-30365
Determinants of performance rating accuracy: A field study
[AD-A264726] 11 p3500 N93-30575
Oceanographic data processing program
[AD-A264801] 11 p3544 N93-30591
Chaotic quantum systems
[DE93-606030] 11 p3606 N93-30802
A miniature fatigue test machine
11 p3291 N93-30956
Building Hadamard matrices in steps of 4 to order 200
[PB93-189835] 12 p3786 N93-31200
Digital processing for positioning with one satellite
[ETN-93-93732] 12 p3685 N93-31318
Bayesian analysis of SOHO spectra
12 p3876 N93-31398
Experimental evaluation of an arrival time difference lightning positioning system
[KNMI-WR-92-01] 12 p3767 N93-31600
GCM control run of UK Meteorological Office compared with the real climate in the NW European winter
[KNMI-WR-92-02] 12 p3767 N93-31601
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641
On Short Large Amplitude Magnetic Structures in the vicinity of the quasi-parallel region of the Earth's bow shock 12 p3854 N93-31688
Low cycle fatigue behaviour of titanium disc alloys
12 p3682 N93-31745
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016

STATISTICAL COMMUNICATION THEORY
U COMMUNICATION THEORY

STATISTICAL CORRELATION
Multifractal analysis at negative q
[AD-A254370] 02 p0413 N93-12159
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Spatio-temporal complexity and large-scale structures in problems of continuum mechanics
[AD-A256410] 04 p0998 N93-15333
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function
[AD-A256525] 04 p0862 N93-15397
Statistical error in a chord estimator of correlation dimension: The rule of five
[DE93-000687] 05 p1276 N93-17195
Implementation of the one bit spectral correlation algorithm
[AD-A257748] 05 p1141 N93-17671
Influence of solar activity upon light curves of comets P/Halley (1986 3) and P/Churyumov-Gerasimenko (1982 8) 06 p1703 N93-19140
Extracting knowledge from data: SYS8688 approach
06 p1688 N93-19715
Generation of covariance data among values from a single set of experiments
[DE93-004192] 08 p2522 N93-22435
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Lightning precursor signatures from dual-polarization radar measurements of storms
09 p2777 N93-24877
Bit hit/solar activity correlation study
[AD-A261381] 09 p2896 N93-26340
Implementation of cyclic spectral analysis methods
[AD-A261715] 09 p2681 N93-26372
Omega from the anisotropy of the redshift correlation function 10 p3172 N93-26711
Ways to improve your correlation functions
10 p3172 N93-26712
What determines the morphological fractions in clusters of galaxies? 10 p3175 N93-26726
The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735
Analysis of the Einstein sample of early-type galaxies
10 p3179 N93-26754
The two-point correlation function of randomly distributed Lyman alpha clouds
10 p3181 N93-26767
A study of electron transfer using a three-level system coupled to an ohmic bath 10 p3145 N93-27346
On the impossibility of creating the quantum correlations with computers
[DE93-606039] 11 p3606 N93-30806
Coronal mass ejecta and flares: A statistical study
12 p3859 N93-31716

STATISTICAL DECISION THEORY
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Decision analysis with approximate probabilities
11 p3513 N93-29542

STATISTICAL DISTRIBUTIONS
NT BRIGHTNESS DISTRIBUTION
NT PROBABILITY DISTRIBUTION FUNCTIONS
Noise emission of low flying military airplanes
01 p0149 N93-10675
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
Change analysis
[AD-A253567] 01 p0146 N93-10795
Nonnormal multivariate distributions: Inference based on elliptically contoured distributions
[AD-A254999] 02 p0429 N93-12513
The use of degradation measures in assessing reliability 03 p0573 N93-13607
A correlated k-distribution model of the heating rates for CO2 and O3 in the atmosphere between 0 and 60 km
[DE93-000889] 04 p0911 N93-15280
A correlated k-distribution model of the atmospheric heating rates for overlapping spectra of CH4 and N2O
[DE93-000890] 04 p0911 N93-15281
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function
[AD-A256525] 04 p0862 N93-15397
Multidimensional strong large deviation theorems
[AD-A256939] 05 p1263 N93-16129
Computer simulation of random and non-random second-phase particle distributions for both constant and varying particle size
[AD-A257700] 05 p1099 N93-17692
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
Fixed and data adaptive kernels in Cohen's class of time-frequency distributions
[AD-A257979] 06 p1649 N93-18195
Location and distribution of local optima
[AD-A257791] 06 p1645 N93-18237
North Massif lithologies and chemical compositions viewed from 2-4 mm particles of soil sample 76503
06 p1735 N93-18788
Modeling expert opinion: Likelihoods under incomplete probabilistic specification
[AD-A258775] 06 p1649 N93-18946
Model determination using predictive distributions with implementation via sampling-based methods
[AD-A258777] 06 p1650 N93-18947
Comparative study of region 2 field-aligned currents and convection electric potential and implications for the dynamics of the magnetospheric ions
06 p1722 N93-19522
On the evaluation of coherent structures using computer programs 07 p1937 N93-20688
Asymptotic behaviour of some bilinear functionals of the empirical process
[MEMO-1031] 07 p2059 N93-20956

Lunar soils grain size catalog
[NASA-RP-1265] 07 p2100 N93-21663
Improving the chi-squared approximation for bivariate normal tolerance regions
[NASA-TP-3304] 08 p2472 N93-22670
Quasi-binary decision making using light scattering
[AD-A260470] 08 p2489 N93-24197
Experimental studies of fundamental problems in quantum optics
[AD-A261183] 09 p2853 N93-25822
Subset selection: Robustness and imprecise selection
[MEMO-COSOR-92-10] 10 p3124 N93-27279
The set of super-stable marriages forms a distributive lattice
[MEMO-1052] 10 p3125 N93-27907
Modified goodness-of-fit tests for the Weibull distribution
[AD-A262552] 11 p3553 N93-28574
A new goodness-of-fit test for the Weibull distribution based on spacings
[AD-A262615] 11 p3553 N93-28587
Scaling properties of localized quantum chaos
[DE93-606031] 11 p3606 N93-30803
Efficient estimation of the mean for interval censoring, case 2
[REPT-92-83] 12 p3811 N93-31491

STATISTICAL MECHANICS
The nonequilibrium statistical mechanics of chaotic maps 03 p0729 N93-13832
Classical fluids of negative heat capacity
[DE92-040507] 05 p1329 N93-15943
Brownian motion
[PREPRINT-797] 05 p1280 N93-16418
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Adaptivity-fluids-localization. The challenge to computational mechanics 07 p1905 N93-20618
Numerical validation of a constitutive theory for an arbitrarily fractured solid
[DE93-003863] 07 p2064 N93-21739
Multilevel techniques in large scale computation
[AD-A261082] 09 p2828 N93-25762
Quantum harmonic oscillator in a thermal bath 10 p3145 N93-27345
Orbit-orbit branching rules 10 p3146 N93-27350
Correlation functions and relaxation properties in chaotic, dynamic and statistical mechanics
[SSCL-PREPRINT-725] 10 p3126 N93-28098
Evaluation of some scale effects in the response and failure of composite beams 11 p3308 N93-30874
Knot invariants and cellular automata
[AD-A264199] 11 p3607 N93-30884
Instabilities and nonstatistical behavior in globally coupled systems
[DE93-608185] 12 p3831 N93-31302

STATISTICAL MOMENTS
U DISTRIBUTION MOMENTS

STATISTICAL PROBABILITY
U PROBABILITY THEORY

STATISTICAL TESTS
The total time on test statistic and age-dependent censoring
[AD-A253622] 01 p0147 N93-10798
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
History of statistics in real time: Hammers and nails
[AD-A253521] 02 p0429 N93-12081
Simultaneous DIF amplification and cancellation: Shealy-Stout test for DIF
[AD-A256284] 04 p0970 N93-14455
Stochastic integrals and goodness-of-fit tests
[ISBN-90-9003836-1] 05 p1275 N93-16223
Comparison of tests, and local families
[MEMO-1034] 05 p1266 N93-16594
Graphic representation in managerial decision making: The effect of scale break on the dependent axis
[AD-A258989] 06 p1683 N93-18888
Radar cross section models for limited aspect angle windows
[AD-A258918] 06 p1510 N93-19341
Assessment of helicopter component statistical reliability computations
[AD-A258931] 06 p1441 N93-19447
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Change PP plot and continuous sample quantile function
[AD-A259833] 08 p2472 N93-23460
Experiments: Design, parametric and nonparametric analysis, and selection
[MEMO-COSOR-92-15] 10 p3123 N93-27234
Modified goodness-of-fit tests for the Weibull distribution
[AD-A262552] 11 p3553 N93-28574
Modified Anderson-Darling and Cramer-Von Mises goodness-of-fit tests for the normal distribution
[AD-A262554] 11 p3553 N93-28575
A new goodness-of-fit test for the Weibull distribution based on spacings
[AD-A262615] 11 p3553 N93-28587
A modified Anderson Darling goodness-of-fit test for the gamma distribution with unknown scale and location parameters
[AD-A262486] 11 p3553 N93-28760
A modified chi-squared goodness-of-fit test for the three-parameter gamma distribution with unknown parameters
[AD-A262553] 11 p3554 N93-28845

STATISTICAL WEATHER FORECASTING
Probability forecasting: A guide for forecasters and staff weather officers
[AD-A254216] 01 p0126 N93-10264
Statistical methods for the comparison of spatial patterns in meteorological variables 02 p0370 N93-11997
Four-dimensional data assimilation of GALE data using a multivariate analysis scheme and a mesoscale model with diabatic initialization 04 p0919 N93-14198
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Lightning precursor signatures from dual-polarization radar measurements of storms 09 p2777 N93-24877
The effects of sampling frequency on the climate statistics of the ECMWF general circulation model
[DE93-003338] 09 p2761 N93-25145
Including maximum sustained wind speed in a time series model to forecast hurricane movement
[AD-A262510] 10 p3078 N93-27663
Thunderstorm forecast study for Eglin AFB, Florida
[AD-A263423] 11 p3483 N93-29810

STATISTICS
History of statistics in real time: Hammers and nails
[AD-A253521] 02 p0429 N93-12081
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
Science and engineering degrees: 1966-1990
[NSF-92-326] 03 p0731 N93-13701
Measurement uncertainty analysis techniques applied to PV performance measurements
[DE93-000019] 06 p1553 N93-19438
Higher order crossings
[AD-A258727] 07 p2050 N93-20327
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492

STATOR BLADES
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881
The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968

STATORS
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239

STAYS
U GUY WIRES

STEADY FLOW
NT COUETTE FLOW
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
Mathematical problems in inviscid hypersonic flow 03 p0493 N93-13451
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Variational characterizations of steady two-dimensional vortex motions 03 p0589 N93-13781
Dynamical instabilities in a fluid spin-up and in an open flow system 03 p0590 N93-13899
An integral equation solution for multistage turbomachinery design calculations
[NASA-TM-105970] 04 p0801 N93-15521
Particle contact on flat plates in flow: A model for initial larval contact
[AD-A257275] 05 p1155 N93-15892
Computational investigations of a NACA 0012 airfoil in low Reynolds number flows
[AD-A257300] 05 p1053 N93-15920
Numerical solutions of the Euler equations for steady flow problems
[MBB-FE-202-S-PUB-473-A] 05 p1164 N93-17546
Development of a boundary element method program for numerical analysis of supersonic unsteady flow 06 p1410 N93-19283
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
An investigation of the fundamental cause of asymmetric separated flow
[AD-A260296] 08 p2114 N93-24263
Steady induction effects in geomagnetism. Part 1B: Geomagnetic estimation of steady surficial core motions: A non-linear inverse problem
[NASA-TP-3272-PT-1B] 09 p2776 N93-26421
On the instability of the flow in an oscillating tank of fluid
[NASA-CR-191424] 10 p3037 N93-26896
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Stability investigations of airfoil flow by global analysis 10 p2932 N93-27436
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
A first approximation to the effects of mean flow on sound propagation through cylindrical capillary tubes
[MATHS-REPT-A-181] 12 p3815 N93-31599
A p-version finite element method for steady incompressible fluid flow and convective heat transfer
[NASA-TM-106260] 12 p3727 N93-32370

STEADY STATE
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
Venusian hydrology: Steady state reconsidered 04 p1028 N93-14318
Estimation of rate of climb
[ESDU-92019] 04 p0791 N93-14541
Preconditioned conjugate-gradient methods for low-speed flow calculations
[NASA-TM-105929] 04 p0877 N93-14885
Some experiments and ideas on GPA before reaching steady state of engine 04 p0796 N93-15175
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731

Steady state tokamak sustained by bootstrap current without seed current
[NIFS-159] 07 p2070 N93-20155
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078
Dynamic modeling of fluid transmission lines of the DSN 70-meter antennas by using a lumped parameter model 09 p2678 N93-26119
Oblique MHD cosmic-ray modified shocks: Two-fluid numerical simulations
[NASA-CR-192930] 09 p2900 N93-26132
Another look at the driven cavity problem
[AD-A261903] 09 p2708 N93-26543
Parallel solution of high-order numerical schemes for solving incompressible flows
[NASA-TM-4451] 10 p3106 N93-27040
Steady-state and transient modeling of tracer and nutrient distributions in the global ocean
[DE93-011043] 11 p3486 N93-28670
Gradient estimation for regenerative processes
[AD-A263766] 11 p3555 N93-29878
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Numerical wave propagation and steady-state solutions 11 p3428 N93-30999
The steady-state tangential contact problem for a falling drop type of contact area on corrugated rail by simplified theory of rolling contact
[ILR-MITT-267(1991)] 11 p3455 N93-31016
Steady states in the twin-well potential oscillator: Computer simulations and approximate analytical studies
[REPT-40/1992] 12 p3722 N93-32214

STEADY STATE FLOW
U EQUILIBRIUM FLOW

STEALTH BOMBER
U B-2 AIRCRAFT

STEAM
Reformers for the production of hydrogen from methanol and alternative fuels for fuel cell powered vehicles
[DE92-019300] 02 p0274 N93-11550
Proceedings of the DOE/Advanced Heat Exchangers Program Review
[DE92-014385] 02 p0305 N93-12070
Boiler efficiency methodology for solar heat applications
[DE92-019805] 03 p0640 N93-13618
Material and method for fast generation of hydrogen gas and steam
[AD-D015559] 07 p1847 N93-20781
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638

STEAM FLOW
Evaluation of ceramic materials for an advanced steam-methane reformer
[DE93-005931] 08 p2235 N93-22329
Evaluation of ceramic tubes, joints, and seals for high pressure heat exchange systems
[PB93-173490] 10 p3002 N93-26638

STEAM GENERATORS
U BOILERS

STEAM TURBINES
High-pressure ceramic air heater for indirectly fired gas turbine applications
[DE93-005022] 08 p2315 N93-23296

STEATITE
U TALC

STEEL STRUCTURES
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures 03 p0631 N93-13947
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
A non-linear phenomenon in the dynamic response of metallic and composite structures 07 p1926 N93-20620
Fatigue life assessment of service damaged and corroded members of structural steel 07 p1949 N93-21331
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Photovoltaic power without batteries for continuous cathodic protection 09 p2759 N93-25597
Fracture mechanics analysis of NGV fuel cylinders. Part 1: Steel cylinders
[PB93-165835] 10 p3057 N93-27417
Containment of explosions in spherical vessels
[DE93-005445] 11 p3446 N93-30211
Web crippling of cold-formed steel members
[ISBN-9-03-860122-0] 12 p3705 N93-31540

STEELS
NT AUSTENITIC STAINLESS STEELS
NT CARBON STEELS
NT CHROMIUM STEELS
NT FERRITIC STAINLESS STEELS
NT HIGH STRENGTH STEELS
NT LOW CARBON STEELS
NT MARTENSITIC STAINLESS STEELS
NT NICKEL STEELS
NT STAINLESS STEELS
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Microstructure-based fatigue life prediction methods for naval steel structures
[AD-A254628] 02 p0260 N93-12241
Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
Diagnostic of material defects found in pipelines made of 13 HMF steel on the basis of acoustic emission 03 p0623 N93-12989
Numerical simulations of steel plate perforation
[DE92-017058] 03 p0626 N93-13301
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
The influence of geometrical constraint on cyclic, elastoplastic, notch root behavior, and fatigue microcrack initiation 04 p0900 N93-14480
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
The Meta-Lax method of stress reduction in welds
[DE92-018477] 04 p0845 N93-14900
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Validation of an automated torsional and warping stress analysis program
[AD-A256035] 04 p0902 N93-15260
Magnetic flux-load current interactions in ferrous conductors
[AD-A256632] 05 p1143 N93-15906
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Static-stress analysis of dual-axis safety vessel
[DE93-001860] 05 p1187 N93-17366
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299
Uncertainty management by relaxation of conflicting constraints in production process scheduling 06 p1636 N93-18673
Fatigue crack growth and coalescense in a notch region
[ISBN-0-315-68910-2] 06 p1559 N93-19042
Development of an electrochemical method for field testing of protective coatings
[AD-A258754] 06 p1496 N93-19866
A simulation of corrosion fatigue life distribution in low alloy steel 07 p1922 N93-20340
Fatigue assessment of a cast component for a timber crane 07 p1924 N93-20353
Fundamental advances for characterizing cathodic protection systems
[PB93-125003] 07 p1851 N93-21825
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Grain boundary chemistry effects on environment-induced crack growth of iron-based alloys
[DE93-005039] 08 p2232 N93-23980
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260892] 09 p2651 N93-25895
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Development and evaluation of a cleanable high efficiency steel filter
[DE93-008024] 10 p3070 N93-28419
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Ceramics models in the MESA codes
[DE93-000683] 12 p3711 N93-32186
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352

STEEP GRADIENT AIRCRAFT
U V/STOL AIRCRAFT

STEEPEST ASCENT METHOD
U STEEPEST DESCENT METHOD

STEEPEST DESCENT METHOD
Artificial neural network system for memory modification
[AD-D015354] 01 p0142 N93-10958
Memory modification of artificial neural networks
[AD-D015356] 01 p0143 N93-10959
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309

STEEPNESS
U SLOPES

STEERABLE ANTENNAS
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
Simulation of the merged spectrum technique for aligning planar phased-array antennas, part 1
[PB93-113629] 07 p1885 N93-21237
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Optical antenna beam steering using digital phase shifter control
[AD-D015688] 11 p3383 N93-29455

STEERING
Steering system of a vehicle, such as a snow removing machine for airfields
[CA-PATENT-APPL-SN-1293201] 01 p0091 N93-10367
Method of steering the gain of a multiple antenna global positioning system receiver
[AD-D015367] 02 p0281 N93-11426
A computer algorithm for automatic beam steering
[DE92-019338] 02 p0411 N93-11555
Approach range and velocity determination using laser sensors and retroreflector targets 07 p1812 N93-21410
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809

STEFAN-BOLTZMANN LAW
Some historical notes about the Stefan problem
[REPT-93-07] 12 p3728 N93-32397

STELLAR (STAR TRACKER)
U CCD STAR TRACKER

STELLAR ACTIVITY
NT FACULAE
NT SOLAR ACTIVITY
NT SOLAR FLARES
NT SOLAR PROMINENCES
NT SOLAR STORMS
NT SPICULES
NT STELLAR FLARES
NT SUNSPOTS
Stellar and circumstellar evolution and activity
01 p0181 N93-10918
Tomographic/interferometric studies of active stars and binaries 01 p0182 N93-10920
Prospects in stellar and galactic observations with SIMURIS 01 p0182 N93-10921
Gamma ray bursts from extragalactic sources
08 p2535 N93-23893
Magnetic activity in low mass stars
[DE93-009073] 11 p3632 N93-28547
Dense gas in the monoceros OB1 dark cloud and its relationship to star formation 11 p3636 N93-30502

STELLAR ATMOSPHERES
NT CHROMOSPHERE
NT SOLAR ATMOSPHERE
Model atmospheres for low temperature, helium-rich white dwarfs: Problems with the equation of state
08 p2546 N93-23065
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae
08 p2547 N93-23208
Steady-state numerical models of accreting neutron stars: The effect of atmospheric CNO depletion and diffusion 09 p2889 N93-25624
Radial velocity measurements of carbon stars
09 p2895 N93-25713
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673

STELLAR COLOR
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
The nature of faint emission-line galaxies
10 p3173 N93-26716
Near-IR imaging of moderate redshift galaxy clusters
10 p3177 N93-26741
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

STELLAR COMPOSITION
Density contrast shell models for planetary nebulae
03 p0756 N93-13850
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
Element diffusion in pulsating variables
[DE93-000795] 05 p1364 N93-16232
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae
08 p2547 N93-23208
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091

STELLAR CONVECTION
NT SOLAR CONVECTION (ASTRONOMY)
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
Convection in RR Lyrae stars
[DE93-000851] 05 p1376 N93-17382

STELLAR CORES
Accretion rates of protoplanets
03 p0759 N93-13958
The structure and dynamics of an environment forming high-mass stars 04 p1014 N93-14113
Why Blue stragglers formed via collisions may not be rapid rotators
[DE93-008708] 11 p3633 N93-28905
Structure, evolution, and stability of rotating protostars
12 p3852 N93-31153

STELLAR CORONAS
NT CORONAL HOLES
NT CORONAL LOOPS
NT SOLAR CORONA
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae
08 p2547 N93-23208
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139

STELLAR DOPPLER SHIFT
U DOPPLER EFFECT

STELLAR ENVELOPES
Probing cosmic infrared sources: A computer modeling approach
[AD-A253788] 01 p0178 N93-10238
A study of the structure, evolution and observation of Horizontal Branch stars
[ISBN-0-315-62655-0] 03 p0751 N93-13374
Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A
03 p0757 N93-13962
Gravitational instabilities in a protoplanetary disk
04 p1016 N93-14154
Hydrodynamics of supernova 1987 A
04 p1019 N93-14633
Spatially resolved 10 micron spectra of circumstellar material around evolved stars 04 p1019 N93-14636
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4
[NASA-CR-191634] 05 p1377 N93-15829
The structure of circumstellar shells
[NASA-CR-192337] 07 p2096 N93-20757
A superconducting tunnel junction receiver for submillimeter astronomy, and analysis of observations of post-AGB star molecular envelopes
09 p2889 N93-25440
The effects of rotation on the winds from hot stars
09 p2894 N93-25620
The origin and evolution of dust in interstellar and circumstellar environments
[NASA-CR-193025] 10 p3204 N93-27287
Why Blue stragglers formed via collisions may not be rapid rotators
[DE93-008708] 11 p3633 N93-28905
Submillimeter CO observations of warm gas around T-Tauri stars
[MPE-PREPRINT-232] 11 p3631 N93-30615
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9
[ETN-93-94203] 12 p3851 N93-31050
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766
P Cyg envelope and prospects of interferometric observations 12 p3848 N93-31777
Prospects for stellar physics: Structure and influence of circumstellar media 12 p3850 N93-31789

STELLAR EVOLUTION
NT STAR FORMATION
NT STELLAR MASS ACCRETION
Workshop on the evolution of the Martian atmosphere
[NASA-CR-190730] 01 p0189 N93-10064
Stellar and circumstellar evolution and activity
01 p0181 N93-10918
Yellow hypergiant interferometry: A clue to understanding evolutionary instability
01 p0182 N93-10919
Ultraviolet studies of Cepheids
[NASA-CR-190857] 02 p0481 N93-11073
Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587
Radial and nonradial periods and growth rates of an Al Velorum model
[DE92-011369] 03 p0743 N93-13339
A study of the structure, evolution and observation of Horizontal Branch stars
[ISBN-0-315-62655-0] 03 p0751 N93-13374
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation
03 p0753 N93-13603
B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars
03 p0755 N93-13828
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
Compact objects in the disk and globular clusters
04 p1018 N93-14594
ROSAT all-sky survey on the Einstein EMSS sample
[NASA-CR-191627] 04 p1013 N93-15340
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
Field star interactions with globular clusters
07 p2096 N93-20047
Endpoints of stellar evolution: The incidence of stellar mass black holes in the galaxy
08 p2533 N93-23882
Multiwavelength analysis of starburst galaxies
08 p2539 N93-23920
Origin and evolution of cataclysmic variables
09 p2893 N93-25245
30 Doradus in the Large Magellanic Cloud: The stellar content and initial mass function
09 p2894 N93-25559
Heavy element abundances and massive star formation 10 p3172 N93-26709
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution
10 p3173 N93-26715
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
Distant radio galaxies in the near IR
10 p3177 N93-26742
The ring around SN1987A 10 p3199 N93-26868
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
Do the Pop 2 field blue stragglers have a collisional origin?
[DE93-008709] 11 p3634 N93-28906
Can physical stellar collisions explain the blue stragglers in the dwarf spheroidal galaxies?
[DE93-008711] 11 p3634 N93-28907
A characterization of young stellar objects in Bok globules: Infrared imaging, spectral energy distributions, and molecular outflows 11 p3636 N93-30563
Molecules in the envelope of planetary nebulae with the example of CO-envelope of M2-9
[ETN-93-94203] 12 p3851 N93-31050
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
Structure, evolution, and stability of rotating protostars
12 p3852 N93-31153

STELLAR FIELDS
U STAR DISTRIBUTION

STELLAR FLARES
NT SOLAR FLARES
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
ROSAT investigation of flaring and activity on Prox Cen
[NASA-CR-192972] 09 p2891 N93-26139
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073

STELLAR GRAVITATION
NT SOLAR GRAVITATION

STELLAR INTERIORS
NT SOLAR INTERIOR
NT STELLAR CORES

STELLAR LUMINOSITY
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
A study of the structure, evolution and observation of Horizontal Branch stars
[ISBN-0-315-62655-0] 03 p0751 N93-13374
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
The structure and dynamics of an environment forming high-mass stars 04 p1014 N93-14113
A faint spectroscopic quasar survey
04 p1012 N93-14629
ROSAT all-sky survey on the Einstein EMSS sample
[NASA-CR-191627] 04 p1013 N93-15340
The hard x ray luminosity function and evolution of AGN 05 p1373 N93-17142
Comparison of high-resolution solar irradiance spectra and the solar luminosity in the period 1980-1989
[NASA-CR-192776] 09 p2898 N93-25222
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
The nature of faint emission-line galaxies
10 p3173 N93-26716
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
Globular cluster formation in merging galaxies?
10 p3175 N93-26729
Clustering of very luminous infrared galaxies and their environment 10 p3175 N93-26731
H II regions in the dwarf galaxy UGC-A 86
10 p3178 N93-26749
Analysis of the Einstein sample of early-type galaxies
10 p3179 N93-26754

The evolution of the intergalactic medium and the origin of the galaxy luminosity function
10 p3180 N93-26759
Starburst models of merging galaxies
10 p3183 N93-26778
The galactic center stellar population in the near infrared
10 p3204 N93-28080
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004

STELLAR MAGNETIC FIELDS
NT SOLAR MAGNETIC FIELD
Compressible convection and pulsations on parallel computers
03 p0690 N93-13961
Motion of charged particles in pulsar magnetospheres
08 p2550 N93-24161
Chromospheric activity in algol binaries
[AD-A261440] 09 p2896 N93-26508

STELLAR MAGNETOSPHERES
NT PULSAR MAGNETOSPHERES
The nonthermal model of disc accretion onto a magnetosphere
05 p1368 N93-17115

STELLAR MAGNITUDE
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
Study of tidal interactions in M81-M82-NGC3077 system
04 p1010 N93-14195
Asteroids with unusual lightcurves: 14 Irene and 51 Nemausa
06 p1701 N93-19123
Cape Photographic Durchmusterung, volume 1
[NASA-RP-1300-VOL-1] 09 p2890 N93-26002
Cape Photographic Durchmusterung, volume 2
[NASA-RP-1300-VOL-2] 09 p2890 N93-26003
Cape Photographic Durchmusterung, volume 3
[NASA-RP-1300-VOL-3] 09 p2890 N93-26004
Cordoba Durchmusterung, volume 1
[NASA-RP-1299-VOL-1] 10 p3170 N93-27116
Cordoba Durchmusterung, volume 2
[NASA-RP-1299-VOL-2] 10 p3170 N93-27117
Cordoba Durchmusterung, volume 3
[NASA-RP-1299-VOL-3] 10 p3170 N93-27118
Cordoba Durchmusterung, volume 4
[NASA-RP-1299-VOL-4] 10 p3170 N93-27119
Bonner Durchmusterung, volume 1
[NASA-RP-1297-VOL-1] 10 p3170 N93-27382
Bonner Durchmusterung, volume 2
[NASA-RP-1297-VOL-2] 10 p3170 N93-27383
Bonner Durchmusterung (Southern Durchmusterung)
[NASA-RP-1298-VOL-3] 11 p3630 N93-29811

STELLAR MASS
Ultraviolet studies of Cepheids
[NASA-CR-190857] 02 p0481 N93-11073
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars
[DE92-018367] 02 p0485 N93-11695
Mechanism for ejecting stars from the Galactic plane
[DE92-018375] 02 p0485 N93-11697
The role of ambipolar diffusion in the formation of interstellar cloud cores and protostars
03 p0755 N93-13828
Some problems of quantum cosmology and dark matter physics
03 p0755 N93-13829
An optical study of the faint end of the stellar luminosity function
03 p0748 N93-13960
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass
03 p0758 N93-14091
The structure and dynamics of an environment forming high-mass stars
04 p1014 N93-14113
A search for dead QSO's among nearby luminous galaxies
04 p1011 N93-14228
Evidence for a massive stellar black hole in x ray Nova Muscae
06 p1562 N93-18714
Multiwavelength analysis of starburst galaxies
08 p2539 N93-23920
Origin and evolution of cataclysmic variables
09 p2893 N93-25245
Structure and star forming activities of the cold massive molecular cloud G216-2.5
09 p2893 N93-25477
Heavy element abundances and massive star formation
10 p3172 N93-26709
Cluster evolution as a probe of primordial density fluctuations
10 p3175 N93-26730
HI observations of dwarf galaxies out to a distance of 50 Mpc
10 p3186 N93-26794
Atomic hydrogen in the disturbed edge-on galaxy NGC 4631
10 p3189 N93-26815
Numerical modeling of the interstellar medium in galactic disks
10 p3199 N93-26866
The ring around SN1987A
10 p3199 N93-26868
Probing the optical depth of spiral galaxies using multi-waveband observations
10 p3202 N93-26884
Gas in merging galaxies
10 p3202 N93-26886
The ISM in the M82 starburst
10 p3202 N93-26887

STELLAR MASS ACCRETION
Are some of the luminous high-latitude stars accretion-powered runaways?
[DE92-018853] 02 p0484 N93-11379
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Accretion rates of protoplanets
03 p0759 N93-13958
A search for dead QSO's among nearby luminous galaxies
04 p1011 N93-14228
Steady-state numerical models of accreting neutron stars: The effect of atmospheric CNO depletion and diffusion
09 p2889 N93-25624
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202
The heating and cooling of WZ Sge
[DE93-008720] 11 p3634 N93-28908

STELLAR MASS EJECTION
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope
01 p0181 N93-10915
High resolution observations of solar ejecta
01 p0181 N93-10916
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars
[DE92-018367] 02 p0485 N93-11695
Statistics of IMF B(z) events
[DE92-018372] 02 p0488 N93-11696
Mechanism for ejecting stars from the Galactic plane
[DE92-018375] 02 p0485 N93-11697
The semiannual variation of great geomagnetic storms and the postshock Russell-McPherron effect preceding coronal mass ejecta
[AD-A254955] 02 p0489 N93-12506
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Equilibrium and eruption of solar coronal magnetic structures
03 p0770 N93-13605
Hydrodynamics of supernova 1987 A
04 p1019 N93-14633
A study of physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-192118] 06 p1744 N93-18577
Environmental conditions responsible for solar activity
[AD-A259703] 08 p2557 N93-23664
A revised and expanded catalogue of mass ejections observed by the Solar Maximum Mission coronagraph
[NASA-CR-193146] 09 p2899 N93-26556
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935
Submillimeter CO observations of warm gas around T-Tauri stars
[MPE-PREPRINT-232] 11 p3631 N93-30615
Speeds and accelerations of coronal mass ejections
12 p3871 N93-31368
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection
12 p3876 N93-31399
Coronagraphic ground based support for SOHO at the Pic-du-Midi Observatory (France)
12 p3880 N93-31420
Origin of the solar wind and coronal mass ejections
12 p3856 N93-31702
Coronal mass ejecta and flares: A statistical study
12 p3859 N93-31716
Possible manifestation of the critical ionization velocity phenomenon in the solar corona
12 p3861 N93-31726

STELLAR MODELS
Ultra-high observations of the prominence-corona transition region
01 p0180 N93-10908
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
Ultraviolet studies of Cepheids
[NASA-CR-190857] 02 p0481 N93-11073
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
A Polytropic solar model
02 p0487 N93-11264
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars
[DE92-018367] 02 p0485 N93-11695
Mechanism for ejecting stars from the Galactic plane
[DE92-018375] 02 p0485 N93-11697
Radial and nonradial periods and growth rates of an Al Velorum model
[DE92-011369] 03 p0743 N93-13339
A thermal/nonthermal approach to solar flares
03 p0771 N93-13639
Encounters with protostellar disks
03 p0754 N93-13727
Density contrast shell models for planetary nebulae
03 p0756 N93-13850
Theoretical studies of the physics of the solar atmosphere
[NASA-CR-191357] 04 p1049 N93-15085
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Observational constraints on AGN models
05 p1360 N93-17097
An introduction to the pair-reflection model of X-ray spectra in AGN's
05 p1367 N93-17110
Evolutionary hybrid accretion disc models of AGN and the ROSAT cosmic x ray background
05 p1368 N93-17112
The nonthermal model of disc accretion onto a magnetosphere
05 p1368 N93-17115
Dissolution of tidally limited star clusters in galaxies by passing giant molecular clouds or other massive objects
[MITT-SER-A-232] 07 p2097 N93-21301
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
Model atmospheres for low temperature, helium-rich white dwarfs: Problems with the equation of state
08 p2546 N93-23065
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
Gamma ray bursts from extragalactic sources
08 p2535 N93-23893
The stability of thick, self-gravitating disks in protostellar systems
08 p2551 N93-24185
Steady-state numerical models of accreting neutron stars: The effect of atmospheric CNO depletion and diffusion
09 p2889 N93-25624
Some effects of dust on photometry of high-z galaxies: Confounding the effects of evolution
10 p3173 N93-26715
The Lyman alpha forest of the high-z quasar 0000-263
10 p3203 N93-26890
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673
Models of star formation in interacting and merging disk galaxies
11 p3635 N93-30148
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
The physics of solar prominences
12 p3874 N93-31383
Mass motion of a heated plasma blob in a coronal loop
12 p3874 N93-31384

STELLAR MOTIONS
NT SOLAR OSCILLATIONS
NT SOLAR ROTATION
NT STELLAR ORBITS
NT STELLAR OSCILLATIONS
NT STELLAR ROTATION
Are some of the luminous high-latitude stars accretion-powered runaways?
[DE92-018853] 02 p0484 N93-11379
A search for low-luminosity objects
[AD-A253301] 02 p0483 N93-11750
Vertical path atmospheric turbulence: Temporal spectra and differential image motion measurements
04 p0914 N93-14641
Dynamics of stellar populations in galactic disks
[MITT-SER-A-234] 07 p2097 N93-21300
Recurrent swing amplification induced by nonlinear amplitude effects
[MITT-SER-A-230] 07 p2097 N93-21302
Fifth fundamental catalogue. Part 2: The FK5 extension - new fundamental stars
[REPT-33(1991)] 08 p2542 N93-23346

STELLAR OCCULTATION
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres
03 p0768 N93-14072
Interpretation of Voyager UVS observations of occultations by the atmosphere of Neptune
[NASA-CR-192131] 07 p2099 N93-20732

STELLAR ORBITS
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations
08 p2536 N93-23901

STELLAR OSCILLATIONS
NT SOLAR OSCILLATIONS
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
Periodicities in pulsar microstructure
02 p0484 N93-11230
Diskoseismology: Probing relativistic accretion disks
09 p2894 N93-25622

STELLAR PARALLAX
Status and early results of the Hipparcos astrometry project
08 p2533 N93-23879

STELLAR PHYSICS
NT SOLAR PHYSICS

High resolutions studies of the structure of the solar atmosphere
[AD-A254292] 01 p0190 N93-10767
The CHARON program 01 p0177 N93-10942
Nuclear masses and fission barriers for astrophysical applications
[DE93-000869] 05 p1376 N93-17387
Activities report of the Astronomical Society
[MITT-75] 11 p3629 N93-29008
Prospects for stellar physics: Structure and influence of circumstellar media 12 p3850 N93-31789

STELLAR RADIATION
NT STELLAR WINDS
A linear and nonlinear study of Mira
[DE92-011265] 02 p0483 N93-10993
Stars in the Rosat all-sky survey
02 p0482 N93-11477
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars
04 p1050 N93-14242
Disc structure and variability in dwarf novae
04 p1017 N93-14460
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium?
[SSCL-PREPRINT-776] 05 p1365 N93-16386
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052

STELLAR ROTATION
NT SOLAR ROTATION
Stability of differentially rotating stars
04 p1018 N93-14584
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
The effects of rotation on the winds from hot stars
09 p2894 N93-25620
Why Blue stragglers formed via collisions may not be rapid rotators
[DE93-008708] 11 p3633 N93-28905
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

STELLAR SPECTRA
NT SOLAR SPECTRA
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
Periodicities in pulsar microstructure
02 p0484 N93-11230
Stars in the Rosat all-sky survey
02 p0482 N93-11477
Temporal and spectral variability in luminous x ray binaries 02 p0483 N93-12336
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects
[NASA-RP-1285] 03 p0744 N93-13461
The Mount Wilson optical interferometer: The first automated instrument and the prospects for lunar interferometry 03 p0745 N93-13562
Orbiting Space Interferometer (OSI): A first generation space interferometer 03 p0745 N93-13587
Atoms and molecules in supernova 1987A
03 p0699 N93-13851
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
The black hole candidate binary A0620-00
04 p1015 N93-14148
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra
04 p1017 N93-14230
Ultraviolet spectra of stars and stellar systems
04 p1011 N93-14593
QSO absorption lines and the ionizing field at high redshifts 04 p1013 N93-14860
High-energy emissions from young pulsars: Perspective from the outer gap model
[DE92-040365] 04 p1022 N93-15324
International Ultraviolet Explorer (IUE)
[NASA-CR-191952] 05 p1359 N93-17029
Fluctuations at the blue edge of saturated wind lines in IUE spectra of O-type stars
[NASA-CR-191887] 06 p1696 N93-18776
Stellar lyman alpha emission and the local interstellar medium
[NASA-CR-192635] 08 p2541 N93-22381
Nitrogen to carbon abundance ratios determined from emission lines originating in transition layers between stellar chromospheres and coronae
08 p2547 N93-23208
EUV spectral features of active binaries
08 p2536 N93-23904
A2163: An exceptionally hot cluster of galaxies
08 p2538 N93-23913
The cold ionized shell around the old nova DQ Herculis 08 p2543 N93-23964
An atlas of selected calibrated stellar spectra
[NASA-CR-177604] 09 p2888 N93-25135
Radial velocity studies of the secondary in cataclysmic variables 09 p2888 N93-25286
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
Radial velocity measurements of carbon stars
09 p2895 N93-25713
Survey incompleteness and the evolution of the QSO luminosity function 10 p3172 N93-26710
The nature of faint emission-line galaxies
10 p3173 N93-26716
Two protogalaxy candidates in one night
10 p3173 N93-26717
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
A search for quasar protoclusters at z greater than 4
10 p3174 N93-26721
Globular cluster formation in merging galaxies?
10 p3175 N93-26729
Near-IR imaging of moderate redshift galaxy clusters
10 p3177 N93-26741
Distant radio galaxies in the near IR
10 p3177 N93-26742
Extremely red objects in the fields of high redshift radio galaxies 10 p3177 N93-26743
Probing the optical depth of spiral galaxies using multi-waveband observations 10 p3202 N93-26884
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Rejection of archival photographic objects as optical counterparts of gamma ray bursters
[MPE-PREPRINT-228] 11 p3631 N93-30642
Infrared spectroscopy and imaging of starburst galaxies and AGNs
[MPE-PREPRINT-229] 11 p3632 N93-30643
Effects of spiral shocks on disk emission lines
[DE92-641716] 11 p3637 N93-31004
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

STELLAR SPECTROPHOTOMETRY
High resolution granulation spectrophotometry with a UBF and a FP interferometer in tandem
01 p0183 N93-10927
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet
02 p0482 N93-11373
An optical study of the faint end of the stellar luminosity function 03 p0748 N93-13960
Standardization work for the calibration of intensities of celestial objects
[NASA-CR-192831] 08 p2543 N93-23502
Multi-filter spectrophotometry of quasar environments
10 p3196 N93-26850
Multiwavelength studies of classical nova shells
11 p3636 N93-30412
Frequency of the chemical elements in B-stars of the local field and dispersion of interstellar medium
[ETN-93-94205] 12 p3852 N93-31091

STELLAR STRUCTURE
Periodicities in pulsar microstructure
02 p0484 N93-11230
A study of the structure, evolution and observation of Horizontal Branch stars
[ISBN-0-315-62655-0] 03 p0751 N93-13374
Disc structure and variability in dwarf novae
04 p1017 N93-14460
The structure of circumstellar shells
[NASA-CR-192337] 07 p2096 N93-20757
A new deconvolution method for the Doppler cartography of cool star surfaces and its use on AB Doradus
[MPE-236] 07 p2095 N93-21025
Diskoseismology: Probing relativistic accretion disks
09 p2894 N93-25622
Dense gas in the monoceros OB1 dark cloud and its relationship to star formation 11 p3636 N93-30502
Structure, evolution, and stability of rotating protostars
12 p3852 N93-31153
Quiet and active solar structures as observed at the bottom of the transition region 12 p3874 N93-31382

STELLAR SYSTEMS
Encounters with protostellar disks
03 p0754 N93-13727
Hydrodynamical calculations of stellar interactions
03 p0755 N93-13764
Ultraviolet spectra of stars and stellar systems
04 p1011 N93-14593
Field star interactions with globular clusters
07 p2096 N93-20047
Present status of work on the FK5 extension
[MITT-SER-B-229] 07 p2095 N93-21299
The two black hole problem in 3+1 general relativity: Analytical approximations and numerical solutions of the initial data 08 p2548 N93-23212
Fifth fundamental catalogue. Part 2: The FK5 extension - new fundamental stars
[REPT-33(1991)] 08 p2542 N93-23346
The stellar populations of early-type galaxies in groups and clusters 08 p2549 N93-23491
Prograde anomalous orbits in triaxial gravitational potentials that rotate about the long axis: VLA neutral hydrogen observations and modeling of the inclined rings around the galaxies NGC 2685 and NGC 660
09 p2607 N93-25396
Stellar encounters in globular clusters
11 p3632 N93-28606

STELLAR TEMPERATURE
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
Alternative methods for determination of the temperature of central stars of planetary nebulae
[INPE-5434-TDI/485] 03 p0750 N93-13279
A2163: An exceptionally hot cluster of galaxies
08 p2538 N93-23913
The kinematics of stars and gas in the galactic disk
08 p2550 N93-23991
The heating and cooling of WZ Sge
[DE93-008720] 11 p3634 N93-28908

STELLAR WINDS
H I shells and supershells: Observations and theory
03 p0751 N93-13360
Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A
03 p0757 N93-13962
Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars
04 p1050 N93-14242
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4
[NASA-CR-191634] 05 p1377 N93-15829
Fluctuations at the blue edge of saturated wind lines in IUE spectra of O-type stars
[NASA-CR-191887] 06 p1696 N93-18776
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990
The radiation gasdynamics of planetary nebulae
08 p2547 N93-23133
GX301-2/WRA9777 revisited: Probing the stellar wind through x ray optical data 08 p2537 N93-23911
Observations and models of shock structures in Herbig-Haro objects 09 p2891 N93-24770
The effects of rotation on the winds from hot stars
09 p2894 N93-25620
Far-infrared line images of dwarf galaxies
10 p3186 N93-26797
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
Numerical modeling of the interstellar medium in galactic disks 10 p3199 N93-26866
The ring around SN1987A 10 p3199 N93-26868
A systematic investigation of edge-on starburst galaxies: Evidence for supernova-driven superwinds
10 p3201 N93-26878
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737

STELLARATORS
Shafranov shift in low-aspect-ratio heliotron/torsatron CHS
[DE92-782100] 02 p0451 N93-11277
Fusion: Magnetic confinement
[DE92-019876] 03 p0716 N93-13107

Review of stellarator research: In search of the magic magnetic bottle
[DE92-019045] 03 p0718 N93-13651
Theoretical and numerical studies in magnetic fusion
[DE92-040674] 04 p0988 N93-15349
Fluctuation studies of ECH plasmas in the ATF torsatron and the IMS stellarator
[DE93-001204] 05 p1308 N93-16152
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
Refined theory of diamagnetic effect in stellarators
[NIFS-162] 07 p2070 N93-20158
Design study on divertor plates of Large Helical Device (LHD)
[NIFS-190] 07 p2074 N93-21361
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Assessment of torsatrons as reactors
[DE93-006721] 09 p2858 N93-24969
Edge plasma control by RF electric field in Compact Helical System (CHS)
[DE93-753242] 11 p3583 N93-28532

STEP FAULTS
U GEOLOGICAL FAULTS

STEP FUNCTIONS
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539

STEPPES
An application of remote sensing and GIS technique in Mongolia (on the example of experiment GEOMON-1990) 08 p2354 N93-23574

STEPS
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406

STEREOCHEMISTRY
Magnetic resonance elucidation of molecule/macromolecule interaction stereochemistry
[AD-A253030] 02 p0437 N93-11709
Design and synthesis of molecular systems capable of supporting intracavity chemical reactions
[AD-A251024] 02 p0440 N93-11872
The effects of molecular structure on the electrical conductivity of polymers
[NASA-CR-191265] 03 p0552 N93-13459
A biotechnical approach to studies on the biodegradation of chlorobenzenes and trichloroethylene
[AD-A258033] 05 p1107 N93-17675

STEREOGRAPHY
U STEREOPHOTOGRAPHY

STEREOPHONICS
Low-frequency room responses. Part 1: Background and qualitative considerations
[BBC-RD-1992/8-PT-1] 09 p2673 N93-25168

STEREOPHOTOGRAPHY
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
Estimation of displacements from two 3D frames obtained from stereo
[INRIA-RR-1440] 06 p1537 N93-18595
Three-dimensional motion computation and object segmentation in a long sequence of stereo frames
[INRIA-RR-1438] 06 p1651 N93-18634
On the information contained in the motion field of lines and the cooperation between motion and stereo
[INRIA-RR-1453] 06 p1537 N93-18647
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Electro-optic frame photography with pulsed ruby illumination
[DE93-005819] 08 p2306 N93-22327
Remote sensing landslide hazard mapping using GIS technology in Colombian Andes 08 p2351 N93-23559
High resolution stereo images from the Space Station Mir 08 p2365 N93-23800
New images of the Earth in highest resolution: MOMS-02 on the second German Spacelab mission D2 08 p2365 N93-23801
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
High resolution stereo imaging and data compression 09 p2753 N93-24867

STEREOSCOPIC PHOTOGRAPHY
U STEREOPHOTOGRAPHY

STEREOSCOPIC VISION
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Automated handling and assembling of non-rigid objects
[AD-A253605] 01 p0066 N93-10649
Correction techniques for depth errors with stereo three-dimensional graphic displays
[NASA-TP-3244] 02 p0206 N93-11170
3-D computer vision for navigation/control of mobile robots 03 p0693 N93-13243
Higher order mechanisms of color vision
[AD-A256369] 04 p0938 N93-15329
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
Application of a laser scanner to three dimensional visual sensing tasks
[NASA-CR-191834] 05 p1174 N93-16664
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Near real-time stereo vision system
[NASA-CASE-NPO-18593-1-CU] 06 p1662 N93-18276
Trade-offs arising from mixture of color cueing and monocular, binoptic, and stereoscopic cueing information for simulated rotorcraft flight
[NASA-TP-3268] 06 p1439 N93-18333
A parallel stereo algorithm that produces dense depth maps and preserves image features
[INRIA-RR-1369] 06 p1620 N93-18433
A binocular stereo approach to AR/C at the Johnson Space Center 07 p1814 N93-21421
A strongly goal-directed close-range vision system for spacecraft docking 08 p2136 N93-22232
Intermediate levels of visual processing
[AD-A264117] 11 p3495 N93-30192
Recursive-batch estimation of structure and motion from stereo image sequences 11 p3363 N93-30271

STEREOSCOPY
NT STEREOPHOTOGRAPHY
Stereoscopy and paralax in the vertical distances determination using aerial photographs
[INPE-5363-PUD/049] 01 p0102 N93-10063
Magellan stereo images and Venusian geology 04 p1035 N93-14347
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data 08 p2350 N93-23552
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
MOMS-02P: A modular optical system for Earth land cover observation in the multisensor environment of the Priroda/Mir mission 08 p2365 N93-23796
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data 08 p2365 N93-23802
Experiments in multiple-baseline stereo
[AD-A261415] 09 p2757 N93-26448
Intermediate levels of visual processing
[AD-A264117] 11 p3495 N93-30192

STERNS
U AFTERBODIES

STEROIDS
NT ALDOSTERONE
NT CHOLESTEROL
NT PROSTAGLANDINS

STIELTJES INTEGRAL
On the history of the function M(x)/(square root of x) since Stieltjes
[CWI-NM-R9120] 05 p1271 N93-17555

STIFF STRUCTURES
U RIGID STRUCTURES

STIFFENING
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Fatigue resistance of orthotropic plates with trapezoidal stiffeners
[TRL-TRANS-T3908] 09 p2726 N93-25419
Design and analysis of grid stiffened concepts for aircraft composite primary structural applications 11 p3306 N93-30861
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Experimental behavior of graphite-epoxy Y-stiffened specimens loaded in compression 11 p3307 N93-30872
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873

STIFFNESS
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
An elastic oblate axisymmetric reference gyro for attitude studies 01 p0054 N93-10518
A new quadrilateral element for the elastic and plastic analysis of shells 01 p0062 N93-10559
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887
The mechanism of bolt loading
[NASA-TM-108377] 02 p0342 N93-12412
Large-deflection analysis of cord composite plates 03 p0530 N93-13008
Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823
Hybrid 2 and hybrid 3 dummy neck properties for computer modeling
[AD-A255544] 03 p0679 N93-13874
Position and force control of flexible and rigid manipulators using the sliding-mode technique 03 p0695 N93-14065
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Calculation of mechanical vibration frequencies of stiffened superconducting cavities
[DE92-040228] 04 p0903 N93-15423
Isostatic mounting platform 05 p1080 N93-15745
Sunshade support structure: Structure and testing 05 p1080 N93-15748
TELECOM 2 deployable reflectors 05 p1082 N93-15761
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
Laminated conical shells: Considerations for the variations of the stiffness coefficients
[LR-671] 05 p1097 N93-16281
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Stiffnesses by (TtN) ensemble molecular dynamics 05 p1274 N93-17331
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
A comparison of viscoelastic damping models 06 p1464 N93-18836
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Interface fracture in composite materials 06 p1560 N93-19381
Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Joint flexibility effects on the dynamic response of structures. Part 1: Deterministic analysis
[AD-A260487] 08 p2331 N93-24135
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements 09 p2635 N93-25544
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Damage detection and mitigation of composite structures using smart materials
[AD-A261121] 09 p2639 N93-25945
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Impact response of laminated plates subjected to transverse loading 12 p3740 N93-31645

STIFFNESS MATRIX
On the behavior of a higher-order plate bending element 01 p0047 N93-10481

Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Computational dynamics of high-speed flexible multibody systems 02 p0338 N93-11891
System identification and model updating for substructures 03 p0624 N93-13065
The free and forced vibrations of structures using the finite dynamic element method 03 p0630 N93-13935
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Evaluation of finite element analysis on the parallel simulation machine Cenju 06 p1410 N93-19287
Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034
Hierarchical Poly Tree configurations for the solution of dynamically refined finite element models
[NASA-CR-191054] 07 p1921 N93-20232
Using a multifrontal sparse solver in a high performance, finite element code
[NASA-CR-192718] 09 p2828 N93-25223
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650

STIMULANTS
NT CAFFEINE
NT CENTRAL NERVOUS SYSTEM STIMULANTS
NT NOREPINEPHRINE

STIMULATED EMISSION
SBS applications study
[AD-A253779] 01 p0102 N93-10234
Bremsstrahlung absorption in plasmas 02 p0321 N93-12047
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy 02 p0254 N93-12050
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Self-similarity in stimulated Raman scattering
[PREPRINT-878] 05 p1304 N93-16982
Self-amplified spontaneous emission for short wavelength coherent radiation
[DE93-004724] 08 p2307 N93-22490
Spectroscopic and dynamical studies of highly energized small polyatomic molecules
[DE93-006504] 08 p2480 N93-22712
New analysis of KrF picosecond pulse experiment
[DE93-003805] 08 p2308 N93-23290
Simultaneous determination of gain parameters in steady state lasers
[DE93-007389] 09 p2713 N93-25381
A quality monitor and monitoring technique employing optically stimulated electron emission
[NASA-CASE-LAR-15063-1] 11 p3449 N93-30414

STIMULATED EMISSION DEVICES
NT AIRBORNE LASERS
NT ARGON LASERS
NT ATMOSPHERIC LASERS
NT CARBON DIOXIDE LASERS
NT CHEMICAL LASERS
NT CONTINUOUS WAVE LASERS
NT DISTRIBUTED FEEDBACK LASERS
NT DYE LASERS
NT EXCIMER LASERS
NT FREE ELECTRON LASERS
NT GALLIUM ARSENIDE LASERS
NT GAMMA RAY LASERS
NT GAS LASERS
NT GASDYNAMIC LASERS
NT GLASS LASERS
NT HELIUM-NEON LASERS
NT HF LASERS
NT HIGH POWER LASERS
NT HYDROGEN MASERS
NT INFRARED LASERS
NT INJECTION LASERS
NT INTERSTELLAR MASERS
NT IODINE LASERS
NT KRYPTON FLUORIDE LASERS
NT LASERS
NT MASERS
NT METAL VAPOR LASERS
NT NEODYMIUM LASERS
NT NOVA LASER SYSTEM
NT PULSED LASERS
NT Q SWITCHED LASERS
NT RAMAN LASERS
NT RARE GAS-HALIDE LASERS
NT RING LASERS
NT RUBY LASERS
NT SEMICONDUCTOR LASERS
NT SOLAR-PUMPED LASERS
NT SOLID STATE LASERS
NT SPACEBORNE LASERS
NT SURFACE EMITTING LASERS
NT TEA LASERS
NT TRAVELING WAVE MASERS
NT TUNABLE LASERS
NT ULTRAVIOLET LASERS
NT WAVEGUIDE LASERS
NT X RAY LASERS
NT XENON CHLORIDE LASERS
NT XENON FLUORIDE LASERS
NT YAG LASERS
A quality monitor and monitoring technique employing optically stimulated electron emission
[NASA-CASE-LAR-15063-1] 11 p3449 N93-30414

STIMULATION
NT SENSORY STIMULATION
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Radio stimulation and diagnostics of space plasmas
[NASA-CR-192366] 07 p2072 N93-20760
Mechanical stimulation of skeletal muscle mitigates glucocorticoid induced decreases in prostaglandin synthesis
[NASA-CR-193040] 09 p2794 N93-24763
Mechanical stimulation of skeletal muscle increases prostaglandin F2(alpha) synthesis and cyclooxygenase activity by a pertussis toxin sensitive mechanism
[NASA-CR-193041] 10 p3083 N93-27102

STIRLING CYCLE
The CPG 5-kW(e) Dish-Stirling Development Program
[DE92-017050] 04 p0907 N93-15134
Superfluid Stirling refrigerator with a counterflow regenerator
[DE93-003858] 07 p1879 N93-21971
Dynamic analysis of Free-Piston Stirling Engine/Linear Alternator-load system-experimentally validated
[NASA-TM-106034] 08 p2473 N93-22559
Heat pipe heat transport system for the Stirling Space Power Converter (SSPC)
[NASA-CR-191065] 08 p2203 N93-22662
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems
[NASA-CR-191023] 08 p2377 N93-22879
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686
Cryogenic Heat Pipe Experiment (CRYOHP) 11 p3265 N93-28721
Miniature long-life space cryocoolers 11 p3378 N93-28825

STIRLING ENGINES
Boiling behavior of sodium-potassium alloy in a bench-scale solar receiver
[DE92-014947] 01 p0103 N93-10383
Sodium reflux pool-boiler solar receiver on-sun test results
[DE92-018932] 02 p0347 N93-12012
Design of small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105919] 02 p0275 N93-12085
Stirling heat pump external heat systems: An appliance perspective
[DE92-018251] 02 p0349 N93-12498
A feasibility assessment of magnetic bearings for free-piston Stirling space power converters
[NASA-CR-189135] 04 p0891 N93-14916
Summary of the NASA Lewis component technology program for Stirling power converters
[NASA-TM-105640] 04 p0827 N93-15526
Development of CPG dish-Stirling systems for remote power applications
[DE93-003251] 08 p2376 N93-22414
Lunar electric power systems utilizing the SP-100 reactor coupled to dynamic conversion systems
[NASA-CR-191023] 08 p2377 N93-22879
Test results of a Stirling engine utilizing heat exchanger modules with an integral heat pipe
[NASA-TM-105883] 09 p2759 N93-25136
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Small Stirling dynamic isotope power system for robotic space missions
[NASA-TM-105785] 11 p3287 N93-28686

STISHOVITE
Electron petrography of silica polymorphs associated with pseudotachylite, Vredefort structure, South Africa 01 p0123 N93-10192

STOCHASTIC PROCESSES
NT MARKOV CHAINS
NT MARKOV PROCESSES
NT RANDOM PROCESSES
NT RANDOM WALK
Investigation of a possible stochastic model for the IEEE P896.1 (Futurebus+) protocol, including the proposed enhanced distributed arbiter
[CTN-92-60593] 01 p0135 N93-10088
Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
Chaotic oscillation of a high speed flexible arm robot 01 p0065 N93-10574
Stochastic diffusion and Kolmogorov entropy in regular and random Hamiltonians
[DE92-016179] 01 p0170 N93-10604
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Self-generated stochastic heating in an RF discharge
[DE92-018558] 02 p0452 N93-11565
A theory for the analysis of rotorcraft operating in atmospheric turbulence 02 p0207 N93-11725
A game theoretic approach to linear dynamic estimation 02 p0340 N93-12200
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
Static assignment of complex stochastic tasks using stochastic majorization
[NASA-CR-189716] 02 p0416 N93-12403
Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422
Mathematical methods in operations research and computer science
[AD-A254782] 02 p0428 N93-12465
Modeling and estimation of reciprocal diffusion and Gauss-Markov random fields
[AD-A255034] 03 p0698 N93-12709
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
A stochastic optimal feedforward and feedback control methodology for superagility
[NASA-CR-4471] 03 p0694 N93-13370
Deterministic and stochastic responses of nonlinear systems 03 p0631 N93-13966
L2 and L-infinity multiobjective control for linear systems 04 p0961 N93-14399
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
AFIT/AFOSR Workshop on the Role of Wavelets in Signal Processing Applications
[AD-A256172] 04 p0859 N93-14649
Approximate performability analysis using generalized stochastic Petri nets
[MEMO-INF-92-11] 04 p0971 N93-15119
Workstation tools for feature extraction and classification for nonstationary and transient signals
[AD-A255389] 04 p0947 N93-15228
Hierarchical Poisson disk sampling distributions 04 p0954 N93-15545
Sojourns, extremes, and self-intersections of stochastic processes
[AD-A257251] 05 p1274 N93-15820
Latin hypercube sampling as a tool in uncertainty: Analysis of computer models
[DE92-018917] 05 p1231 N93-15883
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Optimal allocation under partial ordering of lifetimes of components
[AD-A255577] 05 p1181 N93-16040

Implementation of a parallel stochastic solving method for linearly constrained concave global optimization problems using parallel computing
[AD-A257112] 05 p1255 N93-16119
Stochastic integrals and goodness-of-fit tests
[ISBN-90-9003836-1] 05 p1275 N93-16223
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
Random quadratic forms and the bootstrap for U-statistics
[W-9207] 05 p1275 N93-16356
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Stochastic reaction diffusion equations and interacting particle systems
[PREPRINT-796] 05 p1265 N93-16417
Ergodic properties of high dimensional symplectic maps
[PREPRINT-802] 05 p1276 N93-16422
On a class of stochastic reaction-diffusion equations in two space dimensions
[PREPRINT-777] 05 p1265 N93-16442
Approximation methods for stochastic petri nets
[NASA-CR-191851] 05 p1276 N93-16662
Queueing systems on a circle
[MEMO-1038] 05 p1276 N93-16670
Utilizing semantic networks to database and retrieve generalized stochastic colored Petri nets
[NASA-CR-191853] 05 p1355 N93-16707
Effects of convection electric field on upwelling and escape of ionospheric O(+)
[NASA-CR-191669] 05 p1208 N93-16839
An M/G/1 queue with dependence between interarrival and service times
[CWI-BS-R9125] 05 p1276 N93-16849
Stochastic quantization, stochastic calculus and path integrals: Selected topics
[PREPRINT-837] 05 p1279 N93-16992
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Providing an empirical basis for optimizing the verification and testing phases of software development
05 p1244 N93-17168
The Lagrangian approach to stochastic variational principles on curved manifolds
[PREPRINT-825] 05 p1277 N93-17221
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258026] 05 p1277 N93-17674
Parallel simulation of stochastic Petri nets using recursive equations
[INRIA-RR-1520] 05 p1257 N93-17738
Light diffusion in stochastically perturbed media
[REPT-92-41] 06 p1661 N93-17873
A structure detection algorithm for nonlinear dynamic rational models
[RR-439] 06 p1649 N93-18508
Particle approximation for first order stochastic partial differential equations
[INRIA-RR-1502] 06 p1646 N93-18597
On optimal polling policies
[INRIA-RR-1541] 06 p1633 N93-18624
Comparison properties of stochastic decision free Petri nets
[INRIA-RR-1433] 06 p1649 N93-18646
An extended abstract: A heuristic repair method for constraint-satisfaction and scheduling problems
06 p1638 N93-18687
Stochasticity of comet P/Slaughter-Burnham
06 p1702 N93-19128
Modeling of asteroidal dust production rates
06 p1705 N93-19150
A central limit theorem for autoregressive integrated moving average processes
[AD-A258923] 06 p1650 N93-19445
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951
Stochastic finite element analysis for high speed rotors 07 p1918 N93-20696
Nonlinearization of nonlinear systems under external and parametric random excitations 07 p1945 N93-20730
Stochastic orderings on partial sums of random variables and on counting measures of random intervals
[INRIA-RR-1422] 07 p2052 N93-20860
Estimates of cycle times in stochastic Petri nets
[INRIA-RR-1572] 07 p2058 N93-20897
A distributed Petri Net controller for a dual arm testbed
[NASA-CR-192733] 07 p2048 N93-21373
Stochastic scheduling with variable profile and precedence constraints
[INRIA-RR-1525] 07 p2059 N93-21396
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567
La Recherche Aerospatiale Bimonthly Bulletin, no. 248, January - February
[ONERA-1989-1] 07 p1878 N93-21748
Synthesis of robust controllers
08 p2107 N93-22573
Large scale control and distributed computing systems under stochastic structural perturbations
[AD-A260501] 08 p2447 N93-22933
Thermodynamic and stochastic theory of hydrodynamic and power-producing processes
[DE93-006891] 08 p2515 N93-23028
A stochastic learning algorithm for layered neural networks
[DE93-003555] 08 p2458 N93-23288
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Joint services electronics program. Basic research in electronics (JSEP)
[AD-A259598] 08 p2283 N93-24068
Learning optimal control using learning automata
[MATHS-REPT-A-176] 08 p2462 N93-24078
Deterministic methods in stochastic optimal control
[AD-A260478] 08 p2462 N93-24100
Probability and statistics applied to the theory of algorithms
[AD-A259956] 08 p2473 N93-24248
Research in stochastic processes and their applications
[AD-A260174] 08 p2473 N93-24317
Stochastic inflation and inflationary density fluctuations
08 p2473 N93-24457
Fuel injector: Air swirl characterization aerothermal modeling, phase 2, volume 1
[NASA-CR-189193-VOL-1] 09 p2592 N93-24754
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Stochastic and seismic design response of linear and nonlinear structures 09 p2726 N93-25484
Control of complex dynamic systems by neural networks 09 p2827 N93-25611
Time series analysis and multivariate analysis
[AD-A261014] 09 p2830 N93-25860
Probability and statistics applied to the theory of algorithms
[AD-A261019] 09 p2830 N93-25863
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Substantiation of a stochastic model of rhythmic phenomena
[AD-A261232] 09 p2830 N93-26262
Methods of optimization under uncertainty
[AD-A261487] 09 p2873 N93-26342
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
Mixed H2/H infinity control in a stochastic framework
[MEMO-COSOR-92-13] 10 p3109 N93-27232
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
A stochastic approach to robust broadband structural control 10 p3058 N93-27892
Optimal server assignment in the case of service times with monotone failure rates
[TW-92-04] 10 p3125 N93-27906
Influence of stochastic contact resistance on coupling losses
[MEMO-1067] 10 p3028 N93-28076
Incidence and lattice calculus with applications to stochastic geometry and image analysis
[CWI-BS-R9213] 10 p3126 N93-28089
A boson field stochastic calculus and quantum filtering in Fock space
[SSCL-PREPRINT-723] 10 p3156 N93-28096
Large deviations theory and stochastic gauge fixing
[SSCL-PREPRINT-739] 10 p3126 N93-28193
The Gribov problem in the frame of stochastic quantization
[SSCL-PREPRINT-740] 10 p3157 N93-28194
A modified Faddeev-Popov formula and the Gribov ambiguity
[SSCL-PREPRINT-750] 10 p3157 N93-28209
Some qualitative properties in polling systems
[INRIA-RR-1596] 11 p3552 N93-28506
Comparison of analytical transport and stochastic solutions for neutron slowing down in an infinite medium
[DE93-010799] 11 p3565 N93-28833
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Stochastic architecture for Hopfield neural nets
11 p3519 N93-29579
Gradient estimation for regenerative processes
[AD-A263766] 11 p3555 N93-29878
A stochastic formation of radiative transfer in clouds
[DE93-011372] 11 p3484 N93-30055
Damage mechanics in 2-D and 3-D microstructures
[AD-A264337] 11 p3453 N93-30159
An information theoretic approach to stochastic adaptive control application to manipulators with active inertia
11 p3359 N93-30247
Zero-crossing rate of some non-Gaussian processes
11 p3360 N93-30254
A numerical simulator for testing sliding mode controls in stochastic systems 11 p3361 N93-30260
Parametric and combinatorial problems in constrained optimization
[AD-A264229] 11 p3555 N93-30363
Adaptive networks for sequential decision problems
[AD-A264756] 11 p3534 N93-30561
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Chaotic quantum systems
[DE93-606030] 11 p3606 N93-30802
Determination of low frequency reference slipping for high frequency unstationary motion processes
[ILR-MITT-273(1992)] 11 p3455 N93-31017
Regularity of stochastic processes: A theory based on directional convexity
[REPT-92-70] 12 p3811 N93-31503
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Blocking probabilities in a loss system with arrivals in geometrically distributed batches and heterogeneous service requirements
[MEMO-1074] 12 p3812 N93-32392

STOICHIOMETRY

Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Dislocation and pores in mullite from diphasic gels
[DE92-040384] 03 p0550 N93-12999
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Metallo-organic solution deposition of ferroelectric PZT films
[AD-A258345] 06 p1476 N93-17990
Preconversion catalytic deoxygenation of phenolic functional groups
[DE93-002941] 06 p1484 N93-19517
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Electronic structure studies of YBa2Cu3O(x)(6.2 less than equal to x less than or equal to 6.9) using angle resolved photoemission
[DE93-004811] 08 p2501 N93-22493
Structure, stoichiometry and stability in magnetoplumbite and (beta)-alumina type ceramics
[DE93-007303] 08 p2236 N93-22528
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Hot corrosion of the B2 nickel aluminides
[NASA-CR-191082] 09 p2649 N93-25128
Polyimides with improved compression moldability
[NASA-CASE-LAR-14457-1] 09 p2656 N93-25997
Kinetic studies in gas-phase reaction mechanisms important to the combustion process of high energy density materials: The H2/NO2 reaction
09 p2628 N93-26027
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Studies in Lewis acid and superacid ionic liquids
[AD-A264683] 11 p3316 N93-30551
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187

STOKES FLOW
A variational approach for coupled creeping-flow problems 01 p0062 N93-10557
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves [NASA-TM-105918] 04 p0880 N93-15499
Direct second kind boundary integral formulation for Stokes flow problems [DE93-004069] 07 p1904 N93-22000
Surface tension and buoyancy driven Stokes flow in cavities 08 p2250 N93-22856
STOKES LAW
Hyperasymptotics and the Stokes' phenomenon [CWI-AM-R9206] 10 p3120 N93-28085
STOKES LAW OF RADIATION
Observation and analysis of the Stokes and anti-Stokes components of stimulated Raman backscattering 02 p0318 N93-12025
STOKES THEOREM (VECTOR CALCULUS)
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
STOL AIRCRAFT
U SHORT TAKEOFF AIRCRAFT
STONES (ROCKS)
U ROCKS
STONY METEORITES
NT ACHONDRITES
NT CARBONACEOUS CHONDRITES
NT CHONDRITES
NT MURCHISON METEORITE
NT NAKHLITES
NT TEKTITES
STOPPING POWER
Equilibrium charge state distributions of 1-30 keV atomic projectiles transiting thin carbon foils [DE93-000792] 05 p1293 N93-17381
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions [PB93-146033] 08 p2481 N93-22898
STORABLE PROPELLANTS
LAM actuated propellant flow control device 01 p0018 N93-10017
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Low thrust chemical rocket technology [NASA-TM-105927] 04 p0827 N93-15572
STORAGE
Characteristics of storage related capacity loss in Ni/H2 cells [STD/92-118] 07 p1984 N93-20501
Nickel hydrogen battery cell storage matrix test 07 p1984 N93-20502
Capacity recovery after storage negatively precharged nickel hydrogen cells 07 p1984 N93-20503
STORAGE BATTERIES
NT LEAD ACID BATTERIES
NT NICKEL CADMIUM BATTERIES
NT NICKEL HYDROGEN BATTERIES
NT NICKEL ZINC BATTERIES
NT SILVER ZINC BATTERIES
NT ZINC-BROMIDE BATTERIES
Overcharge and overdischarge protection of ambient temperature secondary lithium cells [NASA-CASE-NPO-18343-1-CU] 02 p0290 N93-11456
Smart battery controller for lithium sulfur dioxide batteries [AD-A255490] 04 p0867 N93-14642
Mechanisms for capacity fading in the NiH2 cell and its effects on cycle life 07 p1983 N93-20496
Battery Review Board 07 p1986 N93-20519
Basic statistical analyses of candidate nickel-hydrogen cells for the Space Station Freedom [NASA-TM-106111] 10 p3123 N93-27124
Development of nickel/metal hydride secondary battery [DE93-781330] 11 p3406 N93-28669
Research and development of carbon black anodes for lithium secondary cells [DE93-781331] 11 p3406 N93-28746
Approach to extending the cycle life of lithium secondary battery [DE93-776266] 11 p3406 N93-28983
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry [AD-A263098] 11 p3311 N93-29133
Research and development of lithium secondary batteries for load conditioner use, volume 2 [DE93-781329] 11 p3410 N93-29673
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods [AD-A263728] 11 p3411 N93-29986
STORAGE RINGS (PARTICLE ACCELERATORS)
UV/XUV FEL storage ring and linac [AD-A253307] 01 p0089 N93-10697
Recent developments in stored polarized electron positron beams [DE92-016965] 01 p0157 N93-10862
Using the 16 viewscreens during commissioning of AmPS [NIKHEF-K/AMPS/92-01] 02 p0442 N93-11131
Tunable, short pulse hard x rays from a compact laser synchrotron source [AD-A254288] 02 p0315 N93-11195
Scaling of gain with energy spread and energy in the PEP FEL [DE92-019248] 02 p0316 N93-11500
Beam-loading stability in synchrotrons with a higher RF harmonic [DE92-018982] 02 p0443 N93-11510
Damping the (pi)-mode instability in the SLC damping rings with a passive cavity [DE92-018153] 03 p0707 N93-13090
RF voltage modulation at discrete frequencies with applications to crystal channeling extraction [DE92-015567] 03 p0707 N93-13235
Reconstruction of (x, Q squared) and extraction of structure functions in neutral current scattering at HERA [NIKHEF-H/92-02] 05 p1297 N93-16340
Theory working group: Summary of the results [PREPRINT-803] 05 p1297 N93-16423
The global second level trigger for ZEUS [ETN-92-92816] 05 p1297 N93-16479
Quadrupole modes in linearized beam-beam interaction in e(+)e(-) colliding rings [DE92-556477] 05 p1298 N93-16646
The b quark polarization at LEP [PREPRINT-886] 05 p1290 N93-17022
Probing the WWZ vertex at 500 GeV e(+)e(-) collider [PREPRINT-831] 05 p1299 N93-17216
Bipolar current sources for the correction magnets of AmPS [DIGEL-1992-2-REV] 05 p1150 N93-17393
Charged-particle beam diagnostics for the Advanced Photon Source (APS) [DE93-001855] 05 p1294 N93-17483
Monte Carlo simulation of minimum bias events at the LHC energy [NOTA-INTERNA-969] 05 p1294 N93-17544
Energy measurement in collider experiments and search for scalar quarks in neutral Z degree decays at LEP 1 [HU-SEFT-1991-09] 05 p1300 N93-17598
Muon rates at the LHC [NOTA-INTERNA-971] 05 p1300 N93-17645
Identification of high Pt jet events produced by a resolved photon at HERA and reconstruction of the initial state parton kinematics [NOTA-INTERNA-991] 06 p1653 N93-17942
Synchrotron radiation sources and condensers for projection x ray lithography [DE93-002964] 06 p1664 N93-19511
Experimental investigations of undulator radiation compatability [ETN-93-92566] 07 p2066 N93-20880
Anomalous WWZ couplings at future e(+)e(-) colliders [PREPRINT-814] 07 p2066 N93-21177
Nuclear studies with intermediate energy probes [DE93-002785] 07 p2062 N93-21481
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source [DE93-007893] 09 p2848 N93-25368
A 250 mA toroid monitor for the measurement of the bundle current in the stretcher mode of AmPS [DIGEL-1992-1] 11 p3413 N93-30835
Charge to frequency converter for ionization chambers belonging to the radiation protection system of AmPS/MEA [DIGEL-1991-6] 11 p3577 N93-30837
Electronics for a neutron detector and a Geiger-Mueller detector for the radiation protection around MEA and AmPS [DIGEL-1992-6] 11 p3413 N93-30838
STORAGE STABILITY
The degradation of parachutes: Age and mechanical wear [AD-A252243] 02 p0200 N93-12179
Research on equipment life extension technology 07 p1793 N93-20436
A dual output pressure, high reliability, long storage life gas delivery vessel assembly 08 p2320 N93-22199
ICI optical data storage tape: An archival mass storage media 11 p3621 N93-30472
STORAGE TANKS
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Zero-gravity quantity gaging system [NASA-CR-185602] 03 p0556 N93-12699
Precision liquid-level measurement in deep tanks using a swept-RF resonant cavity [DE92-017236] 03 p0597 N93-13267
Numerical study on mixing of sprayed liquid in an LNG storage tank 03 p0584 N93-13388
Application of passive dosimetry for detection of leaking underground storage tanks [PB92-218270] 03 p0559 N93-13648
Low cost, SPF aluminum cryogenic tank structure for ALS [NASA-CR-189654] 06 p1554 N93-18030
Development of an all-composite NGV high pressure storage cylinder [PB93-114429] 07 p1878 N93-21789
Built-up Al-Li structures for cryogenic tank and dry bay applications 08 p2175 N93-22099
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions 08 p2249 N93-22850
Tank issues: Design and placement of vapor monitoring wells [PB93-161131] 09 p2768 N93-26536
Survey of fiber-optic sensor for remote sensing in radiologically and chemically harsh environments [DE93-004998] 10 p3062 N93-26624
Status and integration of the gas generation studies performed for the hydrogen safety program [DE93-008518] 10 p2994 N93-27105
Comparing the results of an analytical model of the no-vent fill process with no-vent fill test results for a 4.96 cubic meters (175 cubic feet) tank [NASA-TM-106018] 10 p3039 N93-27155
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219 [PB93-173441] 10 p2999 N93-27530
Stress analysis and evaluation of a rectangular pressure vessel [DE93-004990] 10 p3060 N93-28059
Advanced collapsible tank for liquid containment [NASA-CR-188247] 11 p3353 N93-28698
Liquid Motion in a rotating tank Experiment (LME) 11 p3264 N93-28710
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP) 11 p3264 N93-28711
Tank issues: Design and placement of floating liquid monitoring wells [PB93-161149] 11 p3469 N93-29033
Reusable cryogenic liquid rocket propellant tank [NASA-CASE-LAR-14172-1] 12 p3692 N93-31295
Micromachined chemical sensor with integrated microelectronics [DE93-013761] 12 p3730 N93-32306
STORE RELEASE
U EXTERNAL STORE SEPARATION
STORM DAMAGE
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Assessment of storm damage in forests using SPOT imagery 09 p2748 N93-24842
Guide for conducting convective windstorm surveys [PB93-148427] 09 p2787 N93-26570
Tornado: An engineering-oriented perspective [PB93-148435] 09 p2788 N93-26584
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts) [PB93-174993] 11 p3485 N93-30758
STORM SURGES
List of publications, 1969-1991. Panel on wind and seismic effects [PB92-201102] 01 p0125 N93-10089
Magnetotail processes associated with auroral surge formation [ATR-90(7186)-1] 09 p2895 N93-26147
STORMS
NT CYCLONES
NT DOWNBURSTS
NT DUST STORMS
NT HAILSTORMS
NT HURRICANES
NT IONOSPHERIC STORMS
NT MAGNETIC STORMS
NT MICROBURSTS (METEOROLOGY)
NT RAINSTORMS
NT SNOWSTORMS
NT SOLAR STORMS
NT STORMS (METEOROLOGY)
NT SUDDEN IONOSPHERIC DISTURBANCES

NT THUNDERSTORMS
NT TORNADOES
NT TROPICAL STORMS
NT TYPHOONS
Lightning threat warning system at the Tonopah Test Range
[DE92-040444] 02 p0221 N93-11631
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
Baroclinic wave packets in models and observations 03 p0663 N93-13361
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida 05 p1219 N93-17285
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
[AD-A258081] 05 p1218 N93-17679
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
Investigation of winter mountain storms in Utah during the 1989 Utah/NOAA field program
[PB93-153021] 09 p2785 N93-25849
A climatology of polar low occurrences in the Nordic Seas and an examination of katabatic winds as a triggering mechanism
[AD-A261719] 09 p2786 N93-26245
An investigation into the causative mechanisms for explosive cyclone development over the Atlantic
[AD-A261831] 09 p2786 N93-26273

STORMS (METEOROLOGY)
NT CYCLONES
NT DOWNBURSTS
NT DUST STORMS
NT HAILSTORMS
NT HURRICANES
NT MICROBURSTS (METEOROLOGY)
NT RAINSTORMS
NT SNOWSTORMS
NT THUNDERSTORMS
NT TORNADOES
NT TROPICAL STORMS
NT TYPHOONS
Four-dimensional data assimilation of GALE data using a multivariate analysis scheme and a mesoscale model with diabatic initialization 04 p0919 N93-14198
Structure and propagation of fronts east of the Rocky Mountains and their relationship to precipitation 04 p0921 N93-14827
An investigation into the role of moist, vertical drafts in the rotational development of storms 04 p0923 N93-15087
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique 04 p0923 N93-15088
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
A numerical investigation of squall lines
[ISBN-0-315-69244-8] 07 p2011 N93-20280
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
A statistical characterization of Denver-area microbursts
[AD-A260925] 08 p2404 N93-23094
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Positive cloud-to-ground flashes in severe storms 09 p2780 N93-24896
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775
The North Dakota thunderstorm project
[PB93-153039] 09 p2785 N93-25776
Synoptic and Mesoscale Meteorology Instruction Workshop
[PB93-156347] 09 p2785 N93-25870
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
Natural and augmented snowfall growth processes and their interactions with the natural and modified aerosol
[PB93-153096] 09 p2786 N93-25874
Multiparameter radar and aircraft based studies of the micro-physical, kinematic and electrical structure of convective clouds
[AD-A262673] 10 p3078 N93-28115
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

STOSS-AND-LEE TOPOGRAPHY
U GLACIAL DRIFT

STOVL AIRCRAFT
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Propulsion system performance resulting from an integrated flight/propulsion control design
[NASA-TM-105874] 04 p0801 N93-15525
Controller partitioning for integrated flight/propulsion control implementation
[NASA-TM-105804] 07 p1787 N93-21197
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099

STRAIGHT WINGS
U RECTANGULAR WINGS

STRAIN AGING
U PRECIPITATION HARDENING

STRAIN DISTRIBUTION
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination 01 p0047 N93-10480
Systems of evolution equations in thermochemical equations
[AD-A254891] 02 p0253 N93-12282
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
The shear gage and compact shear specimen for shear property measurements of composite materials 03 p0628 N93-13630
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Analysis of advanced thin-walled composite structures 04 p0895 N93-14158
Integration and processing of high-resolution moire-interferometry data 04 p0895 N93-14185
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
Mechanical properties of Carbon Fibre Reinforced Plastics (CFRP) under variation of fibre and matrix strain to failure
[DLR-FB-90-06] 05 p1098 N93-16476
Determination of the strain field from an HREM image of a Si Lomer dislocation
[DE92-041176] 05 p1187 N93-17005
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
Smart materials 07 p1845 N93-20624
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading 07 p1950 N93-21338
Formability of type 304 stainless steel sheet
[DE92-018619] 08 p2229 N93-22924
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382
Composite laminated bend analysis and experiments 10 p2921 N93-27181
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147

STRAIN ENERGY METHODS
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination 01 p0047 N93-10480
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
The damper placement problem for large flexible space structures 05 p1089 N93-16776
Stability of generally stiffened anisotropic noncircular cylinders 05 p1189 N93-16791
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Prediction of fracture initiation in surface flaws 07 p1935 N93-20678
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266

STRAIN ENERGY RELEASE RATE
Cluster beam studies of metal combustion
[AD-A253952] 01 p0030 N93-10416
Comparison of full 3-D, thin-film 3-D, and thin-film plate analyses of a postbuckled embedded delamination 01 p0047 N93-10480
Fracture mechanics of model fiber composites 02 p0237 N93-11247
VAMAS round robin project on polymer composite delamination in mode 1 and mode 2: Cyclic loading
[NPL-DMM(A)-47] 02 p0266 N93-11397
Microcracking, microcrack-induced delamination, and longitudinal splitting of advanced composite structures
[NASA-CR-4472] 03 p0623 N93-12911
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials 03 p0625 N93-13127
Studies on numerical and experimental determination of energy release rate for composite laminates 03 p0533 N93-13752
Finite elements for free edge delaminations and delaminated anisotropic beams 03 p0535 N93-13967
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Delamination and fatigue of composite materials: A review 07 p1840 N93-21509
Prediction of delamination in tapered unidirectional glass fibre epoxy with dropped plies under static tension and compression 07 p1844 N93-21530
Crack deflection at bi-material interfaces
[DE93-003712] 08 p2332 N93-24479
Numerical investigations on fracture behavior of ductile materials 09 p2725 N93-25411

STRAIN FATIGUE
U FATIGUE (MATERIALS)

STRAIN GAGE ACCELEROMETERS
Load monitoring of F-16 A/B aircraft of the RNLAF with a smart electronic device
[NLR-TP-91116-U] 05 p1062 N93-17538

STRAIN GAGE BALANCES
Strain-gauge balance performance and internal temperature gradients measured in a cryogenic environment
[RAE-TM-AERO-2232] 02 p0218 N93-11906

STRAIN GAGES
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
Repeatable sensitivity of optical-time-domain-reflectometry-based strain measurement
[DE92-016910] 02 p0338 N93-11792
Compensated high temperature strain gage
[NASA-CASE-LAR-14776-1] 02 p0313 N93-12205
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
The shear gage and compact shear specimen for shear property measurements of composite materials 03 p0628 N93-13630

High-temperature strain measurement techniques: Current developments and challenges
03 p0599 N93-13669
Palladium-chromium static strain gages for high temperatures
03 p0600 N93-13671
High temperature strain gage apparent strain compensation
03 p0600 N93-13672
SiC device development for high temperature sensor applications
03 p0601 N93-13677
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
Reliability study of the NiH2 strain gage
07 p1908 N93-20515
Smart Integrated Microsensor System (SIMS)
[AD-A259430] 07 p1907 N93-21247
Automated connector force testing
[DE93-004634] 07 p1907 N93-21704
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731
Effect of reinforcement and fiber-matrix interface on dynamic fracture of fiber-reinforced composite materials
08 p2214 N93-24181
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
Magnetic multilayer strain gage
[AD-D015672] 09 p2710 N93-26141
Tactile sensing for 3-dimensional shape estimation
11 p3357 N93-30232
Fiber-optic polarimetric strain gauge
11 p3375 N93-30341
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065

STRAIN HARDENING
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Constitutive laws for deformation and dynamic recrystallization in cubic metals
[DE93-010740] 11 p3326 N93-30486

STRAIN MEASUREMENT
In-plane strain measurement on high speed rotating components using pulsed laser ESPI
[PNR-90975] 02 p0315 N93-11064
Repeatable sensitivity of optical-time-domain-reflectometry-based strain measurement
[DE92-016910] 02 p0338 N93-11792
Advanced one-dimensional optical strain measurement system, phase 4
[NASA-CR-190760] 02 p0314 N93-12279
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
High-temperature strain measurement techniques: Current developments and challenges
03 p0599 N93-13669
Palladium-chromium static strain gages for high temperatures
03 p0600 N93-13671
High temperature strain gage apparent strain compensation
03 p0600 N93-13672
Elastic and plastic strain measurement in high temperature environment using laser speckle
03 p0600 N93-13673
Determination of high temperature strains using a PC based vision system
03 p0601 N93-13674
Laser-based strain measurements for high temperature applications
03 p0601 N93-13675
Development of a fiber optic high temperature strain sensor
[NASA-CR-191316] 04 p0882 N93-14810
A neural network prototype for predicting F-14B strains at the B.L. 10 longeron
[AD-A255272] 04 p0792 N93-15004
The world of grid methods
[NLR-TP-89298-U] 05 p1186 N93-16292
Stress analysis and damage evaluation of flawed composite laminates by hybrid-numerical methods
05 p1100 N93-17340
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
Optical fiber strain sensor with improved linearity
[NASA-CASE-LAR-14857-1-SB] 06 p1663 N93-19374
Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB] 06 p1538 N93-19492
Smart materials 07 p1845 N93-20624
Smart Integrated Microsensor System (SIMS)
[AD-A259430] 07 p1907 N93-21247
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Moire interferometry at high temperatures
08 p2328 N93-23380
Measurement of three-dimensional crack tip deformation by digital image processing 08 p2329 N93-23590
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451
Near threshold fatigue testing
[DE93-009069] 10 p3061 N93-28432
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488
Enhanced noncontacting laser extensometer for biaxial strain measurements
[AD-A263170] 11 p3430 N93-28989
Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344
Fiber-optic polarimetric strain gauge
11 p3375 N93-30341
Measurement of the out-of-plane shear response of thick section composite materials using the v-notched beam specimen
[AD-A264898] 12 p3699 N93-31065
Progress in speckle-shift strain measurement
12 p3693 N93-31558
Corrosion-erosion of alloys exposed in fluidised bed combustors
[NPL-DMM(A)-80] 12 p3705 N93-31602

STRAIN RATE
Viscosity determinations of some frictionally generated silicate melts: implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
High strain-rate compression testing of a ceramic matrix composite
[AD-A258802] 06 p1495 N93-19439
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
Discrete optical fiber strain sensor
[NASA-CASE-LAR-14810-1-SB] 06 p1538 N93-19492
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Microparticle impacts at ultrahigh velocities and their relation to macroparticle impacts
[DE93-003845] 08 p2323 N93-22516
Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates
[DE93-003825] 08 p2325 N93-22872
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
Interim fatigue design curves for carbon, low-alloy, and austenitic stainless steels in LWR environments
[DE93-009202] 11 p3323 N93-29102
Comparison of deformation and shock reactivity for single crystals of RDX and ammonium perchlorate
11 p3350 N93-30094

STRAIN SOFTENING
U PLASTIC DEFORMATION

STRAKES
Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654
Helicopter low-speed yaw control
[NASA-CASE-LAR-14219-1] 09 p2597 N93-25998

STRANDS
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity
09 p2626 N93-26020
Condensed phase diagnostics of nitramine propellant combustion 11 p3320 N93-30102

STRANGE ATTRACTORS
Approximation of attractors and applications
[DE93-002420] 06 p1535 N93-19475
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
Peano-like dynamics as a model for strange nonchaotic behaviour 07 p1933 N93-20661
Boundedness and asymptotics of the generalized theodorus iteration
[AD-A261427] 09 p2829 N93-26452
Mixed spectra and rotational symmetry
[W-9212] 10 p3121 N93-28139
Steady states in the twin-well potential oscillator: Computer simulations and approximate analytical studies
[REPT-40/1992] 12 p3722 N93-32214
Estimating the spatial extent of attractors of iterated function systems
[AD-A265856] 12 p3809 N93-32315

STRANGENESS
Strange quark matter
[DE92-016949] 02 p0438 N93-11746
Interpretation of rapidly rotating pulsars
[DE93-000576] 05 p1364 N93-16248
Strangeness signals in heavy ion collisions
[DE93-002935] 06 p1657 N93-19516
Strangeness production in S + Pb and p + Pb collisions at 200 GeV/c per nucleon nucleon
[DE93-007654] 09 p2847 N93-25326
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364

STRAPDOWN INERTIAL GUIDANCE
Construction of a geodesic strapdown inertial navigation system for point determination
[SER-C-367] 02 p0205 N93-11344
An integrated autonomous rendezvous and docking system architecture using Centaur modern avionics
08 p2147 N93-22293
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207

STRAPS
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786

STRATA
NT SUBSTRATES

Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Structural review of the Vredefort dome
01 p0108 N93-10127
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence
01 p0108 N93-10128
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia
01 p0120 N93-10181
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary
01 p0122 N93-10188
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
Stratified plate model for composite plate analysis
[AD-A259001] 06 p1481 N93-19359
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298

STRATEGIC MATERIALS
Availability of platinum and platinum-group metals
[PB93-189496] 12 p3743 N93-31115

STRATEGY
Developmental strategy for United States space power
[AD-A258356] 06 p1650 N93-18208
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present
06 p1425 N93-19673
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842

STRATIFICATION
NT ATMOSPHERIC STRATIFICATION
NT INTERCALATION
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914

STRATIFIED FLOW
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Studies on turbulent mixing in stratified turbulent patches 03 p0587 N93-13532
Experiments on the statistical nature of stably stratified turbulence 03 p0594 N93-14069
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Interfacial area and interfacial transfer in two-phase flow systems
[DE93-000647] 05 p1157 N93-16378
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Penetrative and recirculating flows in enclosures with openings 06 p1533 N93-19040
Effects of surface thermal forcing on stratified flow past an isolated obstacle
[PB93-156776] 09 p2776 N93-26548
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106

STRATIFIED LAYERS
U STRATA

STRATIGRAPHY
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure
01 p0106 N93-10115
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation
01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence
01 p0108 N93-10128
Ordovician impacts at sea in Baltoscandia
01 p0116 N93-10159
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia
01 p0120 N93-10181
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
A late Devonian impact event and its association with a possible extinction event on Eastern Gondwana
01 p0122 N93-10191
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology
[AD-A254927] 03 p0649 N93-12704
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites
06 p1507 N93-18921
The orbital record in stratigraphy
06 p1582 N93-18974
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Evaluation of the cobalt crust continuum on seamounts in the EEZ of Hawaii
[PB93-120848] 07 p2019 N93-21792
Regional geology of the low-permeability, gas-bearing Cleveland Formation, western Anadarko Basin, Texas Panhandle: Lithologic and depositional facies, structure, and sequence stratigraphy
[PB93-132769] 08 p2394 N93-23255
Drill/borescope system for the Mars Polar Pathfinder
11 p3647 N93-28805
The diatom record from beneath the West Antarctic Ice Sheet and the global proxy perspective
12 p3759 N93-31882

STRATOCUMULUS CLOUDS
CCN spectra measurements as an active tracer of stratocumulus mechanisms
[AD-A255678] 04 p0920 N93-14258
Parameterization of GCM subgrid nonprecipitating cumulus and stratocumulus clouds using stochastic/phenomenological methods
[DE93-000424] 05 p1217 N93-17372
Low cloud investigations for project FIRE: Island studies of cloud properties, surface radiation, and boundary layer dynamics. A simulation of the reflectivity over a stratocumulus cloud deck by the Monte Carlo method
[NASA-CR-192083] 06 p1585 N93-18001
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292
A maritime and continental aerosol-cloud interaction study from ASTEX 1992
[AD-A262088] 10 p3079 N93-28192
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

STRATOSPHERE
NT OZONOSPHERE
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
Scientific assessment of ozone depletion: 1991
[NASA-TM-107976] 02 p0350 N93-11087
Source gases: Concentrations, emissions, and trends
02 p0350 N93-11088
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Ozone depletion and chlorine loading potentials
02 p0351 N93-11093
Radiative forcing of climate 02 p0351 N93-11094
Future chlorine-bromine loading and ozone depletion
02 p0352 N93-11095
Predicted aircraft effects on stratospheric ozone
02 p0352 N93-11096
Predicted rocket and shuttle effects on stratospheric ozone 02 p0352 N93-11097
Proceedings of the Sixteenth Annual Climate Diagnostics Workshop
[PB92-198803] 02 p0370 N93-11896
Dynamics of planetary waves in the atmosphere
02 p0363 N93-11898
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb
[PB92-222694] 03 p0661 N93-12817
Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
An experimental and theoretical study of degradation pathways for atmospheric halocarbons
03 p0646 N93-13624
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
Photochemical kinetics of excited states of O3 and O2: Laboratory studies and atmospheric implications
03 p0656 N93-13784
Middle atmosphere water vapour
03 p0667 N93-13892
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources
04 p0920 N93-14640
Effects of the Mount Pinatubo eruption on the chemistry, radiative, and transport processes in the stratosphere
[DE93-001508] 05 p1203 N93-17211
Observation of meteors by MST radar
06 p1697 N93-19180
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic)
06 p1584 N93-19555
Global temperature variations
07 p2003 N93-20068
Life cycles of transient planetary waves
07 p2004 N93-20077
Detection of polar stratospheric clouds from satellite
07 p1957 N93-21591
Global warming impacts of CFC alternative technologies: Combining fluorocarbon and CO2 effects
[DE93-002347] 08 p2384 N93-22972
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
MIPAS: Michelson Interferometer for Passive Atmospheric Sounding for POEM-1
08 p2363 N93-23786
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 1: Workshop objectives and summary
[NASA-RP-1292-VOL-1] 09 p2762 N93-25157
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 2: Comparisons with global atmospheric measurements
[NASA-RP-1292-VOL-2] 09 p2762 N93-25158
The atmospheric effects of stratospheric aircraft. Report of the 1992 Models and Measurements Workshop. Volume 3: Special diagnostic studies
[NASA-RP-1292-VOL-3] 09 p2762 N93-25159
Kelvin waves in total column ozone
[NASA-CR-192984] 09 p2764 N93-25431
The pressure modulation system in the Improved Stratospheric and Mesospheric Sounder
09 p2773 N93-25739
Study of emissions and control of stratospheric ozone-depleting compounds in California
[PB93-160752] 10 p3069 N93-27519

Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
The International Stratospheric Laboratory for Astrophysics (ISLA): The cosmic microscope
12 p3846 N93-31765

STRATOSPHERIC AEROSOL & GAS EXPERIMENT
U SAGE SATELLITE

STRATOSPHERIC OBSERVATORY FOR IR ASTRONOMY
U SOFIA (AIRBORNE OBSERVATORY)

STRATOSPHERIC WARMING
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946

STRATOTANKER AIRCRAFT
U C-135 AIRCRAFT

STRATUS CLOUDS
Sources of cloud nuclei and development of remote sensing techniques for cloud parameters
[AD-A255016] 03 p0660 N93-12558
A higher order exponential function for fitting nonlinear curves
[AD-A258431] 06 p1647 N93-18886
Activities of South Dakota School of Mines and Technology
[AD-A259282] 07 p2012 N93-20607
A documentation of icing-relevant cloud-physical parameters on vertical soundings of stratiform clouds (continuation)
[DLR-MITT-91-19] 07 p2012 N93-21040
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

STREAK CAMERAS
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
Laser material interaction in confined medium
02 p0319 N93-12035
Time-resolved electron-beam characterizations with optical transition radiation
[DE92-041122] 05 p1173 N93-16204
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
A new tubeless nanosecond streak camera based on optical deflection and direct CCD imaging
[DE93-011893] 11 p3433 N93-30491

STREAK PHOTOGRAPHY
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065

STREAM FUNCTIONS (FLUIDS)
Marangoni convection in a spinning liquid column
[LRT-WE-9-FB-13-1991] 08 p2289 N93-22678

STREAMLINE FLOW
U LAMINAR FLOW

STREAMLINED BODIES
NT FAIRINGS

STREAMS
NT GAS STREAMS
Radar meteor orbital structure of Southern Hemisphere cometary dust streams 06 p1701 N93-19120
Combustion of solid fuel in very low speed oxygen streams 07 p1854 N93-20207
Use of ecoregions in biological monitoring
[PB93-106730] 07 p1992 N93-21656
Measuring variation in ecosystem sensitivity to stress
[AD-A259521] 08 p2387 N93-23450
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423
The role of the margins in ice stream dynamics
12 p3761 N93-31896
Thermal control of ice-stream margins
12 p3762 N93-31897

STRENGTH OF MATERIALS
U MECHANICAL PROPERTIES

STREPTOMYCETES
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274

STRESS (PHYSIOLOGY)
NT ACCELERATION STRESSES (PHYSIOLOGY)
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Space flight and immune system
02 p0376 N93-11284
Thermal stress in US Air Force operations
[AD-A255785] 03 p0676 N93-14027
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
Training, muscle fatigue and stress fractures
[AD-A255277] 04 p0935 N93-15006
The effect of pain on task performance: A review of the literature
[AD-A254336] 04 p0938 N93-15216
Development and enhancement of a model of performance and decision making under stress in a real life setting
[AD-A255699] 05 p1226 N93-16111
Development and enhancement of a mode of performance and decision making under stress in a real life setting
[AD-A257796] 06 p1598 N93-18363
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092
Cardiovascular stress test with non-invasive techniques 08 p2165 N93-24399
ELF electric and magnetic fields: Pacific Northwest Laboratory studies
[DE93-008255] 10 p3029 N93-28420
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

STRESS (PSYCHOLOGY)
DoD space radiation concerns
[AD-A253135] 01 p0131 N93-10613
Space flight and immune system
02 p0376 N93-11284
The impact on organization structure on team decision making under stress and uncertainty
[AD-A259831] 08 p2519 N93-23434
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092
Selection of personnel for stressful occupations: The potential utility of psychophysiological measures as selection tools
[AD-A264571] 12 p3776 N93-32011

STRESS ANALYSIS
NT BOUNDARY ELEMENT METHOD
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Sensor and actuator materials for high performance composites
[AD-A254178] 01 p0027 N93-10254
Development in the elastic analysis of laminated plates 01 p0044 N93-10468
Numerical simulation of transient crack growth
01 p0048 N93-10486
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Analysis of failure modes in ceramic matrix composite
01 p0028 N93-10508
Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity 01 p0053 N93-10515
An improved technique for determining higher order eigenvector coefficients 01 p0064 N93-10565
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
Automated fringe analysis for moire interferometry
[PNR-90918] 02 p0334 N93-11021
Fiber peel force measuring apparatus
[AD-D015349] 02 p0309 N93-11048
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
The technical background to standards for shackles
[NPL-DMM(A)-51] 02 p0325 N93-11325
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Lueders band deformation
[DE92-016864] 02 p0465 N93-12073
The effect of contact stresses in four-point bend testing of graphite/epoxy and graphite/PMR-15 composite beams
[NASA-TM-105891] 02 p0241 N93-12076
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
Micromechanical combined stress analysis: MICSTRAN, a user manual
[NASA-CR-189694] 02 p0243 N93-12306
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
A study of the interlaminar stress continuity theories for composite laminates 03 p0621 N93-12627
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Stress crack testing of polyethylene geomembranes
[PB92-217132] 03 p0622 N93-12843
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Nonlinear mechanics of composite materials with periodic microstructure
[NASA-CR-190750] 03 p0531 N93-13309
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model
03 p0629 N93-13811
A domain decomposition method for parallel transient response calculations 03 p0504 N93-13827
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
Method of characterizing residual stress in ferromagnetic materials using a pulse histogram of acoustic emission signals
[NASA-CASE-LAR-14239-1] 04 p0845 N93-14705
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
CF6-6 high pressure compressor stage 5 locking slot crack propagation spin pit test 04 p0799 N93-14894
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
Validation of an automated torsional and warping stress analysis program
[AD-A256035] 04 p0902 N93-15260
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
Diffusion problems in bonded nonhomogeneous materials with an interface cut
[AD-A256470] 04 p0836 N93-15373
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384

On explicit algebraic stress models for complex turbulent flows
[NASA-CR-189725] 04 p0879 N93-15481
Turbulence modeling and experiments
05 p1153 N93-15796
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
A semi-analytical formulation for the elastoplastic analysis of imperfect cylindrical shells
[LR-674] 05 p1185 N93-16282
Thermoviscoelastic analysis of pavements
05 p1070 N93-16313
Unified airport pavement design procedure
05 p1071 N93-16318
Three-dimensional stress analysis of multilayered airport pavements: Integral transform approach
05 p1072 N93-16319
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
Stress analysis and damage evaluation of flawed composite laminates by hybrid-numerical methods
05 p1100 N93-17340
Static-stress analysis of dual-axis safety vessel
[DE93-001860] 05 p1187 N93-17366
Static-stress analysis of dual-axis confinement vessel
[DE93-000499] 05 p1135 N93-17497
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952
Structural performance of candidate ablatives for uptake section of vertical launching system
[AD-A258218] 06 p1455 N93-18300
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Numerical analysis of surface cracks
06 p1556 N93-18750
High temperature component analysis with expert systems 06 p1557 N93-18751
Fibre reinforced plastic structures
06 p1557 N93-18752
Analysis of structures under fire conditions
06 p1557 N93-18754
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972
Method and apparatus for determination of material residual stress
[NASA-CASE-GSC-13451-1] 07 p1921 N93-20118
The use of phase-stepping in the photoelastic analysis of complex components 07 p1928 N93-20636
Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation
07 p1929 N93-20640
Material nonlinear analysis of composites
07 p1929 N93-20641
Improvement to the higher order finite strip method
07 p1939 N93-20697
Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
Fatigue Design 1992, volume 1
[VTT-SYMPOSIUM-130-VOL-1]
07 p1947 N93-21318
The least and most damaging histories which can be constructed from a specific from-to matrix
07 p1948 N93-21321
Spectrum fatigue data in comparison to design curves in the long life regime 07 p1948 N93-21324
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO
07 p1950 N93-21337
Simplified analysis of elastic-plastic strain concentration in notched components under cyclic loading
07 p1950 N93-21338
Multi-axial fatigue damage analysis using the boundary element method 07 p1950 N93-21339
Edge delamination of composite laminates
07 p1842 N93-21519
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind
[DE93-004480] 08 p2375 N93-22045
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Investigation of azimuthal stresses due to welding and cooldown
[DE93-005530] 08 p2324 N93-22708
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Compression strength failure mechanisms in unidirectional composite laminates containing a hole
[NASA-CR-192813] 08 p2209 N93-23043
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
A nonlinear dynamic spherical membrane model
[AD-A259633] 08 p2112 N93-23654
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Horizontal stress in-situ by cone penetrometers and related studies
[AD-A260503] 08 p2401 N93-24418
Quartz crystal twinning under mechanical stress: Finite element analysis 09 p2839 N93-25032
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads
09 p2726 N93-25533
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Optimization techniques for contact stress analysis
[AD-A260846] 09 p2729 N93-25911
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Approximate techniques for predicting size effects on cleavage fracture toughness (J(sub c))
[AD-A261591] 09 p2731 N93-26516
The influence of primary and secondary orientations on the elastic response of a nickel-base single-crystal superalloy
[NASA-TM-106125] 09 p2731 N93-26550
Contact stress analysis of spiral bevel gears using nonlinear finite element static analysis
[NASA-TM-106176] 10 p3049 N93-27037
Composite laminated bend analysis and experiments
10 p2921 N93-27181
An efficient solution procedure for the thermoelastic analysis of truss space structures
10 p2923 N93-27191
Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059
Application of magnetomechanical hysteresis modeling of magnetic techniques for monitoring neutron embrittlement and biaxial stress
[DE93-009760] 10 p3000 N93-28234
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
Ceramic matrix composites properties/microstresses with complete and partial interphase bond
[NASA-TM-106136] 11 p3297 N93-29071
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Three-dimensional elastic stress analysis in materials with many inhomogeneities
[AD-A263736] 11 p3453 N93-29855
Design and implementation of an interactive isochromatic fringe-analysis system using machine-vision techniques 11 p3369 N93-30305
Elastic stability considerations for deep submergence ceramic pressure housing
[AD-A264824] 11 p3454 N93-30598
Structural design, analysis, and code evaluation of an odd-shaped pressure vessel
[DE93-008182] 11 p3447 N93-30632
A Rayleigh-Ritz analysis methodology for cutouts in composite structures 11 p3307 N93-30869
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650
The development of detection technique for fatigue crack due to thermal stratification phenomena in RCS piping
[DE93-605749] 12 p3740 N93-31823

STRESS CALCULATIONS

U STRESS ANALYSIS

STRESS CONCENTRATION

Analysis of a buffer strip laminate with a cutout
01 p0052 N93-10506
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
Comparison of the maximum stress and the stress intensity approach in the analysis of bonded joints
01 p0053 N93-10514
Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity 01 p0053 N93-10515
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures
03 p0631 N93-13947
RB 199 high pressure compressor stage 3 spin pit tests 04 p0799 N93-14893
Micromechanics of crenulated fibers in carbon/carbon composites
[NASA-CR-192170] 06 p1478 N93-18767
An engineering tool for solving multiaxial fatigue problems 07 p1922 N93-20334
Aspects of good design practice for fatigue-loaded welded components 07 p1925 N93-20356
Further developments in shape optimization of stress concentration regions. Part 2: Applications
07 p1928 N93-20631
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions
07 p1928 N93-20632
Fracture toughness using circular discs
07 p1935 N93-20677
PS1 satellite refrigerator heat exchanger: Failure of the LN2 heat exchanger to low pressure helium
[DE93-005616] 08 p2257 N93-22416
surf3d: A 3-D finite-element program for the analysis of surface and corner cracks in solids subjected to mode-1 loadings
[NASA-TM-107710] 08 p2329 N93-23735
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Fracture micromechanics of ceramic composites
10 p2920 N93-27172
The fatigue behaviour of T- and X-joints made of square hollow sections
[ETN-93-93598] 10 p3058 N93-27872
Cratering in glasses impacted by debris or micrometeorites 11 p3340 N93-29368

STRESS CORROSION

NT STRESS CORROSION CRACKING

Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Dual role of nickel in sodium/nickel chloride batteries
[DE92-041102] 04 p0870 N93-15441
A simulation of corrosion fatigue life distribution in low alloy steel 07 p1922 N93-20340
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893

STRESS CORROSION CRACKING

Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524
Mechanisms of localized aqueous corrosion in aluminum-lithium-copper alloys
02 p0259 N93-11895
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Glass corrosion in natural environments
[NASA-CR-191234] 03 p0551 N93-13150

Fe3Al-type iron aluminides: Aqueous corrosion properties in a range of electrolytes and slow-strain rate ductilities during aqueous corrosion
[DE92-040520] 04 p0846 N93-15059
Stress corrosion susceptibility of ultra-high strength steels for Naval aircraft applications
[AD-A256126] 04 p0846 N93-15189
Failure analysis of the main rotor retention nut from AH-64 helicopter
[AD-A256815] 05 p1060 N93-15681
Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699
Spacecraft sustained load fracture control 05 p1077 N93-15724
Passivity and stress corrosion cracking of AISI 316 stainless steel in chloride-containing solutions
[ETN-92-92783] 05 p1113 N93-16580
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Irradiation-assisted stress corrosion cracking of austenitic alloys
[DE92-040988] 05 p1116 N93-17341
Spacecraft sustained load fracture control
[NLR-TP-91093-U] 05 p1088 N93-17537
Use of cyclic current reversal polarization voltammetry for investigating the relationship between corrosion resistance and heat-treatment induced variations in microstructures of 400 C martensitic stainless steels 06 p1490 N93-19391
A simulation of corrosion fatigue life distribution in low alloy steel 07 p1922 N93-20340
Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
Fracture properties of 7010 and 7050 aluminium alloys under inert and aggressive environmental conditions
[DLR-FB-91-35] 08 p2228 N93-22658
Hydrogen-induced stress corrosion cracking susceptibility analysis of pitch links from the AH-64 Apache helicopter
[AD-A260692] 09 p2651 N93-25895
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253
Irradiation assisted stress corrosion cracking of stainless steel irradiated in FBR
[DE93-764495] 11 p3326 N93-30191
NASA-UVA Light Aerospace Alloy and Structures Technology Program (LA2ST)
[NASA-CR-193412] 12 p3706 N93-31739
Accelerated and real-time corrosion testing of aluminum-lithium alloys
[NLR-TP-91203-U] 12 p3707 N93-32385

STRESS CYCLES
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384
Fatigue characterization of Ni-base alloys 05 p1081 N93-15756
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721

STRESS DISTRIBUTION
NT STRESS CONCENTRATION
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
A quasi-Hertzian stress field from an internal source: A possible working model for the Vredefort structure 01 p0106 N93-10115
Enriched element analysis of bimaterial interface cracks 01 p0047 N93-10484
Integral transform approach to an inertial viscoelastic problem involving moving singularities 01 p0049 N93-10490
Stress patterns in the dynamic tear test 01 p0049 N93-10491
Status of dynamic fracture in brittle solids 01 p0049 N93-10493
Evolution of hybrid-Trefftz FE model: State of the art and future trends 01 p0049 N93-10494
Singular stress distributions at circular holes in composite laminates 01 p0051 N93-10503
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs 01 p0010 N93-10539
Flow over a leading edge with distributed roughness 01 p0006 N93-10549
Design optimization for uniform dynamic strength under multi-modal response 01 p0062 N93-10555
A boundary element and mathematical programming approach for unilateral contact problems 01 p0062 N93-10558
A reappraisal of compound equilibrium finite elements 01 p0063 N93-10561
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Elastic stresses, twin boundaries, and fatigue cracking 02 p0338 N93-11890
Compression test simulation of thick-section composite materials
[AD-A255021] 03 p0528 N93-12583
Fiber optic sensors for static fracture studies and dynamic wave propagation problems 03 p0709 N93-12984
Nonlinear mechanics of composite materials with periodic microstructure
[NASA-CR-190750] 03 p0531 N93-13309
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Studies on numerical and experimental determination of energy release rate for composite laminates 03 p0533 N93-13752
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
Three-dimensional boundary element analysis of residual stresses in a cross-ply fiber composite model 03 p0629 N93-13811
Applications of a constitutive equation for microstructural change in polymers 04 p0848 N93-14222
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Preliminary design of composite joints
[DLR-MITT-92-05] 04 p0835 N93-15076
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 2: Reliability and failure analyses of 2-D carbon-carbon structural components
[AD-A257460] 05 p1089 N93-15838
Temperature distribution and thermally induced stresses in electronic packages
[AD-A257334] 05 p1144 N93-15990
Autofrettage: Stress distribution under load and retained stresses after depressurization
[AD-A256418] 05 p1183 N93-16018
FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314
A variational method for finite element stress recovery: Applications in one-dimension 05 p1189 N93-16785
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
Stress analysis of single lap bonded joints
[ESDU-92041] 06 p1553 N93-17952
Analysis of structures under fire conditions 06 p1557 N93-18754
Computational and experimental investigation into fracture of brittle fiber-brittle matrix composite systems
[AD-A258913] 06 p1481 N93-19357
The role of least squares in variational principles of elasticity 07 p1926 N93-20619
Further developments in shape optimization of stress concentration regions. Part 1: General theory 07 p1927 N93-20630
Further developments in shape optimization of stress concentration regions. Part 2: Applications 07 p1928 N93-20631
On the extension of asymptotic analysis techniques to geometrically complicated stress concentration regions 07 p1928 N93-20632
The use of phase-stepping in the photoelastic analysis of complex components 07 p1928 N93-20636
Nonhomogeneous interface stress analysis in composite media using a mixed finite element formulation 07 p1929 N93-20640
Material nonlinear analysis of composites 07 p1929 N93-20641
Peak stresses in adhesive step lap joints with voids 07 p1932 N93-20656
Fracture toughness using circular discs 07 p1935 N93-20677
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684
Boundary element shape function for bimaterial interface cracks 07 p1939 N93-20701
A local approach for fatigue strength evaluation on ship structures 07 p1948 N93-21327
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
Finding fatigue resistant and lightweight designs using the optimization methods CAO and SKO 07 p1950 N93-21337
Improving the selection of bolted joint parameters by using results from finite-element analysis
[DE93-002243] 07 p1951 N93-21774
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
Advanced reinforcement systems for intermetallic applications
[NASA-CR-4488] 08 p2209 N93-22875
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23677
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Stress distribution in composite flatwise tension test specimens
[NASA-TM-106074] 09 p2634 N93-25071
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads 09 p2726 N93-25533
Numerical simulation of damage and progressive failures in composite laminates using the layerwise plate theory 09 p2636 N93-25661
Low-velocity impact of composite sandwich plate 09 p2637 N93-25695
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Structural dynamic analysis of bearingless rotor blade 09 p2590 N93-25719
Crack tip fields in ductile crystals and bicrystals 09 p2866 N93-25749
Failure considerations in composite systems based on 3D micromechanical stress fields, part A
[AD-A261698] 09 p2641 N93-26382
Composite laminated bend analysis and experiments 10 p2921 N93-27181
Advanced collapsible tank for liquid containment
[NASA-CR-188247] 11 p3353 N93-28698
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588
The development of detection technique for fatigue crack due to thermal stratification phenomena in RCS piping
[DE93-605749] 12 p3740 N93-31823

STRESS FIELDS
U STRESS DISTRIBUTION

STRESS FUNCTIONS
Root damage analysis of aircraft engine blade subject to ice impact
[NASA-TM-105779] 04 p0902 N93-15343
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
Fracture toughness using circular discs 07 p1935 N93-20677
Explicit robust schemes for implementation of general principal value-based constitutive models
[NASA-TM-106123] 10 p3089 N93-26947

STRESS INTENSITY FACTORS
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
Calculation of stress intensity factors in an isotropic multicracked plate. Part 1: Theoretical development
[NASA-TM-105766] 01 p0095 N93-10455
Indentation of a precompressed penny-shaped crack 01 p0048 N93-10486
Numerical simulation of transient crack growth 01 p0048 N93-10488
Stress patterns in the dynamic tear test 01 p0049 N93-10491

Comparison of the maximum stress and the stress intensity approach in the analysis of bonded joints
01 p0053 N93-10514
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
Fiber optic sensors for static fracture studies and dynamic wave propagation problems
03 p0709 N93-12984
Axisymmetric and antiplane shear crack problems in bonded nonhomogeneous materials
03 p0625 N93-13127
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
Digital caustic investigation of near surface cracks under transient thermal loading 04 p0897 N93-14217
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
Finite element analysis of elastic fracture under unsteady translational and rotational loading
04 p0899 N93-14469
Closed form expressions for crack mouth displacements and stress intensity factors for chevron notched short bar and short rod specimens based on experimental compliance measurements
[NASA-TM-83796] 04 p0902 N93-15369
The mixed mode crack problem in a nonhomogeneous elastic plane
[AD-A256469] 04 p0902 N93-15372
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Fracture mechanics of dissimilar material bonded through an orthotropic interfacial zone
[AD-A256991] 05 p1185 N93-16260
The axisymmetric crack problem in a nonhomogeneous medium
[AD-A256955] 05 p1186 N93-16433
Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637
Fatigue propagation behaviour of short cracks in aluminum alloys
[ESDU-92030] 05 p1113 N93-16641
Numerical analysis of surface cracks
06 p1556 N93-18750
Mixed mode fatigue crack propagation in a crankshaft
07 p1923 N93-20347
Analysis of mixed mode cracks in a cylindrical shell
07 p1936 N93-20683
Boundary element fracture mechanics analysis in plane orthotropic elasticity 07 p1939 N93-20700
Modelling of fatigue crack growth in flat plate weldments and tubular welded joints 07 p1948 N93-21326
Progressive delamination in polymer matrix composite laminates: A new approach 07 p1841 N93-21515
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069
Stress-intensity-factor influence coefficients for axial and circumferential flaws in reactor pressure vessels
[DE93-006206] 11 p3454 N93-30213

STRESS MEASUREMENT

Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Measurement of aerodynamic shear stress using side chain liquid crystal polymers
[AD-A254312] 01 p0040 N93-10770
Development of the neutron diffraction technique for the determination of near surface residual stresses in critical gas turbine components
[PNR-90984] 02 p0212 N93-11112
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
The significance of service load data for fatigue life analysis 07 p1947 N93-21319
Microcomputer system for measurements and analysis of signals for fatigue life calculations under biaxial random stress state 07 p1948 N93-21320
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Residual stress measurements in continuous fiber titanium matrix composites
[DE93-003733] 08 p2232 N93-23686
Characterizing the uncertainty in holddown post load measurements
[NASA-TP-3332] 08 p2304 N93-23731
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Experimental studies of stress management by optical fluorescence
[AD-A261539] 09 p2730 N93-26362
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU]
11 p3452 N93-29613
Processing of novel nanoparticle dispersion strengthened ceramics for improved mechanical performance
[AD-A264191] 11 p3339 N93-30883

STRESS PROPAGATION

Application of new experimental methods to pipeline stress corrosion cracking
[PB92-224575] 07 p1951 N93-21499

STRESS RATIO

Fatigue crack growth in AerMet 100 steel
[AD-A249068] 02 p0261 N93-12248
Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637
Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019

STRESS RELAXATION

Chronorheological characterization of elastomers
01 p0046 N93-10476
The Meta-Lax method of stress reduction in welds
[DE92-018477] 04 p0845 N93-14900
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142
Internal strain analysis of ceramics using scanning laser acoustic microscopy
[NASA-CR-191118] 09 p2721 N93-25451

STRESS RELIEVING

Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253

STRESS RUPTURE STRENGTH

U CREEP RUPTURE STRENGTH

STRESS TENSORS

Some exact solutions of the equations of finite elasticity 02 p0337 N93-11713
Fluidlike studies of the sheath and presheath regions of a plasma 03 p0718 N93-13792
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
Variational methods in general relativity: Mitteleuropean mathematical inaccuracy and Italian rigour. The contribution of A. Palatini
[SSCL-PREPRINT-760] 10 p3156 N93-28145
Quantum field theory in spaces with closed time-like curves
[DE93-010564] 11 p3605 N93-30481

STRESS WAVES

Highly accurate adaptive finite element schemes for nonlinear hyperbolic problems
[AD-A256740] 05 p1184 N93-16035
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
Rapidly activated dynamic phase transitions in nonlinear solids
[AD-A263601] 11 p3299 N93-29982

STRESS-STRAIN DIAGRAMS

Effect of assembly anomalies on the strain response of compcsites in the sphere joint region of the DARPA man-rated demonstration article
[AD-A254204] 02 p0240 N93-11739
Calculation of the fatigue life of a surface-hardened shaft by the finite-element method
[VTT-PUBS-92] 06 p1548 N93-18695
A modified Miner rule to predict crack initiation
07 p1948 N93-21325
The use of finite element codes for cyclic stress-strain analysis 07 p1950 N93-21340
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Low cycle fatigue behaviour of titanium disc alloys
[NLR-TP-91346-U] 12 p3683 N93-32372

STRESS-STRAIN RELATIONSHIPS

Integrated finite element model of composite materials
01 p0046 N93-10477
Stress and strain of slab type amplifiers
[AD-A254246] 01 p0074 N93-10702
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581
Verification of rain-flow reconstructions of a variable amplitude load history
[NASA-CR-189670] 02 p0341 N93-12411
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
On bilinearity of Manson-Coffin low-cycle-fatigue relationship
[NASA-TM-105840] 03 p0622 N93-12739
The shear gage and compact shear specimen for shear property measurements of composite materials
03 p0628 N93-13630
A preliminary investigation of dual mode fracture sustained by graphite/epoxy laminates impacted by high-velocity spherical metallic projectiles
[AD-A255790] 04 p0898 N93-14419
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Preliminary design of composite joints
[DLR-MITT-92-05] 04 p0835 N93-15076
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 1: Experimental determination of mechanical properties for a carbon-carbon composite
[AD-A257459] 05 p1090 N93-16010
An introduction to Moire methods with applications in composite materials
[AD-A255686] 05 p1097 N93-16107
Micromechanics-based analysis of fiber-reinforced laminated composites
[AD-A257816] 06 p1478 N93-18364
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
Solving nonlinear composite material problems using the Automated Structural Optimization System (ASTROS)
[AD-A258811] 06 p1479 N93-18988
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Discriminating experiments for multiaxial fatigue damage models 07 p1921 N93-20331
Thermal plastic strain fatigue life of the roll
07 p1924 N93-20354
Dynamic stress-strain behavior in shear of SiCwhisker reinforced aluminum alloy composites
07 p1930 N93-20643
Peak stresses in adhesive step lap joints with voids
07 p1932 N93-20656
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Buckling of restrained columns with shear deformation and axial shortening
[PB93-110476] 07 p1946 N93-21233
The influence of particle/matrix debonding on the stress-strain behavior of particulate composites
07 p1843 N93-21525
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712

Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Mesomechanical model for fibre composites: The role of the interface
[AD-A260195] 08 p2215 N93-24468
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Approximate analysis on strain rate effects and behavior of stress and strain fields at the crack tip in Mode 2 in metallic materials, appendix no. 1
[AD-A260836] 09 p2728 N93-25785
Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919
Stability of single layer composite cylinders subjected to lateral pressure: Numerical approach
10 p2922 N93-27184
The fatigue behaviour of T- and X-joints made of square hollow sections
[ETN-93-93598] 10 p3058 N93-27872
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
An investigation of graphite peek composite under compression with a centrally located circular discontinuity
[AD-A262549] 11 p3298 N93-29414
The XNOVAKTC rheological model
[AD-A263298] 11 p3342 N93-29762
Experiment and analysis on elastic deformation properties of graphite and carbon materials for HTTR core components
[DE93-753271] 11 p3299 N93-30004
Damage growth in composite propellants
11 p3348 N93-30088
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937
Mechanical properties of composite materials
11 p3290 N93-30951
A miniature fatigue test machine
11 p3291 N93-30956
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057

STRESS-STRAIN-TIME RELATIONS
Chronorheological characterization of elastomers
01 p0046 N93-10476
Thermoviscoelastic analysis of pavements
05 p1070 N93-16313

STRESSES
NT AXIAL STRESS
NT COMBINED STRESS
NT CRITICAL LOADING
NT INTERLAMINAR STRESS
NT PLANE STRESS
NT RESIDUAL STRESS
NT REYNOLDS STRESS
NT SHEAR STRESS
NT TENSILE STRESS
NT THERMAL STRESSES
NT TORSIONAL STRESS
NT VIBRATIONAL STRESS
Non-linear thermoelasticity of rubberlike solids
01 p0045 N93-10474
Evolution of hybrid-Trefftz FE model: State of the art and future trends 01 p0049 N93-10494
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Hydrostatic pressure testing of graphite/epoxy cylinder C6-1
[DE93-000427] 05 p1185 N93-16240
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia
[DE92-040720] 05 p1319 N93-16391
Creep rupture properties of a nickel-base heat-resistant alloy Hastelloy XR under varying stress condition
[DE92-556729] 05 p1114 N93-16649

STRETCHING
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties
03 p0530 N93-13007
Buckling of columns: Allowance for axial shortening
[PB93-110484] 07 p1947 N93-21234
Formability of type 304 stainless steel sheet
[DE92-018619] 08 p2229 N93-22924
Deuteron and oxygen-17 NMR studies of molecular motion in methanol-saturated Nafion membranes
[AD-A261579] 09 p2851 N93-26514

STRIATION
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534

STRING THEORY
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Wiggly relativistic strings
[DE92-016461] 01 p0170 N93-10434
Research in particle physics beyond the standard model
[DE92-012240] 01 p0155 N93-10878
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Research in elementary particles and interactions
[DE92-018089] 02 p0437 N93-11681
Spacetime singularities in string theory
02 p0472 N93-12530
Mathematics and string theory
[DE92-019292] 03 p0727 N93-12796
Second quantization in bit-string physics
[DE92-019645] 03 p0727 N93-12826
Solitons and instantons in string theory
03 p0728 N93-13753
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
The low-energy structure of compactified superstring models 04 p0997 N93-14116
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
A continuum string model for D greater than 1
[PREPRINT-853] 05 p1329 N93-16960
Non-linear WKB analysis of the string equation
[PREPRINT-862] 05 p1330 N93-16963
On the black-hole conformal field theory coupled to the Polyakov's string theory. A non perturbative analysis
[PREPRINT-852] 05 p1365 N93-17072
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Problems in particle theory
[DE93-003687] 05 p1293 N93-17469
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Metastable cosmic strings in realistic models
[DE93-002647] 05 p1331 N93-17787
Lectures on 2D gravity and 2D string theory
[DE93-003746] 07 p2084 N93-21737
Cosmic string cosmology 09 p2891 N93-24907
From fractals to wormholes via string theory
09 p2871 N93-25742
Complex geometry and string theory
[SSCL-PREPRINT-746] 10 p3157 N93-28197
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Understanding conformal field theory through parafermions and Chern Simons theory
[DE93-010452] 11 p3604 N93-29806
Topics in inflationary universe models and cosmic string theories 11 p3637 N93-30579
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784
Electric magnetic duality in string theory
[DE93-606061] 11 p3606 N93-30807
A new exact solution to the classical equations of motion of the relativistic string with massive ends
[DE92-644736] 11 p3557 N93-30922
Invariant structures in gauge theories and confinement
[DE92-644739] 11 p3607 N93-30924
Invariant structures and static forces in gauge theories
[DE92-644740] 11 p3607 N93-30925
String-like excitations in quantum electrodynamics
[DE92-642593] 12 p3830 N93-31075
Constraints on cosmic strings due to black holes formed from collapsed cosmic string loops
[NASA-CR-193248] 12 p3861 N93-31837

STRINGS
Nonlinear free vibration analysis of strings by the Galerkin method 04 p0972 N93-14280
Vibration of a multi-guided rotating string
07 p1934 N93-20672
Aprepro: An algebraic preprocessor for parameterizing finite element analyses
[DE93-006989] 08 p2466 N93-22527
Geometrical approach to the dynamics of a relativistic string in the D-dimensional Minkowski space
[DE93-606071] 11 p3605 N93-30784

STRIP TRANSMISSION LINES
NT MICROSTRIP TRANSMISSION LINES
Proceedings of the Antenna Applications Symposium, volume 1
[AD-A253681] 01 p0068 N93-10301
Optical generation, control and sensing of millimeter waves
[AD-A254700] 02 p0285 N93-12230
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered dielectric media
[AD-A256937] 05 p1138 N93-16207
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224

STRONG INTERACTIONS (FIELD THEORY)
Strong interactions studies with medium energy probes
[DE92-040460] 04 p0977 N93-15377

STRONGLY COUPLED PLASMAS
Current density fluctuations, nonlinear coupling, and transport in MST
[DE92-041012] 03 p0713 N93-12883
Enhancement of ion transmission and reduction of background and interferences in inductively coupled plasma mass spectrometry
[DE92-018805] 03 p0596 N93-12921
Laser ablation for sample introduction in inductively coupled plasma spectrometry 03 p0719 N93-13897
Simulation of a strongly coupled plasma experiment
[DE92-040351] 05 p1307 N93-16099
Liquid and solid ion plasmas
[AD-A261888] 09 p2862 N93-26528
Radiative preheat in strongly coupled, laser accelerated plasmas
[AD-A265442] 12 p3826 N93-32020

STRONTIUM
NT STRONTIUM ISOTOPES
Advanced atomic filters 06 p1664 N93-18468
Collisional recombination lasers
09 p2713 N93-25393

STRONTIUM COMPOUNDS
NT STRONTIUM FLUORIDES
NT STRONTIUM OXIDES
NT STRONTIUM TITANATES
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Group 2 cubic fluorides dielectrics for 3-D integration and GaAs-based optoelectronic structures
[AD-A254937] 03 p0719 N93-12544
Neutron scattering studies of the spin dynamics in La(2-x)Sr(x)O4
[DE92-019952] 03 p0702 N93-13037
Magnetic behavior of a Bi(sub 2)Sr(sub 2)Ca(sub 1)Cu(sub 2)O(sub x) single crystal by direct magneto-optical observations
[DE92-018612] 03 p0722 N93-13118
Kinetics of hexacelsian to celsian phase transformation in SrAl2Si2O8
[NASA-TM-105913] 05 p1123 N93-16372

STRONTIUM FLUORIDES
Aspects of photoionization of impurities and electron transfer in ionic crystals
[DE93-008544] 08 p2513 N93-24511

STRONTIUM ISOTOPES
Sudbury project (University of Muenster-Ontario Geological Survey): Isotope systematics support the impact origin 01 p0109 N93-10131

STRONTIUM OXIDES
Properties of hot isostatically pressed Bi(2)Sr(1.7)CaCu(2)O(x)
[DE92-016394] 02 p0460 N93-11522
Silicon carbide fiber reinforced strontium aluminosilicate glass-ceramic matrix composite
[NASA-CASE-LEW-15263-1] 02 p0239 N93-11543
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104
Activation energy and critical current density in Bi-Sr-Ca-Cu-O
[DE92-018795] 03 p0723 N93-13547

Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape
[DE92-041314] 05 p1321 N93-16533
Critical current enhancement by neutron irradiation of rapidly textured BiSr2CaCu2O8
[DE93-004453] 08 p2503 N93-22728
Selective methane oxidation over promoted oxide catalysts
[DE93-009768] 10 p2993 N93-26941

STRONTIUM TITANATES
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Phase transition studies in barium and strontium titanates at microwave frequencies 11 p3293 N93-30970

STROUHAL NUMBER
Vortex shedding in oscillatory flow
09 p2700 N93-25438
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions
11 p3253 N93-29933
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151

STRUCTURAL ANALYSIS
NT BERNSTEIN ENERGY PRINCIPLE
NT DYNAMIC STRUCTURAL ANALYSIS
NT ENERGY METHODS
NT EQUILIBRIUM METHODS
NT FLUTTER ANALYSIS
NT MATRIX METHODS
NT STRAIN ENERGY METHODS
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
A three-dimensional analysis of the effect of local stress distribution near crack tip 01 p0015 N93-10003
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results
01 p0078 N93-10058
Radial turbine cooling 01 p0078 N93-10061
Structural analysis: Fatigue life assessment
01 p0078 N93-10062
Proceedings of the Twelfth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-03] 01 p0044 N93-10466
A multilayered shell finite element
01 p0049 N93-10495
Variational formulation of a mixed method for second order frame analysis 01 p0062 N93-10556
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
A boundary element super-element method for coupling with the finite element method of substructures
01 p0064 N93-10566
Numerical simulation of the propagation of coupled thermomechanical waves in inelastic solids
01 p0064 N93-10568
Modelling of flexible multibody dynamics and a computer method via the bond graph method
01 p0065 N93-10573
Solving large linearized systems in mechanics
[AD-A252723] 01 p0144 N93-10639
Modeling and identification of flexible joints in vehicle structures 02 p0324 N93-11261
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Global-local finite element analysis of composite structures
[DE92-019138] 02 p0240 N93-11658
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Some remarks on shell element analysis with DYNA3D and NIKE3D
[DE92-018784] 02 p0337 N93-11775
Structural design using equilibrium programming
[NASA-TM-107593] 02 p0339 N93-12005
Thermostructural tailoring of fiber composite structures
[NASA-TM-105882] 02 p0242 N93-12078
Advanced methods for structural characterization of large multiply charged ions: Obtaining charge state determination and improved sensitivity
[DE91-015264] 02 p0441 N93-12117
Fourier continuum finite elements for nonlinear structural analysis 02 p0340 N93-12210
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Stress dependence of the magnetic properties of steels
[DE92-018804] 02 p0261 N93-12261
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Hierarchic models for laminated plates
03 p0528 N93-12629
Probabilistic evaluation of fuselage-type composite structures
[NASA-TM-105881] 03 p0622 N93-12735
User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851
Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872
Linear and nonlinear finite element analysis of laminated composite structures at high temperatures
03 p0623 N93-13009
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Structural verification for GAS experiments
03 p0511 N93-13175
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
Aircraft accident report: Britt Airways, Inc., d/b/a, Continental Express Flight 2574, in-flight structural breakup, EMB-120RT, N33701, Eagle Lake, Texas, September 11, 1991
[PB92-910405] 03 p0498 N93-13426
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189151] 03 p0627 N93-13444
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189152] 03 p0627 N93-13445
A domain decomposition method for parallel transient response calculations 03 p0504 N93-13827
The free and forced vibrations of structures using the finite dynamic element method
03 p0630 N93-13935
A time-domain study of the relationship between drive force time bandwidth and farfield acoustic radiation
[AD-A255616] 04 p0973 N93-14159
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
04 p0897 N93-14251
A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
Space based radar: Test of large space structures
04 p0808 N93-14941
Space craft verification at the David Florida Laboratory
04 p0809 N93-14943
Aeroplane crashes on the runway: Validation and final evaluation of the method of modeling an airframe structure
[IMFL-91-32] 04 p0792 N93-15126
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
Reusable Reentry Satellite (RRS): Configuration trade study
[NASA-CR-187772] 05 p1086 N93-15804
Initial imperfection survey on a cylindrical shell at the Ultra-Centrifuge Nederland n.v.
[LR-682] 05 p1184 N93-16211
Review of aeronautical fatigue investigation activities developed in Alenia-GAT during the period May 1990 - March 1991
[ETN-92-92884] 05 p1061 N93-16287
The world of grid methods
[NLR-TP-89298-U] 05 p1186 N93-16292
FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314
Federal Aviation Administration pavement modeling
05 p1071 N93-16315
Development of a unified airport pavement analysis and design system 05 p1071 N93-16317
The modeling of piezoceramic patch interactions with shells, plates and beams
[NASA-CR-189740] 05 p1278 N93-16611
A study of the Lute Metering Structure
05 p1189 N93-17294
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139
Characterization of alloy 718 microstructures
[DS-1935] 06 p1486 N93-18147
Interface microstructure analysis of ceramic and metal-matrix composites: Sample preparation methods and analytical techniques
[DS-2154] 06 p1477 N93-18148
Providing structural modules with self-integrity monitoring
[NASA-CR-190887] 06 p1555 N93-18374
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
High temperature component analysis with expert systems 06 p1557 N93-18751
Fibre reinforced plastic structures
06 p1557 N93-18752
Mathematical modelling of materials
06 p1557 N93-18753
QA system for structural analysis
06 p1557 N93-18755
P-adaptivity applied to plate in bending problems
06 p1557 N93-18756
Finite element analysis of stiffened plate vibrations
06 p1557 N93-18757
Dynamics in condition monitoring, a case study
06 p1558 N93-18758
Modelling of dynamic soil-structure-ice interaction
06 p1558 N93-18759
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
The Fifth NASA/DOD Controls-Structures Interaction Technology Conference, part 1
[NASA-CP-3177-PT-1] 06 p1461 N93-18818
The JPL Phase B interferometer testbed
06 p1464 N93-18834
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
Improvements to a method for the geometrically nonlinear analysis of compressively loaded stiffened composite panels
[NASA-CR-192183] 07 p1920 N93-20034
Multidisciplinary computational aerosciences
[NASA-TM-103946] 07 p1759 N93-20323
Acoustic wave propagation in an adhesive bond model with degrading interfacial layers
[AD-A258684] 07 p1918 N93-20373
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575
YIDOYU and its application to aircraft design
[AD-A259262] 07 p1781 N93-20605
Proceedings of the Thirteenth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-04] 07 p1925 N93-20616
Fluid/structures interactions. Aircraft considerations
07 p1787 N93-20628
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
Nonlinear analysis of plates by the finite element method 07 p1939 N93-20698
MSC/NASTRAN structure optimization test module version 67 (preliminary)
[REPT-5-191025] 07 p1945 N93-20907
Amorphous Mo/Si multilayers: Interdiffusion and structural relaxation; crystallization
[ETN-93-92992] 07 p1859 N93-20909
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Propulsion Systems Panel 08 p2174 N93-22096
Microstatic study of the behavior of granular media
[ECL-90-31] 08 p2236 N93-22460

Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
Structure of molten iron chloride
[DE93-004814] 08 p2219 N93-22742
Gas separation with glass membranes
[DE93-000217] 08 p2219 N93-22871
Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015
Probabilistic finite elements for fatigue and fracture analysis
[NASA-CR-19*098] 08 p2326 N93-23053
High Temperature Composite Analyzer (HITCAN) programmer's manual. Version 1.0
[NASA-TM-106004] 08 p2326 N93-23056
Integrated analysis and design of thick composite structures for optimal passive damping characteristics
[NASA-CR-190783] 08 p2210 N93-23429
Numerical treatment of vertex singularities and intensity factors for mixed boundary value problems for the Laplace equation in R3
[AD-A260107] 08 p2469 N93-23713
Mapping methods for computationally efficient and accurate structural reliability
[NASA-TM-105892] 08 p2330 N93-23745
Use of the conventional and tangent derivative boundary integral equations for the solution of problems in linear elasticity 08 p2331 N93-24121
On the regularity of elasticity problems with piecewise analytic data
[AD-A260346] 08 p2332 N93-24273
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Evaluation of MARC for the analysis of rotating composite blades
[NASA-TM-4423] 09 p2723 N93-24909
High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
Integration of design, thermal, structural, and optical analysis, including thermal animation
09 p2814 N93-25601
Probabilistic structural analysis for nuclear thermal propulsion 10 p2979 N93-26931
Interactive reliability model for whisker-toughened ceramics
[NASA-CR-191048] 10 p3002 N93-27006
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Face-gear drives: Design, analysis, and testing for helicopter transmission applications
[NASA-TM-106101] 10 p3050 N93-27133
Softening of concrete loading in compression
[ISBN-9-03-860062-3] 10 p3056 N93-27371
Testing a wheeled landing gear system for the TH-57 helicopter
[AD-A262152] 10 p2942 N93-27547
Advanced buckling analyses of beams with arbitrary cross sections
[ISBN-90-02808-0] 10 p3059 N93-27944
Automatization of structural analysis calculation procedure: NASTRAN pre and post processors
[ETN-93-93706] 10 p3100 N93-27947
Stress analysis and evaluation of a rectangular pressure vessel
[DE93-004990] 10 p3060 N93-28059
Computer-assisted determination of minimum energy conformations. 7: A pharmacophore model of the active region of the alpha2-adrenoceptor
[AD-A262108] 10 p3135 N93-28181
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451
Metal Matrix Laminate Tailoring (MMLT) code: User's manual
[NASA-TM-106052] 11 p3295 N93-28681
TESLA test cell cryostat support post thermal and structural analysis
[DE93-008365] 11 p3407 N93-29048
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Nonlinear analyses of composite aerospace structures in sonic fatigue
[NASA-CR-193124] 11 p3451 N93-29154
The Ultra Light Aircraft Testing
[NASA-CR-193043] 11 p3249 N93-29774
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359
Structural evaluation of curved stiffened composite panels fabricated using a THERM-Xsm process
11 p3301 N93-30435
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Effects of scale in predicting global structural response 11 p3306 N93-30860
Multiple methods integration for structural mechanics analysis and design 11 p3307 N93-30867
Probabilistic composite analysis
11 p3307 N93-30868
Prediction of stiffener-skin separation in composite panels 11 p3307 N93-30871
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057
Optimal design and imperfection sensitivity of nonlinear shell structures
[FFA-TN-1992-30] 12 p3739 N93-31123
Structural reliability methods: Code development status 12 p3694 N93-31563
Probabilistic load simulation: Code development status
12 p3694 N93-31564
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Commercialization of NESSUS: Status
12 p3695 N93-31567
Probabilistic structural analysis algorithm development for computational efficiency 12 p3695 N93-31569
Mapping methods for computationally efficient and accurate structural reliability 12 p3695 N93-31572
Structural characterization of nylon 7 by solid-state NMR, DSC, and ATR-FTIR
[AD-A265800] 12 p3822 N93-32312

STRUCTURAL BASINS
NT GREAT BASIN (US)
NT RIVER BASINS
NT WATERSHEDS
Shocked zircons in the Onaping Formation: Further proof of impact origin 01 p0107 N93-10121
New perspectives on the Popigai impact structure
01 p0110 N93-10138
Venusian impact basins and cratered terrains
01 p0112 N93-10145
Does the sedimentology of the Chelmsford formation provide evidence for a meteorite impact origin of the Sudbury structure? 01 p0116 N93-10160
Impact origin of the Sudbury structure: Evolution of a theory 01 p0116 N93-10161
Imaging radar investigations of the Sudbury structure
01 p0117 N93-10162
Sudbury Breccia and suevite as glacial indicators transported 800 km to Kentland Astroblème, Indiana
01 p0117 N93-10165
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Sudbury project (University of Muenster-Ontario Geological Survey): New investigations on Sudbury breccia 01 p0118 N93-10167
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Apollo 15 impact melts, the age of Imbrium, and the Earth-Moon impact cataclysm 01 p0120 N93-10176
Recognizing impactor signatures in the planetary record 01 p0120 N93-10178
K/T boundary stratigraphy: Evidence for multiple impacts and a possible comet stream 01 p0120 N93-10180
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia
01 p0120 N93-10181
The large impact process inferred from the geology of lunar multiring basins 01 p0121 N93-10184
Sudbury project (University of Muenster-Ontario Geological Survey): Petrology, chemistry, and origin of breccia formations 01 p0121 N93-10185
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Atmospheric dispersion in mountain valleys and basins
02 p0355 N93-11920
Simulations of the Amazon Basin circulation using the Pennsylvania State University/National Center for Atmospheric Research mesoscale model
04 p0919 N93-14197
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
A spectral survey of the Serenitatis Basin region of the Moon 06 p1736 N93-18793
The Serenitatis Basin and the Taurus-Littrow highlands: Geological context and history 06 p1736 N93-18794
Do large impact basins in the Southern Hemisphere of Mars control the distribution of polar structures and deposits? 06 p1741 N93-19808
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422

STRUCTURAL BEAMS
U BEAMS (SUPPORTS)

STRUCTURAL DESIGN
NT PRESSURE VESSEL DESIGN
A new deployable mast 01 p0014 N93-10511
Structural design using equilibrium programming
[NASA-TM-107593] 02 p0339 N93-12005
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center
02 p0229 N93-12456
Innovative methods in the dynamics of large space structures
[AD-A254630] 03 p0521 N93-12579
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Computer-Aided Structural Engineering (CASE) project. Tutorial guide: Computer-Aided Structural Modeling (CASM). Version 3.00
[AD-A255075] 03 p0684 N93-12872
System identification and model updating for substructures 03 p0624 N93-13065
Combined design of structures and controllers for optimal maneuverability 03 p0691 N93-13130
Structural optimization of thin shells using finite element method
[NASA-TM-105903] 03 p0625 N93-13157
Unsymmetric Lanczos model reduction and linear state function observer for flexible structures
[NASA-CR-191231] 03 p0686 N93-13295
Application of Lanczos vectors to control design of flexible structures
[NASA-CR-191230] 03 p0686 N93-13296
Process comparison study. MSFC Center Director's Discretionary Fund (CDDF)
[NASA-TM-108382] 03 p0526 N93-13429
Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463
Fast optimization of static axisymmetric shell structures 03 p0630 N93-13921
Concrete structure construction on the Moon
03 p0559 N93-13989
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Multiobjective control/structure design optimization in the presence of practical constraints
04 p0898 N93-14446
An integrated optimization environment for structural configuration design 04 p0855 N93-14467
A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505
Large space structures and systems in the space station era: A bibliography with indexes (supplement 04)
[NASA-SP-7085(04)] 04 p0817 N93-14606
Spacecraft Structures and Mechanical Testing, volume 2
[ESA-SP-321-VOL-2] 05 p1076 N93-15718
An analytical and experimental study on the design and verification of containment subjected to impact loading
05 p1078 N93-15726
Structural development of flight systems
05 p1078 N93-15727
Sample container technology
05 p1078 N93-15728
Adaptive structures for precision controlled large space systems 05 p1078 N93-15730
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731
Isostatic mounting platform 05 p1080 N93-15745
Service module structure of ISO spacecraft testing and design qualification 05 p1080 N93-15747
Sunshade support structure: Structure and testing
05 p1080 N93-15748
Polar Platform structure development program
05 p1081 N93-15749

HISPASAT DBS reflector: Mechanical analysis-environmental test correlation
05 p1081 N93-15751
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure
05 p1084 N93-15775
Design of joints for damped structures
05 p1084 N93-15776
Experiences with large CFRP-radiotelescope reflectors
05 p1084 N93-15777
Dynamic identification in the development of satellite structures. Analytical dynamic model updating: The challenge for the nineties 05 p1084 N93-15778
Reusable Reentry Satellite (RRS): Configuration trade study
[NASA-CR-187772] 05 p1086 N93-15804
A90 project: Design of a composite fin
[ETN-92-92773] 05 p1061 N93-16562
The damper placement problem for large flexible space structures 05 p1089 N93-16776
Post-impact behavior of composite solid rocket motor cases 05 p1095 N93-17299
Inflatable habitation for the lunar base
05 p1229 N93-17442
Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564
Influence of cross section variations on the structural behaviour of composite rotor blades
[MBB-UD-0602-91-PUB] 05 p1063 N93-17569
Design of a radiator shade for testing in a simulated lunar environment
[NASA-CR-192080] 05 p1229 N93-17710
Structural design, analysis, and modal testing of the petite amateur navy satellite (PANSAT)
[AD-A257633] 05 p1088 N93-17720
Exodus: Prime Mover
[NASA-CR-192051] 05 p1064 N93-17803
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle
[AD-A258084] 06 p1435 N93-17893
Optimum Design of High Speed Prop-Rotors
[NASA-CR-190915] 06 p1437 N93-18064
Design of high speed proprotors using multiobjective optimization techniques 06 p1437 N93-18065
Optimum design of high speed prop rotors including the coupling of performance, aeroelastic stability and structures 06 p1438 N93-18066
Carbon and graphite matrices in carbon-carbon composites: An overview of their formation, structure, and properties
[AD-A258386] 06 p1478 N93-18259
Study of statistical variations of load spectra and material properties on aircraft fatigue life
[AD-A257961] 06 p1440 N93-18451
Controlled motion in an elastic world. Research project: Manipulation strategies for massive space payloads
[NASA-CR-191895] 06 p1549 N93-18778
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
Optimization for efficient structure-control systems
06 p1467 N93-18930
Structures research 06 p1447 N93-19453
PDES application protocol suite for composites (PAS-C) 1992 annual report for the PAS-C program
[AD-A258625] 07 p1831 N93-19998
Research on HOPE 07 p1791 N93-20423
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
Multimodal optimization of vibrating space frames
07 p1931 N93-20652
Analysis of structurally-varying systems using component-mode synthesis technique
07 p1932 N93-20658
The design of bonded structural assemblies
[REPT-921-430-116] 07 p1824 N93-20934
An expert system to study bonded joints
[REPT-921-430-113] 07 p1833 N93-20937
Fatigue Design 1992, volume 1
[VTT-SYMPOSIUM-130-VOL-1]
07 p1947 N93-21318
Delamination damage and its effect on buckling of laminated cylindrical shells 07 p1841 N93-21516
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Orbiter lessons learned: A guide to future vehicle development 08 p2175 N93-22100
Automating an orbiter approach to Space Station Freedom to minimize plume impingement
08 p2149 N93-22305
A modal test of a space-truss for structural parameter identification
[DE93-004043] 08 p2323 N93-22518
Composite passive damping struts for large precision structures
[NASA-CASE-NPO-17914-1-CU]
08 p2333 N93-24596
Grid sensitivity for aerodynamic optimization and flow analysis
[NASA-CR-192980] 09 p2575 N93-25117
Integrated aerodynamic-structural wing design optimization 09 p2587 N93-25279
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Design and analysis of curved composite components for rotorcraft fuselage frames 09 p2589 N93-25701
Development and application of an advanced ductile fracture mechanics methodology
09 p2727 N93-25718
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Design concepts for pressurized lunar shelters utilizing indigenous materials 09 p2670 N93-26414
Lunar surface structural concepts and construction studies 09 p2670 N93-26417
Structural tailoring of aircraft engine blade subject to ice impact constraints
[NASA-TM-106033] 10 p3055 N93-26999
Compressive and shear buckling analysis of metal matrix composite sandwich panels under different thermal environments
[NASA-TM-4492] 10 p3056 N93-27263
Mechanics in material space
[AD-A262448] 10 p3057 N93-27698
Structures for Space Station Freedom: Overview of current concept 10 p2970 N93-27836
Structural technology challenges for evolutionary growth of Space Station Freedom 10 p2970 N93-27837
Finite element model and identification procedure
10 p3058 N93-27890
Mechanical design philosophy and construction of the Amsterdam Pulse Stretcher ring AmPS
10 p3139 N93-28339
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
A demonstration of simple airfoils: Structural design and materials choices
[DE93-007882] 11 p3238 N93-28662
Indigenous lunar construction materials
11 p3277 N93-29120
Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243
Concept design example, Computer Aided Structural Modeling (CASM). Scheme A
[AD-A264759] 11 p3529 N93-29657
Concept design example, Computer Aided Structural Modeling (CASM). Scheme B
[AD-A264760] 11 p3529 N93-29658
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745
B and T: Lunar landers 11 p3234 N93-29751
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft
11 p3249 N93-29775
Effect of design selection on response surface performance
[NASA-CR-4520] 11 p3249 N93-29885
Structural design, analysis, and code evaluation of an odd-shaped pressure vessel
[DE93-008182] 11 p3447 N93-30632
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1
[PB93-169902] 11 p3447 N93-30820
Preliminary properties of a resin from ethynyl terminated materials 11 p3303 N93-30842
Multi-parameter optimization tool for low-cost commercial fuselage crown designs
11 p3305 N93-30858
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes
11 p3306 N93-30863
Multiple methods integration for structural mechanics analysis and design 11 p3307 N93-30867
Tailored composite wings with elastically produced chordwise camber 11 p3308 N93-30876
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Structural design using neural networks
11 p3545 N93-31029
Development of nose structure of a reconnaissance container for a supersonic jet aircraft
[MBB-LME-242-S-PUB-0451] 12 p3679 N93-31046
GARTEUR 3D sheer layer experiment
[FFA-TN-1992-26] 12 p3671 N93-31052
Optimal design and imperfection sensitivity of nonlinear shell structures
[FFA-TN-1992-30] 12 p3739 N93-31123
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
Probabilistic evaluation of SSME structural components 12 p3694 N93-31565
Low cost guideways to Maglev
[PB93-154847] 12 p3735 N93-31727
Space Shuttle Orbiter thermal protection system design and flight experience
[NASA-TM-104773] 12 p3727 N93-32198
Applications of structural optimization methods to fixed-wing aircraft and spacecraft in the 1980s
[NASA-TM-103939] 12 p3740 N93-32212

STRUCTURAL DESIGN CRITERIA

Structural analysis: Fatigue life assessment
01 p0078 N93-10062
Sample container technology
05 p1078 N93-15728
On the dynamic qualification of large deployable antennas 05 p1083 N93-15768
ORFEUS CFRP structure: A high stiffness-low thermal strain space telescope structure
05 p1084 N93-15775
Interlaminar stress analysis at the skin/stiffener interface of a grid-stiffened composite panel
[NASA-CR-192177] 06 p1476 N93-17920
Evaluation of hole sizes in structures requiring EVA services as a means to prevent gloved-hand finger entrapment
[NASA-TM-104767] 08 p2426 N93-23129
The 80 kV electrostatic wire septum for AmPS
10 p3139 N93-28340
Composites design handbook: Update
[ESA-PSS-03-1101-ISSUE-1-REV-2]
12 p3701 N93-31740

STRUCTURAL DYNAMICS

U DYNAMIC STRUCTURAL ANALYSIS

STRUCTURAL ENGINEERING

List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Inspection and repair decisions for hydraulic structures under symmetric deterioration
[AD-A253621] 01 p0096 N93-10797
User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851
A methodology for the evaluation of structural design software for DOS-based microcomputers
[AD-A255421] 04 p0943 N93-14505
Recommendations for enhancement of the Design Criteria Information System (DCIS)
[AD-A256857] 04 p1009 N93-15641
Reliable fusion of control and sensing in intelligent machines
[NASA-CR-192780] 07 p2048 N93-21371
Space Transportation Materials and Structures Technology Workshop. Volume 2: Proceedings
[NASA-CP-3148-VOL-2] 08 p2172 N93-22081
Vehicle Systems Panel deliberations
08 p2175 N93-22098
Propulsion Systems Panel deliberations
08 p2175 N93-22101
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST
[NASA-CR-192354] 08 p2230 N93-23193
Adaptive hierarchic modeling of plates and shells with a-posteriori error estimation
[AD-A259941] 08 p2332 N93-24242
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
Controlled Structures Technology Steering Committee Workshop
[NASA-CR-192992] 10 p3058 N93-27888
The 3rd Annual Controlled Structures Technology Symposium
[NASA-CR-192993] 10 p3060 N93-28167

The application of controlled structures technology to adaptive optics 10 p3060 N93-28170
Intelligent structures technology 10 p3061 N93-28176
JPRS report: Science and technology. Central Eurasia: Engineering and equipment [JPRS-UEQ-93-001] 11 p3274 N93-29014
Concept design example, Computer Aided Structural Modeling (CASM). Scheme A [AD-A264759] 11 p3529 N93-29657
Concept design example, Computer Aided Structural Modeling (CASM). Scheme B [AD-A264760] 11 p3529 N93-29658
GENESIS 2: Advanced lunar outpost 11 p3235 N93-29760
Geoscience center research [AD-A263465] 11 p3462 N93-29834

STRUCTURAL FAILURE
A spline finite strip method for analysing local and distortional buckling of thin-walled beams under arbitrary loading 01 p0058 N93-10538
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Compression strength of composite primary structural components [NASA-CR-190949] 03 p0624 N93-13019
Reliability of stiffened structural panels: Two examples [NASA-TM-107687] 04 p0900 N93-14483
Analysis of in-flight structural failures of P-3C wing leading edge segments [AD-A256212] 04 p0792 N93-15238
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
An introduction to Moire methods with applications in composite materials [AD-A255686] 05 p1097 N93-16107
Post-impact behavior of composite solid rocket motor cases 05 p1095 N93-17299
Structural performance of candidate ablatives for uptake section of vertical launching system [AD-A258218] 06 p1455 N93-18300
Structural Analysis 1992 [VTT-SYMPOSIUM-128] 06 p1556 N93-18749
High temperature component analysis with expert systems 06 p1557 N93-18751
Can injury scoring techniques provide additional information for crash investigators? 06 p1423 N93-19663
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
Delamination buckling in circular plates 07 p1931 N93-20653
Buckling of clamped angle-ply laminated plates under inplane loads 07 p1931 N93-20654
Predicting the failure load of adhesive joints 07 p1932 N93-20655
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
A comparative study of ship hull structures fatigue assessment methods 07 p1949 N93-21332
Edge delamination of composite laminates 07 p1842 N93-21519
The effects of surface treatment on torsional fatigue failure in recoil springs [AD-A259345] 07 p1952 N93-21987
Compression strength failure mechanisms in unidirectional composite laminates containing a hole [NASA-CR-192813] 08 p2209 N93-23043
The consequence of joint failures 08 p2212 N93-23941
Thermally induced stresses in a composite exposed to fire [AD-A261714] 09 p2641 N93-26371
J and CTOD estimation equations for shallow cracks in single edge notch bend specimens [AD-A261679] 09 p2731 N93-26390
Material science experience gained from the space nuclear rocket program: Insulators [DE93-006301] 10 p2992 N93-28303
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques [NASA-CR-190785] 11 p3288 N93-29068
Sensor systems for monitoring Maglev guideway structures [PB93-154821] 11 p3444 N93-29205
Progressive failure methodologies for predicting residual strength and life of laminated composites 11 p3307 N93-30866
Probabilistic composite analysis 11 p3307 N93-30868
Web crippling of cold-formed steel members [ISBN-9-03-860122-0] 12 p3705 N93-31540
Advanced alternate planar geometry solid oxide fuel cells [DE93-000248] 12 p3721 N93-32174
GARTEUR compression behaviour of advanced CFRP [NLR-TP-91290-U] 12 p3701 N93-32202

STRUCTURAL FATIGUE
U FATIGUE (MATERIALS)

STRUCTURAL MATERIALS
U CONSTRUCTION MATERIALS

STRUCTURAL MEMBERS
NT ANISOTROPIC PLATES
NT ANNULAR PLATES
NT BEAMS (SUPPORTS)
NT BOX BEAMS
NT CANTILEVER BEAMS
NT CIRCULAR PLATES
NT COLUMNS (SUPPORTS)
NT CURVED BEAMS
NT ELASTIC PLATES
NT FLAT PLATES
NT GIRDERS
NT I BEAMS
NT LONGERONS
NT MEMBRANE STRUCTURES
NT METAL PLATES
NT ORTHOTROPIC PLATES
NT PERFORATED PLATES
NT PLASTIC PLATES
NT PLATES (STRUCTURAL MEMBERS)
NT RECTANGULAR PLATES
NT REINFORCED PLATES
NT SKIN (STRUCTURAL MEMBER)
NT STRAKES
NT STRUTS
NT TIMOSHENKO BEAMS
NT TRUSSES
NT WING PANELS
Lightweight deployable antenna system [AD-D015291] 01 p0067 N93-10096
An integrated optimization environment for structural configuration design 04 p0855 N93-14467
Validation of an automated torsional and warping stress analysis program [AD-A256035] 04 p0902 N93-15260
Slip joint connector [NASA-CASE-MFS-28659-1] 05 p1178 N93-17080
The influence of structural optimization on the aeroelastic properties of a vertical tail [AD-A259140] 07 p1781 N93-20575
Integrated view of methods in buckling analysis [PB93-110468] 07 p1946 N93-21232
Effects of scale in predicting global structural response 11 p3306 N93-30860

STRUCTURAL PROPERTIES (GEOLOGY)
Sudbury project (University of Muenster-Ontario Geological Survey): Origin of the polymict, allochthonous breccias of the Onaping Formation 01 p0106 N93-10116
Sudbury project (University of Muenster-Ontario Geological Survey): Summary of results - an updated impact model 01 p0106 N93-10117
Structural aspects of the Araguainha impact structure (Brazil) 01 p0106 N93-10118
Sudbury project (University of Muenster-Ontario Geological Survey): Field studies 1984-1989 - summary of results 01 p0107 N93-10119
Suevite superposition on the Bunte breccia in Noerdlinger Ries, Germany: New findings on the transport mechanism of impactites 01 p0107 N93-10122
Hong Kong is an impact crater: Proof from the geomorphological and geological evidence 01 p0107 N93-10124
Structural review of the Vredefort dome 01 p0108 N93-10127
Intrusive origin of the Sudbury Igneous Complex: Structural and sedimentological evidence 01 p0108 N93-10128
Does the Bushveld-Vredefort system (South Africa) record the largest known terrestrial impact catastrophe? 01 p0109 N93-10134
New perspectives on the Popigai impact structure 01 p0110 N93-10138
Asteroids and Archaean crustal evolution: Tests of possible genetic links between major mantle/crust melting events and clustered extraterrestrial bombardments 01 p0110 N93-10140
Venusian impact basins and cratered terrains 01 p0112 N93-10145
Where's the Beaverhead beef? --- meteorite impact structure 01 p0112 N93-10146
Large impacts in the Baltic shield with special attention to the Uppland structure 01 p0113 N93-10149
The Panther Mountain circular structure, a possible buried meteorite crater 01 p0113 N93-10150
Impact origin of the Sudbury structure: Evolution of a theory 01 p0116 N93-10161
Sudbury project (University of Muenster-Ontario Geological Survey): New investigations on Sudbury breccia 01 p0118 N93-10167
A history of the Lonar crater, India: An overview 01 p0118 N93-10168
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Ar-40 to Ar-39 ages of the large impact structures Kara and Manicouagan and their relevance to the Cretaceous-Tertiary and the Triassic-Jurassic boundary 01 p0122 N93-10188
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area [DE92-017851] 02 p0362 N93-11692
Abstracts of papers presented at the International Symposium on Time, Frequency, and Dating in Geomorphology [AD-A254927] 03 p0649 N93-12704
Surface processes on Venus 04 p1024 N93-14294
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits 04 p1025 N93-14300
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio 04 p1028 N93-14317
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Variations in lithospheric thickness on Venus 04 p1030 N93-14329
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Mantle plumes on Venus revisited 04 p1032 N93-14334
Venusian sinuous rilles 04 p1033 N93-14337
Derivation of surface properties from Magellan altimetry data 04 p1033 N93-14340
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales 04 p1034 N93-14343
Pancakelike domes on Venus 04 p1035 N93-14345
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera 04 p1044 N93-14389
The gravimetric anomaly over the Makhtesh Hagadol and its vicinity [ITN-93-85180] 05 p1208 N93-16744
Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada) [NASA-CR-192091] 06 p1564 N93-17927
Fault identification using multidisciplinary techniques at the Mars/Uranus Station antenna sites 06 p1507 N93-18921
Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions [INPE-5322-PRE/1720] 06 p1583 N93-19795
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion [PB93-115632] 07 p2000 N93-21691
Applicability of satellite remote sensing for slope instability hazard zonation 08 p2368 N93-23817
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
Geologic structure and processes of the eastern Pacific margin: California and Costa Rica 09 p2771 N93-25424
Information extraction and integration in mineral exploration 10 p3167 N93-28072
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960

STRUCTURAL RELIABILITY
Theoretical and experimental investigations concerning the structural integrity of aeroengine compressor discs 01 p0010 N93-10539
A domain decomposition method for parallel transient response calculations 03 p0504 N93-13827
Reliability of stiffened structural panels: Two examples [NASA-TM-107687] 04 p0900 N93-14483

The application of structural reliability techniques to plume impingement loading of the Space Station Freedom Photovoltaic Array
[NASA-TM-105949] 06 p1459 N93-17988
Effect of bow-type initial imperfection on reliability of minimum-weight, stiffened structural panels
[NASA-TP-3263] 06 p1556 N93-18615
An efficient method for the reliability analysis of geometric nonlinear frame structures
07 p1931 N93-20651
Fatigue of old metallic railroad bridges
07 p1949 N93-21330
Mapping methods for computationally efficient and accurate structural reliability
[NASA-TM-105892] 08 p2330 N93-23745
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
An efficient technique for structural reliability with applications 09 p2727 N93-25681
Probabilistic sizing of laminates with uncertainties
[NASA-TM-106145] 10 p2990 N93-27082
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force
10 p2926 N93-27210
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Structural reliability methods: Code development status 12 p3694 N93-31563
Commercialization of NESSUS: Status
12 p3695 N93-31567
Mapping methods for computationally efficient and accurate structural reliability 12 p3695 N93-31572
Probabilistic simulation of the human factor in structural reliability 12 p3696 N93-31573
Ageing aircraft research in the Netherlands
[NLR-TP-91443-U] 12 p3679 N93-32203

STRUCTURAL RIGIDITY
U STRUCTURAL STABILITY

STRUCTURAL STABILITY
NT SHELL STABILITY
A multilayered shell finite element
01 p0049 N93-10495
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads
02 p0335 N93-11200
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
DYNAC: A computer program for analyzing the dynamical stability of aircraft
[REPT-B-31] 02 p0216 N93-12415
Numerical calibration of the stable poisson loaded specimen
[NASA-TM-105609] 03 p0622 N93-12738
A multiple pointing-mount control strategy for space platforms
[NASA-CR-184448] 03 p0522 N93-12893
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
Bifurcation and localization instabilities in plastic bending of cylindrical shells 03 p0630 N93-13923
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Nonlinear dynamic response of shallow arches to harmonic forcing 04 p0898 N93-14282
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
The effect of geometry and prescribed delaminations on the postbuckling behaviour of laminated carbon-fibre reinforced plastic panels 04 p0831 N93-14597
Advanced aeroservoelastic stabilization techniques for hypersonic flight vehicles
[NASA-CR-189702] 04 p0802 N93-14811
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
On formulations of path-following techniques for structural stability analysis
[LR-676] 05 p1186 N93-16346
Aeroelastic stability and response of rotating structures
[NASA-CR-191803] 05 p1068 N93-16560
Charge-induced structural relaxation in amorphous semiconductors
[MBB-Z-0265-89-PUB] 05 p1151 N93-17641
Optimum Design of High Speed Prop-Rotors
[NASA-CR-190915] 06 p1437 N93-18064
Finite element analysis of stiffened plate vibrations
06 p1557 N93-18757
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm
07 p1823 N93-20167
Probabilistic design procedures for load bearing ceramic components 07 p1930 N93-20647
An efficient method for the reliability analysis of geometric nonlinear frame structures
07 p1931 N93-20651
Prebuckling deflections and lateral buckling: Applications
[PB92-225366] 07 p1946 N93-21017
Prebuckling deflections and lateral buckling: Theory
[PB92-225382] 07 p1946 N93-21018
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
Control design variable linking for optimization of structural/control systems
[NASA-CR-4493] 08 p2125 N93-22827
Stability analysis and modeling of rotating flexible structures 08 p2475 N93-23198
Dynamic response and stability of semi-rigid frames
08 p2327 N93-23199
Active control of NITINOL-reinforced structural composites
[AD-A261062] 09 p2638 N93-25780
MIT's interferometer CST testbed
09 p2609 N93-25836
Repair, evaluation, maintenance, and rehabilitation research program. Continuous Deformation Monitoring System (CDMS)
[AD-A261833] 09 p2586 N93-26274
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
Low-cost Active Structural Control space experiment (LASC) 11 p3263 N93-28700
Bainitic stabilization of austenite in low alloy steels
[DE93-008275] 11 p3321 N93-28957

STRUCTURAL STRAIN
High-temperature strain measurement techniques: Current developments and challenges
03 p0599 N93-13669
The effect of initial imperfections on shell stability: A review
[LR-618] 05 p1186 N93-16412
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
The development of detection technique for fatigue crack due to thermal stratification phenomena in RCS piping
[DE93-605749] 12 p3740 N93-31823
Low cycle fatigue behaviour of titanium disc alloys
[NLR-TP-91346-U] 12 p3683 N93-32372

STRUCTURAL VIBRATION
NT BENDING VIBRATION
NT FLUTTER
NT LINEAR VIBRATION
NT PANEL FLUTTER
NT SELF INDUCED VIBRATION
NT TORSIONAL VIBRATION
NT TRANSONIC FLUTTER
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Proceedings of the Twelfth Canadian Congress of Applied Mechanics, volumes 1 and 2
[ISBN-0920049-03] 01 p0044 N93-10466
Vibration of laminated composite plates using various plate theories: Analytical and finite element results
01 p0045 N93-10473
Vibrations of a flexible Timoshenko beam under gravity 01 p0053 N93-10512
Overview of the vibroimpact damping of packaged particles 01 p0056 N93-10528
Mode localization in a simple continuum model
01 p0056 N93-10529
Experimental investigation of simple support condition in free vibration analysis of plates
01 p0056 N93-10530
Flexural vibration of beams with varying section properties 01 p0057 N93-10531
Natural vibrations of multilayered doubly curved shells
01 p0057 N93-10532
Free vibrations of the thick circular cylindrical shells and rings 01 p0057 N93-10533
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
On the vibration of axisymmetric shells
01 p0057 N93-10535
The vibrations of annular discs: A comparison of experimental and two analytical techniques
01 p0058 N93-10536
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
Description of the structural responses in the medium-frequency range by an energetic formulation
[ECL-92-16] 02 p0336 N93-11582
A consistent cracked bar vibration theory
02 p0339 N93-12000
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
Acoustic radiation from a point excited infinite bilaminar plate 03 p0531 N93-13144
Method and apparatus for minimizing multiple degree of freedom vibration transmission between two regions of a structure
[NASA-CASE-LAR-14508-1-CU]
03 p0626 N93-13420
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy
04 p0820 N93-15598
Modal identification of mechanical structures by means of tuned base-motion excitation
05 p1077 N93-15721
Vibration characterisation for low level disturbances induced in telecommunications spacecraft
05 p1078 N93-15733
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
Acoustically induced vibration of platform mounted equipment containing printed circuit boards
05 p1082 N93-15762
Power flow finite element analysis for beams and plates 05 p1083 N93-15765
Development of a laser-based measurement system for modal testing of large space structures
05 p1083 N93-15766
Structure-acoustic finite element analyses for noise reduction investigations of launcher payload compartment structures made of CFRP sandwich material
05 p1084 N93-15779
Fluid-structure interaction applied to the analysis of a test sandwich panel typical for spatial applications
05 p1085 N93-15780
Effect of the payload on the surrounding internal acoustic environment at lift-off 05 p1085 N93-15782
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Methods for improving damping. Part 3: Damping material data
[ESDU-92001] 06 p1554 N93-17997
Basic research on design analysis methods for rotorcraft vibrations
[NASA-CR-191917] 06 p1556 N93-18576
Structural Analysis 1992
[VTT-SYMPOSIUM-128] 06 p1556 N93-18749
Coupling between plate vibration and acoustic radiation
[NASA-CR-189741] 06 p1651 N93-18770
The JPL Phase B interferometer testbed
06 p1464 N93-18834
SSF loads and controllability during assembly
06 p1465 N93-18838
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms
06 p1465 N93-18839
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure
06 p1466 N93-18846
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
Precision slew/settle technologies for flexible spacecraft 06 p1468 N93-18938

Robust control of smart structures
06 p1550 N93-19057
Multidisciplinary tailoring of hot composite structures
[NASA-TM-106027] 07 p1920 N93-19971
Wavelet features for failure detection and identification in vibration systems
[AD-A259427] 07 p1914 N93-20007
Large amplitude free vibrations of cross-ply composite beams 07 p1930 N93-20646
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Multimodal optimization of vibrating space frames
07 p1931 N93-20652
Instability and variation analysis using a parallel substructuring procedure 07 p1932 N93-20659
Dynamic simulation of flexible body systems by the vector solution method 07 p1933 N93-20666
Green's function method for vibration of structures
07 p1934 N93-20667
Forced vibration of non-selfadjoint elastic systems
07 p1934 N93-20668
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
On oscillatory motion of a spring-mass system subjected to piecewise constant forces 07 p1934 N93-20670
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Coupled multi-disciplinary composites behavior simulation
[NASA-TM-106011] 08 p2322 N93-22481
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Precursor SSF utilization: The MODE experiments
08 p2188 N93-22633
Modal identification experiment
08 p2188 N93-22635
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873
The effects of delamination on the vibrational characteristics of composite structural elements
08 p2210 N93-23202
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors
09 p2604 N93-24723
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
On the effective reflection properties of the randomly segmented elastic bar 09 p2724 N93-25328
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Inclusion of transverse shear deformation in the exact buckling and vibration analysis of composite plate assemblies
[NASA-CR-4510] 10 p3056 N93-27075
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
The 3rd Annual Controlled Structures Technology Symposium
[NASA-CR-192993] 10 p3060 N93-28167
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Description of the Joint Damping Experiment (JDX)
11 p3263 N93-28703
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
Upper atmosphere research satellite jitter study
11 p3264 N93-28708
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868
Noise from high speed maglev systems: Noise sources, noise criteria, preliminary design guidelines for noise control, and recommendations for acoustical test facility for maglev research
[PB93-154896] 12 p3736 N93-32193
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237
Vibrational power transmission in curved beams. Part 1: Theory
[ISVR-TR-208] 12 p3742 N93-32340

STRUCTURAL WEIGHT
Lunar PMAD technology assessment
[NASA-CR-189225] 02 p0347 N93-12017
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
An investigation of dynamic stress reduction of multi-body aircraft using active gust control
03 p0505 N93-13916
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236
Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979

STRUCTURED PROGRAMMING
The WEB approach to ELLA
[RSRE-MEMO-4549] 02 p0409 N93-11407
Using SGML in a large organization
[ESA-STR-234] 02 p0476 N93-11583
Geometric constraint satisfaction
[CWI-CS-R9141] 05 p1236 N93-16339
On the borderline between grammars and programs
[TR-91-17] 05 p1252 N93-17594
The integration of specification aspects in database design
[ISBN-90-9004461-2] 06 p1687 N93-18445
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
Engineering data integration: Problems and solutions
[PNR-90999] 08 p2525 N93-23370
Verification of parameterised synchronous concurrent algorithms with OBJ3: The pixel planes architecture revisited
[CWI-CS-R9225] 10 p3095 N93-27378
A predicate transformer for unification
[CWI-CS-R9227] 10 p3096 N93-27391
Reactive integration for traditional programming languages
[AD-A263986] 11 p3531 N93-29866

STRUTS
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
Sunshade support structure: Structure and testing
05 p1080 N93-15748
Equivalent lengths of struts (for use in buckling calculations)
[ESDU-92038] 06 p1554 N93-18046
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827
Design, analysis, and testing of high frequency passively damped struts 06 p1464 N93-18835
A comparison of viscoelastic damping models
06 p1464 N93-18836
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure
06 p1466 N93-18846
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
Composite passive damping struts for large precision structures
[NASA-CASE-NPO-17914-1-CU]
08 p2333 N93-24596
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
An in-depth probabilistic study of external tank attach ring
[NASA-TM-108403] 09 p2624 N93-25671
MIT's interferometer CST testbed
09 p2609 N93-25836
Structural load control during construction
09 p2669 N93-26409
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707
Development of an experimental method to determine the axial rigidity of a strut-node joint
11 p3290 N93-30950

STS
U SPACE TRANSPORTATION SYSTEM

STUDENTS
The levels of mathematics achievement: Initial performance standards for the 1990 NAEP mathematics assessment, volume 3
[PB92-199421] 01 p0134 N93-10341
Change analysis
[AD-A253567] 01 p0146 N93-10795
Questioning mechanisms during complex learning
[AD-A247382] 02 p0386 N93-11415
A summer program in mathematics and computer science for academically oriented students, June 24 - July 26, 1991, Washington, DC
[AD-A249139] 02 p0427 N93-12061
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Systematic chemical equation balancing
[DE92-017234] 03 p0539 N93-13530
Suited for spacewalking: A teacher's guide with activities
[NASA-EP-279] 03 p0679 N93-13692
Fiscal Year 1991 highlights
[NSF-92-23] 03 p0731 N93-13702
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
Development of a MATLAB toolbox for image processing
[AD-A256130] 04 p0942 N93-14247
Long term memory for different types of classroom knowledge
[AD-A255235] 04 p0999 N93-14526
The SWOOPE experience: Precollege students mapping the environment
[DE92-040390] 05 p1198 N93-15663
Ventures in science
[DE93-003044] 05 p1331 N93-16521
Future Assets, Student Talent (FAST)
[NASA-CR-191632] 05 p1332 N93-16624
Diagnosing knowledge states in algebra using the rule space model
[AD-A257757] 06 p1645 N93-18246
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Probabilistic student modeling with knowledge space theory
[AD-A258622] 07 p2045 N93-19997
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
Preliminary studies of planning and flight strip use as air traffic controller memory aids
[DOT/FAA/CT-TN92/22] 07 p1780 N93-21759
Pipeline issues 08 p2517 N93-23148
Space support forum 08 p2153 N93-23160
From Ship to Shuttle: NASA Orbiter Naming Program, September 1988 - May 1989
[NASA-EP-276] 08 p2179 N93-23732

The world wide launching campaign for student rockets experimental payloads 08 p2368 N93-23820
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students [NASA-EP-285] 08 p2399 N93-24148
MIT Space Engineering Research Center [NASA-CR-192879] 09 p2821 N93-25833
Performance-based testing and success in Naval advanced flight training [AD-A260838] 09 p2590 N93-25933
The 1993/1994 NASA Graduate Student Researchers Program [NASA-EP-283] 09 p2872 N93-26051
Contribution of personality to the prediction of success in initial air traffic control specialist training [DOT/FAA/AM-93/4] 09 p2797 N93-26138
Digest of education statistics, 1992 [PB93-169522] 10 p3161 N93-27420
Filling the gaps: An overview of data on education in grades K through 12 [PB93-176550] 11 p3608 N93-30821
Materials education activities 11 p3291 N93-30958
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Foreign participation in US Academic science and engineering: 1991 [PB93-186583] 12 p3833 N93-31328

STURM-LIOUVILLE OPERATOR
U STURM-LIOUVILLE THEORY

STURM-LIOUVILLE THEORY
Solution of a class of Sturm-Liouville problems using the Galerkin method with global basis functions [DE93-005156] 08 p2474 N93-23692

STYPHNATES
Effects of particle beams on explosives [AD-A256878] 05 p1128 N93-15708

STYRENES
NT POLYSTYRENE
NT STYROFOAM (TRADEMARK)
Transition metal mediated transformations of small molecules [DE93-001725] 05 p1117 N93-17623

STYROFOAM (TRADEMARK)
Nonlinear aeroelasticity of composite structures [AD-A254285] 01 p0008 N93-10842

SUBASSEMBLIES
Backward assembly planning with DFA analysis [NASA-CASE-NPO-18817-1-CU] 02 p0278 N93-12202
Assembling polyhedra with single translations [AD-A254623] 02 p0419 N93-12239
A comparison of refined models for flexible subassemblies 06 p1464 N93-18833
Expert systems for assembly sequence evaluation 09 p2669 N93-26411
Hybrid CMS methods with model reduction for assembly of structures 11 p3274 N93-29110

SUBCARRIER WAVES
U CARRIER WAVES

SUBCIRCUITS
U CIRCUITS
U SUBASSEMBLIES

SUBCONTRACTS
Human factors research in aircrew performance and training: 1986-1991 [AD-A254455] 03 p0677 N93-12609
USAF 1990 research initiation program, volume 2 [AD-A254654] 03 p0773 N93-12663

SUBDIVISIONS
Space physics strategy: Implementation study. Volume 2: Program plan [NASA-TM-108143] 06 p1453 N93-18544

SUBDUCTION (GEOLOGY)
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Tectonic connections to interior processes on Venus 04 p1039 N93-14361
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Episodic plate tectonics on Venus 04 p1044 N93-14390
Evolution of attached and detached slabs and their associated mantle dynamics [NASA-CR-191920] 06 p1576 N93-18320
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea [DE93-000796] 08 p2392 N93-22807
Geologic structure and processes of the eastern Pacific margin: California and Costa Rica 09 p2771 N93-25424

SUBGIANT STARS
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra [NASA-RP-1312] 12 p3861 N93-31737

SUBGRAVITY
U MICROGRAVITY

SUBGROUPS
Applications of star complexes in group theory 02 p0485 N93-11879

SUBJECTS
USA aviation digest index, 1989, volume 11 [AD-A258673] 07 p2089 N93-20388
Index to USA aviation digest, 1990 [AD-A258678] 07 p2089 N93-20389
Index to USA aviation digest, 1991 [AD-A258679] 07 p2089 N93-20390
Status of document search and data quality objective efforts [DE93-003216] 07 p2092 N93-21959
AGRICOLA subject category codes with scope notes (modified AGRIS) [PB93-152643] 08 p2528 N93-24202

SUBLATTICES
U LATTICES (MATHEMATICS)
U SUBGROUPS

SUBLAYERS
U SUBSTRATES

SUBLIMATION
Erosion mechanisms in ceramic structures [MBB-UK-0171-92-PUB] 02 p0263 N93-11011
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Sublimation rates of carbon monoxide and carbon dioxide from comets at large heliocentric distances 06 p1717 N93-19240
Natural laminar flow test in-flight visualization 06 p1417 N93-19921
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929

SUBMARINES
Submarine Advanced Integrated Life Support system (SAILS) program [AD-A253564] 02 p0388 N93-11812
Visualization of scattering strength of elastic bodies in a fluid [AD-A254535] 03 p0699 N93-12601
Chemical environments of submarine hydrothermal systems [NASA-CR-191258] 03 p0669 N93-13458
Satellite to Submarine Laser Communications (SLC): Advanced filter technology [AD-A257217] 05 p1136 N93-15817
Motion simulation of underwater vehicles [VTT-PUBS-97] 06 p1623 N93-18698
Integrating real-time digital signal processing capability into a large research and development facility [DE93-003085] 07 p2060 N93-21957
Membrane technology: A search for membranes for submarine atmosphere control [AD-A260561] 09 p2801 N93-25904
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines 11 p3399 N93-30755

SUBMERGED BODIES
NT DIVING (UNDERWATER)
Fluid-structure interaction using retarded potential and ABAQUS [AD-A254735] 02 p0307 N93-12355
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation [AD-A262237] 10 p3130 N93-27933
Sound wave scattering from an elastic spherical shell [AD-A264039] 11 p3562 N93-30029
Sound wave scattering from a rigid sphere [AD-A264182] 11 p3562 N93-30157
Terminal project heat convection in thin cylinders [DE93-609489] 12 p3723 N93-31245
A continuation method for computing non-linear 3-D free surface flows [DE93-008704] 12 p3727 N93-32175

SUBMERGING
Effect of hemorrhage on cardiac output, vasopressin, aldosterone, and diuresis during immersion in men [NASA-TM-103949] 02 p0374 N93-12014
Immersion objective lenses in electron optics [ETN-92-92799] 06 p1662 N93-18442

SUBMILLIMETER WAVES
A submillimeter-millimeterwave study of the molecular gas in the nuclear regions of three nearby starburst galaxies 02 p0484 N93-11260
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O [DE92-017075] 02 p0466 N93-12125
The millimeter and submillimeter wavelength diffuse backgrounds: Measurements of the spectrum and anisotropy 03 p0772 N93-13145
Space-qualified submillimeter radiometer [NASA-CR-190886] 03 p0603 N93-13709
A submillimetre polarimeter for the continuum receiver UKT14 on the James Clerk Maxwell Telescope 03 p0748 N93-13852
Thermal and nonthermal star formation: An investigation into the process of star formation as a function of stellar mass 03 p0758 N93-14091
Submillimeter and infrared spectroscopy of molecular clouds near O and B stars 04 p1016 N93-14149
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
Experiences with large CFRP-radiotelescope reflectors 05 p1084 N93-15777
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators [NASA-CR-190885] 06 p1518 N93-18057
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels [NASA-CR-192305] 06 p1582 N93-19036
Submillimeter molecular line observations of cometary Levy (1990c) 06 p1698 N93-19237
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels [NASA-CR-192098] 06 p1583 N93-19886
FIRST: Far Infrared and Submillimeter Space Telescope 08 p2540 N93-23924
Phase differences of the fields in a Ramsey resonator for submillimetric frequency standards 09 p2840 N93-25042
Solid state frequency synthesis up to 600 GHz: An application to the Mg frequency standard 09 p2842 N93-25058
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation [AD-A261117] 09 p2609 N93-25770
Primeval galaxies in the sub-mm and mm 10 p3172 N93-26713
Observations of the CO J=6-5 transition in starburst galaxies 10 p3184 N93-26783
The Third International Symposium on Space Terahertz Technology: Symposium proceedings [NASA-CR-193013] 10 p3011 N93-27726
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications 10 p3012 N93-27734
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741
A 380 GHz SIS receiver using Nb/AlO(x)/Nb junctions for a radioastronomical balloon-borne experiment: PRONAOS 10 p3013 N93-27742
Slot antenna SIS mixers for submillimeter wavelengths 10 p3014 N93-27745
A fixed tuned broadband matching structure for submillimeter SIS receivers 10 p3014 N93-27747
Slot-line end-fire antennas for THz frequencies 10 p3015 N93-27751
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754
Zone plate lens antennas for millimeter and submillimeter wavelengths 10 p3016 N93-27757
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies 10 p3016 N93-27758
Sub micron area Nb/AlO(x)/Nb tunnel junctions for submillimeter mixer applications 10 p3016 N93-27761
Fabrication and characterization of high current-density, submicron, NbN/MgO/NbN tunnel junctions 10 p3017 N93-27763
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Submillimeter wave detection with superconducting tunnel diodes 10 p3018 N93-27769
Evaluation of integrated tuning elements with SIS devices 10 p3018 N93-27770
Source conductance scaling for high frequency superconducting quasiparticle receivers 10 p3018 N93-27771
Resonant tunneling diodes as sources for millimeter and submillimeter wavelengths 10 p3018 N93-27772
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774

Planar GaAs diodes for THz frequency mixing applications 10 p3019 N93-27776
New approach to the design of Schottky barrier diodes for THz mixers 10 p3019 N93-27778
Measurements of the single sideband suppression for a 650 GHz heterodyne receiver 10 p3020 N93-27780
InGaAs/InP heteroepitaxial Schottky barrier diodes for terahertz applications 10 p3020 N93-27781
A broadband THz receiver for low background space applications 10 p3020 N93-27782
AlGaAs/GaAs quasi-bulk effect mixers: Analysis and experiments 10 p3020 N93-27783
All-solid-state radiometers for environmental studies to 700 GHz 10 p3020 N93-27784
A 492 GHz cooled Schottky receiver for radio-astronomy 10 p3021 N93-27785
Novel low temperature superconducting bolometers [DE93-010433] 11 p3430 N93-28664
Superconducting submillimeter and millimeter wave detectors [DE93-007656] 11 p3431 N93-29149
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O [DE93-010430] 11 p3596 N93-29868
Submillimeter CO observations of warm gas around T-Tauri stars [MPE-PREPRINT-232] 11 p3631 N93-30615
Submillimeter interferometry 12 p3845 N93-31754
Report of the submillimeter splinter group 12 p3847 N93-31770
Submillimetre line observations of molecular clouds 12 p3848 N93-31772

SUBREFLECTORS
Method of moments analysis of symmetric dual reflector antennas with feeds [AD-A255171] 02 p0286 N93-12407
A note on the computation of antenna-blocking shadows 11 p3385 N93-29593
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600

SUBROUTINE LIBRARIES (COMPUTERS)
NSWC library of mathematics subroutines [AD-A261511] 09 p2884 N93-26575
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations [PB93-180248] 11 p3386 N93-29680

SUBROUTINES
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Circuit design tool. User's manual, revision 2 [NASA-CR-191361] 03 p0687 N93-13734
A general purpose subroutine for fast fourier transform on a distributed memory parallel machine [NASA-CR-189724] 05 p1241 N93-16681
Extending compile-time reverse mode and exploiting partial separability in ADIFOR [DE93-004668] 08 p2467 N93-22776
PASCAL subroutines for standard test problems in unconstrained minimization [MATHS-REPT-A-155] 08 p2441 N93-24076
A user's manual for software GPR92 [MATHS-REPT-A-175] 08 p2444 N93-24642
Interactive interface for National Center for Atmospheric Research (NCAR) Graphics 09 p2878 N93-25794
Adaptive EAGLE dynamic solution adaptation and grid quality enhancement 10 p2937 N93-27464
Development of a PC code package for the analysis of research and power reactors [DE92-638517] 11 p3536 N93-31001
HELAS: HELicity amplitude subroutines for Feynman diagram evaluations [DE93-715538] 12 p3813 N93-31166

SUBSETS (MATHEMATICS)
U SET THEORY

SUBSIDENCE
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime [AD-A265406] 12 p3768 N93-32043
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990 [PB93-182236] 12 p3765 N93-32191

SUBSIDIARIES
Nonmonotonic temporal reasoning [AD-A258699] 07 p2032 N93-20377

SUBSONIC AIRCRAFT
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft [AD-A262374] 10 p2943 N93-27694

SUBSONIC FLOW
Improved numerical simulation of Euler equations 01 p0080 N93-10309
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions [NASA-CR-190935] 02 p0197 N93-11605
An experimental investigation of the flow in a diffusing S-duct [NASA-TM-105809] 02 p0213 N93-12077
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip 03 p0496 N93-13822
Control of asymmetric jet [AD-A255967] 04 p0873 N93-14400
A compilation of the mathematics leading to the doublet lattice method [AD-A256304] 04 p0779 N93-14441
Chemical reactions in turbulent mixing flows [AD-A256004] 04 p0842 N93-15114
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model [AD-A256831] 04 p0880 N93-15635
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers [AD-A260118] 08 p2113 N93-23714
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver [NASA-CR-4490] 08 p2127 N93-24108
An experimental investigation of subsonic flow in a two-dimensional U-duct [NASA-TM-103931] 08 p2128 N93-24535
Uniform roughness studies [WL-TR-92-3041] 09 p2706 N93-25951
Unsteady airfoil flow solutions on moving zonal grids [AD-A261925] 09 p2582 N93-26198
An extended Lagrangian method [NASA-TM-106129] 09 p2707 N93-26203
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number [NASA-TM-106198] 10 p2945 N93-27610
The numerical solution of low Mach number flow in confined regions by Richardson extrapolation [TRITA-NA-9207] 11 p3238 N93-29005
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet [NASA-TM-106240] 11 p3252 N93-29162
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Plasma/particle interaction in subsonic argon/helium thermal plasma jets [DE93-010808] 11 p3589 N93-30181
Numerical wave propagation and steady-state solutions 11 p3428 N93-30999

SUBSONIC SPEED
Non-propulsive aerodynamic noise 01 p0149 N93-10673
Prediction of jet mixing noise for high subsonic flight speeds 01 p0151 N93-10685
A concept for a counterrotating fan with reduced tone noise [NASA-TM-105736] 02 p0433 N93-11370
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system [NASA-CR-189699] 02 p0405 N93-12346
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221
Preconditioned conjugate-gradient methods for low-speed flow calculations [NASA-TM-105929] 04 p0877 N93-14885
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques [NASA-TM-105936] 04 p0801 N93-15403
Effect of a rotating propeller on the separation angle of attack and distortion in ducted propeller inlets [NASA-TM-105935] 05 p1055 N93-16625
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds [ESDU-92039] 05 p1055 N93-16634
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack [ESDU-92029] 05 p1056 N93-16638
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range [DLR-FB-91-43] 07 p1783 N93-21762
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026
Conceptual design study of a variable cycle engine for a supersonic business jet [ETN-93-93486] 08 p2130 N93-23371
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects [NASA-CR-191087] 08 p2111 N93-23431
Effect of underwing frost on transport aircraft takeoff performance [DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
High-lift aerodynamics: Prospects and plans 10 p2933 N93-27442
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450

SUBSONIC WIND TUNNELS
Further noise measurements in a slotted cryogenic wind tunnel [RAE-TM-AERO-2201] 01 p0153 N93-10805
The measurement of the velocity field induced by a gust generator in a closed-circuit subsonic wind-tunnel [RAE-TM-MAT/STR-1102] 02 p0217 N93-11435
Experimental investigation of an ejector-powered free-jet facility [NASA-TM-105868] 05 p1056 N93-16704
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec [NASA-TM-104224] 08 p2116 N93-24532
Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle [NASA-TM-4419] 10 p2928 N93-27032
Aerodynamics of a finite wing with simulated ice 10 p2932 N93-27437

SUBSTANCES
U MATERIALS

SUBSTITUTES
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 3: Influence of molecular weight, interconnecting unit and substituent on the mesomorphic behavior of polymers with laterally attached mesogens [AD-A248698] 02 p0265 N93-11187
Carboxyalkylated hemoglobin as a potential blood substitute [AD-A252329] 02 p0384 N93-11561
Nature of the beta-phase of nickel-aluminum system [AD-A254101] 02 p0261 N93-12269
Application of surrogate materials in process study of actinides [DE93-002257] 07 p1856 N93-20024
Investigations of the effects of isotopic substitution and pressure of miscibility in polymer-polymer and polymer-solvent systems [DE93-005115] 08 p2235 N93-22409
Far-infrared and resonance Raman spectroscopy and isotopic substitution studies of halogen-bridged platinum chain solids [DE93-005450] 08 p2503 N93-22748
Materials compatibility and lubricants research on CFC-refrigerant substitutes [DE93-007806] 08 p2237 N93-22915
Materials characterization of cermet anodes tested in a pilot cell [DE93-008924] 11 p3323 N93-29101
Effect of lead addition on the formation of superconducting phases in Bi-Sr-Ca-Cu-O ceramics [DE93-606893] 11 p3339 N93-30773
A new definition of SLDNF-resolution [CT-92-03] 12 p3806 N93-31530
Materials compatibility and lubricants research on CFC-refrigerant substitutes [DE93-014770] 12 p3711 N93-32292

SUBSTITUTION
U SUBSTITUTES

SUBSTRATES
UV spectrum splitting mirror [DE92-018057] 01 p0159 N93-10818

Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
Formation of buried epitaxial Si-Ge alloy layers in Si (100) crystal by high dose Ge ion implantation
[DE92-017114] 02 p0466 N93-12127
Compensated high temperature strain gage
[NASA-CASE-LAR-14776-1] 02 p0313 N93-12205
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
Recent advances in carbon-carbon substrate technology at NASA. Langley Research Center 02 p0228 N93-12455
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Growth of solid solutions of aluminum nitride and silicon carbide by metalorganic chemical vapor deposition
[AD-A255000] 02 p0254 N93-12518
Synthesis and properties of mismatched heterojunction/substrate interfaces
[AD-A254577] 03 p0719 N93-12648
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
Method of applying a thermal barrier coating system to a substrate
[NASA-CASE-LEW-15020-2] 04 p0832 N93-14706
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
Dynamic fabrication of diamond thermal management substrates
[AD-A257213] 05 p1118 N93-15814
The Fourth International Symposium on Si-based molecular beam
[AD-A257241] 05 p1316 N93-16050
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Dual cure solventless coating process
[DE93-001352] 05 p1125 N93-16984
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Research on stable, high-efficiency amorphous silicon multijunction modules
[DE93-000011] 06 p1571 N93-18657
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU] 06 p1521 N93-19051
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-1] 06 p1495 N93-19332
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Structure and reliability metal contacts to GaAs
[AD-A259184] 07 p1889 N93-20272
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications 07 p1838 N93-21158
Applications of fibrous substrates containing insolubilized phase change polymers 08 p2320 N93-22181
Homolytic activation of hydrocarbons and hydrogen by persistent radicals
[DE93-007013] 08 p2218 N93-22515
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Phosphorus-, nitrogen-, sulfur-, and chlorine-containing molecules on surfaces
[AD-A261265] 09 p2657 N93-26303
Halogen adlayers on Ag(111)
[AD-A261792] 09 p2850 N93-26443
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Investigation of misfit dislocation configurations in MBE-grown InGaAs layers on misaligned GaAs (001) substrates
[DE93-007578] 10 p3151 N93-27522
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
Influence of the Cold Buster (tm) sports bar on heat debt, mobilization and oxidation of energy substrates
[AD-A262762] 11 p3493 N93-28939
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
High-dose implantations of Al into Si(111) and Si(100)
[DE93-009552] 11 p3594 N93-29301
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

SUBSTRUCTURES
Complex cognitive information processing: A computational architecture with a connectionist implementation
[AD-A254041] 02 p0422 N93-12259
System identification and model updating for substructures 03 p0624 N93-13065
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
An overview of the crash dynamics failure behavior of metal and composite aircraft structures 11 p3308 N93-30875

SUBTROPICAL REGIONS
U TEMPERATE REGIONS
U TROPICAL REGIONS

SUCCESS PROJECT
Statistical process control program at a ceramics vendor facility
[DE93-006043] 08 p2238 N93-23025
Implementation of quality improvement techniques for management and technical processes in the ACRV project 09 p2723 N93-26074

SUCTION
Dynamical effects of suction/heating on turbulent boundary layers
[AD-A248459] 02 p0299 N93-11416
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
The effect of surface suction near the leading edge of a swept-back wing
[AERO-REPT-9205] 07 p1761 N93-20807
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151

SUD AVIATION AIRCRAFT
NT CONCORDE AIRCRAFT

SUDAN
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585

SUDDEN IONOSPHERIC DISTURBANCES
Solar-geophysical data number 573, May 1992. Part 1: Prompt reports, data for April, March 1992 and late data
[PB92-213461] 07 p2101 N93-21375
Solar-geophysical data number 577, September 1992. Part 1: Prompt reports, data for August, July 1992 and late data
[PB93-116945] 07 p2101 N93-21385
Solar-geophysical data number 575, July 1992. Part 1: (Prompt reports). Data for May, April 1992 and late data
[PB92-235993] 07 p2101 N93-21469
Solar-geophysical data number 579, November 1992. Part 1: (Prompt reports). Data for October, September 1992, and late data
[PB93-141703] 08 p2558 N93-24175
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Solar-geophysical data number 582, February 1993. Part 1: (Prompt reports). Data for January 1993, December 1992 and late data
[PB93-174035] 10 p3218 N93-27513

SUGARS
NT GLUCOSE
NT MONOSACCHARIDES
NT XYLOSE
Discovery of spatial concepts in crystallographic databases 06 p1690 N93-19727
Apparatus and method for cellulose processing using microwave pretreatment
[NASA-CASE-MSC-21936-1-SB] 08 p2216 N93-22036

SUITS
NT EXTRAVEHICULAR MOBILITY UNITS
NT SPACE SUITS
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471

SULFATES
NT LITHIUM SULFATES
NT SODIUM SULFATES
Acid copper sulfate plating bath: Control of chloride and copper
[DE92-019473] 02 p0249 N93-11644
Synthesis and conductivity of copolymer of 4,4'-diaminodiphenylamine and terephthaloyl chloride
[AD-A254880] 02 p0273 N93-12440
Sulfate impact upon low-level cloud albedo over oceans 03 p0661 N93-12833
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
Development and application of the quasi-potential transformation
[DE93-000580] 05 p1262 N93-15897
A study of TRIGLYCINE SULFATE (TGS) crystals from the International Microgravity Laboratory Mission (IML-1)
[NASA-CR-191956] 07 p2078 N93-20127

Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
A surface analytical investigation of the influence of sulphate reducing bacteria on metallic corrosion
[AD-A262357] 10 p2999 N93-27647
Adsorption of sulfate on metal electrodes
[AD-A263192] 11 p3309 N93-28540
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Mars brine formation experiment 12 p3864 N93-31949

SULFIDATION
Oxidation-sulfidation behavior of iron alloys containing 16 to 40 atomic percent aluminum
[DE92-017824] 02 p0259 N93-11830
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254

SULFIDES
NT CADMIUM SULFIDES
NT CARBON DISULFIDE
NT DISULFIDES
NT HYDROGEN SULFIDE
NT LEAD SULFIDES
NT MOLYBDENUM DISULFIDES
NT POLYSULFIDES
NT PYRITES
NT WURTZITE
NT ZINC SULFIDES
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Removal of THD from painted test panels by liquid systems
[AD-A255624] 04 p0850 N93-15064
High temperature rare earth and Si-Ge thermoelectric materials
[DE93-006913] 08 p2513 N93-24462

SULFONATES
Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146

SULFONES
Phase transfer catalytic nucleophilic addition reactions: Synthesis of polymers and acetylenic terminated resins
[AD-A254717] 02 p0272 N93-12337

SULFONIC ACID
Carboxyalkylated hemoglobin as a potential blood substitute
[AD-A252329] 02 p0384 N93-11561
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
Dioxygen reduction in various acid electrolytes
[AD-A263564] 11 p3317 N93-30664

SULFUR
Uses of lunar sulfur 03 p0761 N93-13981
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
The effect of rhenium, sulfur, and alumina on the conversion of hydrocarbons over platinum single crystals: Surface science and catalytic studies
[DE93-002557] 06 p1484 N93-19485
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Results from the NA36 on strangeness production in 200 GeV/c per nucleon S + Pb and p - Pb reactions
[DE93-007711] 09 p2848 N93-25364
Visible light emitting materials and injection devices
[AD-A263025] 10 p3152 N93-27913
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
Marine microbial production of dimethylsulfide from dissolved dimethylsulfoniopropionate
[NASA-CR-193278] 11 p3492 N93-30665
Hydrogen sulfide decomposition into hydrogen and sulfur by quinone cycles, part 1
[PB93-175297] 11 p3317 N93-30761

SULFUR COMPOUNDS
NT CADMIUM SULFIDES
NT CARBON DISULFIDE
NT DISULFIDES
NT HYDROGEN SULFIDE
NT LEAD SULFIDES
NT LITHIUM SULFATES
NT MOLYBDENUM DISULFIDES
NT ORGANIC SULFUR COMPOUNDS
NT POLYSULFIDES
NT PYRITES
NT SODIUM SULFATES
NT SULFATES
NT SULFIDES
NT SULFONATES
NT SULFONES
NT SULFUR DIOXIDES
NT SULFUR FLUORIDES
NT SULFUR OXIDES
NT SULFURIC ACID
NT THIOLS
NT WURTZITE
NT ZINC SULFIDES
The relative importance of sulfur and nitrogen compounds in the acidification of freshwater
[DE92-016899] 02 p0354 N93-11680
Uses of lunar sulfur 03 p0761 N93-13981
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834

SULFUR DIOXIDES
Allowance system: Proposed acid rain rule
[PB92-226174] 02 p0356 N93-12524
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-191256] 03 p0758 N93-13344
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
Kinetic studies of some free radical reactions involved in cloudwater chemistry 03 p0668 N93-14055
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV 04 p1045 N93-14397
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Smart battery controller for lithium sulfur dioxide batteries
[AD-A255490] 04 p0867 N93-14642
SO2 on Venus: A final cross-calibration with Pioneer Venus
[NASA-CR-192273] 08 p2554 N93-23096
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
Technological options for acid rain control
[PB93-173094] 10 p3069 N93-27527
Analysis of protocol gases: An on-going quality assurance audit
[PB93-168839] 11 p3311 N93-29204
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Proceedings: 1991 SO2 Control Symposium, volume 2, sessions 4 and 5A
[PB93-196103] 12 p3754 N93-32090
Proceedings: 1991 SO2 Control Symposium, volume 3, sessions 5B and 6
[PB93-196111] 12 p3755 N93-32091
Proceedings: 1991 SO2 Control Symposium, volume 4, session 7
[PB93-196129] 12 p3755 N93-32092
Proceedings: 1991 SO2 Control Symposium, volume 5, session 8
[PB93-196137] 12 p3755 N93-32093
Proceedings of the 1991 SO2 Control Symposium, volume 1
[PB93-196095] 12 p3755 N93-32168

SULFUR FLUORIDES
A cryogenic enrichment technique for gas chromatographic detection of S2F10 in SF6 discharges
[DE92-011045] 02 p0252 N93-12219
Modeling and control study of the NASA 0.3-meter transonic cryogenic tunnel for use with sulfur hexafluoride medium
[NASA-CR-189737] 05 p1157 N93-16379
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
Redistribution of trace chemical species by a small convective cloud
[PB93-156164] 09 p2765 N93-25873
ACE 1992 summary data report: Aircraft measurements of meteorological parameters and SF6
[PB93-174886] 10 p3077 N93-27407
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972

SULFUR OXIDES
NT SULFUR DIOXIDES
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635

SULFURIC ACID
A comparison of chromic acid and sulfuric acid anodizing
[NASA-TM-108383] 03 p0543 N93-13378
Long-term variations in abundance and distribution of sulfuric acid vapor in the Venus atmosphere inferred from Pioneer Venus and Magellan radio occultation studies 04 p1030 N93-14328
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
In situ Fourier transform infrared spectroscopic study of bisulfate and sulfate adsorption on gold, with and without the underpotential deposition of copper
[AD-A263421] 11 p3323 N93-29259

SUM RULES
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701
Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242

SUMMARIES
NT ABSTRACTS

SUMMER
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I 01 p0127 N93-10851
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period 08 p2405 N93-23219
Gordon Conference on Point Defects, Line Defects and Interfaces in Semiconductors
[AD-A261485] 09 p2868 N93-26357

SUMS
On the sum of accretive operators
[ETN-92-92794] 05 p1265 N93-16566
Description of an adder board
[TR-92-09] 10 p3027 N93-27904
Divisibility properties of integers x and k satisfying 1(exp k) + 2(exp k) +...+ (x - 1)(exp k) = x(exp k)
[CWI-NM-R9215] 10 p3120 N93-28083
SUN
Ground-based high angular resolution observation of the Sun by interferometry in the visible
01 p0177 N93-10941
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Atmospheric detectives: Atlas 2 teacher's guide with activities. For use with middle-school students
[NASA-EP-285] 08 p2399 N93-24148
The Charge, Element, and Isotope Analysis System CELIAS on SOHO 12 p3869 N93-31352
Sungrazing comet observations associated with SOHO
12 p3871 N93-31369
Models of coronal streamers at meter-decameter wavelengths 12 p3872 N93-31374
On the Fabry-Perot investigations of the solar corona: Eclipse observations of the green line intensities and half widths 12 p3872 N93-31375
Quiet and active solar structures as observed at the bottom of the transition region 12 p3874 N93-31382
Photospheric abundances 12 p3878 N93-31408
Study of an optimized configuration for interferometric imaging of complex and extended solar structures
12 p3849 N93-31780
SUN SENSORS
U SOLAR SENSORS
SUNFLOWERS
Environmental impact research program and defense natural resources program: Maximilian sunflower (Helianthus maximiliani), section 7.4.3, US Army Corps of Engineers Wildlife Resources Management Manual
[AD-A257478] 05 p1205 N93-17663
SUNGLASSES
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
SUNLIGHT
Definition of the sea surface infrared sun glitter corridor
[AD-A257100] 05 p1220 N93-16125
Cloud amount and sunshine duration in the People's Republic of China, 1954-1988
[DE92-041023] 05 p1214 N93-16601
Extraterrestrial applications of solar optics for interior illumination 05 p1305 N93-17449
Sun sensor implementation using solar power arrays
[AD-A257627] 05 p1198 N93-17717
Direct solar pumping of semiconductor lasers: A feasibility study
[NASA-CR-192184] 06 p1543 N93-19952
Proceedings of the Workshop on the Solar Electromagnetic Radiation Study for Solar Cycle 22
[PB93-121846] 07 p2101 N93-21292
Video guidance sensor 07 p1812 N93-21409
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
SUNRISE
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401
SUNSET
Tidal and lunar data for Point Mugu, San Nicolas island, and the Barking Sanda area during 1993
[AD-A262725] 11 p3477 N93-29401
SUNSPOTS
An infrared polarimetric study of sunspots
03 p0770 N93-13627
Development of a stable electro-optical modulator
[NASA-CR-184404] 03 p0710 N93-13696
On the variation of the Nimbus 7 total solar irradiance
[NASA-TP-3316] 04 p1049 N93-15532
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334
Sunspot dynamics
[NASA-CR-192284] 07 p2100 N93-20754
The source of five-minute period photospheric umbral oscillations 08 p2548 N93-23214
Chaotic dynamics of the solar cycle
[AD-A260039] 08 p2557 N93-23644
Solar-geophysical data number 581, January 1993. Part 1: (Prompt reports). Data for December, November 1992, and late data
[PB93-161743] 09 p2899 N93-26537
Solar-geophysical data number 581, January 1993. Part 2: (Comprehensive reports). Data for July 1992 and miscellaneous
[PB93-161750] 09 p2899 N93-26538
Multiple flows in the solar transition region
12 p3857 N93-31704
Ionospheric control of the long-term occurrence of Pc1 pulsations observed on ground
12 p3860 N93-31722
SUPERALLOYS
U HEAT RESISTANT ALLOYS
SUPERCHARGERS
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451
SUPERCHARGING
U SUPERCHARGERS
SUPERCOMPUTERS
NT CONNECTION MACHINE
NT CRAY COMPUTERS
The engine design engine. A clustered computer platform for the aerodynamic inverse design and analysis of a full engine
[NASA-TM-105838] 02 p0196 N93-11223
Studies of ocean predictability at decade to century time scales using a global ocean general circulation model in a parallel competing environment
[DE92-019457] 02 p0373 N93-11642
Current state and future direction of computer systems at NASA Langley Research Center
[NASA-TM-107685] 02 p0414 N93-12278
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
Proceedings of FLICC forums on federal information policies. Combined summaries of proceedings. The 1990 7th Forum, Access is the Key and the 1991 8th Forum, Building Information Superhighways: Supercomputing Networks and Libraries
[PB92-147370] 03 p0734 N93-12759
HIPPI and Fibre Channel
[DE92-040346] 03 p0689 N93-13046
File servers, networking, and supercomputers
03 p0737 N93-13137
Mass storage system experiences and future needs at the National Center for Atmospheric Research
03 p0737 N93-13138
Storage needs in future supercomputer environments
04 p1003 N93-14780
File servers, networking, and supercomputers
04 p1004 N93-15030
Data storage and retrieval system abstract
05 p1170 N93-16332
Open systems storage platforms
05 p1355 N93-16333
CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Computational mechanics at Los Alamos National Laboratory
[DE93-003725] 07 p2042 N93-21735
Contact-impact simulations on massively parallel SIMD supercomputers
[DE93-004188] 08 p2445 N93-22060
Network storage service usage characteristics
[DE93-003998] 08 p2446 N93-22755
PMC: A shared short-cut to portable parallel power
[DE93-005815] 08 p2447 N93-22868
The QCD Teraflops Project
[DE93-006386] 08 p2447 N93-23026
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
CONVEX mini manual
[NASA-TM-107564-REV] 08 p2433 N93-24594
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Use of high performance networks and supercomputers for real-time flight simulation 09 p2598 N93-25574
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
The state of computing at Los Alamos National Laboratory, FY 1991
[LA-12326-MS] 09 p2811 N93-25943
Information technologies for astrophysics circa 2001
10 p3165 N93-27045
Strategic plan for scientific computing
[DE93-006875] 10 p3090 N93-27614
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
Computing for magnetic fusion energy research: An updated vision
[DE93-010394] 11 p3587 N93-29190
National Center for Supercomputer Applications
11 p3614 N93-29232
Associative memories for supercomputers
[AD-A263142] 11 p3520 N93-29482
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
High performance computing: Advanced Research Projects Agency should do more to foster program goals. Report to the Chairman, Committee on Armed Services, House of Representatives
[GAO/IMTEC-93-24] 11 p3533 N93-30202
Promoting high-performance computing and communications
[ISBN-0-16-041828-3] 11 p3522 N93-30570
Nonlinear explicit transient finite element analysis on the Intel Delta
[DE93-009561] 11 p3535 N93-30647
High performance computing and communications program 11 p3627 N93-30715
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
Measurements over distributed high performance computing and storage systems
12 p3841 N93-31977
SUPERCONDUCTING CAVITY RESONATORS
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
An infrared free electron laser system for the proposed Chemical Dynamics Research Laboratory at LBL based on a 500 MHz superconducting linac
[DE93-004723] 08 p2307 N93-22346
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
TESLA test cell cryostat support post thermal and structural analysis
[DE93-008365] 11 p3407 N93-29048
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
Advanced microwave frequency sources and filters based on superconducting Photonic Band Gap (PBG) structures
[AD-A264404] 11 p3597 N93-30175
SUPERCONDUCTING DEVICES
NT SIS (SUPERCONDUCTORS)
NT SQUID (DETECTORS)
NT SUPERCONDUCTING CAVITY RESONATORS
NT SUPERCONDUCTING MAGNETS
Multidimensional signals, data and processes
[AD-A254797] 03 p0562 N93-12747
Epitaxial heterojunctions of oxide semiconductors and metals on high temperature superconductors
[NASA-CASE-NPO-18483-1-CU]
04 p0994 N93-15151
Three-terminal devices of high-T(sub c) superconductors: A status report and future challenges
[DE93-000654] 05 p1319 N93-16358
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
Practical superconductor development for electrical power applications
[DE93-007785] 08 p2286 N93-24519
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Onset of dispersion in Nb microstrip transmission lines at submillimeter wave frequencies
10 p3016 N93-27758

Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Electrical and infrared properties of thin niobium microbolometers near T(sub c) 10 p3020 N93-27779
Novel low temperature superconducting bolometers [DE93-010433] 11 p3430 N93-28664
Superconducting submillimeter and millimeter wave detectors [DE93-007656] 11 p3431 N93-29149
Quantum devices using Si-based superlattices and structures [AD-A263700] 11 p3595 N93-29383
Advanced microwave frequency sources and filters based on superconducting Photonic Band Gap (PBG) structures [AD-A264404] 11 p3597 N93-30175
Superconducting flux coupled fast switching device from YBCO films [AD-A264301] 11 p3414 N93-30896
High temperature superconducting films and multilayers for electronics [AD-A264410] 12 p3828 N93-31190

SUPERCONDUCTING FILMS
Vortices in long Josephson junctions [AD-A253230] 01 p0167 N93-10404
Prototype superconducting planar transformers using high-Tc thin and thick films [AD-A254230] 01 p0077 N93-10897
A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors [NPL-DES-116] 02 p0289 N93-11393
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates [NPL-DES-118] 02 p0459 N93-11394
Superconducting multilayer structures grown by ALL-MBE [DE92-018011] 02 p0465 N93-12065
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O [DE92-017075] 02 p0466 N93-12125
Ion beams as a means of deposition and in-situ characterization of thin films and thin film layered structures [DE92-016397] 02 p0469 N93-12310
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3 [NASA-TM-105890] 02 p0469 N93-12325
High temperature superconductor materials and applications [NASA-CR-184426] 02 p0470 N93-12396
High temperature superconductor materials and applications [NASA-CR-184437] 03 p0719 N93-12691
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films [DE92-014949] 03 p0722 N93-13323
Y1Ba2Cu3O(7-delta) thin film dc SQUIDs (superconducting quantum interference device) [ITN-92-85167] 03 p0723 N93-13362
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition 03 p0726 N93-13904
Noise measurements of YBa2Cu3O7 thin film high-temperature superconductors 03 p0726 N93-13933
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films [AD-A256329] 04 p0869 N93-15194
High performance YBCO films [AD-A255439] 04 p0994 N93-15297
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors [DE92-040760] 05 p1318 N93-16202
Growth and properties of ultrathin YBa2Cu3O7-delta layers [DE93-001210] 05 p1318 N93-16218
Growth of epitaxial thin films by pulsed laser ablation [DE92-040515] 05 p1319 N93-16296
Large magnetic field induced fluctuation effect in superconducting Bi2Sr2Ca2Cu3O10 tape [DE92-041314] 05 p1321 N93-16533
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field [DE93-000605] 05 p1324 N93-17226
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes [DE93-000651] 05 p1325 N93-17228
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe [DE92-041133] 05 p1325 N93-17357
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3 [DE93-000655] 05 p1326 N93-17365
High temperature superconductivity [AD-A257789] 05 p1151 N93-17696
EM properties of high Tc superconductors [AD-A257724] 05 p1151 N93-17699
High performance YBCO films [AD-A258481] 06 p1672 N93-18313
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers [DE93-002561] 06 p1520 N93-18391
Growth and properties of co-evaporated superconducting YBaCuO thin films [ETN-92-92798] 06 p1673 N93-18441
High-temperature superconducting electronics 06 p1523 N93-18464
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon [DE93-001924] 06 p1674 N93-18619
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array [DE93-002564] 06 p1538 N93-19487
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures [DE93-003004] 06 p1676 N93-19627
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films [DE93-002325] 06 p1677 N93-19742
Development of superconducting thin films with a critical temperature greater than 110 K [AD-A257988] 07 p2080 N93-21224
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy [DE93-002980] 07 p2083 N93-21981
Processing and microstructural development of Ag-clad Bi-Sr-Ca-Cu-O tapes [DE93-004201] 08 p2500 N93-22078
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes [DE93-005474] 08 p2500 N93-22342
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films [DE93-003792] 08 p2504 N93-22808
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films [DE93-005367] 08 p2507 N93-23326
High temperature superconducting compounds [AD-A259926] 08 p2284 N93-24129
Practical superconductor development for electrical power applications [DE93-007785] 08 p2286 N93-24519
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements [NASA-CR-192344] 09 p2863 N93-25219
Film fabrication technologies at NREL 09 p2658 N93-25563
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays [DE93-008713] 11 p3593 N93-29094
A novel approach for new radiation sources based on solid state plasma instabilities [AD-A263699] 11 p3588 N93-29382
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O [DE93-010430] 11 p3596 N93-29868
Measurement of magnetic field penetration depth in niobium polycrystalline films by polarized neutron reflection method [DE93-606390] 11 p3600 N93-30771
Superconducting films of YBaCuO [DE93-606831] 11 p3600 N93-30772
Heat generation produced in thin layers of GaAs superconductors under high energy particles irradiation [DE93-606332] 11 p3601 N93-30798
Superconducting flux coupled fast switching device from YBCO films [AD-A264301] 11 p3414 N93-30896
High temperature superconducting films and multilayers for electronics [AD-A264410] 12 p3828 N93-31190
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211 [AD-A265749] 12 p3829 N93-31804
A study on the development of high T(sub c) superconducting materials [DE93-606394] 12 p3720 N93-31825

SUPERCONDUCTING MAGNETS
Development of high temperature superconductors for magnetic field applications [DE92-015930] 01 p0168 N93-10733
Cryostabilization of high-temperature superconducting magnets with subcooled flow in microchannels [DE92-018174] 02 p0431 N93-11598
Measurement of AC electrical characteristics of SSC superconducting dipole magnets [DE92-018888] 02 p0431 N93-11625
Research and development of superconducting linear accelerators for neutral particle beam applications [DE92-019043] 02 p0444 N93-11652
Tables of thermodynamic properties of helium magnet coolant, revision A [DE92-019098] 02 p0471 N93-11656
Operating experience using venturi flow meters at liquid helium temperature [DE92-014693] 02 p0313 N93-12140
Results from a large-scale MHD propulsion experiment [DE92-018177] 02 p0456 N93-12416
Magnetic field perturbation caused by bending vibrations of a quadrupole [DE92-040644] 03 p0823 N93-13003
New power-conditioning systems for superconducting magnetic energy storage 03 p0640 N93-13934
Advanced materials: The key to attractive magnetic fusion power reactors [DE92-040637] 05 p1307 N93-16103
The influence of deformation-induced martensite on the cryogenic behavior of 300-series stainless steels [DE92-041208] 05 p1111 N93-16149
Influence of cable eddy currents on magnetic field harmonics [DE92-040549] 05 p1280 N93-16200
Cryotribology: Development of cryotribological theories and application to cryogenic devices [DE93-000404] 05 p1176 N93-16238
Properties of the superconductor in accelerator dipole magnets [ISBN-90-9004244-X] 05 p1280 N93-16573
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors [DE92-538568] 05 p1149 N93-17007
Mathematical models of hysteresis [DE93-001837] 05 p1281 N93-17034
Use of the CEBAF accelerator for IR and UV free electron lasers [CEBAF-PR-92-023] 06 p1660 N93-18768
Design study on divertor plates of Large Helical Device (LHD) [NIFS-190] 07 p2074 N93-21361
Reduced mass persistent switches for large superconducting magnets in space [DE93-004782] 08 p2474 N93-22047
A high-power 95 GHz gyro-TWT amplifier [DE93-002332] 08 p2277 N93-22425
Investigation of azimuthal stresses due to welding and cooldown [DE93-005530] 08 p2324 N93-22708
A comparison of the Space Station version of ASTROMAG with two free-flyer versions [DE93-004695] 08 p2193 N93-22777
Low temperature Hall and Shubnikov-de Haas effects [AD-A261871] 09 p2869 N93-26540
Survey of foreign maglev systems [DE93-008495] 10 p3049 N93-26665
The role of superconductivity in magnetic bearings for high-load applications 10 p2962 N93-27576
Microstructural understanding and critical current optimization of advanced high field superconductors [DE93-011046] 11 p3592 N93-28643
Flux lattice relaxation, noise, and symmetry-breaking in frustrated Josephson junction arrays [DE93-008713] 11 p3593 N93-29094
Preliminary investigation of high power microwave plasmas for electrothermal thruster use [NASA-TM-106207] 11 p3288 N93-29158
An RF driven H(-) source and a low energy beam injection system for RFQ operation [DE93-010438] 11 p3575 N93-29302
Guideway structural design and power/propulsion/braking in relation to guideways, volume 1 [PB93-169902] 11 p3447 N93-30820

SUPERCONDUCTING QUANTUM INTERFEROMETERS
U SQUID (DETECTORS)

SUPERCONDUCTING SUPER COLLIDER
Measurement of AC electrical characteristics of SSC superconducting dipole magnets [DE92-018888] 02 p0431 N93-11625
Tables of thermodynamic properties of helium magnet coolant, revision A [DE92-019098] 02 p0471 N93-11656
High energy physics at Tufts University [DE92-018081] 02 p0444 N93-11668
Thermal issues at the SSC 03 p0584 N93-13387

Data management and processing plan, Department of Applied Geodesy
[DE93-000774] 04 p0905 N93-14522
High energy physics research
[DE93-000305] 05 p1296 N93-15668
Recent efforts on nonlinear dynamics
[DE92-040625] 05 p1280 N93-15945
Research in elementary particle physics
[DE93-001858] 05 p1284 N93-16146
Influence of cable eddy currents on magnetic field harmonics
[DE92-040549] 05 p1280 N93-16200
An approximate invariant using Lie algebra
[DE93-000564] 05 p1263 N93-16247
A parallel implementation of particle tracking with space charge effects on an INTEL iPSC/860
[DE93-000460] 05 p1255 N93-16272
Object-oriented simulation for the Superconducting Super Collider
[DE92-015962] 05 p1299 N93-17205
Experimental studies of elementary particle interactions at high energies
[DE93-003652] 05 p1294 N93-17575
Constant of motion, Hamiltonian, and Lagrangian for autonomous systems defined in a hyperbolic flat space
[DE93-002046] 05 p1273 N93-17758
Configuration and construction of a free electron laser in near infrared at the superconducting electron accelerator in Darmstadt (Germany)
[ETN-93-93412] 07 p1911 N93-21175
Studies of avalanche photodiodes for scintillating fibre tracking readout
[DE93-008370] 09 p2689 N93-25491
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330
Experimental challenges at future hadron colliders (lectures for the 1992 Saint Croix Summer School)
[DE93-008613] 10 p3140 N93-28429
Maximizing the luminosity of hadron, supercolliders at 10-100 TeV
[DE93-009247] 11 p3574 N93-29103
New Mexico Center for Particle Physics: Studies of fundamental interactions
[DE93-008302] 11 p3566 N93-29261
An RF driven H(-) source and a low energy beam injection system for RFQ operation
[DE93-010438] 11 p3575 N93-29302

SUPERCONDUCTIVITY
NT KONDO EFFECT
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Frustrated phase separation and high temperature superconductivity
[DE92-019249] 02 p0459 N93-11501
Landau level quantization and superconductivity
[DE92-019028] 02 p0460 N93-11512
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
Theory of normal metals
[DE92-016828] 02 p0262 N93-12476
Bipolaronic charge density waves, polaronic spin density waves and high T(c) superconductivity
[DE92-017403] 03 p0720 N93-12853
Solutions without phase-slip for the Ginsburg-Landau equation
[PB92-115575] 03 p0696 N93-12889
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Effect of hydrogen reduction and doping on the characteristics of high-temperature superconductors
03 p0725 N93-13844
Electronic structure studies of high-T(sub c) superconductors by photoemission and x ray absorption
04 p0989 N93-14172
SCRUNCHER phase and amplitude control
[DE92-040225] 04 p0870 N93-15421
Calculation of mechanical vibration frequencies of stiffened superconducting cavities
[DE92-040228] 04 p0903 N93-15423
Design features of a seven-cell high-gradient superconducting cavity
[DE92-040229] 04 p0870 N93-15424
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Study of the glass formation of high temperature superconductors
[NASA-TM-108389] 04 p0997 N93-15500
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
NQR study of local structures and cooling rate dependent superconductivity in La2CuO(4+delta)
[DE93-000680] 05 p1316 N93-16043
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
An introduction to superconductivity
[PREPRINT-801] 05 p1280 N93-16421
The central bond C-13 double bond C-13 isotope effect for superconductivity in the high-T(sub c) beta"-(ET)(sub 2)I(sub 3) phase and its implications regarding the superconductivity pairing mechanism in TTF-based organic superconductors
[DE92-040725] 05 p1320 N93-16454
Electromagnetic launch of lunar material
05 p1384 N93-16914
Flux flow, pinning, and resistive behavior in superconducting networks
[DE93-002707] 05 p1324 N93-17081
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227
Transport and magnetization critical current densities in TlBa2Ca2Cu3O(x) tapes
[DE93-000651] 05 p1325 N93-17228
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
Local critical current measurements on (Bi,Pb)2Sr2Ca2Cu3O(sub x) tape with an electromagnetic probe
[DE92-041133] 05 p1325 N93-17357
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Design and modeling of superconducting RFQ structures
[DE93-000511] 05 p1326 N93-17376
Design and test of a superconducting structure for high-velocity ions
[DE93-000513] 05 p1326 N93-17377
Power coupler and cold window for seven-cell superconducting cavity vertical tests
[DE93-000791] 05 p1150 N93-17380
Research programs on elementary particle and field theories and superconductivity
[DE93-003147] 05 p1294 N93-17487
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
Microstructural control of complex alloys
06 p1490 N93-18485
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
Elements of scientific research: Modeling discoveries in oxide superconductivity 06 p1679 N93-19720
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130
Advanced UHV thin-film deposition facility for research in superconductivity and superconducting electronics
[AD-A259089] 07 p1889 N93-20395
The effective transverse resistivity in multifilamentary conductors
[MEMO-1027] 07 p1892 N93-21008
Development of superconducting thin films with a critical temperature greater than 110 K
[AD-A257988] 07 p2080 N93-21224
Properties of aligned YBa2Cu3O(7-delta) superconductor as a function of oxygen deficiency delta
[DE93-001707] 07 p2082 N93-21750
Melt processing of the Bi2Sr2CaCu2O(y) superconductor in oxygen and argon atmospheres
[DE93-002999] 07 p2082 N93-21757
Application of radiofrequency superconductivity to accelerators for high-current ion beams
[DE93-002925] 07 p2066 N93-21979
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981
Critical current density, irreversibility line, and flux creep activation energy in silver-sheathed Bi2Sr2Ca2Cu3O(sub x) superconducting tapes
[DE93-002998] 07 p2083 N93-21984
Midwest Superconductivity Consortium
[DE93-006146] 08 p2276 N93-22054
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Field profile and loading measurements on higher order modes in a two cell 500 MHz superconducting structure
[DE93-004771] 08 p2308 N93-22921
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052
Quantum Monte Carlo simulation on Hubbard model for high temperature superconductivity
08 p2507 N93-23395
Low-temperature specific heat of several high-temperature superconductors in the superconducting and mixed states 08 p2507 N93-23397
Macroscopic models of superconductivity
08 p2508 N93-23500
Magnetic anisotropy in the high transition temperature superconductor YBa2Cu3O(7-delta)
08 p2509 N93-23985
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2
[NASA-CR-192698] 08 p2511 N93-24147
Study of the model of hole superconductivity in multiple band cases and its application to transition metals
08 p2511 N93-24195
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
Inelastic scattering in condensed matter with high intensity Moessbauer radiation
[DE93-008763] 09 p2864 N93-25503
A novel method for characterization of superconductors: Physical measurements and modeling of thin films
09 p2871 N93-25584
Developing and improving numerical algorithms to study intrinsically correlated electron systems
[AD-A261214] 09 p2849 N93-25734
Advanced HTS S-N-S devices
[AD-A261552] 09 p2869 N93-26381
Computational methods for flow problems: Parallel algorithms, flow control, and novel approaches
[AD-A261400] 09 p2707 N93-26400
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577
Superconducting linear actuator
10 p2962 N93-27577

Phase separation and superconductivity in the U equals infinity limit of the extended multiband Hubbard model
[SSCL-PREPRINT-763] 10 p3151 N93-27580
Superconductivity, phase separation and charge transfer instability in the U = infinity limit of the three band model of the CuO2 planes
[SSCL-PREPRINT-749] 10 p3153 N93-28140
Superconductive fluctuations in the density of states and tunneling resistance in high T(sub c) superconductors
[SSCL-PREPRINT-756] 10 p3153 N93-28141
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
Condensed matter physics at surfaces and interfaces of solids
[DE93-005648] 10 p3154 N93-28346
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
Numerical simulation of quantum many-body systems
[DE93-008300] 11 p3603 N93-28958
A detailed technology roadmap for superconductivity 11 p3526 N93-29045
Design and test of a superconducting RFQ for heavy ions
[DE93-010862] 11 p3575 N93-29317
Sensitive detection of new superconductors created at ultra high pressures
[AD-A264340] 11 p3597 N93-30161
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517
The Road to Room Temperature Superconductivity Workshop
[AD-A264633] 11 p3561 N93-30519
A tight binding model for the electronic structure of FCC and SC C60
[DE93-606214] 11 p3601 N93-30794
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
Schroedinger equations of higher (greater than 2) order
[DE92-644677] 11 p3552 N93-30984
High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077
On the superconductivity existence within the Hubbard model
[DE93-613987] 12 p3830 N93-32280
BCS universal constants for high-temperature superconductivity
[DE92-642079] 12 p3830 N93-32405

SUPERCONDUCTOR INSULATOR SUPERCONDUCTORS
U SIS (SUPERCONDUCTORS)

SUPERCONDUCTORS
NT BSCCO SUPERCONDUCTORS
NT HIGH TEMPERATURE SUPERCONDUCTORS
NT ORGANIC SUPERCONDUCTORS
NT YBCO SUPERCONDUCTORS
Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
Assessment study of superconducting fault-current limiters operating at 77 K
[DE92-015273] 01 p0076 N93-10831
Electronic structure of highly correlated structures
[DE92-017017] 01 p0155 N93-10863
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
Higher-order-mode damping and microwave absorption at 2 K
[DE92-016960] 02 p0442 N93-11077
A study of parameters that influence growth and stability of the (Bi(1-x)Pb(x))2 Sr2Ca2Cu3O(y) phase
[DE92-015187] 02 p0462 N93-11703
NEDO Fuel/Storage Technology Subcommittee
[DE92-526262] 02 p0346 N93-11777
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Surface analysis of Ln(2-x)Ce(x)CuO4 (Ln = Pr and Nd) single crystals grown by the top seeded solution method
[AD-A254905] 02 p0469 N93-12286
Nonlinear delay line phase shifters for terahertz superconductive electronic circuits
[AD-A255119] 02 p0294 N93-12290
Multifilamentary superconducting cable and a method of manufacturing it
[AD-D015391] 04 p0846 N93-15231
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
Radio-frequency surface impedance of type-2 superconductors: Dependence upon the magnitude and angle of an applied static magnetic field
[DE92-040583] 05 p1316 N93-16014
ICCG-10: The 10th International Conference on Crystal Growth
[AD-A256986] 05 p1318 N93-16257
Investigating thermal hydraulic quenchback in a cable-in-conduit superconductor
[DE92-040864] 05 p1147 N93-16590
Electronic structure and phase separation in superconducting cuprates
[PREPRINT-889] 05 p1323 N93-17025
X-ray studies of microstructures in semiconductors and superconducting materials
[DE93-001953] 05 p1324 N93-17198
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
Theoretical analysis of microwave and millimeter wave integrated circuits based on magnetic films
[AD-A257512] 06 p1518 N93-18173
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446
Method to produce ceramic superconducting filaments bonded to metals
[AD-D015595] 07 p1859 N93-20786
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2
[NASA-CR-192698] 08 p2511 N93-24147
Study of the model of hole superconductivity in multiple band cases and its application to transition metals 08 p2511 N93-24195
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Analytical results for the electromagnetic response of a composite superconducting wire in parallel fields
[MEMO-1059] 08 p2287 N93-24625
A novel method for characterization of superconductors: Physical measurements and modeling of thin films 09 p2871 N93-25584
Aerospace devices for magnetic replicas
[NASA-CR-192958] 09 p2865 N93-25667
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
Experimental and theoretical studies of proximity effect and Coulomb blockade phenomena in Josephson junctions
[AD-A261652] 09 p2867 N93-26194
Electronics and Electrical Engineering Laboratory technical publication announcements covering laboratory programs, July to September 1992 with 1992/1993 EEEL events calendar
[PB93-158632] 09 p2884 N93-26530
Magnetic Suspension Technology Workshop
[NASA-CP-3202] 10 p2959 N93-27554
Magnetic bearings: Fifty years of progress 10 p2959 N93-27556
Performance of ceramic superconductors in magnetic bearings 10 p2963 N93-27578
Theory of normal and superconducting properties of fullerene-based solids
[DE93-007722] 11 p3592 N93-28582
A detailed technology roadmap for superconductivity 11 p3526 N93-29045
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
Phase separation, antiferromagnetism, and superconductivity in superconducting-superoxygenated La(2-x)Sr(x)CuO(4+(delta))
[DE93-009852] 11 p3598 N93-30517
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
Electromagnetic response of a superconducting wire of finite length in a perpendicular applied AC magnetic field
[MEMO-1087] 12 p3716 N93-31516

SUPERCOOLING
NT CRYOGENIC COOLING
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique 04 p0995 N93-15312
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359

SUPERCRITICAL AIRFOILS
NT SUPERCRITICAL WINGS
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534

SUPERCRITICAL FLOW
Instability of spatially periodic flows 05 p1160 N93-16810
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
Influence of supercritical conditions on pre-combustion chemistry and transport behavior of jet fuels
[AD-A261813] 09 p2661 N93-26268

SUPERCRITICAL FLUIDS
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Energy storage in supercritical solvents 06 p1498 N93-18492
Innovative instrument design and applications in super-critical fluid chromatography and extraction 12 p3704 N93-32327

SUPERCRITICAL PRESSURES
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Fluid dynamics of supercritical helium within cable-in-conduit conductors
[DE92-019516] 03 p0574 N93-12569
Chemical potentials in dilute, multicomponent solutions
[DE92-011041] 03 p0538 N93-13317
Energy storage in supercritical solvents 06 p1498 N93-18492
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948

SUPERCRITICAL WINGS
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451

SUPERFLUID FLOW
U SUPERFLUIDITY

SUPERFLUIDITY
Isotopic separation of He-3/He-4 from solar wind gases evolved from the lunar regolith
[DE92-019339] 03 p0759 N93-13504
Dynamics in neutron stars and the early universe 04 p1014 N93-14112
Neutron superfluid dynamics
[DE92-040386] 05 p1364 N93-16101
The Geminga neutron star: Evidence for nucleon superfluidity at very high density 05 p1376 N93-17411
A helium-3/helium-4 dilution cryocooler for operation in zero gravity
[NASA-CR-183632] 06 p1499 N93-18397

Superfluid Stirling refrigerator with a counterflow regenerator
[DE93-003858] 07 p1879 N93-21971
Galileo's relativity principle, the concept of pressure, and complex characteristics, for the six-equation, one-pressure model
[DE93-005240] 08 p2515 N93-22952
Zero sound experiments in superfluid He3
[ISBN-951-22-0841-5] 08 p2476 N93-23005
Consequences of spontaneous and anomalous symmetry breaking for the orbital and mass flow hydrodynamics of He-3 - A 09 p2698 N93-25295

SUPERGIANT STARS
Are some of the luminous high-latitude stars accretion-powered runaways?
[DE92-018853] 02 p0484 N93-11379
B supergiants in open clusters and associations
[NASA-CR-191275] 03 p0748 N93-13659
Atoms and molecules in supernova 1987A 03 p0699 N93-13851
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4
[NASA-CR-191634] 05 p1377 N93-15829
GX301-2/WRA9777 revisited: Probing the stellar wind through x ray optical data 08 p2537 N93-23911
Spherically symmetric model atmospheres for late-type giant stars
[ISBN-0-315-72632-6] 11 p3633 N93-28673

SUPERGRAVITY
Solitons and instantons in string theory 03 p0728 N93-13753
Type 2 superstrings in curved D = 10 space-time: Dynamics of their massless fields and covariant quantization 04 p0998 N93-14143
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919

SUPERHEATING
Tank Pressure Control Experiment/Thermal Phenomena (TPCE/TP) 11 p3264 N93-28713

SUPERHETERODYNE RECEIVERS
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
Method and apparatus for passive direction finding with sideband determination
[AD-D015546] 07 p1882 N93-20306

SUPERHIGH FREQUENCIES
Review of spaceborne and airborne SAR systems 03 p0565 N93-13060
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Short range propagation measurements at 2.4, 4.5, and 11.5 GHz in indoor and outdoor environments
[AD-A256563] 04 p0860 N93-14806
Plasma reflectors for electronic beam steering in radar systems
[AD-D015399] 05 p1307 N93-16062
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
An investigation of error characteristics and coding performance
[NASA-CR-191899] 06 p1620 N93-18373
Precision X-band radio Doppler and ranging navigation: Mars Observer interplanetary cruise scenario 06 p1454 N93-18899
An experimental investigation of a tandem relativistic backward wave oscillator-travelling wave tube amplifier system for generating high-power microwaves 06 p1521 N93-19058
Cascaded convolutional codes 06 p1458 N93-19429
ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387
Study of a plasma-filled X-band backward wave oscillator 08 p2281 N93-23498
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR 08 p2365 N93-23797
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
Effect-specific analysis of propagation parameters 09 p2684 N93-26478
The Virginia Tech OLYMPUS propagation experiment 09 p2685 N93-26479
Synthesis and realization of a monolithic active bandpass filter for the Ku band
[LAAS-92365] 12 p3719 N93-31173

SUPERHYBRID MATERIALS
NT GRAPHITE-EPOXY COMPOSITES

SUPERIMPOSITION (MATHEMATICS)
U SUPERPOSITION (MATHEMATICS)

SUPERLATTICES
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
INAS hole-immobilized doping superlattice long-wave-infrared detector
[NASA-CASE-NPO-17880-1-CU] 02 p0458 N93-11056
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Step-driven surface segregation and ordering during Si-Ge MBE growth
[DE92-017827] 02 p0463 N93-11772
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12085
Electronic structure of microclusters and defect complexes
[AD-A254807] 03 p0720 N93-12750
High magnetic field studies of strained layer superlattices 03 p0726 N93-13895
Diffusion of ion-implanted group 4 n-type dopants in gallium arsenide and gallium/arsenide-based superlattices 03 p0727 N93-14073
Optical instrumentation and characterization for magneto-optical recording media 04 p0980 N93-14168
Photoluminescence study of Si(1-x)Ge(x)/Si and Si/Ge strained layer super lattices
[AD-A256467] 05 p1314 N93-15845
Probing redox-induced molecular transformations by atomic-resolution scanning tunneling microscopy: Iodide adsorption and electrooxidation on Au(111) in aqueous solution
[AD-A257347] 05 p1103 N93-16158
Magneto-optic characterizations of superlattices and wedged sandwiches with oscillatory interlayer magnetic coupling
[DE93-000607] 05 p1319 N93-16278
Investigation of III-V superlattices and heterostructures by convergent-beam electron diffraction
[ETN-92-92784] 05 p1321 N93-16581
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Superlattices for infrared detectors
[AD-A257511] 06 p1671 N93-18172
Optical and electronic properties of lattice-matched and strained semiconductor superlattices
[ETN-92-92828] 06 p1673 N93-18446
Infrared photoluminescence spectroscopy 06 p1485 N93-18466
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
Oscillatory interlayer magnetic coupling of sputtered Fe/Nb superlattices
[DE93-004191] 08 p2499 N93-22062
Magnetic decoupling in sputtered Fe/Si superlattices and multilayers
[DE93-004204] 08 p2499 N93-22064
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
New concepts for high efficiency energy conversion: The avalanche heterostructure and superlattice solar cells
[DE92-010592] 09 p2758 N93-25098
Magnetic excitations in antiferromagnetically coupled superlattices: Fe/Mo and Fe/Cr
[DE93-007894] 09 p2863 N93-25369
Electric field effects on quantum-confined semiconductor structures 09 p2865 N93-25703
Measurement of optical properties of infrared bandgap superlattices
[AD-A260859] 09 p2866 N93-25789
Short-period superlattice materials for heterojunction bipolar transistors
[AD-A260701] 09 p2866 N93-25897
Optoelectronic III-V heterostructures on Si substrates
[AD-A261651] 09 p2867 N93-26193
Strain-relaxed InGaAs buffer layers grown by molecular-beam epitaxy for 1.3 (mu)m Fabry-Perot optical modulators
[DE93-006774] 10 p3151 N93-26639
Superlattice barrier varactors 10 p3012 N93-27738
Deposition and properties of novel nitride superlattice coatings
[DE93-011532] 10 p3005 N93-28219
Planning of a West Virginia University Research Center in the basic materials sciences
[DE93-011731] 11 p3592 N93-28647
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Quantum devices using Si-based superlattices and structures
[AD-A263700] 11 p3595 N93-29383
The 2-6 semiconductor superlattices
[AD-A264343] 11 p3597 N93-30164
Electronic states in quantum wells with periodically structured interfaces
[DE93-606295] 11 p3600 N93-30789
Electronic Landau levels in quantum wells with periodically structured interfaces
[DE93-608514] 12 p3828 N93-31664

SUPERMAGNETS
U HIGH FIELD MAGNETS

SUPERNOVA REMNANTS
Morphology and physics of supernova remnants 02 p0482 N93-11476
H I shells and supershells: Observations and theory 03 p0751 N93-13360
Supernova remnants, shocks, and the interstellar medium 03 p0757 N93-13963
Gravitational metric deviation by supernova neutrino bursts
[PREPRINT-789] 07 p2096 N93-20849
Magnetic field structure and collective effects in supernova remnants 08 p2548 N93-23218
ROSAT observations of supernova remnants and the interstellar medium 08 p2534 N93-23884
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Evidence for a multiphase, inhomogeneous interstellar medium in damped Ly alpha systems 10 p3180 N93-26760
An astrophysics data program investigation of spatial structure of supernova remnants
[NASA-CR-193104] 10 p3205 N93-28409
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604

SUPERNOVA 1987A
Atoms and molecules in supernova 1987A 03 p0699 N93-13851
Hydrodynamics and spectra formation of interacting massive binaries and the young remnant of SN1987A 03 p0757 N93-13962
Gamma-ray imaging observations of Supernova 1987A 04 p1012 N93-14628
Hydrodynamics of supernova 1987 A 04 p1019 N93-14633
Search for pulsed gamma ray emission from SN1987A and the Vela pulsar 04 p1050 N93-14634
EXITE/IPC observations of SN1987A and southern targets
[NASA-CR-192133] 06 p1696 N93-18607
The ring around SN1987A 10 p3199 N93-26868
Limits on neutrino radiative decay from SN1987A
[NASA-CR-193262] 11 p3653 N93-29164

SUPERNOVAE
NT SUPERNOVA 1987A
Monte Carlo simulations of the supernova ejection mechanism for the runaway stars
[DE92-018367] 02 p0485 N93-11695
Mechanism for ejecting stars from the Galactic plane
[DE92-018375] 02 p0485 N93-11697
The neutrino process and neutrino r-process
[DE92-014304] 02 p0485 N93-12120
H I shells and supershells: Observations and theory 03 p0751 N93-13360

Measuring q(sub 0) using supernovae at z approximately 0.2
[DE92-041164] 05 p1363 N93-15918
Prospects for studies of astrophysical interest with radioactive ion beams
[DE92-041018] 05 p1364 N93-16225
An investigation of neutrino properties through study of the sun, supernovae, the early universe and lab data
09 p2898 N93-25180
Heavy element abundances and massive star formation 10 p3172 N93-26709
Evolution of luminous IRAS galaxies: Radio imaging
10 p3184 N93-26786
Ages, chemistry, and type 1A supernovae: Clues to the formation of the galactic stellar halo
10 p3187 N93-26803
High velocity clouds in nearby disk galaxies
10 p3187 N93-26804
Atomic hydrogen in the disturbed edge-on galaxy NGC 4631 10 p3189 N93-26815
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
A search for radiative neutrino decay from supernovae
[NASA-CR-193118] 11 p3653 N93-30052
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931

SUPEROXIDES
U INORGANIC PEROXIDES

SUPERPLASTICITY
Nanophase ceramics
[AD-A254661] 02 p0272 N93-12246
Design and development of Ni-base superalloy and Ti alloys
[NRIM-SR-92-01] 02 p0261 N93-12322
Superplastic forming of ceramic insulation
02 p0228 N93-12452
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982
The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944

SUPERPOSITION (MATHEMATICS)
Elasticity analysis of orthotropic beams under three-part bending 01 p0052 N93-10507
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Study of free vibration of orthotropic rectangular plates 07 p1935 N93-20674
Main crack-microvoid interaction. The antiplane problem 07 p1937 N93-20684

SUPERROTATION
Model studies of the middle atmosphere of Venus
03 p0759 N93-13831
Dynamics of the Venus atmosphere
04 p1030 N93-14325
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere
04 p1033 N93-14338
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere
04 p1037 N93-14351

SUPERSATURATION
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
An experimental study of growth and phase change of polar stratospheric cloud particles
[NASA-CR-192369] 06 p1588 N93-19887

SUPERSONIC AIRCRAFT
NT CONCORDE AIRCRAFT
NT F-4 AIRCRAFT
NT F-14 AIRCRAFT
NT F-15 AIRCRAFT
NT F-16 AIRCRAFT
NT F-104 AIRCRAFT
NT MIRAGE AIRCRAFT
NT SR-71 AIRCRAFT
NT SUPERSONIC COMMERCIAL AIR TRANSPORT
NT SUPERSONIC TRANSPORTS
NT T-38 AIRCRAFT
NT X-15 AIRCRAFT
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Predicted aircraft effects on stratospheric ozone
02 p0352 N93-11096
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
Minimum-time flight paths of supersonic aircraft
03 p0500 N93-13140
The PEP Symposium on CFD Techniques for Propulsion Applications 03 p0579 N93-13210
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
Ideal aircraft handling quality models: Longitudinal axis
[NAL-PD-FC-9203] 03 p0504 N93-13566
Impact of supersonic and subsonic aircraft on ozone: Including heterogeneous chemical reaction mechanisms
[DE92-019619] 03 p0646 N93-13655
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
Aerodynamic engine/airframe integration for high performance aircraft and missiles
05 p1065 N93-17618
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview
10 p2920 N93-27173
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694
Sonic boom problem for future highspeed aircraft
[ONERA-NT-1990-3] 11 p3241 N93-30020

SUPERSONIC BOUNDARY LAYERS
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
On the disturbances development in the supersonic boundary layer 07 p1763 N93-20686
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159

SUPERSONIC COMBUSTION
Employment of radicals and excited state species for supersonic combustion photochemical ignition of premixed hydrogen/oxygen mixtures with ArF laser
02 p0245 N93-11135
Combustion in supersonic flows
04 p0841 N93-14627
Aerothermodynamic flow phenomena of the airframe-integrated supersonic combustion ramjet
[NASA-TM-4376] 04 p0827 N93-15528
Investigation of the aerothermodynamics of hypervelocity reacting flows in the ram accelerator
[NASA-CR-191715] 04 p0783 N93-15588
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
A k-omega-multivariate beta PDF for supersonic combustion
[NASA-CR-191930] 07 p1851 N93-21749
An extended supersonic combustion model for the dynamic analysis of hypersonic vehicles
[NASA-CR-192716] 08 p2225 N93-24472
Solid fuel supersonic combustion
09 p2625 N93-26010
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Experimental demonstration of a 120-mm ram accelerator 10 p2985 N93-27137
Navier-Stokes simulation of transient fluid dynamics and initiation of combustion in the ram accelerator
10 p2985 N93-27138
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Studies of hydrogen-air diffusion flames and of compressibility effects related to high-speed propulsion
11 p3310 N93-29125

SUPERSONIC COMBUSTION RAMJET ENGINES
A configuration development strategy for the NASP
01 p0009 N93-10011
Hypersonic inlet efficiency revisited
01 p0005 N93-10012
Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071
Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors
02 p0235 N93-11133
Hypervelocity scramjet combustor-nozzle analysis and design
[NASA-CR-190965] 02 p0213 N93-12214
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Visualization of hydrogen injection in a scramjet engine by simultaneous PLIF imaging and laser holographic imaging 03 p0602 N93-13683
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
Aerothermodynamic flow phenomena of the airframe-integrated supersonic combustion ramjet
[NASA-TM-4376] 04 p0827 N93-15528
The dual combustor ramjet: A versatile propulsion system for hypersonic tactical missile applications
05 p1092 N93-17611
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
Generation of longitudinal vortices in supersonic flow
06 p1411 N93-19292
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Numerical simulation of flow for a scramjet nozzle
06 p1412 N93-19299
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step
06 p1415 N93-19316
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
A numerical simulations of inner flow of scramjet
06 p1415 N93-19318
Research in robust control for hypersonic vehicles
[NASA-CR-192127] 07 p1786 N93-20296
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields
[AD-A259146] 07 p1900 N93-20408

Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
Shock tunnel studies of scramjet phenomena, supplement 6
[NASA-CR-191428] 08 p2289 N93-22817
Experimental and numerical investigation of hydrogen combustion in a supersonic flow
08 p2223 N93-24212
An extended supersonic combustion model for the dynamic analysis of hypersonic vehicles
[NASA-CR-192716] 08 p2225 N93-24472
Generic hypersonic vehicle performance model
[NASA-CR-192953] 09 p2587 N93-25162
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow
09 p2624 N93-26008
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions
11 p3421 N93-29177
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

SUPERSONIC COMMERCIAL AIR TRANSPORT
HSCT mission analysis of waverider designs
[NASA-CR-192193] 07 p1783 N93-21646
Engine technology challenges for a 21st Century High-Speed Civil Transport
[NASA-TM-106216] 12 p3681 N93-31671

SUPERSONIC COMPRESSORS
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127

SUPERSONIC CRUISE AIRCRAFT RESEARCH
HSCT mission analysis of waverider designs
[NASA-CR-192193] 07 p1783 N93-21646

SUPERSONIC FLIGHT
Boom and the problems related to the supersonic flights of military aircraft 01 p0149 N93-10677
Concorde propulsion: Did we get it right? The Rolls-Royce/SNECMA Olympus 593 engine reviewed
[PNR-90970] 02 p0210 N93-11061
Overview of high performance aircraft propulsion research
[NASA-TM-105839] 02 p0213 N93-11530
On stability and control of SSTO spaceplane in super- and hypersonic ascending phase
[NAL-TR-1128T] 02 p0216 N93-12361
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
Conceptual design study of a variable cycle engine for a supersonic business jet
[ETN-93-93486] 08 p2130 N93-23371

SUPERSONIC FLOW
Supersonic confined jet nozzles
01 p0016 N93-10009
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
A finite element method for nonlinear panel flutter
01 p0045 N93-10472
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer
01 p0005 N93-10889
LV software support for supersonic flow analysis
[NASA-CR-190209] 02 p0297 N93-11074
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
Effect of the flow non-uniformity on the mixing layer at the interface of parallel supersonic flows
[ISAS-RN-646] 03 p0491 N93-12716
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies
03 p0536 N93-12836
Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer
03 p0494 N93-13521
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other 03 p0591 N93-13920
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
Analysis and control of asymmetric vortex flows and supersonic vortex breakdown
[NASA-CR-191264] 04 p0875 N93-14687
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3] 04 p0875 N93-14689
Numerical simulation of steady and unsteady asymmetric vortical flow 04 p0876 N93-14691
Passive control of supersonic asymmetric vortical flows around cones 04 p0876 N93-14692
An investigation of genuinely multidimensional schemes for the Euler equations 04 p0876 N93-14694
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer
04 p0876 N93-14695
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14758
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Novel short-wavelength lasers
06 p1543 N93-18472
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
Development of a boundary element method program for numerical analysis of supersonic unsteady flow
06 p1410 N93-19283
Generation of longitudinal vortices in supersonic flow
06 p1411 N93-19292
Numerical simulation of flow for a scramjet nozzle
06 p1412 N93-19299
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme
06 p1414 N93-19308
Analytical and numerical study on steady Mach reflection 06 p1414 N93-19309
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Numerical simulation of flows in a supersonic air intake 06 p1415 N93-19314
A numerical investigation for supersonic inlet
06 p1415 N93-19315
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step
06 p1415 N93-19316
Computational fluid dynamics research
06 p1536 N93-19455
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
A k-omega-multivariate beta PDF for supersonic combustion
[NASA-CR-191930] 07 p1851 N93-21749
Combustion-related studies using weakly-bonded complexes
[DE93-005250] 08 p2217 N93-22415
Optical diagnostics in supersonic plasma flows: Purging fluid effects
[DE93-006243] 08 p2497 N93-24042
An asymptotic theory of supersonic propeller noise
[NASA-CR-191110] 08 p2477 N93-24070
Experimental and numerical investigation of hydrogen combustion in a supersonic flow
08 p2223 N93-24212
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
A contribution to the great Riemann solver debate
[NASA-CR-191409] 09 p2575 N93-25083
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
An investigation of laser velocimetry measurements within high speed, complex flows
09 p2697 N93-25237
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
Experimental and computational investigation of helium injection into air at supersonic and hypersonic speeds
09 p2577 N93-25487
Studies in air/air supersonic mixing layers
09 p2582 N93-26007
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow
09 p2624 N93-26008
A hybrid multigrid technique for computing steady-state solutions to supersonic flows 09 p2582 N93-26078
An extended Lagrangian method
[NASA-TM-106129] 09 p2707 N93-26203
Numerical models of jet disruption in cluster cooling flows 10 p3189 N93-26814
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Sensitivity calculations for a 2D, inviscid, supersonic forebody problem
[NASA-CR-191444] 10 p2928 N93-27004
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Development of a 3-D Implicit Euler Code for Hypersonic and High Supersonic Flows
[ONERA-RSF-23/1123-AY-230A]
11 p3417 N93-28744
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
Hypersonic engine component experiments in high heat flux, supersonic flow environment
[NASA-TM-106273] 12 p3726 N93-31860

SUPERSONIC FLOW INLETS
U SUPERSONIC INLETS

SUPERSONIC HEAT TRANSFER
Heat transfer measurements in swept shock wave/turbulent boundary-layer interactions
09 p2704 N93-25705

SUPERSONIC INLETS
Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087
Aerodynamic studies of supersonic air intakes
03 p0497 N93-13222
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
A numerical investigation for supersonic inlet
06 p1415 N93-19315
Analytical and experimental studies of a short compact subsonic diffuser for a two-dimensional supersonic inlet
[NASA-TP-3247] 08 p2113 N93-24118

SUPERSONIC JET FLOW
Supersonic confined jet nozzles
01 p0016 N93-10009
Supersonic acoustic source mechanisms for free jets of various geometries 01 p0150 N93-10680
Nozzle installation effects on the noise from supersonic exhaust plumes 01 p0150 N93-10681
The prediction of noise radiation from supersonic elliptic jets 01 p0151 N93-10684
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Computational fluid dynamics of the base flow on a plane body between a subsonic flow on one side and a supersonic flow on the other 03 p0591 N93-13920

Combustion in supersonic flows
04 p0841 N93-14627
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Numerical simulations of bent, disrupted radio jets
10 p3188 N93-26813
Laser spectroscopy of hydrocarbon radicals
[DE93-012555] 11 p3436 N93-28653
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648
Enhanced mixing of a rectangular supersonic jet by natural and induced screech
[NASA-TM-106245] 12 p3672 N93-31672
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004
Control of jet noise
[NASA-CR-193552] 12 p3816 N93-32221

SUPERSONIC NOZZLES
Design of a nozzle for a hypersonic wind tunnel
[AERO-REPT-9113] 05 p1072 N93-16468
Infrared sensor technology and applications
06 p1664 N93-18474
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089

SUPERSONIC SPEED
Control of panel flutter at high supersonic speed
01 p0009 N93-10900
Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
A multigrid approach to embedded-grid solvers
[AD-A256405] 04 p0879 N93-15332
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638
Ramjet propulsion for missiles in the Mach 3 to 4.5 range 05 p1092 N93-17608
Comparison of performances of different circular intakes 05 p1067 N93-17616
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct
09 p2699 N93-25342
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF)
09 p2598 N93-26006
The effect of entrance radius and film injection on wall heating in scramjet nozzles 09 p2625 N93-26009
Experimental effects of wing location on wing-body pressures at supersonic speeds
[NASA-TM-4434] 09 p2581 N93-26085
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method
10 p2935 N93-27455
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375

SUPERSONIC TRANSPORTS
NT CONCORDE AIRCRAFT
NT SUPERSONIC COMMERCIAL AIR TRANSPORT
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Stratospheric aircraft: Impact on the stratosphere?
[DE92-016997] 02 p0355 N93-12104
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
The NASA High-Speed Research Program
05 p1064 N93-16761
The 1990 high-speed civil transport studies
[NASA-CR-189618] 05 p1062 N93-16947
The 1990 high-speed civil transport studies. Summary report
[NASA-CR-189619] 05 p1062 N93-16999
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
Tesseract: Supersonic business transport
[NASA-CR-192072] 06 p1435 N93-17977
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000
[NASA-CR-192023] 06 p1436 N93-18049
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
The Edge supersonic transport
[NASA-CR-192074] 06 p1436 N93-18055
A second-generation high speed civil transport: Stingray
[NASA-CR-192022] 06 p1437 N93-18059
The Trojan --- supersonic transport
[NASA-CR-192013] 06 p1437 N93-18060
Preliminary design of a high speed civil transport: The Opus 0-001
[NASA-CR-192018] 06 p1437 N93-18061
High speed civil transport
[NASA-CR-192041] 06 p1438 N93-18161
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
The atmospheric effects of stratospheric aircraft
[NASA-RP-1293] 08 p2385 N93-23057
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver
[NASA-CR-4490] 08 p2127 N93-24108
Aerodynamic design and synthesis of the oblique flying wing supersonic transport 09 p2587 N93-24768
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037
NASA-UVa light aerospace alloy and structure technology program supplement: Aluminum-based materials for high speed aircraft
[NASA-CR-4517] 12 p3705 N93-31643

SUPERSONIC TURBINES
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3]
02 p0213 N93-11339
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932

SUPERSONIC WIND TUNNELS
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
A plume-induced boundary layer separation experiment
[AD-A255397] 04 p0875 N93-14677
User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel
[NASA-TM-105626] 04 p0804 N93-15498
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
NASA Lewis 8- by 6-foot supersonic wind tunnel user manual
[NASA-TM-105771] 09 p2597 N93-25080

SUPERSONICS
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344

SUPERSTRING THEORY
U STRING THEORY

SUPERSYMMETRY
Mass and mixing angle patterns in the standard model and its material supersymmetric extension
[DE92-016197] 01 p0153 N93-10291
Studies in quantum field theory
[DE92-011035] 02 p0470 N93-11276
Induced gauge theories and W gravity
[DE92-011218] 02 p0470 N93-11518
The low-energy structure of compactified superstring models 04 p0997 N93-14116
Semi-classical quantization rules in supersymmetric quantum mechanics 04 p0998 N93-14590
Nuclear structure research
[DE93-000405] 05 p1285 N93-16239
Symmetry of wavefunctions in quantum algebras and supersymmetry
[DE92-041129] 05 p1265 N93-16551
Supersymmetry in spin glass dynamics
[PREPRINT-843] 05 p1279 N93-16957
Quantized algebras, field theory, and deformed Goldstone bosons
[PREPRINT-836] 05 p1330 N93-16991
Two-parameter quantum groups
[PREPRINT-820] 07 p2060 N93-21182
Search for exotic particles at CDF
[DE93-004421] 08 p2480 N93-22687
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306
Deformation of supersymmetric and conformal quantum mechanics through affine transformations
10 p3142 N93-27321
Remarks about massive and massless particles in supersymmetry 10 p3138 N93-27335
On harmonic oscillators and their Kemmer relativistic forms 10 p3144 N93-27336
Atomic supersymmetry 10 p3146 N93-27353
The Mathai-Quillen formalism and topological field theory
[NIKHEF-H/92-07] 10 p3155 N93-27496
Topics in gauge theories and the unification of elementary particle interactions
[DE93-009370] 11 p3563 N93-28542
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
Compensating fields and anomalies in supergravity
[DE92-644724] 11 p3637 N93-30919
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
Superconformal structures and holomorphic 1/2-superdifferentials on N = 1 super Riemann surfaces
[DE93-604133] 11 p3558 N93-30989
Radiative electroweak breaking and sparticle spectroscopy with tan(beta) is approximately equal to (m(sub t)) divided by (m(sub b))
[DE93-608399] 12 p3832 N93-31663
Supersymmetric construction of W-algebras from super Toda and WZNW theories
[DE93-608244] 12 p3808 N93-31819

SUPPLYING
EIA publications directory, 1991
[DE92-015686] 01 p0174 N93-10607
Space Station fluid resupply 10 p2967 N93-27797
Space Station fluid management logistics
10 p2967 N93-27799

SUPPORT SYSTEMS
NT CLOSED ECOLOGICAL SYSTEMS
NT EMERGENCY LIFE SUSTAINING SYSTEMS
NT GROUND OPERATIONAL SUPPORT SYSTEM
NT GROUND SUPPORT SYSTEMS
NT LIFE SUPPORT SYSTEMS
NT PORTABLE LIFE SUPPORT SYSTEMS
An analysis technique for examining integration in a project support environment
[AD-A253351] 01 p0135 N93-10214
Software support for programming in the large
[AD-A254050] 01 p0138 N93-10782
Information systems planning leading to performance support systems
[DE92-018745] 02 p0475 N93-11441

Introduction to training decisions modeling technologies: The training decisions system
[AD-A249862] 02 p0387 N93-12252
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273
Functional system design document for the Intelligent Inspection System (IIS)
[DE92-018240] 03 p0619 N93-12794
Framework Programmable Platform for the Advanced Software Development Workstation (FPP/ASDW). Demonstration framework document. Volume 2: Framework process description
[NASA-CR-190275] 03 p0685 N93-13004
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373
Automated support for experience-based software management 05 p1244 N93-17164
Development of vendor evaluation criteria and post-implementation considerations for MSFC center-wide executive information system 05 p1345 N93-17316
Development of a prototype Air Force Institute of Technology (AFIT) Research Management System (ARMS)
[AD-A258267] 06 p1685 N93-18028
Software measurement for DoD systems: Recommendations for initial core measures
[AD-A258305] 06 p1619 N93-18250
A model to compare performance of space and ground network support of low-Earth orbiters 06 p1508 N93-18925
Aids to Navigation Service Force Mix 2000 Project. Volume 1: Development and application of an Aids to Navigation Service Force Mix decision support system
[AD-A259065] 06 p1433 N93-19344
Aids to Navigation Service Force Mix 2000 Project: Overview
[AD-A259064] 06 p1433 N93-19386
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system 06 p1496 N93-19402
Construction of evaluation test equipment for 16 bit space MPU 07 p1801 N93-20486
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Operator Performance Support System (OPSS) 08 p2429 N93-22195
Flight Support System (FSS) docking and umbilical services systems 08 p2140 N93-22254
The ASLOTS concept: An interactive, adaptive decision support concept for Final Approach Spacing of Aircraft (FASA). FAA-NASA Joint University Program 08 p2105 N93-22563
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
User support for the Spacelab mission D-2 08 p2155 N93-24340
The refined decentralized concept and development support 08 p2162 N93-24378
User support for the Columbus precursor missions 08 p2162 N93-24380
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Systems engineering considerations for operational support systems 09 p2666 N93-24689
JSC research and technology
[NASA-TM-104763] 09 p2901 N93-25188
Adaptive decision support systems: Concepts, characterization, and an application 09 p2876 N93-25475
Department of Defense technical architecture framework for information management. Volume 3: Reference model and standards profile, version 1.3
[AD-A261913] 09 p2882 N93-26230
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
A hypertext framework for group support systems
[AD-A261731] 09 p2885 N93-26582
Task Type E report for National Launch Demonstration Center (NLDC) (Task 32)
[MCR-91-5010] 09 p2610 N93-26591
A new class of mission support for combat air-crew 11 p3501 N93-28854
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Intelligent support for human computer interaction and decision-making in distribution planning and scheduling systems
[AD-A263985] 11 p3610 N93-30124
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085
Investigations into database management system support for expert system shells, volumes 1 and 2 12 p3835 N93-31108
Advanced launch system multi-path redundant avionics architecture analysis and characterization
[NASA-CR-4516] 12 p3795 N93-31642
System engineering concept demonstration, security study, volume 7
[AD-A265473] 12 p3791 N93-32007
Deinterleaver technology for future Electronic Support Measures (ESM) systems
[AD-A265005] 12 p3721 N93-32079
Automated Assembly Center (AAC) 12 p3686 N93-32123

SUPPORTS
NT PYLONS
Experimental investigation of simple support condition in free vibration analysis of plates 01 p0056 N93-10530
Improved head support stand adjustable by compoundturnbuckle
[AD-D015384] 04 p0936 N93-15249
Sunshade support structure: Structure and testing 05 p1080 N93-15748
Nonlinear analysis of Ariane 5 engine frame
[LR-678] 05 p1074 N93-16284
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Automated inspection of solder joints for surface mount technology
[NASA-TM-104580] 09 p2721 N93-26137
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558

SUPPRESSION
U RETARDING

SUPPRESSORS
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
A fast Fourier transform approach to interference suppression in direct sequence spread spectrum signals
[AD-A263019] 10 p3027 N93-27910

SURFACE ACOUSTIC WAVE DEVICES
Magnetostatic wave technology
[AD-A257723] 05 p1328 N93-17688
Vapor detection using SAW sensors 07 p1773 N93-21912
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Application of a SAW device for measuring rate of gas flow
[PB93-124931] 08 p2292 N93-23253
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
SAW technology for on-board processing in military satellite communications 11 p3362 N93-30265
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

SURFACE COOLING
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Transient liquid-crystal technique used to produce high-resolution convective heat-transfer-coefficient maps
[NASA-TM-106083] 08 p2294 N93-23404

SURFACE CRACKS
An evaluation of repair techniques used for uncontrolled longitudinal cracking and failed longitudinal joints
[PB92-205616] 02 p0277 N93-12072
Digital caustic investigation of near surface cracks under transient thermal loading 04 p0897 N93-14217
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740
Numerical analysis of surface cracks 06 p1556 N93-18750
Prediction of fracture initiation in surface flaws 07 p1935 N93-20678
Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
surf3d: A 3-D finite-element program for the analysis of surface and corner cracks in solids subjected to mode-1 loadings
[NASA-TM-107710] 08 p2329 N93-23735
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363
The growth of small corrosion fatigue cracks in alloy 2024
[NASA-TM-107755] 11 p3451 N93-29069

SURFACE DEFECTS
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
Oxidation, nitridation, and fluorine etching of Si
[AD-A253559] 02 p0249 N93-11755
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
Influence of surface defects and local structure on oxygenate reaction pathways over metal oxide surfaces
[DE92-040013] 03 p0539 N93-13573
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era 04 p1026 N93-14304
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites 04 p0819 N93-15597
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
Correlation of damage threshold and surface geometry of nodular defects in HR coatings as determined by in-situ atomic force microscopy
[DE93-007509] 09 p2654 N93-25384
Continuum and micromechanics treatment of constraint in fracture
[AD-A260927] 09 p2727 N93-25647
Defect initiation/growth and energy dissipation induced by deformation and fracture
[AD-A261703] 09 p2869 N93-26385
Modeling of electric-field enhancement at nodular defects in dielectric mirror coatings
[DE93-007513] 09 p2857 N93-26593
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
Nucleation and growth of rolling contact failure of 440C bearing steel
[NASA-CR-193138] 10 p3001 N93-28410
Fracture of glass 11 p3293 N93-30969
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323
Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182

SURFACE DIFFUSION
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Effects of surface structure and of embedded-atom pair functionals on adatom diffusion on FCC metallic surfaces
[AD-A258793] 06 p1674 N93-18980
Reaction/separation process for enhanced methane conversion
[PB93-150985] 08 p2246 N93-24634
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
Surface diffusion: Atomistics and surface morphology (summary of MRS Symposium B panel discussion)
[DE93-009862] 11 p3594 N93-29188
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174

SURFACE DISTORTION
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
Surface/surface intersection on a processor mesh
[RR-864-M] 07 p2038 N93-20943
Dynamics of sessile droplets distortion and disruption by electric field in microgravity conditions
07 p1805 N93-21091
Laser surface treatment: Numerical simulation of thermocapillary flow and free surface deformation
08 p2251 N93-22857
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195
SURFACE EMITTING LASERS
Spatial light modulators with arbitrary quantum well profiles
[AD-A253637] 01 p0165 N93-10210
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU] 03 p0605 N93-13418
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
Design and characterization of optically pumped vertical cavity surface emitting lasers
[AD-A258815] 06 p1541 N93-18994
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180
SURFACE ENERGY
Growth mechanisms of layered superconductors
[DE92-018492] 02 p0458 N93-10987
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
Botswana water and surface energy balance research program. Part 1: Integrated approach and field campaign results
[NASA-TM-108607] 07 p2018 N93-20891
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Surface energy fluxes at Central Florida during the convection and precipitation electrification experiment
[NASA-CR-192826] 09 p2769 N93-24945
Theoretical predictions of platinum-rhodium bimetallic catalysts
[DE93-007540] 09 p2649 N93-25428
Phase-field models for anisotropic interfaces
[PB93-164564] 09 p2646 N93-26323
Sea ice-atmospheric interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-193027] 10 p3073 N93-28137
A study of the chemical mechanism in lubrication
[DE93-012230] 11 p3330 N93-28650
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[DE93-011674] 12 p3830 N93-32183
SURFACE FINISHING
Surface protection in the aircraft industry
[MBB-Z-0432-92-PUB] 02 p0255 N93-11027
Interfacial microchemical characterization needs in surface processing
[DE92-018269] 02 p0277 N93-11672
Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
Silicone softeners: Today 07 p1838 N93-21159
A comment on the role of machining induced residual stresses on fatigue crack initiation
07 p1949 N93-21334
Rust transformation/rust compatible primers
08 p2244 N93-22182
Surface preparation and characterization of a 400 micrometer diameter fused silica optical fiber for direct optical initiation (DOI) applications
[DE93-005485] 09 p2852 N93-25182
Ultrasonic polishing 09 p2670 N93-25580
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I
09 p2855 N93-26191
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
SURFACE GEOMETRY
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Fast algorithms for rendering cubic curves
04 p0953 N93-15536
Parameterization in finite precision
04 p0953 N93-15537
An interval refinement technique for surface intersection 04 p0956 N93-15561
Physically-based methods for polygonization of implicit surfaces 04 p0956 N93-15562
Geometry of energy minimizing surfaces
[AD-A258694] 06 p1678 N93-19863
On machine capacitance dimensional and surface profile measurement system 09 p2670 N93-25579
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
SURFACE INTERACTIONS
U SURFACE REACTIONS
SURFACE IONIZATION
A simple positive/negative surface ionization source
[DE93-000974] 05 p1285 N93-16198
A remote laser mass spectrometer for lunar resource assessment 05 p1386 N93-17242
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Chemical analyses of provided samples
[NASA-CR-193211] 10 p2993 N93-27077
SURFACE LAYERS
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Light scattering from a sphere on or near an interface
02 p0448 N93-12531
Availability of hydrogen for lunar base activities
03 p0762 N93-13982
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Dual active layer photoconductor
[AD-D015423] 04 p0993 N93-14820
Workshop on Innovative Instrumentation for the In Situ Study of Atmosphere-Surface Interactions on Mars
[NASA-CR-191638] 05 p1377 N93-16630
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers
06 p1710 N93-19189
Interface properties of wide bandgap semiconductor structures
[AD-A259416] 07 p2078 N93-20131
Surface modification using a cascade arc plasma source
[ETN-93-93065] 07 p2074 N93-20936
Advanced dielectrics for passivation of InSb
[DE93-005353] 08 p2501 N93-22503
In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Acousto-optic infrared spectral imager for Pluto fast flyby 11 p3285 N93-28781
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces
11 p3638 N93-29378
Characterization of lithium electrode surface in lithium secondary batteries by in situ Raman spectroscopic methods
[AD-A263728] 11 p3411 N93-29986
SURFACE NAVIGATION
Digital chart database conversion into a system electronic navigational chart
[AD-A255007] 03 p0632 N93-12869
Implementation of the pure pursuit path tracking algorithm
[AD-A255524] 04 p0944 N93-14569
Goal directed robot navigation in a known indoor environment with unknown stationary and moving obstacles 08 p2458 N93-23223
Maritime satellite communication and navigation
08 p2275 N93-23508
The role of GPS in a future radionavigation mix: Trends in the 1992 US Federal Radionavigation Plan
08 p2124 N93-23509
Financial alternatives for global satellite navigation
08 p2124 N93-23519
Satellite navigation in agriculture
08 p2124 N93-23528
Towards global satellite navigation
08 p2124 N93-23529
An integrated car navigation system using a single processor for GPS signal processing, positioning, map display, and reporting 08 p2124 N93-23533
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
The Oden real time ice monitoring demonstration
08 p2371 N93-23837
Aids to Navigation Service Force Mix 2000 Project. Volume 3: Analysis of multi-mission requirements and development of planning factors for the Replacement Buoy Tender Fleet
[PB93-142370] 08 p2123 N93-24489
Using fuzzy behaviors for the outdoor navigation of a car with low-resolution sensors
[DE93-002428] 09 p2584 N93-25120
Mobile robot navigation using qualitative reasoning
[DE93-008277] 10 p3109 N93-27104
A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426
Planetary rover developments at JPL
12 p3737 N93-32115
SURFACE PRESSURE
U PRESSURE
SURFACE PROPERTIES
NT ADHESION
NT COEFFICIENT OF FRICTION
NT INTERFACIAL TENSION
NT SKIN TEMPERATURE (NON-BIOLOGICAL)
NT SPECTRAL REFLECTANCE
NT SURFACE CRACKS
NT SURFACE DEFECTS
NT SURFACE ENERGY
NT SURFACE ROUGHNESS
NT SURFACE TEMPERATURE
NT WALL TEMPERATURE
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
Atomistic processes of surface segregation during Si-Ge MBE growth
[DE92-019180] 02 p0459 N93-11496
Study of the effects of a plastic wave induced by laser pulse in a metallic material. Application to the improvement of fatigue strength 02 p0319 N93-12036
Laser-ablation processes
[DE92-011226] 02 p0322 N93-12250
Materials SIG quantification and characterization of surface contaminants 03 p0546 N93-12773
Noninvasive probing of the ocean surface using laser-based nonlinear optical methods
[DE92-019431] 03 p0669 N93-12916
The MAGSORB process for bulk separation of carbon dioxide
[DE92-001296] 03 p0538 N93-13314
Simulation studies for surfaces and materials strength
[NASA-CR-191289] 03 p0724 N93-13570
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Surface processes on Venus
04 p1024 N93-14294
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Global deformation on the surface of Venus
04 p1024 N93-14297
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
Effects of cryocontaminants on cryogenic superpolished mirror and superpolished quartz crystal microbalance
[AD-A255972] 04 p0981 N93-14403
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds
[AD-A255371] 04 p0845 N93-14740

Microstack insulator for flashover inhibition, phase 2
[AD-A256338] 04 p0869 N93-15196
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
Radio-frequency surface impedance of type-2 superconductors: Dependence upon the magnitude and angle of an applied static magnetic field
[DE92-040583] 05 p1316 N93-16014
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Polarimetric measurements of natural surfaces at 95 GHz
[AD-A256981] 05 p1138 N93-16130
Phase behavior of Au and Pt surfaces
[DE92-041021] 05 p1112 N93-16203
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Au(111) and Pt(111) surface phase behavior
[DE92-040881] 05 p1321 N93-16598
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16926
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
The surface density of quasars and Seyfert galaxies at B is approximately 22.0 05 p1375 N93-17157
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
He atom surface scattering: Surface dynamics of insulators, overlayers and crystal growth
[DE93-002788] 05 p1328 N93-17788
Sensing the gas metal arc welding process
[DE93-001957] 06 p1548 N93-18658
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
The Apollo 17 region: A compositional overview 06 p1736 N93-18796
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
TC curves and TS surfaces and their applications in CAD/CAM 07 p1943 N93-20723
Apparatus and method for non-contact surface voltage probing by scanning photoelectron emission
[AD-D015583] 07 p1891 N93-20799
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
Silicone softeners: Today 07 p1838 N93-21159
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Can measurements in the O2A- and B-bands be used for atmospheric correction of satellite measurements over the ocean? 07 p1955 N93-21581
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Electrostatic charging of spacecraft in geosynchronous orbit
[DRA-TM-SPACE-389] 08 p2181 N93-22489
Design of a large-scale plasma source ion implantation experiment
[DE93-005438] 08 p2493 N93-22746
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Workshop on chemical weathering on Mars, part 2
[NASA-CR-192261] 08 p2554 N93-23192
Electrolyte electroreflectance and automatic scanning ellipsometry characterization of mercury cadmium telluride
[AD-A260043] 08 p2488 N93-23645
New Micro- and macroscopic models of contact and friction
[AD-A259925] 08 p2319 N93-24442
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data
[ESA-TT-1262] 08 p2558 N93-24633
Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828
Surface diffusion studies by optical diffraction techniques
[DE93-007707] 09 p2853 N93-25550
Filaments in the California current: Effects upon primary production
[AD-A263036] 10 p3080 N93-27924
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Laer-induced breakdown spectroscopy instrument for element analysis of planetary surfaces 11 p3434 N93-28769
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
Spacecraft surface charging handbook
[AD-A262778] 11 p3279 N93-29305
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
Improved field emitter current densities and stability through the application of a proprietary process
[AD-A264048] 11 p3411 N93-30031
Atomic force microscopy of ammmonium perchlorate 11 p3349 N93-30091
Zirconia ceramics and mechanical surface interactions
[ETN-93-94049] 12 p3709 N93-31541
Reflectance spectroscopy and GEX simulation of palagonite and iron-rich montmorillonite clay mixtures: Implications for the surface composition of Mars 12 p3865 N93-31954
Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420

SURFACE REACTIONS

Atomic hydrogen: A reagent for the extraction of chemical species from silicon surfaces
[AD-A252604] 01 p0030 N93-10266
Comparison of Cl and HCl adsorption on Si(100)-(2 x 1)
[AD-A252802] 01 p0030 N93-10281
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Electron emission during multicharged ion-metal surface interactions
[DE92-017134] 02 p0439 N93-11849
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Erosion rates for polymers measured on LDEF 02 p0270 N93-11994
The role of backbond strain in silicon surfaces on the decomposition of NH3 and PH3
[AD-A253771] 02 p0250 N93-12062
The adsorption of C60 and the co-adsorption of C60 and H2O on (alpha)-Al2O3 (1 -1 0 2)-(2x1)
[DE92-018002] 02 p0465 N93-12093
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
Halogen surface chemistry on Si(100)-(2x1)
[AD-A254643] 03 p0536 N93-12618
Photochemical dynamics of surface oriented molecules
[DE92-019813] 03 p0703 N93-13106
Influence of surface defects and local structure on oxygenate reaction pathways over metal oxide surfaces
[DE92-040013] 03 p0539 N93-13573
Studies of the kinetics and mechanisms of perfluoroether reactions on iron and oxidized iron surfaces
[NASA-CR-191363] 03 p0539 N93-13763
Studies of surface-induced luminescence relevant to spacecraft glow, using a seeded arc-jet 03 p0523 N93-13919
The chemistry of the extreme pressure lubricant additive lead naphthenate on steel surfaces
[AD-A255828] 03 p0544 N93-14098
Gas-solid dynamics at disordered and adsorbate covered surfaces
[AD-A255981] 04 p0976 N93-14411
Gas-surface interactions
[AD-A255390] 04 p0841 N93-14652
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
[AD-A255242] 04 p0992 N93-14670
Arc-cathode interaction study
[NASA-CR-191356] 04 p0867 N93-14721
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Experimental and theoretical investigation of surface chemistry induced by direct and indirect electronic excitation
[AD-A256342] 04 p0843 N93-15200
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
C60 interactions with surfaces, gaseous species and photons: An overview
[DE92-040738] 04 p0978 N93-15654
Morphological aspects of surface reactions
[DE92-040522] 05 p1100 N93-15694
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
Probing electrochemical adsorbate structure and reactions with in-situ atomic-resolution scanning microscopy: Some progress and prospects
[AD-A256660] 05 p1101 N93-15913
Analysis of low energy electron emission arising during slow multicharged ion-surface interactions
[DE93-000970] 05 p1285 N93-16217
Adsorption of a binary gas mixture which laterally interacts on a random heterogeneous surface
[DE93-000706] 05 p1103 N93-16227
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
Above-surface neutralization of highly charged ions: The formation of hollow atoms
[DE93-001371] 05 p1288 N93-16603
Hydrogen induced C-C, C-N, and C-S bond activation on Pt and Ni surfaces
[DE93-004647] 06 p1483 N93-18453
The effect of catalyst preparation on catalytic activity
[DE93-003890] 06 p1483 N93-18539
Surface pi bonding and the near-first-order desorption kinetics of hydrogen from Ge(100)2x1
[AD-A258534] 07 p1845 N93-20051
Interaction of hydrogen and water with diamond (100): Infrared spectroscopy
[AD-A258535] 07 p1846 N93-20052
Pairing and clustering of hydrogen on Si(100)2x1: Monte Carlo studies
[AD-A258537] 07 p1846 N93-20054
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
Competitive pairing and the chemistry of coadsorbed hydrogen and halogens on Ge(100)
[AD-A258538] 07 p1846 N93-20386
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-192306] 07 p1847 N93-20756
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
The surface interaction of oxygen with a gamma TiAl
[DE93-003847] 08 p2227 N93-22517

Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Chemistry of bimetallic and alloy surfaces
[DE93-006893] 08 p2230 N93-22981
Formation of defect-free metal/semiconductor contacts
[AD-A259604] 08 p2284 N93-24151
Theoretical studies of surface reactions on metals and electronic materials
[DE93-009761] 09 p2650 N93-25502
A numerical simulation of adsorption onto a crystalline surface
[AD-A261079] 09 p2866 N93-25781
Activation of methane by clean and chemically modified single crystal oxide surfaces
[PB93-157295] 09 p2644 N93-25817
Dynamics of gas-surface interactions
[AD-A261402] 09 p2646 N93-26402
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Energy and chemical change
[AD-A262359] 10 p3133 N93-27648
Simulations of solvent effects on confined electrolytes
[AD-A262294] 10 p3133 N93-27677
Monte Carlo simulations of solvent effects on confined electrolytes
[AD-A262292] 10 p2996 N93-28245
An XPS study of space-exposed polyimide film
10 p3007 N93-28267
Surface characterization of selected LDEF tray clamps
10 p3001 N93-28271
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Spacecraft glow and the EISG/skirt experiment
11 p3266 N93-28728
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Ultrafast optical studies of surface reaction processes at semiconductor interfaces
[DE93-009049] 11 p3593 N93-29096
A simple model for explosives formulation
[DE93-010703] 11 p3341 N93-29251
What is underneath? Moving atoms and molecules to find out
[AD-A263363] 11 p3567 N93-29332
FI-STM investigation of atomic hydrogen adsorption on the Si(100)2x1 surface
[AD-A262748] 11 p3567 N93-29403
Electric field induced phenomena in STM: Tip deformations and Au(111)-surface phase transitions during tunneling spectroscopy experiments
[AD-A262208] 11 p3596 N93-29445
The mechanical response of gold substrates modified with self-assembling monolayer films
[AD-A262997] 11 p3452 N93-29515
Kinetics and dynamics of reacting systems
[AD-A264046] 11 p3313 N93-30030
Organometallic and surface chemistry of mixed-metal systems
[DE93-012686] 11 p3325 N93-30059
Unsteady combustion of energetic materials using laser-recoil 11 p3319 N93-30085
Center for surface radiation damage studies
[AD-A264330] 11 p3570 N93-30366
Surface chemistry of hydrogen-passivated porous silicon-oxidation of surface Si-H groups by acetone
[AD-A264655] 11 p3315 N93-30526
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627
Fluids in porous media.
[PB93-175198] 11 p3428 N93-30759
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites
12 p3862 N93-31937
On the weathering of Martian igneous rocks
12 p3862 N93-31941
Improved gallium nitride and aluminum nitride electronic materials
[AD-A264570] 12 p3710 N93-32010

SURFACE ROUGHNESS
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Fractals and multifractals in fracture
01 p0050 N93-10497
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
Flow over a leading edge with distributed roughness
01 p0006 N93-10549
Analytical characterization of bistatic scattering from Gaussian distributed surfaces
[AD-A254253] 01 p0159 N93-10724
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
Deployable reflector antenna performance optimization using automated surface correction and array-feed compensation
[NASA-TP-3228] 02 p0222 N93-12543
Near-normal incidence scattering from rough, finite surfaces: Kirchhoff theory and data comparison for Arctic sea ice
[AD-A254525] 03 p0668 N93-12577
Bistatic clutter RCS simulation using scale model rough surfaces
[AD-A254932] 03 p0560 N93-12581
Excimer laser irradiation of metal surfaces
04 p0884 N93-14175
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping
04 p1040 N93-14368
Surface evaluation of UV-degraded contamination
[NASA-CR-184500] 04 p0910 N93-14764
Interferometer with two phase-conjugate mirrors
[AD-D015420] 04 p0982 N93-14800
Experimental investigation of scattering from randomly rough plastic cylinders
[AD-A256018] 04 p0975 N93-15259
Surface roughness due to residual ice in the use of low power deicing systems
[NASA-TM-105971] 04 p0782 N93-15338
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Analytical characterization of bistatic scattering from rough surfaces: Dependence on surface correlation function
[AD-A256525] 04 p0862 N93-15397
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Friction and wear of plasma-deposited diamond films
[NASA-TM-105926] 06 p1495 N93-19035
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
Implementation and evaluation of a three-dimensional photometric sampler
[AD-A258636] 07 p1905 N93-20361
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
Isolation and analysis of key components of seafloor relief
[AD-A261635] 09 p2790 N93-26170
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579
Roughness-induced generation of crossflow vortices in three-dimensional boundary layers
[NASA-CR-4505] 10 p2929 N93-27096
Aerodynamics of a finite wing with simulated ice
10 p2932 N93-27437
Simulation of boundary-layer transition: Receptivity to spike stage
[NASA-CR-191413] 10 p3040 N93-27588
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-28007
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
The method of smoothing applied to composite rough surface
[AD-A265236] 12 p3701 N93-32062
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238
Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420

SURFACE ROUGHNESS EFFECTS
Martian water frost: Control of global distribution by small-scale processes 04 p1047 N93-14868
Leveling coatings for reducing the atomic oxygen defect density in protected graphite fiber epoxy composites
04 p0819 N93-15597
Wetting hysteresis of tin on silica solid surfaces of controlled periodic roughness 08 p2251 N93-22861
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces
08 p2290 N93-23110
Effect of fracture surface roughness on shear crack growth
[DE93-011047] 10 p3061 N93-28363

SURFACE TEMPERATURE
NT SKIN TEMPERATURE (NON-BIOLOGICAL)
NT WALL TEMPERATURE
Long-term data collection and empirical background temperature modeling
[AD-A254044] 01 p0127 N93-10780
Gas-surface interactions near dissociation threshold
[AD-A250205] 02 p0252 N93-12254
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Performance of the Bowen ratio systems on a 22 deg slope
[NASA-CR-191278] 03 p0644 N93-13254
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
A study of forced convection boiling under reduced gravity
[NASA-CR-190771] 05 p1132 N93-16694
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
A Theoretical Analysis of Thermal Radiation from Neutron Stars
[NASA-CR-191906] 05 p1376 N93-17410
IR imaging for combustion characteristics and optical properties of boron/boron oxide
[AD-A257747] 05 p1108 N93-17693
Sea ice - atmosphere interaction: Application of multispectral satellite data in polar surface energy flux estimates
[NASA-CR-192129] 06 p1566 N93-18571
The effect of a non-volatile dust mantle on the energy balance of cometary surface layers
06 p1710 N93-19189
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Theory of the dissociation dynamics of small molecules on metal surfaces: Finite temperature studies
[DE93-005870] 08 p2482 N93-23298
The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366]
08 p2389 N93-24089
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Land surface processes and climate modeling
09 p2783 N93-25685
Neural networks for atmospheric retrievals
09 p2824 N93-25975
Effects of surface thermal forcing on stratified flow past an isolated obstacle
[PB93-156776] 09 p2776 N93-26548
Newly found evidence of Sun-climate relationships
[NASA-TM-104583] 10 p3076 N93-27015
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
Spacecraft glow and the EISG/skirt experiment
11 p3266 N93-28728
Fundamental studies of impingement cooling thermal boundary conditions 11 p3254 N93-29940

Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases
11 p3255 N93-29943
Transient thermal behaviour of a compressor rotor with axial cooling air flow and co-rotating or contra-rotating shaft
11 p3255 N93-29946
Measurement of projectile surface temperature by means of its infrared radiation: A preliminary study
[AD-A264053] 11 p3432 N93-30032
Heat transfer measurements using infra-red thermography in rarefied flows
[RAE-TM-W-1] 12 p3724 N93-31336
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

SURFACE TENSION
U INTERFACIAL TENSION

SURFACE TO SURFACE MISSILES
NT CRUISE MISSILES
NT INTERCONTINENTAL BALLISTIC MISSILES
NT LANCE MISSILE
NT PERSHING MISSILE
NT TOMAHAWK MISSILES
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth
[AD-A254478] 03 p0560 N93-12574

SURFACE TREATMENT
NT SURFACE FINISHING
Analysis of plasma-treated wire insulation
[DE92-019471] 02 p0291 N93-11643
Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
Strained-layer InGaAs-GaAs-AlGaAs quantum well lasers and transverse junction stripe lasers
03 p0607 N93-13773
Excimer laser irradiation of metal surfaces
04 p0884 N93-14175
Surface preparation of stainless steel prior to painting
[AD-A256253] 04 p0838 N93-14454
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
The influence of steel surface chemistry on the bonding of lubricant films
[AD-A256231] 04 p0851 N93-15242
Wetting of fibers measured by LPR-90 equipment
07 p1835 N93-21139
The improvement of fatigue life of aluminum alloy structure by laser radiation 07 p1950 N93-21336
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
High performance sapphire windows
08 p2310 N93-22198
Plasma technology 08 p2496 N93-23263
Plasma treatment of glass surfaces
[AD-D015619] 08 p2241 N93-24229
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903
Method for preparation of a microporous structure with layered interstitial surface treatment
[NASA-CASE-MSC-21487-2] 11 p3296 N93-29023

SURFACE VEHICLES
NT AIRCRAFT CARRIERS
NT AUTOMATED TRANSIT VEHICLES
NT AUTOMOBILES
NT BOATS
NT ELECTRIC AUTOMOBILES
NT ELECTRIC MOTOR VEHICLES
NT LIFEBOATS
NT LUNAR ROVING VEHICLES
NT LUNAR SURFACE VEHICLES
NT MAGNETIC LEVITATION VEHICLES
NT MOTOR VEHICLES
NT ROVING VEHICLES
NT TANKS (COMBAT VEHICLES)
NT TRACKED VEHICLES
NT TRACTORS
NT TRANSPORTER
NT TRUCKS
NT WALKING MACHINES
The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible?
[DE92-016184] 03 p0612 N93-13236
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
A method for surmounting an obstacle by a robot vehicle
[NASA-CASE-NPO-18764-1-CU]
05 p1179 N93-17272
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636
A video transmission system for low-bandwidth remote driving
[DE93-010275] 11 p3544 N93-30529
Remote driving with reduced bandwidth communication 12 p3719 N93-32114

SURFACE WATER
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
Measurements of carbon dioxide in the Southern Ocean along the WOCE S-4 section
[DE92-040334] 05 p1220 N93-16294
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
Hydrographic data from Texas continental shelf and the Northwest continental slope of the Gulf of Mexico: R/V GYRE Cruise 92G-03 (16-20 March 1992)
[PB92-218155] 07 p2018 N93-21049
Third Stokes parameter emission from a periodic water surface
[NASA-CR-192334] 08 p2342 N93-22454
Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater
[PB93-150001] 08 p2375 N93-24638
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland)
11 p3458 N93-28926
Molecular dynamics modeling of electric double layers with spectroscopic applications
[AD-A263168] 11 p3568 N93-29489
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
Three-dimensional modeling of pollutant transport in surface waters
[PB93-190627] 12 p3751 N93-31203
Mars brine formation experiment
12 p3864 N93-31949

SURFACE WAVES
NT BAROCLINIC WAVES
NT CAPILLARY WAVES
NT ELECTROMAGNETIC SURFACE WAVES
NT GRAVITY WAVES
NT RIPPLES
Sound propagation over rigid porous layers
02 p0432 N93-11179
Phase mixing and surface wave decay in an inhomogeneous plasma
[IPPCZ-320] 03 p0715 N93-13006
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method
[AD-A255660] 04 p0804 N93-14128
Resonance absorption of MHD surface waves with applications to the solar atmosphere
04 p1048 N93-14157
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
The numerical stability of nonlinear floating body calculations 04 p0873 N93-14278
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
The detection and characterization of high frequency and high wavenumber solar oscillations
[NASA-CR-191622] 04 p1049 N93-15634
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
Surface-related multiple elimination, an inversion approach
[ISBN-90-9004520-1] 05 p1210 N93-17586
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer
08 p2414 N93-23490
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
The instability of a liquid jet in a compressible airstream 09 p2703 N93-25560
Optical slope/height measurements of small scale waves within the SAXON-FPN experiment
[AD-A262572] 11 p3487 N93-29422
Software development and analysis for experimental high frequency surface wave radar data
[AD-A261982] 11 p3383 N93-29438
Acoustic charge transport technology investigation for advanced development transponder
11 p3386 N93-29602
Modeling regional seismic waves
[AD-A264002] 11 p3479 N93-30756

SURFACE-ACTIVE AGENTS
U SURFACTANTS

SURFACES
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019

SURFACTANTS
Computer simulations for the adsorption of polymers onto surfaces
[DE92-018942] 02 p0267 N93-11628
Effect of the reinforcement finish in the mechanical performances of epoxy-glass composites
07 p1836 N93-21146
The effect of lamination angle on polymer retention
[DE93-004304] 07 p1861 N93-21722
Experimental and theoretical studies of reverse micelles in dense gases
[PB93-141901] 08 p2222 N93-24143
Structure of sodium 4-(1'-heptylnonyl) benzenesulfonate adsorbed on alumina using H-2 NMR
[AD-A261224] 09 p2645 N93-26300
Transport of Zn(OH)4(-2) ions across a polyolefin microporous membrane
[AD-A262969] 10 p3136 N93-28292
NMR studies of organic thin films
[AD-A264903] 12 p3707 N93-31066

SURGEONS
NT FLIGHT SURGEONS

SURGERY
Postoperative hyperbaric oxygen treatment of peripheral nerve damage
[AD-A255842] 03 p0676 N93-14084

SURGES
EMTP based stability analysis of space station electric power system in a test bed environment
[NASA-TM-105845] 04 p0871 N93-15503
Fuzzy logic: Artificial neural networks integration for transient identification
[DE93-002232] 06 p1632 N93-18389
Stall in axial flow aero engine compressors
06 p1530 N93-18723
Stall and surge in axial flow compressors
06 p1530 N93-18724
Active control of stall and surge
06 p1530 N93-18725
Stall transients including effects of inlet distortion and intake geometry 06 p1530 N93-18726
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor
06 p1531 N93-18727
Active stabilization to prevent surge in centrifugal compression systems
[NASA-CR-191625] 06 p1549 N93-18862
A system to measure lightning-induced transients on spacecraft umbilical lines 09 p2693 N93-24889
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335
Ly-alpha radiation from coronal transients
12 p3870 N93-31363
Morphology of coronal loop interactions
12 p3873 N93-31379

SURVEILLANCE
NT SPACE SURVEILLANCE (SPACEBORNE)

Semiconductor phase conjugation
[AD-A253684] 01 p0166 N93-10345
Computer simulation of a space-based infrared surveillance sensor
[AD-A255521] 03 p0524 N93-13870
Data analysis and interpretation for environmental surveillance
[DE92-019009] 04 p0910 N93-15270
Track-before-declare methods in IR image sequences
[AD-A257517] 06 p1661 N93-18174
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
Radiolocation Techniques
[AGARD-CP-528] 08 p2265 N93-23598
Rome Laboratory Journal, 1992
[AD-A260821] 09 p2911 N93-25910
Algorithms for space-based infrared surveillance
[AD-A261891] 09 p2857 N93-26542
Inservice diagnostic methods for solenoid-operated valves
[DE93-007823] 11 p3443 N93-28968
T(lc2)acS(lc3)ats for Surveillance Verification and C3I
[AGARD-CP-522] 11 p3387 N93-29892
TACSAT ground control and data collection 11 p3388 N93-29895
Cost effective TacSats for military support 11 p3285 N93-29912
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430

SURVEILLANCE RADAR
NT AIRBORNE SURVEILLANCE RADAR
NT MULTISTATIC RADAR
Beam forming antenna system
[PATENT-1-265-236] 01 p0067 N93-10111
A description of the Mode Select beacon system (Mode S) and its associated benefits to the National Airspace System (NAS)
[DOT/FAA/SE-92/6] 01 p0007 N93-10738
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
Acousto-optic applications for multichannel adaptive optical processor
[AD-A255823] 03 p0711 N93-14032
Progress in DND's space-based radar R/D project 04 p0812 N93-14958
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
Protection of taxiing traffic in airports through mode S secondary radar technology
[ETN-93-93455] 10 p2941 N93-28206
Low cost TACSAT for NATO surveillance 11 p3285 N93-29911
Antenna size, transmitter power, and solid state transmitter considerations in affordable radar design
[AD-A264397] 12 p3718 N93-32414

SURVEYING
U SURVEYS

SURVEYS
NT GEODETIC SURVEYS
NT GEOLOGICAL SURVEYS
NT SKY SURVEYS (ASTRONOMY)
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382
A survey of commercial object-oriented database management systems
[NASA-CR-190645] 01 p0172 N93-10452
Aerospace and defence-related industries statistical survey report, 1991
[CTN-92-60514] 01 p0002 N93-10652
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Environmental problems and trends of international responses, 2
[DE92-531118] 02 p0355 N93-11846
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
Science and engineering degrees, by race/ethnicity of recipients: 1977-1990
[NSF-92-327] 03 p0729 N93-12694
ONR basic research program: Summary and bibliographies, FY 1990 and 1991
[AD-A253038] 03 p0774 N93-12696
Academic science and engineering: Graduate enrollment and support, Fall 1990
[NSF-92-323] 03 p0729 N93-12802
Report on phase 2 of 1990 OSSA data census
[NASA-TM-107992] 03 p0735 N93-12991
Survey on techniques used in aerodynamic nozzle/airframe integration 03 p0502 N93-13224
Topographic surveyor: Transitioning to the 90's
[AD-A254688] 03 p0499 N93-13351
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Scientists, engineers, and technicians in manufacturing industries: 1989. Detailed statistical tables
[NSF-92-312] 03 p0730 N93-13437
Characteristics of recent science and engineering graduates: 1990. Detailed statistical tables
[NSF-92-316] 03 p0731 N93-13454
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
Selected data on Federal funds for research and development: Fiscal years 1990, 1991, and 1992
[NSF-92-319] 03 p0741 N93-13657
Research and development in industry: 1989. Funds, 1989. Scientists and engineers, January 1990
[NSF-92-307] 03 p0741 N93-13658
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Measurement-based multipurpose cadastral systems 04 p0904 N93-14220
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
Aviation accidents, incidents, and violations: Psychological predictors among US pilots 04 p0783 N93-14693
Geothermal energy survey and technology
[DE93-716356] 05 p1193 N93-15903
Industry survey of space system cost benefits from New Ways Of Doing Business 05 p1346 N93-17325
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
State-of-the-art survey of flexible pavement crack sealing procedures in the United States
[AD-A258050] 05 p1072 N93-17708
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
A concept study for a national software engineering database
[AD-A258254] 06 p1614 N93-17823
Federal funds for research and development: Fiscal years 1990, 1991, and 1992, volume 40
[NSF-92-322-VOL-40] 06 p1694 N93-17853
Software Engineering Process Groups: Results of the 1992 SEPG Workshop event evaluation and a first report on SEPG status
[AD-A258259] 06 p1617 N93-18011
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 16: A comparison of the technical communications practices of Russian and US aerospace engineers and scientists
[NASA-TM-107714] 06 p1686 N93-18160
Pre-phase A: Development of a far-ultraviolet photometric- and spectroscopic-survey small-explorer experiment
[NASA-CR-192092] 06 p1696 N93-18415
Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765
Mobile satellite services: A survey of business needs
[AD-A259031] 06 p1470 N93-18955
Bibliographic study of georadar principles, applications, advantages, and inconvenience
[CR-35/91] 06 p1509 N93-18993
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078
Canadian Forces helicopter ditchings: 1952-1990 06 p1426 N93-19685
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
Aircrew acceptance of automation in the cockpit 06 p1608 N93-19761
Lessons learned from an historical look at flight testing 06 p1442 N93-19904
NASA scientific and technical program: User survey
[NASA-TM-108979] 06 p1693 N93-19937
OLS data system/global survey of lightning 07 p2006 N93-20085
Survey of space environment services center users and services
[AD-A258672] 07 p2089 N93-20366
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Survey of nuclear activations for intense proton and deuteron beams
[AD-A259258] 07 p2061 N93-20604
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219858] 07 p2012 N93-21014
Advanced very high resolution radiometer data to update forest area change for midsouth states
[PB93-121416] 07 p1979 N93-21685
Polarization effects in coherent and incoherent photon scattering: Survey of measurements and theory relevant to radiation transport calculations
[PB93-126092] 07 p2064 N93-21828
Oceanic CO measurements for the WOCE Hydrological Survey in the Pacific Ocean: Shipboard Alkalinity analyses during 1991 and 1992
[DE93-006900] 08 p2412 N93-22581
Local Lightning Early Warning System (LLEWS), phase 1
[DE93-006609] 08 p2403 N93-22595
Future trends in power generation cost by power resource
[DE93-761825] 08 p2378 N93-22957
Investigation and study scenarios to introduce CO2 fixation technologies in the energy sector
[DE93-761912] 08 p2378 N93-22958
Survey of data from the continuous sites of the 1990 Atlanta ozone precursor study
[PB93-124618] 08 p2386 N93-23348
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
Technology transfer from NASA to targeted industries, volume 2
[NASA-CR-192758] 08 p2533 N93-24484
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
Aircraft overflight study recommended plan: Detailed sampling, data collection and data analysis plans for the visitor survey and the dose-response survey
[PB93-144186] 08 p2478 N93-24649
The JGOFS North Atlantic Bloom Experiment: An overview 09 p2735 N93-24934
Data management for JGOFS: Theory and design 09 p2735 N93-24935
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series 09 p2736 N93-24937
Experimental modal survey of the probe mass mock-up
[DE93-008846] 09 p2617 N93-25494
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Aircraft electrical and environmental systems, AFSCs 452x5, 454x5, and 454x6
[AD-A261213] 09 p2590 N93-25733
Design Knowledge Management System (DKMS) Beta Test Report
[AD-A261453] 09 p2883 N93-26350
Policy implications of the GRI baseline projection of US energy supply and demand to 2010, 1993
[PB93-165751] 10 p3064 N93-26634
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Anthropometric survey of the astronaut applicants and astronauts from 1985 to 1991
[NASA-RP-1304] 11 p3506 N93-29324
Filling the gaps: An overview of data on education in grades K through 12
[PB93-176550] 11 p3608 N93-30821

A representative survey of US space systems and methods for estimating their costs
[AD-A264159] 11 p3272 N93-30881
Reports on Cartography and Topography, series 1, report no. 103
[ETN-90-97325] 12 p3744 N93-31256
The lifestyle and dietary consumption patterns of United States Air Force aviators within air training command at Randolph Air Force Base, Texas
12 p3780 N93-32257
Reaction to aircraft noise near general aviation airfields
[DORA-8203] 12 p3817 N93-32377

SURVIVAL
De Finetti representations of survival functions level to a product measure
[AD-A253623] 01 p0146 N93-10107
Mechanisms of immune failure in burn injury
02 p0376 N93-11285
Applications of living systems theory to life in space
05 p1229 N93-16865
Atmospheric entry survival of large micrometeorites: Implications for their sources and for the cometary contribution to the zodiacal cloud
06 p1706 N93-19159
737-400 at Kegworth, 8 January 1989: The AAIB investigation 06 p1423 N93-19661
Canadian Forces helicopter ditchings: 1952-1990
06 p1426 N93-19685
US Army's aviation life support equipment retrieval program real world design successes from proactive investigation 06 p1427 N93-19690
Correlations between engineering, medical and behavioural aspects in fire-related aircraft accidents
06 p1428 N93-19693
Nutrition and hydration status of aircrew members consuming the food packet, survival, general purpose, improved during a simulated survival scenario
[AD-A258744] 07 p2022 N93-20384
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365

SUSCEPTIBILITY (MAGNETISM)
U MAGNETIC PERMEABILITY

SUSPENDING (HANGING)
NT MAGNETIC SUSPENSION
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815

SUSPENDING (MIXING)
Hydrodynamic particle migration in small-amplitude, oscillatory, circular couette flow: The limits of reversibility
[DE92-008480] 02 p0303 N93-11843
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Ordering of aggregating particle suspensions undergoing simple shear 07 p1805 N93-21092

SUSPENSION SYSTEMS (VEHICLES)
Semi-active suspension for automotive application
[MEMT-17] 08 p2316 N93-23377
The middeck active control experiment: Gravity and suspension effects 10 p3010 N93-27897
Dynamics and controls in MAGLEV systems
[AD-A263087] 10 p3051 N93-27928

SUSPENSIONS
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Microgravity combustion of dust suspensions
07 p1853 N93-20201
Ordering of aggregating particle suspensions undergoing simple shear 07 p1805 N93-21092

SWAGING
A simulation study of planar swaging deformation
[AD-A255908] 04 p0902 N93-15070

SWAMPS
U MARSHLANDS

SWATH WIDTH
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053

SWAZILAND
Early Archean spherule beds of possible impact origin from Barberton, South Africa: A detailed mineralogical and geochemical study 01 p0115 N93-10155

SWEAT COOLING
A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063

SWEATING
U PERSPIRATION

SWEDEN
Impact cratering record of Fennoscandia
01 p0119 N93-10171
Freja satellite program and its connection to EISCAT
06 p1578 N93-18739
Space research in Sweden, 1990-1991
09 p2888 N93-25887

SWEDISH SPACE PROGRAM
Activities report of the Institute of Space Physics
[ETN-93-93360] 06 p1665 N93-17947
The Swedish ISY projects: A joint national contribution
08 p2366 N93-23807

SWEEP ANGLE
NT LEADING EDGE SWEEP
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Computational parametric study of sidewall-compression scramjet inlet performance at Mach 10
[NASA-TM-4411] 07 p1900 N93-20299
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450

SWEEP EFFECT
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522

SWEEPBACK
NT LEADING EDGE SWEEP

SWELLING
The role of entanglements in the swelling of poly(dimethylsiloxane) networks
[AD-A255359] 04 p0849 N93-14561
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
The complex action of major solutes on radiation induced swelling of Fe-Cr-Ni austenitic alloys
[DE93-007994] 10 p3000 N93-28010
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064

SWEPT FORWARD WINGS
Effect of canard wing positions on aerodynamic characteristics of swept-forward wing
[AD-A262373] 11 p3238 N93-28493
Flight control system design factors for applying automated testing techniques
[NASA-TM-4242] 11 p3260 N93-30764
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137

SWEPT WINGS
NT DELTA WINGS
NT SWEPT FORWARD WINGS
NT SWEPTBACK WINGS
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Overview of supersonic laminar flow control research on the F-16XL ships 1 and 2
[NASA-TM-104257] 02 p0196 N93-11221
Boundary layer relaminarization device
[NASA-CASE-LAR-14470-1] 02 p0199 N93-11876
Assessment of potential aerodynamic benefits from spanwise blowing at the wing tip
03 p0496 N93-13822
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions
03 p0496 N93-13929
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
Stationary crossflow instability on an infinite swept wing 09 p2580 N93-25865
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553
The experimental study of transition and leading edge contamination of swept wings
[LIB-TRANS-2197] 10 p2930 N93-27274
Three-dimensional compressible stability-transition calculations using the spatial theory
10 p2931 N93-27431
Recent progress in the analysis of iced airfoils and wings 10 p2933 N93-27441
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498
GARTEUR 3D sheer layer experiment
[FFA-TN-1992-26] 12 p3671 N93-31052

SWEPTBACK WINGS
NT DELTA WINGS
Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Experiments on swept-wing boundary-layer transition
05 p1162 N93-16829
The effect of surface suction near the leading edge of a swept-back wing
[AERO-REPT-9205] 07 p1761 N93-20807

SWINE
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

SWINGBY TECHNIQUE
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582

SWIRLING
Turbulence modeling of the flow field in combustors using the non-linear k-epsilon model
[DE92-014745] 01 p0080 N93-10330
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154

SWIRLING WAKES
U TURBULENT WAKES

SWITCHES
NT CAPACITANCE SWITCHES
NT ELECTRIC RELAYS
NT ELECTRIC SWITCHES
NT FLUID SWITCHING ELEMENTS
NT PRESSURE SWITCHES
NT SWITCHING CIRCUITS
Long conduction time plasma opening switch experiments at Sandia National Labs
[DE92-015003] 01 p0072 N93-10279
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
The role of HiPPI switches in mass storage systems: A five year prospective 04 p1002 N93-14774
Fast optoelectronic switching processes in surface-emitting semiconductor lasers and nonlinear etalons
[AD-A255802] 04 p0886 N93-15069
High performance pulse generator
[AD-D015378] 04 p0869 N93-15269
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
Photoconductive semiconductor switches for high power radiation
[DE92-040968] 05 p1147 N93-16599
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU]
06 p1519 N93-18278
The effect of oxide layers and boron doping on the breakdown of high purity silicon
[AD-A259171] 07 p2080 N93-20598
Delivery of very high bandwidth with ATM switches and SONET
[DE93-004274] 07 p2045 N93-21721
Dense plasma focus powered by flux compression generators
[DE93-003781] 07 p2076 N93-21837
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960

Reduced mass persistent switches for large superconducting magnets in space
[DE93-004782] 08 p2474 N93-22047
Design and characterization of the Pegasus 1 plasma flow switch
[DE93-003812] 08 p2276 N93-22322
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
Pulse power requirements for large aperture optical switches based on plasma electrode Pockels cells
[DE93-005824] 08 p2279 N93-22997
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Light-activated solid-state opening switch
[AD-A259770] 08 p2281 N93-23487
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Modeling of plasma flow switches at low, intermediate and high energies
[DE93-007359] 09 p2858 N93-25167
Long lifetime silicon photoconductive semiconductor switches
[DE93-006757] 10 p3032 N93-28150
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-006285] 11 p3406 N93-28944
Analysis of an MCG/fuse/PFS experiment
[DE93-007355] 11 p3410 N93-29812
Ferroelectric liquid crystal optical interconnect switching systems
[AD-A263751] 11 p3596 N93-29859
Ultrafast, passive, broad-band, optical shutter based on novel semiconductor/conducting polymer interfaces
[AD-A264098] 11 p3601 N93-30878
Surface-emitting laser-based optical switching: An update
[DE93-010689] 12 p3732 N93-32180

SWITCHING
NT MAGNETIC SWITCHING
NT MICROWAVE SWITCHING
NT OPTICAL SWITCHING
NT PACKET SWITCHING
Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
Compact high PRF CO2 transmitter
[AD-A255985] 04 p0884 N93-14414
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
Scan-based switching tests
[AD-A257712] 05 p1151 N93-17685
Characterization and snubbing of a bidirectional MCT in a resonant ac link converter
[NASA-CR-192230] 07 p1889 N93-20258
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
A solenoid with a low input power and a fast switching time
[DLR-FB-91-39] 08 p2278 N93-22661
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327
Modal testing using a full instrumentation technique
[DE93-009635] 10 p3046 N93-28373
Information Switching Processor (ISP) contention analysis and control
[NASA-CR-191130] 10 p2957 N93-28416
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896

SWITCHING CIRCUITS
NT FLUID SWITCHING ELEMENTS
Twenty-five KA, 5000V solid state opening switch for inductive energy stores
[AD-A253968] 01 p0073 N93-10421
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
Characteristics of current filamentation in high gain photoconductive semiconductor switching
[DE92-018277] 02 p0291 N93-11693
Autonomous power system brassboard
[NASA-CR-189115] 04 p0867 N93-14798
Internal grounding arrangement in a switching power converter
[AD-D015435] 04 p0868 N93-14826
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Reconfiguration schemes for fault-tolerant processor arrays
[AD-A257833] 06 p1520 N93-18365
On-board B-ISDN fast packet switching architectures. Phase 1: Study
[NASA-CR-189144] 06 p1457 N93-18703
Monte Carlo modeling of solid-state photoswitches
[DE93-005829] 08 p2280 N93-22999
Light-activated solid-state opening switch
[AD-A259770] 08 p2281 N93-23487
A communications system for the United Nations Transitional Authority in Cambodia (UNTAC) 10 p3025 N93-26663
Monolithic millimeter-wave diode array beam controllers: Theory and experiment 10 p3011 N93-27731
Study of switching transients in high frequency converters
[NASA-CR-193105] 10 p3032 N93-28327
Information Switching Processor (ISP) contention analysis and control
[NASA-CR-191130] 10 p2957 N93-28416
Optically controlled solid state opening switches
[AD-A262404] 11 p3591 N93-28496
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896

SWITCHING ELEMENTS
U SWITCHING CIRCUITS

SWITCHING THEORY
Global stabilization of linear analytic systems
[RR-403] 07 p2051 N93-20738

SYMBOLIC PROGRAMMING
Calculation of stress intensity factors in an isotropic multicracked plate: Part 2: Symbolic/numeric implementation
[NASA-TM-105823] 01 p0095 N93-10453
A primer on polynomial resultants
[AD-A246883] 02 p0426 N93-11463
Automatic analysis and transformation of FORTRAN programs using a typed functional language
[INRIA-RR-1518] 06 p1615 N93-17838
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
Analytica: An experiment in combining theorem proving and symbolic computation
[AD-A258656] 06 p1628 N93-19958
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Analysis of symbolic parameter models
[AD-A261930] 09 p2811 N93-26253
Nonresident and endangered variables: The effects of code generation optimizations on symbolic debugging
[AD-A263149] 11 p3529 N93-29486
The priority inversion problem and real-time symbolic model checking
[AD-A265408] 12 p3791 N93-32044

SYMBOLS
Design of instrument approach procedure charts: Comprehension speed of missed approach instructions coded in text or icons
[PB92-205673] 02 p0204 N93-11252
Syntax and lexis of the specification language Z
[RSRE-MEMO-4367] 02 p0414 N93-12326
Human memory for the spatial locations of items on pull-down computer menus 03 p0739 N93-14080
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver 06 p1506 N93-18913
Evaluation of the geometric quality of cartographic documents through the use of scanning imagery devices
[INPE-5298-PRE/1703] 06 p1692 N93-19738
On the typography of flight-deck documentation
[NASA-CR-177605] 07 p2087 N93-19970
Development of an automated cartographic system 07 p1967 N93-20530
Effectiveness of feature and classifier algorithms in character recognition systems
[PB93-147197] 08 p2525 N93-23272
Symbol signal-to-noise ratio loss in square-wave subcarrier downconversion 09 p2672 N93-24668
Information transmission using CHAOS
[AD-A261519] 09 p2883 N93-26377
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
The test memorization of symbols and numbers: A computer generated test for visual sensitivity 12 p3775 N93-31233

SYMMETRICAL BODIES
NT AXISYMMETRIC BODIES
NT BODIES OF REVOLUTION
NT CELESTIAL SPHERE
NT CONICAL BODIES
NT CYLINDRICAL BODIES
NT ELLIPSOIDS
NT FAIRINGS
NT FALLING SPHERES
NT PARABOLIC BODIES
NT ROTATING CYLINDERS
NT ROTATING SPHERES
NT SLENDER CONES
NT SPHERES
NT TORUSES
Improved numerical simulation of Euler equations 01 p0080 N93-10309
3D object recognition: Symmetry and virtual views
[AD-A259738] 08 p2460 N93-23474

SYMMETRY
NT BROKEN SYMMETRY
NT SUPERSYMMETRY
Nucleon axial coupling constants and QCD sum rules
[DE92-014227] 02 p0439 N93-11844
Schwinger Dyson equations: Dynamical chiral symmetry breaking and confinement
[DE92-040717] 04 p0978 N93-15657
The crystal structures of oxygen deficient rare earth oxides
[DE92-040331] 05 p1317 N93-16179
Effects of non-crystallographic symmetry on structure factor statistics
[ITN-93-85182] 05 p1321 N93-16734
A continuum string model for D greater than 1
[PREPRINT-853] 05 p1329 N93-16960
Lie point symmetries and exact solutions of nonlinear differential equations
[PREPRINT-840] 05 p1269 N93-16994
Symmetry group of partial differential equations and of differential difference equations: The Toda lattice versus the Korteweg-de Vries equation
[PREPRINT-841] 05 p1270 N93-16995
Symmetries and conditional symmetries of differential-difference equations
[PREPRINT-858] 05 p1270 N93-16997
Multiple-inlet configuration for missiles with skid-to-turn control mode 05 p1069 N93-17617
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
An order-theoretic unification and generalisation of certain fundamental bijections in mathematical classification, 1
[RR-874-M] 07 p2053 N93-20873
Transversely polarized source cladding for an optical fiber
[NASA-CASE-LAR-14652-1-SB] 08 p2486 N93-22039
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Hypervelocity impact study: The effect of impact angle on crater morphology
[NASA-CR-192711] 09 p2724 N93-25260
New ground states in unconventional superconductors 09 p2688 N93-25282
Upper and lower bounds for the waiting time in the symmetric shortest queue system
[MEMO-COSOR-92-09] 10 p3127 N93-27278
Symmetries of coupled harmonic oscillators 10 p3142 N93-27318
Symmetries and motions in manifolds
[NIKHEF-H/92-08] 10 p3128 N93-27510
Mixed spectra and rotational symmetry
[W-9212] 10 p3121 N93-28139
Continuous symmetries of discrete equations
[SSCL-PREPRINT-738] 10 p3121 N93-28163
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786

Computer algebra tools for higher symmetry analysis of nonlinear evolution equations
[DE93-606089] 11 p3535 N93-30787
Electric magnetic duality in string theory
[DE93-606061] 11 p3606 N93-30807
Nonlinear realisations of omega(1 + infinity)
[DE92-644721] 11 p3557 N93-30917
Beltrami parametrization and gauging of Virasoro and w-infinity algebras
[DE92-644844] 11 p3557 N93-30928
On one-dimensional topological and conformal field theories
[DE92-644726] 11 p3558 N93-30986
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

SYMMETRY BREAKING
U BROKEN SYMMETRY

SYMPATHETIC NERVOUS SYSTEM
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061

SYMPATHOMIMETICS
U ADRENERGICS

SYMPOSIA
U CONFERENCES

SYMPTOMS
U SIGNS AND SYMPTOMS

SYNAPSES
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
Non-invasive evaluation of the cardiac autonomic nervous system by PET
[DE92-041077] 05 p1225 N93-16441
Constraints on learning in dynamic synapses
[PREPRINT-890] 05 p1226 N93-17026
Electrically modifiable nonvolatile SONOS synapses for electronic neural networks
[AD-A258318] 06 p1596 N93-18252
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
Computation and generalization in neural networks
[AD-A263752] 11 p3549 N93-29871
Analog CMOS circuits for neural networks
11 p3355 N93-30223
Evolving neural network architecture
[AD-A264802] 11 p3544 N93-30592
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613

SYNCHRONISM
NT BIT SYNCHRONIZATION
NT FREQUENCY SYNCHRONIZATION
Guide to synchronization of video systems to IRIG timing
[AD-A254626] 02 p0285 N93-12240
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Graphics-based parallel programming tools
[AD-A254406] 03 p0683 N93-12763
Neurochemical control of circadian rhythms
[AD-A255054] 03 p0675 N93-13116
Ada-based multitasking terminal I/O
[AD-A255656] 04 p0942 N93-14164
Wait-free consensus
[AD-A255978] 04 p0943 N93-14423
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Comparison of synchronization techniques for the AFIT direct sequence spread spectrum system
[AD-A256440] 04 p0861 N93-15316
A queue model relating synchronous and asynchronous communication
[MEMO-INF-92-04] 04 p0966 N93-15491
Barrier synchronization of distributed-memory architectures 06 p1631 N93-18503
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
The ESTEREL language
[INRIA-RR-1487] 06 p1623 N93-18651
Subnanosecond GPS-based clock synchronization and precision deep-space tracking 06 p1434 N93-18898
A model for determining task set schedulability in the presence of system effects
[AD-A258915] 06 p1626 N93-19338
Digital processing for positioning with one satellite
08 p2270 N93-23629
The actor model
[AD-A260196] 08 p2442 N93-24469
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits
09 p2602 N93-24706
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
Mixed constellation synchronization of GPS time
09 p2836 N93-25015
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Strategies for synchronisation in an evolving telecommunications network 09 p2687 N93-25063
Supercomputer Debugging Workshop 1992
[DE93-007322] 09 p2805 N93-25165
A software development approach for parallel processing systems integrating object-oriented and functional paradigms 09 p2816 N93-25481
Virtually-synchronous communication based on a weak failure suspector
[NASA-CR-193003] 09 p2721 N93-26135
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389
Verification of parameterised synchronous concurrent algorithms with OBJ3: The pixel planes architecture revisited
[CWI-CS-R9225] 10 p3095 N93-27378
Synchronization techniques for medium data rate EHF MILSATCOM systems 11 p3389 N93-29901
Improved bounds for synchronization jitter
11 p3360 N93-30251
Coarse synchronization in an EHF frequency-hopped satellite communications system
11 p3365 N93-30281
Temporal synchronization of frequency hopped DPSK
11 p3365 N93-30285
Global synchronization algorithms for the Intel iPSC/860
[NASA-CR-193618] 12 p3793 N93-32361

SYNCHRONIZATION
U SYNCHRONISM

SYNCHRONIZERS
Tracking performance and cycle slipping in the all-digital symbol synchronizer loop of the block 5 receiver
06 p1506 N93-18913

SYNCHRONOUS COMMUNICATION SATELLITES
U SYNCOM SATELLITES

SYNCHRONOUS DETECTORS
U CORRELATORS

SYNCHRONOUS PLATFORMS
Data management in NOAA 04 p1003 N93-14779
Wavelength tunable liquid crystal imaging filters for remote sensing from geosynchronous platforms
[NASA-CR-184487] 05 p1314 N93-15714
Investigation of cloud/water vapor motion winds from geostationary satellite 07 p2008 N93-20094
NOAA satellite programs and technology requirements
11 p3627 N93-30710
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

SYNCHRONOUS SATELLITES
NT ANIK SATELLITES
NT GOES SATELLITES
NT SYNCOM SATELLITES
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335
Investigation of antenna pattern constraints for passive geosynchronous microwave imaging radiometers
[NASA-CR-189728] 04 p0905 N93-14792
DSS-13 beam waveguide antenna frequency stability
06 p1513 N93-19424
Meteosat second generation: A look to the future
08 p2357 N93-23753
Analysis of the effects of mean local node-crossing time on the evolution of Sun-synchronous orbits
09 p2602 N93-24706
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
SCATHA mission termination report
09 p2605 N93-24725
Satellite communications application to Pacific countries above Ku band 09 p2683 N93-26471

SYNCHROTRON RADIATION
Synchrotron radiation considerations in the Dense Plasma Focus (DPF) Magnetoplasmadynamic (MPD) thruster
[AD-A254188] 01 p0025 N93-10258
High pressure and synchrotron radiation studies of solid state electronic instabilities
[DE92-015661] 01 p0168 N93-10630
UV/XUV FEL storage ring and linac
[AD-A253307] 01 p0089 N93-10697
Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods
[DE92-019032] 02 p0445 N93-11831
Development of XUV projection lithography at 60 to 80 nm
[DE92-017517] 03 p0603 N93-12560
Particle production and survival in muon acceleration
[DE92-019553] 03 p0701 N93-12572
Atomic structure of mixed ferroelectrics
[AD-A254369] 03 p0702 N93-12947
The time variability of Jupiter's synchrotron radiation
04 p0973 N93-14227
Gravitationally induced synchrotron radiation: A new test for general relativity
[PREPRINT-822] 05 p1297 N93-16420
Simulated high heat load performance of an inclined crystal monochromator
[DE93-000506] 05 p1326 N93-17378
Charged-particle beam diagnostics for the Advanced Photon Source (APS)
[DE93-001855] 05 p1294 N93-17483
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Experimental investigations of undulator radiation compatability
[ETN-93-92566] 07 p2066 N93-20880
Gravitational synchrotron radiation and gravitrons by lights
[PREPRINT-821] 07 p1999 N93-20951
The Crab nebula's wisps as shocked pulsar wind
[DE93-003466] 07 p2097 N93-21673
Radiation from moving charged particles with spin
[DE93-004633] 07 p2063 N93-21703
Comments on advanced, time-resolved imaging techniques for Free-Electron Laser (FEL) experiments
[DE93-002897] 07 p1912 N93-21955
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
Studies of cosmic dusts using synchrotron radiation
08 p2549 N93-23390
Synchrotron radiation X ray topography study of lateral field resonators 09 p2833 N93-24994
Poster session: Fifth Users Meeting for the Advanced Photon Source
[DE93-006019] 09 p2598 N93-26498
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory
[DE93-007274] 10 p3048 N93-28355
Multifractal analysis of radio lobes
11 p3380 N93-28689
Non-perturbative calculation of equilibrium polarization of stored electron beams
[DE93-764500] 11 p3577 N93-30607
Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV
[DE93-704276] 12 p3823 N93-31165
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

SYNCHROTRONS
NT STORAGE RINGS (PARTICLE ACCELERATORS)
Particle production at high p(sub (perpendicular)) in (sup 28)Si + A collisions at 14.6 A x GeV/c
[DE92-016939] 01 p0154 N93-10402
Topics on RF beam control of a synchrotron
[DE92-019217] 02 p0443 N93-11498
Analysis of periodic transient beam loading of the AGS
[DE92-019243] 02 p0443 N93-11499
Beam-loading stability in synchrotrons with a higher RF harmonic
[DE92-018982] 02 p0443 N93-11510
RF beam loading in the Brookhaven AGS with booster injection
[DE92-019452] 02 p0444 N93-11641
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
Static and transient beam loading of a synchrotron
[DE92-019244] 02 p0445 N93-11776
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Emittance, brilliance, and bandpass issues related to an inclined crystal monochromator
[DE92-019671] 03 p0721 N93-12881
RF voltage modulation at discrete frequencies with applications to crystal channeling extraction
[DE92-015567] 03 p0707 N93-13235
Longitudinal impedance of capacitive pick-up electrodes: Calculations and comparison with measurements
[DE92-019499] 03 p0571 N93-13358
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
Free-electron laser research and development at BNL
[DE93-000373] 05 p1175 N93-17009
A hodoscope made of resistive plate chambers to identify muons in a fixed target beauty hadroproduction experiment
[NOTA-INTERNA-994] 06 p1536 N93-17810
Relativistic shock waves and the excitation of plerions
[DE93-003469] 07 p2066 N93-21729
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
Preliminary design of the BPM electronics memory scanner/dual boxcar averager for the advanced photon source
[DE93-007893] 09 p2848 N93-25368
A halo and a blow-out in NGC 253
10 p3199 N93-26869
Diamond monochromator for high heat flux synchrotron x ray beams
[DE93-006799] 10 p3154 N93-28311
New limits on generation-1 leptoquarks
[DE93-008138] 11 p3567 N93-29351
SYNCOM SATELLITES
Olympus: The communications satellite and its uses. An introduction
[ESA-F-29] 06 p1461 N93-18369
SYNCOPE
NT BLACKOUT (PHYSIOLOGY)
Acquisition of physiological data during G-induced Loss of Consciousness (G-LOC)
[AD-A264492] 11 p3496 N93-30400
SYNDROMES
U SIGNS AND SYMPTOMS
SYNOPTIC MEASUREMENT
Solar corona synoptic observations from SOHO with an extreme ultraviolet imaging telescope
12 p3868 N93-31348
SYNOPTIC METEOROLOGY
JARE data reports no. 179 (meteorology 29). Meteorological data at Asuka Station, Antarctica in 1990
03 p0663 N93-13287
A synoptic climatology of the elevated mixed layer inversion over the southern Great Plains in spring
03 p0664 N93-13643
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean
[NASA-CR-191376] 04 p0925 N93-14769
Synoptic scale structure of summertime wet and dry spells in northeastern Kansas 04 p0923 N93-14919
A single-station forecasting model
[AD-A256403] 04 p0924 N93-15331
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
Synoptic/planetary-scale interactions and blocking over the North Atlantic Ocean 07 p2007 N93-20091
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Routine validation of TOVS retrievals: Lessons learned from a pilot experiment 07 p1960 N93-21611
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
A snow cover model for global climatic simulations
[MPIM-85] 08 p2388 N93-23861
An investigation of the ERICA IOP-5A cyclone
[AD-A260214] 08 p2408 N93-24097
Synoptic and Mesoscale Meteorology Instruction Workshop
[PB93-156347] 09 p2785 N93-25870
Rainfall frequency atlas of the Midwest
[PB93-164606] 09 p2785 N93-25872
SYNTAX
NT SENTENCES
NT WORDS (LANGUAGE)
Syntax and lexis of the specification language Z
[RSRE-MEMO-4367] 02 p0414 N93-12326
Requirements Specification Language (RSL) and supporting tools
[NASA-CR-189700] 02 p0405 N93-12345
Japanese/English machine translation using sublanguage patterns and reversible grammars
03 p0686 N93-13494
Program verification using higher order logic
[AD-A255408] 04 p0943 N93-14502
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
An algorithm for the construction of dependency trees
[MEMO-INF-92-39] 05 p1240 N93-16668
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
Automatic analysis and transformation of FORTRAN programs using a typed functional language
[INRIA-RR-1518] 06 p1615 N93-17838
Tomita's algorithm: Extensions and applications
[MEMO-INF-91-68] 07 p2030 N93-20220
Natural Language Processing Systems Evaluation Workshop
[RL-TR-91-362] 08 p2437 N93-23091
A comparison of OBJ3 and ASF+SDF
[CWI-CS-R9223] 10 p3094 N93-27363
An executable semantics for a subset of COLD
[CWI-CS-R9145] 10 p3097 N93-27493
Bisimulation semantics for concurrency with atomicity and action refinement
[CWI-CS-R9210] 10 p3116 N93-27498
Processes as terms: Non-well-founded models for bisimulation
[CWI-CS-R9211] 10 p3097 N93-27499
A simple specification language combining processes, time, and data
[CWI-CS-R9209] 10 p3097 N93-27525
The Grammar Workbench: A first step towards Lingware engineering
[TR-92-06] 10 p3100 N93-27902
Regular processes with relative time and silent steps
[CWI-CS-R9231] 10 p3101 N93-27995
Character recognition using a neural network model with fuzzy representation 11 p3512 N93-29536
Proposal for a numerical array library
[DE93-010678] 11 p3623 N93-30482
On the integration of algebraic and logic languages
[ETN-93-94238] 12 p3786 N93-31205
SYNTHESIS (CHEMISTRY)
NT COPOLYMERIZATION
NT DIMERIZATION
NT POLYMERIZATION
Synthesis and characterization of energetic polymers
01 p0015 N93-10005
Biological production of ethanol from coal
[DE92-016116] 01 p0041 N93-10216
Water soluble polysiloxanes with pendant 1-oxypyridin-3-yl groups
[AD-A250637] 01 p0036 N93-10246
Development of electrosupercapacitors
[AD-A252208] 01 p0071 N93-10250
Polynitro polycyclic cage compounds
[AD-A252889] 01 p0042 N93-10268
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Chemical reactions and properties of organosilicon compounds related to new materials
[AD-A253233] 02 p0246 N93-11218
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Synthesis of single phase (alpha)-Fe, Fe3C and Fe7C3 nano-particles by CO2 laser pyrolysis technique
[DE92-015654] 02 p0250 N93-11847
Design and synthesis of molecular systems capable of supporting intracavity chemical reactions
[AD-A251024] 02 p0440 N93-11872
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Biological conversion of synthesis gas culture development
[DE92-001279] 02 p0375 N93-12482
Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 1: Synthesis
[NASA-TM-103964] 03 p0527 N93-12895
Sol-gel synthesis and densification of aluminoborosilicate powders. Part 2: Densification
[NASA-TM-103969] 03 p0528 N93-12896
Synthesis of derivatives of alpha, omega difunctional perfluoroaliphatic compounds for low dielectric constant resins
[AD-A254928] 03 p0550 N93-13026
High octane ethers from synthesis gas-derived alcohols
[DE92-015467] 03 p0537 N93-13188
Oligomer and mixed-metal compounds potential multielectron transfer catalysts
[DE92-011347] 03 p0543 N93-13346
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457
A novel process for methanol synthesis
[DE92-019719] 03 p0539 N93-13617
Physics of hydrogen storage in metal-hydrides
04 p0854 N93-14630
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Radical ion formation in polymers as a mechanism for laser eye protection
[AD-A255992] 04 p0850 N93-15111
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834
Mechanical properties of structural polymers. Computer simulations and key experiments
[AD-A257439] 05 p1119 N93-15866
Synthesis of new energetic materials
[AD-A257200] 05 p1129 N93-16003
The synthesis of chemiluminescent flavoabzymes and their use in metal ion detection
[AD-A255567] 05 p1102 N93-16037
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060
Applications of molecular modeling to transition state energies and conformations
[AD-A257130] 05 p1284 N93-16074
Studies in theoretical particle physics
[DE93-000648] 05 p1284 N93-16161
The hydrothermal synthesis of ceramic powders
[ETN-92-92785] 05 p1125 N93-16607
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Organometallic chemistry of bimetallic compounds
[DE93-002773] 05 p1115 N93-17201
An experiment to study fullerene formation under reduced gravity 05 p1134 N93-17335
Substituted 1,1,1-triaryl 2,2,2-trifluoroethanes and processes for their synthesis
[NASA-CASE-LEW-14345-7] 05 p1095 N93-17412
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
Polymer-based separations: Synthesis and application of polymers for ionic and molecular recognition
[DE93-001835] 05 p1127 N93-17529

Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
International Symposium on Macrocyclic Ligands for the Design of Ne Materials: Programme and abstracts
[AD-A258402] 06 p1654 N93-18220
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Poly(1,2,4-triazole) via aromatic nucleophilic displacement
[NASA-CASE-LAR-14440-1] 06 p1475 N93-18283
Polyaniline: Synthesis, chemistry and processing
[AD-A258330] 06 p1493 N93-18368
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
High temperature polymer from maleimide-acetylene terminated monomers
[NASA-CASE-LAR-14475-1] 06 p1495 N93-19327
Crosslinked polyimides prepared from N-(3-ethynylphenyl)maleimide
[NASA-CASE-LAR-14774-1] 06 p1495 N93-19388
Nanostructured materials
[DE93-002990] 06 p1656 N93-19499
Fullerenes formation in flames
07 p1853 N93-20187
Combustion synthesis of ceramic and metal-matrix composites 07 p1854 N93-20203
Plant laboratory scale preparation and complete characterization of modified composition C-4 containing a tagyant 07 p1775 N93-21928
Polyimide from bis(n-isoprenyl)s of aryl diamides
[NASA-CASE-LAR-14330-2-CU]
08 p2235 N93-22033
Comparison of different synthetic routes for sulfonation of polyaniline
[AD-A259662] 08 p2222 N93-23658
Processable precursors to high performance liquid crystalline polymers
[AD-A260466] 08 p2240 N93-24116
Organosilicon compounds and polymers and silicon ceramics
[AD-A260056] 08 p2242 N93-24408
Design of a high activity and selectivity alcohol catalyst
[DE93-008100] 08 p2225 N93-24575
Design of a high activity and selectivity alcohol catalyst
[DE93-008101] 09 p2659 N93-25111
A novel process for methanol synthesis
[DE93-008037] 09 p2659 N93-25118
Probe molecule studies: Active species in alcohol synthesis
[DE93-008097] 09 p2659 N93-25119
New directions in phthalocyanine pigments
[NASA-CR-192443] 09 p2656 N93-26155
Characterization of the synthesis of M-61, a random equilibrium silicone terpolymer, using dry starting materials
[KCP-613-4985] 09 p2657 N93-26213
Electrochemical and spectroscopic studies of molten halides
[AD-A261687] 09 p2646 N93-26439
Probe molecule studies: Active species in alcohol synthesis
[DE93-009685] 10 p2993 N93-26616
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
Synthesis of conducting polymer composite fibers in electrochemical flow cells
[AD-A262233] 11 p3294 N93-28492
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584
Polyimides prepared from 3,5-diamino benzo trifluoride
[NASA-CASE-LAR-14206-1] 11 p3331 N93-29083
Diphenylmethane-containing dianhydride and polyimides prepared therefrom
[NASA-CASE-LAR-14487-1] 11 p3331 N93-29085
Synthesis and polymerization of azaethylenes and aza-1,3-dienes
[AD-A263651] 11 p3332 N93-29290
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Polymers with electrical and nonlinear optical properties
[AD-D015691] 11 p3333 N93-29457
Synthesis of oligoimides and oligoimide anion radicals
[AD-A263129] 11 p3290 N93-29474
Process to prepare 1,3-diamino-5-pentafluorosulfanylbenzene
[NASA-CASE-LAR-14773-2-CU]
11 p3312 N93-29506
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
A novel process for methanol synthesis
[DE93-013070] 11 p3314 N93-30188
Ordered molecular arrays as templates: A new approach to synthesis of mesoporous materials
[AD-A264631] 11 p3570 N93-30540
Design, synthesis, and chemical processing of hierarchical ceramic structures for aerospace applications
[AD-A264227] 11 p3339 N93-30885
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316
Synthesis and characterization of copolymers of nylon 11 and nylon 12
[AD-A265841] 12 p3711 N93-32314

SYNTHESIZERS

Automating software design system DESTA
05 p1250 N93-17519
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
Enhancement of audio localization cue synthesis by adding environmental and visual cues
[AD-A259041] 06 p1652 N93-19001
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
Design, fabrication, and testing of a three-dimensional acoustic orientation instrument (3-D AOI): Drawings, engineering and associated lists (conceptual and development design)
[AD-A260934] 09 p2845 N93-25915
Step stress testing of receiver/transmitter units
[AD-A261286] 09 p2730 N93-26279

SYNTHETIC APERTURE RADAR

NT SIDE-LOOKING RADAR
SAR in support of geological investigations of the Sudbury structure 01 p0103 N93-10182
Open Skies Treaty imaging radar technology issues
[DE92-016548] 01 p0068 N93-10394
Development of a GPS-aided motion measurement, pointing, and stabilization system for a synthetic aperture radar
[DE92-017053] 02 p0204 N93-11152
The tomographic formulation of spotlight mode synthetic aperture radar extended to three dimensional targets
[DE92-013666] 02 p0280 N93-11234
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Fundamentals and Special Problems of Synthetic Aperture Radar (SAR)
[AGARD-LS-182] 03 p0563 N93-13049
Basic principles of SAR 03 p0563 N93-13050
SAR peculiarities, ambiguities and constraints
03 p0563 N93-13051
Motion errors and compensation possibilities
03 p0563 N93-13052
Polarization effects and multipolarization SAR
03 p0564 N93-13054
Radiometric calibration of SAR systems
03 p0564 N93-13055
SAR simulation 03 p0564 N93-13056
Multi-frequency multi-polarization processing for spaceborne SAR 03 p0564 N93-13057
Inverse Synthetic Aperture Radar
03 p0564 N93-13058
Special SAR techniques and applications
03 p0564 N93-13059
Review of spaceborne and airborne SAR systems
03 p0565 N93-13060
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Coherent frame analysis of Synthetic Aperture Radar (SAR) ocean imagery 03 p0568 N93-14050
Scatterer modeling/calibration study
[AD-A255855] 04 p0856 N93-14107
Surface processes on Venus
04 p1024 N93-14294
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio
04 p1028 N93-14317
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Magellan project 04 p1041 N93-14373
Definition study PHARUS
[AD-A256560] 04 p0860 N93-14805
An overview of RADARSAT payload technologies
04 p0807 N93-14933
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
Algorithims and methods for processing Synthetic Aperture Radar (SAR) images
[INPE-5301-PRE/1706] 06 p1515 N93-19787
Texture enhancement of Synthetic Aperture Radar (SAR) images with speckle noise reduction filters
[INPE-5297-PRE/1702] 06 p1515 N93-19833
Use of ERS-1 SAR data in numerical sea ice modeling
07 p1957 N93-21592
Remote sensing of Arctic sea ice using the ERS-1 SAR 07 p1957 N93-21593
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
Proceedings of Sixth User Seminar of the German Remote Sensing Data Centre of the German Aerospace Research Establishment (DLR)
[ESA-TT-1245] 08 p2339 N93-22436
Geological applications of space SAR data
08 p2339 N93-22440
Geocoded products of future radar sensors
08 p2340 N93-22441
Distinguishing ice thickness from sea ice surface shape by using NOAA-AVHRR (National Oceanic and Atmosphere Administration Advanced Very High Resolution Radiometer) and SAR data
08 p2340 N93-22445
RLE progress report no. 133, 1 January - 31 December 1990
[NASA-CR-192144] 08 p2263 N93-23195
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
ESA ERS 1 product specification
[ESA-SP-1149] 08 p2200 N93-23389
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
Feature detection using ERS-1 SAR data
08 p2356 N93-23586
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
ERS-1 SAR ice routing of l'Astrolabe through the Northeast passage 08 p2358 N93-23759
Coastal ocean studies with ERS-1 SAR during NORCSEX 1991 08 p2358 N93-23760
Demonstration of ERS-1 SAR sea ice mapping in the Baltic Sea 08 p2359 N93-23761
Early results on the use of ERS-1 SAR data for real-time sea ice monitoring in Canadian waters
08 p2359 N93-23762
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
The SPOT program 08 p2360 N93-23766
The Advanced Synthetic Aperture Radar (ASAR) for POEM-1 08 p2363 N93-23789
X-EOS: A multi-mode X-band synthetic aperture radar for EOS SAR 08 p2365 N93-23797
X-SAR: The German/Italian contribution to realizing a multifrequency synthetic aperture radar for remote sensing from space 08 p2365 N93-23798
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
The scope of DLR's SAR calibration program
09 p2738 N93-24778
Registration of the use of agricultural fields and soil erosion using satellite remote sensing
09 p2751 N93-24856
Methods of evaluating the effects of coding on SAR data 09 p2804 N93-25926
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946

DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
The interferometric SAR technology and its usability in the framework of ERS-1 11 p3457 N93-28919
Recording of forest surface in SAR-images with statistical methods in areas of pronounced relief
11 p3457 N93-28920
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
SAR sensors on TACSATS: A feasibility assessment
11 p3286 N93-29909
A TACSAT SAR concept 11 p3286 N93-29910
Low cost TACSAT for NATO surveillance
11 p3285 N93-29911
Similarities between synthetic aperature radar and ground probing radar imaging 11 p3376 N93-30347
Segmentation of SAR images
11 p3376 N93-30348
Multiresolution analysis of SAR data
[AD-A264727] 11 p3393 N93-30576
ERS-1 directional wave spectra validation with the airborne SAR PHARS
[BCRS-92-18] 11 p3463 N93-31010
Unclassified satellite remote sensing as a component of integrated treaty verification
[DE93-005736] 12 p3744 N93-31187

SYNTHETIC APERTURES
Rotational aperture synthesis: A proposal for ground-based observations 01 p0178 N93-10947
SAR peculiarities, ambiguities and constraints
03 p0563 N93-13051
The real aperture antenna of SAR, a key element for performance 03 p0564 N93-13053
Radio and optical interferometric imaging
03 p0744 N93-13580
Recent astronomical results from the infrared spatial interferometer and their implications for LOUISA
03 p0745 N93-13585
Report of the Working Design Group
03 p0748 N93-13601
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
An overview of eight years of activity developing French nickel-hydrogen technology 07 p1985 N93-20514
Polarimetric investigation of edge scattering by mono- and bistatic microwave imaging
[DLR-FB-91-32] 08 p2262 N93-22656
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779

SYNTHETIC ARRAYS
Basic principles of SAR 03 p0563 N93-13050
A Lunar Optical-Ultraviolet-Infrared Synthesis Array (LOUISA)
[NASA-CP-3066] 03 p0744 N93-13579
An optical VLA on the Moon
03 p0747 N93-13596
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598

SYNTHETIC FIBERS
NT ARAMID FIBERS
NT CERAMIC FIBERS
NT GLASS FIBERS
NT NYLON (TRADEMARK)
High-performance synthetic fibers for composites
[AD-A252645] 02 p0242 N93-12292
Fiber development in Japan 07 p1834 N93-21130
New special chemical fibres 07 p1836 N93-21147
Features in PO fibre applications
07 p1837 N93-21148
The production of fibres from polypropylene and liquid crystal polymer blends 07 p1837 N93-21149
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150
Twaron in composites and protective clothing
07 p1837 N93-21153
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
Developments in heat and flame resistant textiles for protective clothing and barrier fabrics
07 p1838 N93-21157
Correlation of results of radiant heat test and convective heat test for three layered protective clothing
07 p1838 N93-21161
Finite element analysis of a composite artificial ankle
08 p2423 N93-22189
Synthesis of conducting polymer composite fibers in electrochemical flow cells
[AD-A262233] 11 p3294 N93-28492

SYNTHETIC FUELS
First international alternative fueled vehicle round-up
[DE93-002779] 07 p1916 N93-21667
Biological conversion of synthesis gas
[DE93-006359] 08 p2245 N93-24044
Introductions to the Proceedings of the Fourteenth Symposium on Biotechnology for Fuels and Chemicals
[DE93-006235] 11 p3490 N93-28890

SYNTHETIC METALS
The polyanilines: A novel class of conducting polymers
[AD-A259386] 07 p1860 N93-21266

SYNTHETIC RESINS
NT ACRYLIC RESINS
NT EPOXY RESINS
NT KEVLAR (TRADEMARK)
NT NYLON (TRADEMARK)
NT PEEK
NT PHENOLIC RESINS
NT POLYAMIDE RESINS
NT POLYETHER RESINS
NT POLYMETHYL METHACRYLATE
NT THERMOPLASTIC RESINS
NT THERMOSETTING RESINS
Features in PO fibre applications
07 p1837 N93-21148
Kynol (TM) Novoloid fibers: Survivable fibers for tough times 07 p1837 N93-21150
Twaron in composites and protective clothing
07 p1837 N93-21153
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341

SYNTHETIC RUBBERS
NT ELASTOMERS
NT VITON RUBBER (TRADEMARK)

SYSTEM EFFECTIVENESS
Evaluation of a user information satisfaction short-form instrument
[AD-A250702] 02 p0478 N93-11840
Prototype stop bar system evaluation at John F. Kennedy International Airport
[AD-A258667] 03 p0506 N93-12902
Dynamic pattern matcher using incomplete data
[NASA-CASE-MSC-21415-1-SB]
06 p1624 N93-18858
National Airspace System: Air traffic control and airspace management operational concept NAS-SR-132
[DOT/FAA/SE-92/5] 07 p1779 N93-20164
Analysis of large system black box verification test data
[NASA-CR-192885] 09 p2815 N93-24748
Firmware development improves system efficiency
09 p2807 N93-25606
Health maintenance facility system effectiveness testing
[NASA-TM-104737] 12 p3783 N93-32328

SYSTEM FAILURES
Tradeoffs in implementing primary-backup protocols
[NASA-CR-190970] 02 p0472 N93-12212
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
Development of an environment for software reliability model selection
[AD-A256609] 04 p0942 N93-14241
Multiple model adaptive estimation applied to the ViSTA F-16 with actuator and sensor failures
[AD-A256444] 04 p0802 N93-14608
Detection of technical states with aircraft
04 p0794 N93-15159
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
On-orbit deployment anamolies: What can be done?
04 p0821 N93-15603
System for Anomaly and Failure Detection (SAFD) system development
[NASA-CR-184475] 06 p1552 N93-17856
Evaluation of test methods to determine the impact resistance of exterior insulation and finish systems (EIFS)
[AD-A258433] 06 p1490 N93-17866
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Spacecraft dynamics characterization and control system failure detection
[NASA-CR-192190] 06 p1466 N93-18852
Detection of spoofing, jamming, or failure of a Global Positioning System (GPS)
[AD-A259023] 06 p1433 N93-18951
Report at a glance: Report of the Presidential Commission on the Space Shuttle Challenger Accident
07 p1820 N93-20036
URV flight test of an Ada implemented self-repairing flight control system
[AD-A259205] 07 p1787 N93-20551
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
A fault-tolerant intelligent robotic control system
08 p2465 N93-22159
Failure environment analysis tool applications
08 p2322 N93-22170
Assigning sites to redundant clusters in a distributed storage system
[AD-A260458] 08 p2528 N93-24196
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25586
Process membership in asynchronous environments
[NASA-CR-192977] 10 p3091 N93-26904
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Multiprocessing systems: Reliability modelling and analysis using multimode components and dependent failures
[AD-A264230] 11 p3540 N93-30364
Hidden Markov models for fault detection in dynamic systems
[NASA-CASE-NPO-18982-1-CU]
11 p3449 N93-30413

SYSTEM IDENTIFICATION
The mechanical verification of a simple control system
[ORA-TR-89-5443-04] 01 p0142 N93-10641
Identification of parametric finite element models using experimental modal data
[PB92-217819] 03 p0558 N93-12976
System identification and model updating for substructures 03 p0624 N93-13065
An application of the Observer/Kalman Filter Identification (OKID) technique to Hubble flight data
06 p1462 N93-18825
System identification and structural control on the JPL Phase B testbed 06 p1463 N93-18828
Dynamic test results for the CASES ground experiment 06 p1455 N93-18843
Modeling, system identification, and control of ASTREX 06 p1469 N93-18942
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944
System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914
On-line aircraft state and parameter estimation
06 p1446 N93-19929
Identification of propulsion systems
[NASA-TM-106007] 07 p1784 N93-20109
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Identification for robust control: What is the best approach?
[MEMT-16] 08 p2458 N93-23060
An analytic modeling and system identification study of rotor/fuselage dynamics at hover
[NASA-CR-192303] 08 p2126 N93-23186
System identification and model reduction using modulating function techniques
[NASA-CR-192807] 08 p2438 N93-23248
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
A comparison of polynomial and rational NARMAX models for nonlinear system identification
[RR-444] 08 p2469 N93-23374
Identification of systems from non-uniformly sampled data
[RR-452] 08 p2472 N93-23375
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Use of system identification techniques for improving airframe finite element models using test data
[NASA-CR-192699] 08 p2128 N93-24481
The 32nd CDC: System identification using interval dynamic models
[NASA-CR-192895] 09 p2818 N93-25155
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627

Exploitation of cyclostationarity for signal-parameter estimation and system identification
[AD-A260833] 09 p2728 N93-25784
Parameter identification for nonlinear aerodynamic systems
[NASA-CR-193072] 10 p2930 N93-27282
Approximate identification and control design with application to a mechanical system
[ISBN-90-370-0065-7] 10 p3109 N93-27934
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041
On neural networks in identification and control of dynamic systems
[NASA-TM-107702] 11 p3455 N93-31038
Set-membership identification for robust control design
[AD-A265669] 12 p3800 N93-32197

SYSTEMS ANALYSIS
NT SYSTEM IDENTIFICATION
Flight-determined stability analysis of multiple-input-multiple-output control systems
[NASA-TM-4416] 02 p0214 N93-11178
Analysis of methods --- information systems evolution environment
[NASA-CR-190278] 02 p0407 N93-11368
Information systems planning leading to performance support systems
[DE92-018745] 02 p0475 N93-11441
Development of the Personnel-based System Evaluation Aid (PER-SEVAL) performance shaping functions
[AD-A252820] 02 p0386 N93-11779
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
Integrity-oriented control objectives: Proposed revisions to the Trusted Computer System Evaluation Criteria (TCSEC), DOD 5200.28-STD
[AD-A253989] 02 p0404 N93-11809
An approach to integrating and creating flexible software environments 02 p0396 N93-11946
High Energy Propulsion System (HEPS) analysis
[AD-A254343] 03 p0525 N93-12963
Summary: Experimental validation of real-time fault-tolerant systems
[NASA-CR-190985] 03 p0503 N93-13697
A complete-time approach for chaining and execution control in the AN/UYS-2 parallel signal processor
[AD-A256306] 04 p0859 N93-14442
Systems modeling
[AD-A255215] 04 p0944 N93-14575
Mission critical system development: Design views and their integration
[AD-A255498] 04 p0940 N93-14644
Information systems for airport operations
[TT-9202] 04 p0789 N93-14729
Results of in-service evaluation of wind shear systems 04 p0785 N93-14856
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
Multiple fault diagnosis of spacecraft electrical power systems 04 p0806 N93-14927
Obstacles in object-oriented software development
[MEMO-INF-92-15] 04 p0946 N93-15084
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Reliability modelling for non-electronic systems
[REPT-921-440-103] 04 p0894 N93-15139
Czechoslovak development and experience in flight data recorder readout and analysis 04 p0794 N93-15162
An initial model of requirements traceability: An empirical study
[AD-A256720] 05 p1275 N93-15978
An intelligent decomposition approach for efficient design of non-hierarchic systems 05 p1254 N93-16762
Applications of living systems theory to life in space 05 p1229 N93-16865
SAFSIM input manual: A computer program for the engineering simulation of flow systems
[DE93-002738] 05 p1163 N93-16922
Interactive specification acquisition via scenarios: A proposal 05 p1249 N93-17512
Category scaling within a given context as a common basis for the AHP, SMART and ELECTRE
[REPT-92-22] 06 p1683 N93-17916
Grammatica: An open software laboratory for artificial intelligence
[REPT-92-031] 06 p1632 N93-18331
Systems analysis for ground-based optical navigation 06 p1434 N93-18900
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
An object-oriented computer aided design program for traditional control systems analysis
[AD-A259231] 06 p1628 N93-19847
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Bond graph based modelling using MACROS: An introduction to the program BAMMS
[MEMT-18] 07 p2034 N93-20808
Explicit probabilities for the symmetric coupled processor
[REPT-91-43] 07 p2058 N93-20809
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
Analysis of timed-token ring protocols
[INRIA-RR-1570] 07 p2044 N93-20894
On the comparison of sequences: Analyzing behavioural aspects of courseware development and use
[MEMO-1030] 07 p2038 N93-21033
System evaluation of a fiber optic guided missile with a simple guidance addition to improve system effectiveness 08 p2255 N93-22025
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
Transportation systems analyses, volume 2
[NASA-CR-192486] 08 p2177 N93-22386
Utility Battery Storage Systems Program Report for FY 1992
[DE93-006459] 08 p2278 N93-22594
High resolution three-dimensional solder joint measurement system evaluation
[DE93-005840] 08 p2437 N93-23000
Transportation systems analyses. Volume 1: Executive summary
[NASA-CR-192485] 08 p2179 N93-23008
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
Mean levels in nonlinear analysis and identification
[RR-454] 08 p2525 N93-23378
Payload operations 08 p2163 N93-24384
Space transfer vehicle concepts and requirements study. Volume 2, book 3: STV system interfaces
[NASA-CR-192527] 09 p2611 N93-25513
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
System Concept of Operations Evaluator (SCOPE)
[AD-A261257] 09 p2813 N93-26563
A hypertext framework for group support systems
[AD-A261731] 09 p2885 N93-26582
Clustered engine study 10 p2978 N93-26925
NTP comparison process 10 p2978 N93-26926
Nuclear Engine System Simulation (NESS) version 2.0 10 p2981 N93-26958
NEP systems model 10 p2984 N93-26986
NEP systems model 10 p2984 N93-26987
Thruster models for NEP system analysis 10 p2984 N93-26988
GPS system simulation methodology 10 p2984 N93-26990
Systems analysis on laser beamed power
[NASA-CR-193206] 10 p3047 N93-27036
1991 NASA Life Support Systems Analysis workshop
[NASA-CR-4466] 10 p3085 N93-27100
1992 NASA Life Support Systems Analysis workshop
[NASA-CR-4467] 10 p3085 N93-27101
Assessment of computational issues associated with analysis of high-lift systems 10 p2934 N93-27449
Efficient model-based diagnosis of dynamic systems with state
[MEMO-INF-92-53] 10 p3096 N93-27488
International survey of industrial applications of formal methods. Volume 1: Purpose, approach, analysis, and conclusions
[PB93-178556] 10 p3010 N93-27517
International survey of industrial applications of formal methods. Volume 2: Case studies
[PB93-178564] 10 p3010 N93-27518
On the asymptotic behavior of discrete events systems
[ISBN-90-74488-01-3] 10 p3125 N93-27876
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Resource limited reasoning: A study of literature in the context of model-based diagnosis
[MEMO-INF-92-38] 11 p3540 N93-28480
System analysis for a kinematic positioning system based on the global positioning system
[AD-A262830] 11 p3245 N93-29468
Overview of the Systems Special Investigation Group investigation 11 p3318 N93-29683
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041
Nonsmooth optimization algorithms, system theory, and software tools
[AD-A264679] 11 p3534 N93-30549
Uses of risk importance measures
[VTT-TIED-1245] 11 p3378 N93-30581
Minimum security requirements for multi-user operating systems
[PB93-185999] 11 p3522 N93-30832
Optical system analysis for the ground based EXVM
[NASA-CR-192588] 11 p3582 N93-31035
Reduction method with system analysis for multiobjective optimization-based design
[NASA-CR-191456] 12 p3803 N93-31194
A generalized asymptoticity problem in max algebra, the general case
[REPT-92-76] 12 p3804 N93-31471
Sensitivity analysis of coupled bending and torsional vibrations in flexible robot arms
[MEMO-1088] 12 p3735 N93-31526
DESSY: Making a real-time expert system robust and useful 12 p3794 N93-32146
Enhanced methods for determining operational capabilities and support costs of proposed space systems
[NASA-CR-193265] 12 p3812 N93-32350

SYSTEMS DESIGN
U SYSTEMS ENGINEERING

SYSTEMS ENGINEERING
NT COMPUTER SYSTEMS DESIGN
NT CONTROL SYSTEMS DESIGN
Recovery techniques for real time electronic systems
[AD-A254010] 01 p0136 N93-10361
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
TAQL: A problem space tool for expert system development
[AD-A253820] 01 p0175 N93-10826
A spatial similarity measure for image database applications
[AD-A253570] 01 p0176 N93-10883
SUN: The Solar Ultraviolet Network 01 p0183 N93-10930
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
The imaging Fourier transform spectrometer optical design 01 p0159 N93-10951
Interferometer optical design for the Imaging Fourier Transform Spectrometer (IFTS) 01 p0159 N93-10955
Requirements analysis notebook for the flight data systems definition in the Real-Time Systems Engineering Laboratory (RSEL)
[NASA-CR-185698] 01 p0014 N93-10960
Experience of designing a relational materials database
[PNR-90893] 02 p0473 N93-11012
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Artificial intelligence and CFD: Expert systems for the design of airfoils and for grid generation
[DIGE-EST-TN-016] 02 p0206 N93-11161
Engineering Information System (EIS)
[AD-A254013] 02 p0476 N93-11508
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
Power system commonality study
[NASA-CR-190765] 02 p0347 N93-12019
Reengineering using a data abstraction based specification language
[AD-A254726] 02 p0414 N93-12341
A methodology for systems requirements specification and traceability for large real time complex systems
[AD-A254738] 02 p0419 N93-12358
Optimal design and control of distributed parameter systems
[AD-A254947] 03 p0690 N93-12547
Expert-system development in Soar: A tutorial
[AD-A254571] 03 p0682 N93-12645
Integrated modeling tool for performance engineering of complex computer systems
[NASA-CR-190881] 03 p0687 N93-13880
Systems modeling
[AD-A255215] 04 p0944 N93-14575
A voyage to Mars: A challenge to collaboration between man and machines 04 p0777 N93-14614
Flight simulation leaves the ground 04 p0778 N93-14616

Mission critical system development: Design views and their integration
[AD-A255498] 04 p0940 N93-14644
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
A robotic planning system 04 p0810 N93-14949
A monitoring and control system for complex man-machine systems: Preliminary design 04 p0810 N93-14951
PEX: A reactive procedure based decision maker
[REPT-921-440-105] 04 p0999 N93-15118
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment
[ONERA-RT-18/3641-PY] 04 p0975 N93-15130
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
The Teledyne controls aircraft condition monitoring system 04 p0793 N93-15155
Ground Support Equipment (GSE) for Aircraft Condition Monitoring System (ACMS) 04 p0778 N93-15158
Rewritable optical disk: Application to flight recording 04 p0794 N93-15160
Royal Air Force experience of the Harrier information management system 04 p0795 N93-15170
Helicopter flight data recorder and health and usage monitoring system 04 p0797 N93-15178
Helicopter health monitoring: Current practice and future trends 04 p0797 N93-15179
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
Failure diagnostic with MAINTEX based on AIMS at Swissair 04 p0778 N93-15181
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
A systematic approach for the DRSS IOL APM design 05 p1081 N93-15753
Rapid prototyping of application specific signal processors program
[AD-A257212] 05 p1136 N93-15813
Integrated automation for support of research and development
[NLR-MP-88063-U] 05 p1235 N93-16290
Space transfer vehicle concepts and requirements, volume 2, book 1
[NASA-CR-184489] 05 p1076 N93-16686
NCC Simulation Model: Simulating the operations of the network control center, phase 2
[NASA-CR-191616] 05 p1140 N93-16716
Systems engineering process and organization assessment 05 p1340 N93-17281
Developing a safe on-orbit cryogenic depot 05 p1393 N93-17426
Imaging System (INEL) development software evaluation
[DE93-001940] 05 p1246 N93-17484
Domain specific software architectures: Command and control 05 p1247 N93-17503
Automating the design of scientific computing software 05 p1249 N93-17516
Knowledge modeling for software design 05 p1251 N93-17525
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
A clearinghouse for software reuse: Lessons learned from the RAPID/DSRS initiatives
[AD-A257743] 05 p1252 N93-17669
Integrating domain-specific reuse for system/software engineers course description
[AD-A257637] 05 p1252 N93-17723
Version and variation control of a design database for a computer aided prototyping system
[AD-A257480] 05 p1357 N93-17763
Software development with application generators: The Naval Aviation Logistics Command Management Information System Case
[AD-A257624] 05 p1357 N93-17768
System for Anomaly and Failure Detection (SAFD) system development
[NASA-CR-184475] 06 p1552 N93-17856
Project Ares: A systems engineering and operations architecture for the exploration of Mars
[AD-A258082] 06 p1734 N93-18021
Range scheduling automation for the Air Force satellite control network: A case study in computer system development
[AD-A258142] 06 p1454 N93-18084
TUNS/TCIS information model/process model
[NASA-CR-191654] 06 p1617 N93-18112
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
The integration of specification aspects in database design
[ISBN-90-9004461-2] 06 p1687 N93-18445
An integrated mission planning approach for the Space Exploration initiative
[DE93-001512] 06 p1473 N93-18588
Issues in requirements elicitation
[AD-A258932] 06 p1627 N93-19448
A general experiment definition system and its applications 06 p1517 N93-19576
The G2-system, a second generation experimental philosophy for EISCAT 06 p1517 N93-19577
Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface
[AGARD-CP-521] 06 p1607 N93-19757
The integration of advanced cockpit and systems design 06 p1611 N93-19779
Fly-by voice, a technology demonstration 06 p1444 N93-19918
A framework for corporate implementation of object-oriented software development
[AD-A258717] 07 p2032 N93-20383
NASA issues
[GAO/OCG-93-27TR] 07 p2085 N93-20904
Optimization and sensitivity computations for the conception of internal ventilation system in the aircraft engine
[ETN-93-93375] 07 p1785 N93-20913
Object-oriented design. MECANO: A method and an environment for object-oriented applications construction
[ETN-93-92682] 07 p2038 N93-20921
NASA systems engineering handbook. Draft
[NASA-TM-108702] 07 p2086 N93-21188
The generalized Voronoi diagram for a set of polygons: Algorithms, operation and applications to shape analysis
[ETN-93-92689] 07 p2056 N93-21392
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
An approach to improving TNA EDS 07 p1765 N93-21864
System concept for an advanced stand-off weapon 08 p2256 N93-22029
A three channel telemetry system 08 p2180 N93-22162
Knowledge From Pictures (KFP) 08 p2465 N93-22187
Results of prototype software development for automation of shuttle proximity operations 08 p2142 N93-22264
An automated rendezvous and capture system design concept for the cargo transfer vehicle and Space Station Freedom 08 p2146 N93-22267
Spacecraft rendezvous operational considerations affecting vehicle systems design and configuration 08 p2147 N93-22296
Transportation systems analyses, volume 2
[NASA-CR-192486] 08 p2177 N93-22386
Robustness
[NASA-TP-3336] 08 p2181 N93-22458
Utility Battery Storage Systems Program Report for FY 1992
[DE93-006459] 08 p2278 N93-22594
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Engineering aspects of two-phase flow systems for heat transport 08 p2247 N93-22833
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834
Researches and developments on typical thermal technologies for space applications 08 p2248 N93-22845
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and useful equations, predictions versus experimental results 08 p2252 N93-22866
Characteristics of identifying linear dynamic models from impulse response data using Prony analysis
[DE93-005607] 08 p2279 N93-22945
Automatic code generation for distributed robotic systems
[DE93-005779] 08 p2447 N93-22996
Transportation systems analyses. Volume 1: Executive summary
[NASA-CR-192485] 08 p2179 N93-23008
Proceedings: DOD Software Technology Strategy public forum 08 p2437 N93-23092
NASA metric transition plan
[NASA-TM-108606] 08 p2258 N93-23209
A leakage canceller for a single antenna radar
[ETN-93-93495] 08 p2264 N93-23379
Meteosat second generation: A look to the future 08 p2357 N93-23753
ERS-1: The first European Earth observation system 08 p2358 N93-23757
The SPOT program 08 p2360 N93-23766
Database management systems in engineering
[PB93-138964] 08 p2527 N93-23869
Automated program recognition by graph parsing
[AD-A259609] 08 p2441 N93-24125
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
A version and configuration model for software evolution
[AD-A260557] 08 p2441 N93-24283
Flight experiences on board Space Station Mir 08 p2157 N93-24355
Center for shape optimization and material layout
[AD-A260087] 08 p2471 N93-24411
Variable speed gas engine-driven air compressor system
[PB93-147353] 08 p2319 N93-24561
Readings in Systems Engineering
[NASA-SP-6102] 09 p2665 N93-24678
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990) 09 p2665 N93-24679
Systems engineering for very large systems 09 p2665 N93-24680
What is a system? NASA's phased project description 09 p2665 N93-24681
Management issues in systems engineering 09 p2665 N93-24682
Spacecraft systems engineering: An introduction to the process at GSFC 09 p2665 N93-24683
Systems engineering and integration and management for manned space flight programs 09 p2666 N93-24684
The SE role in establishing, verifying and controlling top-level program requirements 09 p2666 N93-24685
The importance of cost considerations in the systems engineering process 09 p2666 N93-24686
Systems engineering and the user: Incorporation of user requirements into the SE process 09 p2666 N93-24687
Systems engineering and integration processes involved with manned mission operations 09 p2666 N93-24688
Systems engineering considerations for operational support systems 09 p2666 N93-24689
Political and institutional factors affecting systems engineering 09 p2666 N93-24690
Optimization in the systems engineering process 09 p2666 N93-24691
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
Ultra stable oscillators for satellite applications 09 p2621 N93-25027
First experience with the ASN-16 GLONASS receiver 09 p2693 N93-25033
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Integrated Development Support Environment (IDSE)
[AD-A261088] 09 p2877 N93-25763
Architecture of autonomous systems
[NASA-CR-192974] 09 p2801 N93-26047
Advanced Launch System (ALS) test requirements
[MCR-91-5004] 09 p2610 N93-26181
Develop margin philosophy to attain robustness
[MCR-92-5005] 09 p2610 N93-26182
Advanced technology for portable personal visualization
[AD-A261294] 09 p2807 N93-26293
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
Proceedings of the complex systems engineering synthesis and assessment technology workshop
[AD-A261404] 09 p2807 N93-26403
Systems engineering studies of on-orbit assembly operations 09 p2669 N93-26410
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
System Concept of Operations Evaluator (SCOPE)
[AD-A261257] 09 p2813 N93-26563
Task Type E report for National Launch Demonstration Center (NLDC) (Task 32)
[MCR-91-5010] 09 p2610 N93-26591
Full system engineering design and operation of an oxygen plant 10 p3021 N93-26696
An integrated database with system optimization and design features 10 p3168 N93-26697
Requirements management and control 10 p2977 N93-26916
NTP comparison process 10 p2978 N93-26926
Computational modeling of nuclear thermal rockets 10 p2980 N93-26956

Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
Multidisciplinary design optimization: An emerging new engineering discipline
[NASA-TM-107761] 10 p2942 N93-27258
Robotics technology discipline
10 p2973 N93-27864
Specification of adaptive aiding systems
[AD-A263071] 10 p3087 N93-27927
The meta model hierarchy: A framework for information systems concepts and techniques
[TR-92-17] 11 p3611 N93-28481
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
Magnetohydrodynamic projects at the CDIF
[DE93-012195] 11 p3584 N93-28649
Operator and automation capability analysis: Picking the right team 11 p3503 N93-28864
System automation and pilot-vehicle-interface for unconstrained low-altitude night attack
11 p3503 N93-28867
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
11 p3260 N93-28869
Overview of cockpit technology research and development programs for improvement of the man/machine interface: Review of the AGARD AVP Symposium held in Madrid, May 1992
11 p3505 N93-28872
Systems engineering studies of on-orbit assembly operation 11 p3275 N93-29114
Systems engineering studies of lunar base construction 11 p3277 N93-29121
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736
Solid oxide fuel cells for transportation: A clean, efficient alternative for propulsion
[DE93-010662] 11 p3464 N93-29844
Adapting system engineering principles to the Canadian Airspace System 11 p3247 N93-30338
Radiation-hardened microwave communications system
[DE93-007915] 11 p3394 N93-30631
OAST space research and technology applications: Technology transfer successes
11 p3625 N93-30693
Technology transfer in the NASA Ames Advanced Life Support Division 11 p3628 N93-30724
Gigabit network communications research
[AD-A264895] 11 p3536 N93-31026
Minimize system cost by choosing optimal subsystem reliability and redundancy
[NASA-TM-106251] 12 p3812 N93-31145
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance
12 p3676 N93-31276
Testing of an experimental FMS
12 p3676 N93-31277
Pallet for helicopter test instrumentation
12 p3676 N93-31279
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
Z through pictures
[RSRE-MEMO-4587] 12 p3787 N93-31337
Evaluation of future space transportation systems with regard to their reliability and costs
[ESA-TT-1281] 12 p3687 N93-31593
System engineering concept demonstration, security study, volume 7
[AD-A265473] 12 p3791 N93-32007
System engineering concept demonstration, effort summary, volume 1
[AD-A265467] 12 p3791 N93-32022
System engineering concept demonstration, system engineering needs, volume 2
[AD-A265468] 12 p3791 N93-32023
System engineering concept demonstration, interface standards studies, volume 4
[AD-A265470] 12 p3791 N93-32024
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096
Interactions between magnetically levitated vehicles and elevated guideway structures
[PB93-148542] 12 p3736 N93-32192
Maglev program test plan
[PB93-154904] 12 p3736 N93-32194

SYSTEMS INTEGRATION

Reliability assurance requirements for ESA space systems
[ESA-PSS-01-30-ISSUE-2] 01 p0094 N93-10317
Holographic optical interconnects for multichip modules
[AD-A253403] 01 p0086 N93-10408
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001
Deriving and manipulating module interfaces
[AD-A253869] 02 p0406 N93-11145
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
Multiplexing electro-optic architectures for advanced aircraft integrated flight control systems
[NASA-CR-182268] 03 p0504 N93-13735
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
Systems modeling
[AD-A255215] 04 p0944 N93-14575
Data storage and retrieval system
04 p1005 N93-15034
Integration of satellite links into an ATM mode broadband ISDN
[TELECOM-PARIS-91-E-022] 04 p0861 N93-15097
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
Detection of technical states with aircraft
04 p0794 N93-15159
Integrated engine control and monitoring with experiences derived from OLMOS
04 p0795 N93-15168
A philosophy for integrated monitoring system design
04 p0796 N93-15174
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
Airbus Industrie TCAS experience
04 p0789 N93-15186
Integrated support for real-time control systems
[PNR-90994] 04 p0952 N93-15476
Analysis of fluid structure interaction of spacecraft's fluid tanks using combined boundary element and finite element methods 05 p1077 N93-15722
Integration of CAD tools in space vehicle design
05 p1079 N93-15739
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Test and integration concept for complex helicopter avionic systems
[MBB-UD-0605-91-PUB] 05 p1065 N93-17547
TIGER development status overview
[MBB-UD-0607-91-PUB] 05 p1063 N93-17571
Spacecraft design project: Low Earth orbit communications satellite
[NASA-CR-192038] 06 p1458 N93-17969
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
The integration of advanced cockpit and systems design 06 p1611 N93-19779
Interactive graphics intersection design system: First-stage development
[PB92-227693] 07 p2040 N93-21291
The integrated design and manufacturing of composite structures for aircraft using an advanced tape layering technology
[MBB-LME-251-S-PUB-0491-A]
07 p1783 N93-21401
Space Station ECLSS integration analysis
[NASA-CR-192470] 07 p2027 N93-22002
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
System concept for an advanced stand-off weapon
08 p2256 N93-22029
Use of satellite data and GIS for evaluating urban environment 08 p2354 N93-23572
Activities of the Institute for Information Technology
[NRC-35023] 08 p2571 N93-24648
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
A knowledge-based approach to waste disposal sites detection through integration of Landsat-TM imagery and geographical context information
09 p2741 N93-24796
Cartography and statistics of crops under irrigation in the Donana area of Andalucia through the use of Landsat-TM imagery and its incorporation into a GIS
09 p2751 N93-24855
Runway Visual Range (RVR) Operational Test and Evaluation (OT&E) integration and OT&E operational test report
[DOT/FAA/CT-TN92/37] 09 p2584 N93-25243
Piloted simulation of an air-ground profile negotiation process in a time-based Air Traffic Control environment
[NASA-TM-107748] 09 p2585 N93-26087
Bibliography on propulsion airframe integration technologies for high-speed civil transport applications, 1980-1991
[NASA-TM-105602] 09 p2573 N93-26136
Methodology investigation: Global Positioning System integration (GPS)
[AD-A261054] 09 p2586 N93-26237
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
Improved selective catalytic NOx control technology for compressor station reciprocating engines
[PB93-158566] 09 p2768 N93-26529
An integrated database with system optimization and design features 10 p3168 N93-26697
Engine management during NTRE start up
10 p2980 N93-26953
Radiator technology 10 p2983 N93-26979
Environmental control and life support system evolution 10 p2965 N93-27719
Fluid Management System (FMS) fluid systems overview 10 p2967 N93-27796
Integrated Power and Attitude Control System (IPACS) technology developments 10 p2969 N93-27814
Electrical power integration for lunar operations
10 p2988 N93-27966
Lunar materials processing system integration
10 p3021 N93-27972
Status of the Fiber Optic Control System Integration (FOCSI) program
[NASA-TM-106151] 10 p3046 N93-28053
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
A new class of mission support for combat air-crew
11 p3501 N93-28854
Grand challenges in mass storage: A systems integrators perspective 11 p3820 N93-30467
An annotated bibliography on integration in software engineering environments
[AD-A264798] 11 p3535 N93-30602
Testing of an experimental FMS
12 p3676 N93-31277

SYSTEMS MANAGEMENT

Power system monitoring and source control of the Space Station Freedom DC power system testbed
[NASA-TM-105841] 01 p0026 N93-10734
Description of the SSF PMAD DC testbed control system data acquisition function
[NASA-TM-105843] 02 p0417 N93-11005
Integrity in automated information systems
[AD-A253990] 02 p0477 N93-11732
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
Software Technology for Adaptable, Reliable Systems (STARS) program. Software process tools and techniques evaluation report, version 1.0. Task IS15: Software process management
[AD-A255945] 04 p0942 N93-14405
Implementation of a configuration and maintenance management system for local area networks
[AD-A257837] 06 p1686 N93-18344
Network management, status, and directions
[DE93-004003] 06 p1630 N93-19510
Program manager: Journal of the Defense Systems Management College, volume 21, number 6, November-December 1992
[AD-A258766] 06 p1553 N93-19870
MB-339: The role of flight testing in the evolution phase of a proven aircraft 06 p1443 N93-19907
Demonstration of automated proximity and docking technologies 07 p1814 N93-21423
Intelligent neuroprocessors for in-situ launch vehicle propulsion systems health management
08 p2452 N93-22221
Automated tools for testing computer system vulnerability
[PB93-146025] 08 p2433 N93-23273

Management issues in systems engineering
09 p2665 N93-24682
Spacecraft systems engineering: An introduction to the process at GSFC 09 p2665 N93-24683
Systems engineering and integration and management for manned space flight programs
09 p2666 N93-24684
The SE role in establishing, verifying and controlling top-level program requirements
09 p2666 N93-24685
Systems engineering and the user: Incorporation of user requirements into the SE process
09 p2666 N93-24687
Political and institutional factors affecting systems engineering 09 p2666 N93-24690
Optimization in the systems engineering process
09 p2666 N93-24691
System of Experts for Intelligent Data Management (SEIDAM) 09 p2879 N93-25800
Intelligent access to multiple relational database systems
[AD-A261198] 09 p2881 N93-25824
Fast mutual exclusion for uniprocessors
[AD-A261663] 09 p2883 N93-26389
Test, Control and Monitor System maintenance plan
[NASA-CR-193099] 09 p2873 N93-26420
NEP power subsystem modeling
10 p2982 N93-26974
Integrated Station Executive requirements and systems design approach
[NASA-CR-185708] 10 p2958 N93-27143
Onboard system health assessment
10 p2965 N93-27716
Fluid Management System (FMS) fluid systems overview 10 p2967 N93-27796
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
Changing role of telecommunications management in air traffic control in the FAA 11 p3247 N93-30354
Office of Water Environmental and Program Information Systems Compendium, FY 1992
[PB93-186203] 11 p3462 N93-30833

SYSTEMS SIMULATION
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
Implementation issues concerning injection simulation. Part 1: The backbone implementation
[MEMO-INF-91-57-PT-1] 04 p0946 N93-15078
System test approach for the SAX satellite
04 p0824 N93-15622
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
MGMtool: A performance modelling tool based on matrix geometric techniques
[MEMO-INF-92-35] 05 p1236 N93-16338
An object-oriented modelling technique for analysis and design of complex (real-time) systems
[ISBN-90-9005046-9] 05 p1231 N93-16347
Conversion of discrete event simulation models to diagnostic models
[MEMO-INF-92-37] 05 p1240 N93-16667
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
The use of typed lambda calculus for comprehension and construction of simulation models in the domain of ecology 05 p1251 N93-17526
Generalized steady-state: A system concept in simulation
[REPT-92-25] 05 p1257 N93-17731
Parallel simulation of stochastic Petri nets using recursive equations
[INRIA-RR-1520] 05 p1257 N93-17738
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
PACSIM: Using simulation in designing a communications satellite
[AD-A257857] 06 p1460 N93-18306
The F-92 RELIANT: Air transport system design simulation
[NASA-CR-192050] 06 p1440 N93-18386
Tools of modeling, identification, and signal processing for fault diagnosis in continuous-time systems
[LAAS-92153] 06 p1649 N93-18625
Getting the model right: Coupling a cellular automata to a discovery system 06 p1629 N93-19723
NASA MSFC hardware in the loop simulations of automatic rendezvous and capture systems
07 p1818 N93-21448
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
NEP systems model 10 p2984 N93-26986
Innovative electric propulsion thruster modeling
10 p2984 N93-26989
GPS system simulation methodology
10 p2984 N93-26990
Testing of an experimental FMS
12 p3676 N93-31277

SYSTEMS STABILITY
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
A nonlinear oscillatory problem
[DE92-630203] 01 p0095 N93-10385
Network stability under viral attack: A game entitled, God and the Devil
[RSRE-MEMO-4405] 01 p0147 N93-10822
The computer aided derivation of linearized dynamical models for stability analysis. Part 1: Description of the general model
[IW-90035-R-PT-1] 05 p1239 N93-16579
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Stability of elastically tailored rotor systems
[AD-A260550] 08 p2132 N93-24241
Stabilization using low-gain PI control: SISO case
[OUEL-1947/92] 11 p3541 N93-28898
Robust stabilization of infinite-dimensional systems with respect to coprime factor perturbations
[W-9220] 12 p3805 N93-31514

SYSTOLIC ARRAYS
Analysis of a linearly constrained least squares algorithm for adaptive beamforming
[AD-A255017] 03 p0695 N93-12582
Reliable and efficient parallel processing algorithms and architectures for modern signal processing
[NASA-CR-191969] 05 p1241 N93-16723
On recursive least-squares filtering algorithms and implementations
[NASA-CR-191396] 06 p1623 N93-18775
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
A systolic-array structure for MTCM receivers
11 p3357 N93-30236

T

T SHAPE
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029

T TAURI STARS
ROSAT observations in star forming regions
08 p2538 N93-23917
Structure and star forming activities of the cold massive molecular cloud G216-2.5 09 p2893 N93-25477
Photospheric abundance analysis of low-mass pre-main sequence stars 09 p2894 N93-25623
The multiplicity of T Tauri stars in the star forming regions Taurus-Auriga and Ophiuchus-Scorpius: A 2.2 micron speckle imaging survey 11 p3634 N93-28945
Submillimeter CO observations of warm gas around T-Tauri stars
[MPE-PREPRINT-232] 11 p3631 N93-30615

T-38 AIRCRAFT
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data
[AD-A262363] 10 p2942 N93-27692

T-56 ENGINE
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316

TABLES (DATA)
Selected data on research and development in industry: 1990
[NSF-92-317] 03 p0773 N93-12667
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
World Energy Projection System (WEPS), March 1992. Model installation manual, distribution disk layout
[PB92-169572] 03 p0637 N93-12937
Characteristics of recent science and engineering graduates: 1990. Detailed statistical tables
[NSF-92-316] 03 p0731 N93-13454
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Science and engineering degrees: 1966-1990
[NSF-92-326] 03 p0731 N93-13701
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Statistically based decompression tables 8: Linear-exponential kinetics
[AD-A257613] 06 p1595 N93-17926
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
ESTAR, PSTAR, and ASTAR: Computer programs for calculating stopping-power and range tables for electrons, protons, and helium ions
[PB93-146033] 08 p2481 N93-22898
TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635
Factorizations of a(sub n) +/- 1, 13 less than or equal to a less than 100
[CWI-NM-R9212] 10 p3114 N93-27366
Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768

TABS (CONTROL SURFACES)
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648

TABULATING
U TABULATION PROCESSES

TABULATION PROCESSES
Support measurement and estimating for oracle database applications using Mark 2 function points
[AD-A259686] 08 p2440 N93-23661

TACTICS
Intelligent TDA systems using neural networks, phase 1
[AD-A252556] 02 p0420 N93-11000
Design for tactical situation awareness display
[AD-A256194] 04 p0798 N93-15235
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
A high-fidelity, six-degree-of-freedom batch simulation environment for tactical guidance research and evaluation
[NASA-TM-4440] 12 p3684 N93-32380

TACTILE DISCRIMINATION
Tactile sensing for 3-dimensional shape estimation
11 p3357 N93-30232

TACTILE SENSATION
U TOUCH

TACTILE SENSORS (ROBOTICS)
Object recognition with a robot hand
02 p0420 N93-11457
Contact detection and contact motion for error recovery in the presence of uncertainties
02 p0398 N93-11956
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
Modeling of a full vision system using combined Visual/Haptic search for remote object identification
[AD-A260977] 09 p2801 N93-25867
Tactile sensing for 3-dimensional shape estimation
11 p3357 N93-30232
An expert system for identification of the task status from tactile sensor data 11 p3368 N93-30300
A testbed for autonomous reflexive grasping
[AD-A264557] 11 p3446 N93-30384

TAGGING
U MARKING

TAIL ASSEMBLIES
Design and implementation of digital filters for analysis of F/A-18 flight test data
[AD-A253447] 01 p0003 N93-10342
Apparatus and method for improving spin recovery on aircraft
[NASA-CASE-LAR-14747-1] 07 p1786 N93-20039
The influence of structural optimization on the aeroelastic properties of a vertical tail
[AD-A259140] 07 p1781 N93-20575
Attenuation of empennage buffet response through active control of damping using piezoelectric material
[NASA-TM-107736] 08 p2110 N93-23034

TAIL MOUNTINGS
U TAIL ASSEMBLIES

TAIL PLANES
U HORIZONTAL TAIL SURFACES

TAIL ROTORS
NT HELICOPTER TAIL ROTORS

TAIL SURFACES
NT HORIZONTAL TAIL SURFACES

TAILLESS AIRCRAFT
Mathematical optimization: A powerful tool for aircraft design
[MBB-FE-2-S-PUB-478] 05 p1063 N93-17564

TAILORING
U DESIGN
TAILS (ASSEMBLIES)
U TAIL ASSEMBLIES
TAIWAN
Effects of Taiwan orography on the motion and structure of typhoons
[AD-A261819] 09 p2786 N93-26270
Scientific research abstracts in the Republic of China, 1991 (science and technology)
11 p3670 N93-30911
TAKEOFF
NT VERTICAL TAKEOFF
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Simulator evaluation of displays for a revised takeoff performance monitoring system
[NASA-TP-3270] 04 p0803 N93-15366
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
A simulation study on take-off and landing dynamics of the aircraft of a fly-by-wire control system
[AD-A259286] 06 p1442 N93-19849
Analysis of aircraft noise levels in the vicinity of start-of-takeoff roll at Baltimore-Washington International Airport
[PB92-221605] 07 p1991 N93-21501
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
TALC
Chromate-free corrosion resistant talc coatings for aluminum alloys
[DE93-005370] 09 p2655 N93-25446
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684
TALKING
NT WORDS (LANGUAGE)
TALON AIRCRAFT
U T-38 AIRCRAFT
TANDEM ROTOR HELICOPTERS
NT CH-47 HELICOPTER
TANKER AIRCRAFT
The testing of fixed wing tanker and receiver aircraft to establish their air-to-air refuelling capabilities, volume 11
[AGARD-AG-300-VOL-11] 07 p1781 N93-21305
TANKS (COMBAT VEHICLES)
A progressive resistance weight training program designed to improve the armor crewman's strength
[AD-A255553] 04 p0934 N93-14556
Elastomer compound developed for high wear applications 09 p2659 N93-25607
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852
TANKS (CONTAINERS)
NT CYLINDRICAL TANKS
NT EXTERNAL TANKS
NT FUEL TANKS
NT PROPELLANT TANKS
NT SPHERICAL TANKS
NT STORAGE TANKS
NT WING TANKS
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Independent verification of tank volume measurements by pressure-volume authentication
[DE92-040680] 05 p1166 N93-15665
Cycle 0(CY1991) NLS trade studies and analyses report. Book 1: Structures and core vehicle
[NASA-CR-184471] 05 p1134 N93-16682
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Hydroelastic vibrations in a rectangular container under zero-gravity
[LRT-WE-9-FB-28-1991] 05 p1134 N93-17602
TANTALUM
Microwave processing of tantalum capacitor anodes
[DE92-017829] 04 p0869 N93-15214
Gas electron diffraction employing a pulsed electron beam synchronous with photoexcitation
11 p3319 N93-30101
TANTALUM ALLOYS
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
TANTALUM CARBIDES
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
TANTALUM COMPOUNDS
NT TANTALUM CARBIDES
NT TANTALUM NITRIDES
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
Research in photorefractive crystals
[AD-A260391] 08 p2513 N93-24425
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175
TANTALUM NITRIDES
Synthesis and reactivity of siloxide and silamide complexes pertaining to bond breaking and aggregation phenomena
[AD-A254703] 02 p0468 N93-12231
TAPE RECORDERS
NT VIDEO TAPE RECORDERS
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
ICI optical data storage tape
04 p1005 N93-15037
ATL Products Division's entries into the computer mass storage marketplace 04 p1005 N93-15038
The 19 mm date recorders: Similarities and differences 04 p0883 N93-15042
ICI optical data storage tape
05 p1354 N93-16327
The 19 mm data recorders similarities and differences
05 p1170 N93-16331
The NT digital micro tape recorder
11 p3435 N93-30461
Towards a 1000 tracks digital tape recorder
11 p3435 N93-30469
Evolution of a high-performance storage system based on magnetic tape instrumentation recorders
11 p3435 N93-30470
TAPER
U TAPERING
TAPERED WINGS
U SWEPT WINGS
TAPERING
Advantages of tapering finite data records for spectral analysis
[PB93-116614] 07 p2092 N93-21475
Design of multiple-ply laminated composite tapered beams
[NASA-TM-108411] 12 p3700 N93-31650
TAPES
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
Fabrication and properties of high-T(sub c) tapes and coils made from silver-clad Bi-2223 superconductors
[DE92-040760] 05 p1318 N93-16202
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
Thermoplastic tape winding parameters
07 p1835 N93-21135
TAPS
Adaptive airborne radar simulation with equalization filter taps
[AD-A264722] 11 p3393 N93-30514
TARE (DATA REDUCTION)
U DATA REDUCTION
TARGET ACQUISITION
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Nonlinear signal processing schemes for robust target detection and automatic clutter rejection in radar
[AD-A253546] 01 p0068 N93-10380
Short-range radar system
[AD-D015339] 02 p0278 N93-11044
The design and implementation of radar clutter modelling and adaptive target detection techniques
02 p0283 N93-11913
The Joint Surveillance Target Attack Radar System: Can procedures be developed to support the requirements of the land and air component commanders?
[AD-A255555] 03 p0567 N93-13875
Airborne radar simulation with adaptive antenna techniques
[AD-A255460] 04 p0859 N93-14488
Real-time gaze holding in binocular robot vision
[AD-A256226] 04 p0982 N93-14582
Evaluation of radar performance degradation due to standoff jamming
[AD-A257316] 05 p1137 N93-15983
A new ground test for determining the resolution of pushbroom sensors
[AD-A257193] 05 p1189 N93-16002
Adaptive machine vision
[AD-A257363] 05 p1301 N93-16007
Enhancement of multiple target track simulation
[AD-A257224] 05 p1278 N93-16236
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue
[AD-A257704] 05 p1228 N93-17697
Non-Gaussian noise models and coherent detection of radar targets
[AD-A258049] 05 p1141 N93-17707
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
Demonstration of a 532 nm direct detection imaging laser radar using a Digicon receiver
[AD-A259226] 07 p1883 N93-20578
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
The Missle-Borne Integrated Network Demonstration Program 08 p2255 N93-22023
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
A current assessment of single site locating technology 08 p2267 N93-23608
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
High resolution sampled aperture array direction finding at HF 08 p2267 N93-23611
Localization system based on data merging of images and inertia 08 p2269 N93-23623
Technical Digest. Detection systems and technology, September 1992
[AD-A259812] 08 p2271 N93-23670
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
Algorithms for space-based infrared surveillance
[AD-A261891] 09 p2857 N93-26542
Ultra-wideband radar transient detection using time-frequency and wavelet transforms
[AD-A262154] 10 p3026 N93-27549
Investigation of systematic effects in atmospheric microthermal probe data
[AD-A262119] 10 p3074 N93-28185
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
SWAT 2 overview
[AD-A262905] 11 p3578 N93-29139
SWAT laboratory test results
[AD-A262906] 11 p3578 N93-29140
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
Enhanced convergence adaptive detection
[AD-A264100] 11 p3399 N93-30879
TARGET MASKING
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
TARGET PENETRATION
U TERMINAL BALLISTICS

TARGET RECOGNITION
Integrated vision system for a target seeker
[AD-A253359] 01 p0135 N93-10103
Nonlinear resistive grid wavelet transformations for texture feature extraction
[AD-A254705] 02 p0285 N93-12332
Introductory review of target discrimination criteria
[AD-A254954] 03 p0560 N93-12551
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Inverse Synthetic Aperture Radar 03 p0564 N93-13058
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
Scatterer modeling/calibration study
[AD-A255855] 04 p0856 N93-14107
Evaluation of Night Vision Goggles (NVG) for maritime search and rescue (joint Canadian/US Coast Guard experiment)
[AD-A255525] 04 p0939 N93-14554
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Multimodal interactions in sensory-motor processing
[AD-A255780] 04 p0938 N93-15067
Dual waveband signal processing system
[AD-D015493] 05 p1139 N93-16438
An optical consensus correlator for cluttered targets
[AD-A257594] 06 p1661 N93-18184
An analysis of USSPACECOM's space surveillance network sensor tasking methodology
[AD-A258971] 06 p1509 N93-19010
Locating an imaging radar in Canada for identifying spaceborne objects
[AD-A258969] 06 p1510 N93-19087
Stimulus presentation formats and measurement techniques for the quantification of target detection performance
[AD-A258933] 06 p1603 N93-19449
Man-machine interface with simulated automatic target recognition systems 06 p1611 N93-19781
Adaptive autonomous target cuer 06 p1612 N93-19784
Advanced concepts in distortion-invariant phase-only filter design
[AD-A258691] 06 p1523 N93-19861
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
High range resolution radar target identification using the Prony model and hidden Markov models
[AD-A259210] 07 p1883 N93-20553
Recurrent neural networks for radar target identification
[AD-A259127] 07 p1883 N93-20558
One-class classifiers and their application to synthetic aperture radar target recognition
[DE93-000716] 07 p1886 N93-21769
On using scattering statistics for ultra wideband electromagnetic target classification and identification
[DE93-003809] 08 p2260 N93-22433
Localization system based on data merging of images and inertia 08 p2269 N93-23623
One-class classifier networks for target recognition applications
[DE93-006288] 08 p2271 N93-24043
Development of laser radar ATR algorithm. Phase 2: Military objects
[AD-A237544] 08 p2272 N93-24120
Distance metric between 3D models and 2D images for recognition and classification
[AD-A260069] 08 p2463 N93-24313
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
A Hierarchical Target Extraction, Recognition, and Tracking (HiTert) system
[AD-A260567] 09 p2854 N93-25898
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307
Information-theoretic performance bounding of Bayesian identifiers
[DE93-010705] 11 p3554 N93-28763
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
The fusion of information via fuzzy integration 11 p3517 N93-29568
Generalized octrees for constrained object modeling 11 p3369 N93-30304
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS)
[AD-A265613] 12 p3800 N93-32169

TARGET SIMULATORS
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
Man-machine interface with simulated automatic target recognition systems 06 p1611 N93-19781

TARGET TRACKING
U TRACKING (POSITION)

TARGETS
NT LASER TARGETS
NT PARTICLE ACCELERATOR TARGETS
NT RADAR TARGETS
Laser material interaction in confined medium 02 p0319 N93-12035
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser 02 p0319 N93-12037
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution 02 p0309 N93-12039
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
Two-stage target tracking system and method
[AD-D015412] 04 p0982 N93-14880
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Use of features derived from class proportions in a pixel for the multispectral classification of remote sensing images
[INPE-5306-TDI/456] 07 p1966 N93-20322
Contact dynamics testing of automated three-point docking mechanism 07 p1812 N93-21411
TRAC based sensing for autonomous rendezvous 07 p1813 N93-21412
TRAC based sensing for autonomous rendezvous 08 p2140 N93-22253
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders 08 p2265 N93-23601
Topics in stochastic systems, failure time models change-point problems, and sequential analysis
[AD-A260047] 08 p2472 N93-23711
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Multiobjective optimization of aerospace structures
[AD-A260433] 08 p2127 N93-24430
Investigation of serendipitious WFC sources
[NASA-CR-192774] 08 p2544 N93-24458
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382
Multisensor image analysis system
[AD-A263679] 11 p3528 N93-29294
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334

TARS
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137

TASK COMPLEXITY
The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
Mission Control Center enhancement opportunities in the 1990's 02 p0396 N93-11942
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
A unified approach to the analysis and design of manipulator systems with environmental contact 03 p0573 N93-13805
Movement time prediction in human-computer interfaces 04 p0955 N93-15550
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027
The central executive component of working memory
[AD-A258724] 07 p2025 N93-20326
Performance-based testing and success in Naval advanced flight training
[AD-A260838] 09 p2590 N93-25933

TASK PLANNING (ROBOTICS)
Coordinated motion control of a two-hand assembly system
[F-2-8] 04 p0949 N93-15301
Off-line generation of error-free robot/NC (numerical control) code using simulation and automatic programming techniques
[F-3-1] 04 p0949 N93-15302
Robot learning of contact tasks
[F-3-2] 04 p0949 N93-15303
Multiple robot programming using concurrent logic language
[F-3-3] 04 p0950 N93-15304
Redundancy control of robots by constrained optimization
[F-3-7] 04 p0950 N93-15307
Knowledge-based planning
[AD-A257209] 05 p1350 N93-15812
ORCCAD: Towards an open robot controller computer aided design system
[INRIA-RR-1396] 06 p1621 N93-18519
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
An optimal control strategy for collision avoidance of mobile robots in non-stationary environments
[NASA-CR-191868] 06 p1641 N93-19345
Grasp admittance center. A concept 07 p1918 N93-20720
Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Task sequence planning in a robot workcell using AND/OR nets
[NASA-CR-192735] 07 p2049 N93-21391
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
Path planning for manipulators
[DE93-004050] 08 p2457 N93-22756
Transformational planning of reactive behavior
[AD-A260350] 08 p2463 N93-24270
Implicit point location in arrangements of line segments, with an application to motion planning
[RUU-CS-92-15] 10 p3116 N93-27505
Agent-independent planning 10 p2970 N93-27822
FTS evolution 10 p2970 N93-27824
The planning coordinator: A design architecture for autonomous error recovery and on-line planning of intelligent tasks
[NASA-CR-193250] 11 p3543 N93-30039
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS) 11 p3364 N93-30278
A vision system planner for increasing the autonomy of the Extravehicular Activity Helper/Retriever
[NASA-CR-193301] 12 p3777 N93-31844

TASKS
NT AUDITORY TASKS
NT VISUAL TASKS
Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
The effects of wearing protective chemical warfare combat clothing on human performance
[AD-A250716] 02 p0390 N93-12491
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Performance of color-dependent tasks of air traffic control specialists as a function of type and degree of color vision deficiency
[AD-A256614] 04 p0788 N93-14275
Identifying ability requirements for operators of future automated air traffic control systems
[AD-A256615] 04 p0789 N93-14276
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Behavioral effects of high peak power microwave pulses: Head exposure at 1.3 GHz
[AD-A258136] 06 p1595 N93-17985
Dual-task training strategies and aging
[AD-A258261] 06 p1602 N93-18027
Decision paths in complex tasks
[NASA-CR-192121] 06 p1603 N93-18359
Task-level robot programming combining object-oriented design and synchronous approach: A tentative study
[INRIA-RR-1441] 06 p1622 N93-18610
The MICRO-BOSS scheduling system: Current status and future efforts 06 p1635 N93-18668
Generating effective project scheduling heuristics by abstraction and reconstitution 06 p1636 N93-18675

Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Tree classification software 09 p2814 N93-25591
Conversion of the CTA, Inc., en route operations concepts database into a formal sentence outline job task taxonomy
[AD-A261410] 09 p2586 N93-26447
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[MEMO-COSOR-92-32] 10 p3106 N93-27361
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[CWI-BS-R9211] 10 p3108 N93-27990
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
Man-machine cooperation in advanced teleoperation 12 p3784 N93-32106
The MICRO-BOSS scheduling system: Current status and future efforts 12 p3835 N93-32133
PERTS: A Prototyping Environment for Real-Time Systems 12 p3794 N93-32147

TATB
Effects of particle beams on explosives
[AD-A256878] 05 p1128 N93-15708
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Pressure dependence of the reaction propagation rate of TATB to 40 GPa 11 p3319 N93-30082

TAURID METEOROIDS
The spatial distribution of large cometary meteoroids in the inner solar system 06 p1712 N93-19208
A candidate for the parent body of the Taurid complex and its search ephemeris 06 p1721 N93-19271
The Taurid meteoroid complex 09 p2889 N93-25536

TAXIING
Aircraft landing gear shimmy 06 p1441 N93-19029
Protection of taxiing traffic in airports through mode S secondary radar technology
[ETN-93-93455] 10 p2941 N93-28206
Testing concept of a taxiing control system, summary 12 p3676 N93-31278

TAXONOMY
Taxonomy of flight variables 04 p0787 N93-15022
Biodiversity indication by Earth observation data 09 p2751 N93-24858
A meta model for update in evolving information systems
[TR-92-05] 10 p3167 N93-27887

TAYLOR INSTABILITY
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Low-frequency fluctuations of plasma magnetic fields 03 p0717 N93-13496
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
Asymptotic behavior of modulated Taylor-Couette flows with a crystalline inner cylinder
[PB93-139061] 08 p2290 N93-22897
Laser driven hydrodynamic instability experiments
[DE93-005822] 08 p2308 N93-23330
Experimental determination of the hydrodynamic instability growth rates in indirect and direct drive ICF
[DE93-006278] 08 p2496 N93-23676

TAYLOR SERIES
On the evaluation of Bessel functions
[AD-A253129] 01 p0143 N93-10339
Ephemeris calculation and orbit determination of geostationary satellites, using Taylor series integration
[SER-C-384] 02 p0220 N93-11335
Comparison of truncation error of finite-difference and finite-volume formulations of convection terms
[NASA-TM-105861] 02 p0426 N93-11531
Sensitivity and uncertainty analysis in performability modelling
[MEMO-INF-92-18] 04 p0941 N93-15090
Nonlinear control problems and systems approximations: A geometric approach
[MEMO-1039] 05 p1261 N93-16951
Controllability distributions and systems approximations: A geometric approach
[MEMO-1040] 05 p1269 N93-16952
CFD-based approximation concepts for aerodynamic design optimization with application to a 2-D scramjet vehicle 08 p2126 N93-23505
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163

TAYLOR THEOREM
U TAYLOR SERIES

TAYLOR-GOERTLER INSTABILITY
U GOERTLER INSTABILITY

TDMA
U TIME DIVISION MULTIPLE ACCESS

TDR SATELLITES
Test and control computer user's guide for a digital beam former test system
[NASA-CR-189208] 03 p0685 N93-13291
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
A systematic approach for the DRSS IOL APM design 05 p1081 N93-15753
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
A model to compare performance of space and ground network support of low-Earth orbiters 06 p1508 N93-18925
TDRSS orbit determination using short baseline differenced carrier phase 09 p2601 N93-24701
Application of GPS tracking techniques to orbit determination for TDRS 09 p2601 N93-24702
TDRSS-user orbit determination using batch least-squares and sequential methods 09 p2601 N93-24703
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit 09 p2601 N93-24704
Orbit determination and orbit control for the Earth Observing System (EOS) AM spacecraft 09 p2601 N93-24705
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
A prototype for simulation of the space-to-ground assembly/contingency system of Space Station Freedom 09 p2619 N93-26065
Utilizing a TDRS satellite for direct broadcast satellite-radio propagation experiments and demonstrations
[NASA-TM-106172] 10 p2956 N93-27064
Interferometric tracking system for the tracking and data relay satellite
[NASA-CR-193274] 11 p3382 N93-29217

TEA LASERS
CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
CO2 laser preionisation
[NASA-CR-184424] 03 p0607 N93-13797
A study of small solid-state switched TEA CO2 lasers 03 p0607 N93-13814

TEACHERS
U INSTRUCTORS

TEACHING
U EDUCATION

TEAMS
The study of crew coordination and performance in hierarchical team decision making
[AD-A259514] 08 p2520 N93-23698

TEARING
Plasmas physics research in the MST toroidal confinement device
[DE93-006502] 08 p2493 N93-22711

TEARING MODES (PLASMAS)
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Nonlinear studies of m = 1 modes in high-temperature plasmas
[DE92-019395] 03 p0714 N93-12913
Resistive magnetohydrodynamic studies of tearing mode instability with equilibrium shear flow and magnetic reconnection 04 p0987 N93-14122
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Magnetic reconnection and current-sheet formation at x-type neutral points
[DE93-002161] 07 p2075 N93-21697
Structure and dynamics of the magnetopause 08 p2400 N93-24296
Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602

TECHNICAL WRITING
How scientific must technical editors be?
[DE92-040741] 04 p1010 N93-15655
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
Improving the quality of machine translations by providing stylistic guidelines to authors and editors
[AD-A258786] 06 p1687 N93-18977
Technical report writing
[NASA-TM-105419] 08 p2523 N93-23002
Writer's guide for technical procedures
[DE93-007746] 08 p2529 N93-24573

TECHNIQUES
U METHODOLOGY

TECHNOLOGICAL FORECASTING
NT DELPHI METHOD (FORECASTING)
NT PATTERN METHOD (FORECASTING)
Next generation satellite communications networks 04 p0812 N93-14962
Using AI/expert system technology to automate planning and replanning for the HST servicing missions 09 p2822 N93-25962
Workshop proceedings: Information Systems for Space Astrophysics in the 21st Century, volume 1
[NASA-CR-192825] 10 p3165 N93-27042
Astrotech 21: A technology program for future astrophysics missions 10 p2953 N93-27043
Study of basic physical processes in liquid and solid rocket propulsion
[NASA-CR-192550] 10 p2986 N93-27146
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-006] 11 p3353 N93-28636
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-010] 11 p3353 N93-28674
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-008] 11 p3353 N93-28675
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-003] 11 p3353 N93-28691
Forecasting and planning for changing patterns of Scientific and Technical Communication (STC) 12 p3838 N93-31223

TECHNOLOGIES
NT BIOTECHNOLOGY
NT ENERGY TECHNOLOGY
NT GEOTHERMAL TECHNOLOGY
NT MARINE TECHNOLOGY
NT MILITARY TECHNOLOGY
NT REACTOR TECHNOLOGY
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-009] 02 p0220 N93-11169
Toward a microgravity research strategy
[NASA-CR-190820] 03 p0556 N93-12799
NASA industry education initiative. Education programs report, 1991
[NASA-NP-158] 03 p0730 N93-13248
National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives
[GAO/T-NSIAD-92-26] 03 p0500 N93-13253
NSF Science and Technology Centers
[NSF-92-104] 03 p0507 N93-13712
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
Public perceptions of the risks of an unfamiliar technology: The case of using nuclear energy sources for space missions 03 p0527 N93-13971
The informed citizen: Technology and responsibility in the information age 03 p0742 N93-14049
Departments of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations for Fiscal Year 1993, Part 1
[S-HRG-102-716-PT-1] 05 p1358 N93-17089
Science and technology in US international affairs
[ISBN-1-881054-00-4] 07 p2094 N93-21758
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-002] 09 p2737 N93-25399
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-93-001] 09 p2599 N93-25400
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-005] 09 p2737 N93-25401
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404

JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-025] 09 p2793 N93-25405
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-020] 09 p2793 N93-25406
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-022] 09 p2795 N93-25407
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-003] 09 p2668 N93-25427
Science, Technology, and Industrial Policy in the Former Soviet Union
[DE93-006528] 09 p2887 N93-26499
Third Annual Women in Science and Technology Conference
[DE93-005271] 10 p3164 N93-26297
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-93-003] 11 p3327 N93-30623
The NCAT process 11 p3626 N93-30697
Man, technology, society and development: From the hunters and gatherers to the first industrial revolution 3.5 million years ago into AD1760
[ISBN-9-03-860102-6] 12 p3833 N93-31543

TECHNOLOGY ASSESSMENT
Testing techniques 01 p0078 N93-10060
Structural analysis: Fatigue life assessment 01 p0078 N93-10062
Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431
Rolls-Royce civil engine technology
[PNR-90936] 02 p0210 N93-11036
The Trent: Towards greater thrust
[PNR-90937] 02 p0210 N93-11037
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Development of advanced carbon-carbon annular flameholders for gas turbines
[PNR-90947] 02 p0211 N93-11106
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
Contributions to CD Space Committee, 1991: Summary and analysis
[PB92-195312] 02 p0219 N93-11216
The technical background to standards for eyebolts
[NPL-DMM(A)-52] 02 p0325 N93-11327
Speech recognition systems and their military applications
[BR91882] 02 p0280 N93-11366
Solid state sciences committee forum
[AD-A253556] 02 p0463 N93-11753
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
Evaluation of advanced pressure sensor technology
[DE92-011004] 02 p0312 N93-11806
Electricity from biomass: A development strategy
[DE92-010590] 02 p0346 N93-11814
The hydrogen technology assessment, phase 1
[NASA-CR-190969] 02 p0349 N93-12394
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 1: Executive summary, analyses and trades, and system concepts
[NASA-CR-177413-VOL-1] 03 p0708 N93-12591
Large Deployable Reflector (LDR) system concept and technology definition study. Volume 2: Technology assessment and technology development plan
[NASA-CR-177413-VOL-2] 03 p0708 N93-12593
Advanced Communications Technology Satellite (ACTS). Phase 1: Industrial/academic experimenters
[NASA-CR-191211] 03 p0561 N93-12679
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
Ultraviolet disinfection technology assessment
[PB92-222868] 03 p0678 N93-12983
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Phased array feed design technology for Large Aperture Microwave Radiometer (LAMR) Earth observations
[NASA-CR-189727] 03 p0519 N93-13462
White paper: Preliminary assessment of LNG vehicle technology, economics, and safety issues, revision 1
[PB92-212943] 03 p0615 N93-13644
Technology trends in high temperature pressure transducers: The impact of micromachining 03 p0601 N93-13676
The trade-off characteristics of acoustic and pressure sensors for the NASP 03 p0601 N93-13678
Assessment of Japanese technology in advanced glass and ceramic fibers
[AD-A255229] 03 p0553 N93-13836
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Advanced sensors technology survey
[NASA-CR-185691] 04 p0881 N93-14494
The V-22 Osprey: A case analysis
[AD-A256445] 04 p0791 N93-14601
Symposium on the occasion of the farewell of Prof. Dr. Ir. O. H. Gerlach as Chairman of the Board of the Foundation National Aerospace Laboratory NLR, The Netherlands
[ETN-92-92168] 04 p0777 N93-14613
Flight simulation leaves the ground 04 p0778 N93-14616
Human exploration: Moon/Mars mission 04 p0805 N93-14922
Mission and technology assessment of human exploration to the Moon and Mars 04 p0809 N93-14944
Progress in DND's space-based radar R/D project 04 p0812 N93-14958
Engine technologies for future spaceplanes
[ETN-92-92732] 04 p0800 N93-15143
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217
The evolution of space simulation 04 p0814 N93-15610
Inflatable, space-rigidized structures: Progress in design, technology and verification 05 p1080 N93-15746
Terminal area traffic management
[LR-684] 05 p1058 N93-16213
Technical needs and research opportunities provided by projected aeronautical and space systems
[NASA-CR-192124] 05 p1073 N93-16629
Power systems for space exploration
[RAND-P-7768] 05 p1091 N93-16754
Photovoltaic manufacturing technology report, phase 1
[DE93-000027] 05 p1197 N93-17191
Evaluation and recommendations for work group integration within the Materials and Processes Lab 05 p1341 N93-17293
Directions for future Earth-to-orbit vehicles 05 p1076 N93-17309
Lunar base mission technology issues and orbital demonstration requirements on space station 05 p1392 N93-17416
Navstar global positioning system: Introduction and status
[NLR-TP-91008-U] 05 p1059 N93-17559
Modern helicopter technologies at MBB and the application in future programmes
[MBB-UD-0599-91-PUB] 05 p1063 N93-17566
The technological evolution of high thrust turbine engines
[DS-1881] 06 p1448 N93-17882
Mechanism of diamond film growth 06 p1678 N93-18479
Controls-structures interaction guest investigator program: Overview and phase 1 experimental results and future plans
[NASA-TM-4412] 06 p1466 N93-18853
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Fiberoptic characteristics for extreme operating environments
[NASA-CR-189189] 06 p1475 N93-19649
Communications system evolutionary scenarios for Martian SEI support
[NASA-CR-192206] 07 p1879 N93-19962
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 1: Plenary Session
[NASA-TM-108651] 07 p2085 N93-20329
Review on optical elements for intersatellite laser communication 07 p1798 N93-20465
Establishment of high density installation technology 07 p1800 N93-20478
Handling and using information systems with new technology
[PNR-90910] 07 p2090 N93-20734
CIME of microsystems
[MBB-Z-0428-92-PUB] 07 p2037 N93-20844
Problem solving for long term, global scenarios of space traffic
[ILR-MITT-265(1991)] 07 p1821 N93-20906
Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study 07 p1803 N93-21079
Fiber development in Japan 07 p1834 N93-21130
Defense science and technology strategy: Executive summary. 1: Background and overview. 2: The seven thrusts
[PB92-217785] 07 p2103 N93-21349
Requirements and projects for high-resolution atmospheric sounding 07 p1959 N93-21607
Non-US artificial neural network research
[PB93-111508] 07 p2049 N93-21802
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy
[NASA-TM-103992] 07 p2027 N93-21807
Test techniques for evaluating flight displays
[NASA-TM-103947] 07 p1783 N93-21810
International environmental research and assessment: Proposals for better organization and decision making
[ISBN-1-881054-01-2] 07 p2087 N93-21949
Versatile attack weapon 08 p2256 N93-22027
Department of Energy new technology
[DE92-041170] 08 p2522 N93-22058
Entry systems technology assessment 08 p2177 N93-22118
Supervised autonomous rendezvous and docking systems technology evaluations 08 p2146 N93-22288
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Summary of activities of the Life Cycle Costing Workshop conducted by the Environmental Restoration Program of Oak Ridge National Laboratory
[DE93-000823] 08 p2531 N93-22935
Space Station Freedom Utilization Conference. Executive summary
[NASA-TM-108709] 08 p2193 N93-23001
Parallel processing research in the former Soviet Union
[PB93-134435] 08 p2447 N93-23204
Computational simulation for concurrent engineering of aerospace propulsion systems
[NASA-TM-106029] 08 p2330 N93-23746
Improved dynamic stiffness (system modeling), state-of-the-art review
[PB93-127744] 08 p2331 N93-24208
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
Summary from a study group on neural networks at NDRE
[FFI-92/7015] 08 p2465 N93-24640
An assessment of alternatives and technologies for replacing ozone-depleting substances at DOE facilities
[DE93-002862] 09 p2760 N93-24675
Systems engineering for very large systems 09 p2665 N93-24680
Optimization of knowledge-based systems and expert system building tools
[NASA-CR-192763] 09 p2874 N93-25288
Gas-Grain Simulation Facility (GGSF). Volume 1: Stage 1 facility definition studies
[NASA-CR-177606] 09 p2887 N93-25442
Space transfer vehicle concepts and requirements study. Volume 2, book 4: Integrated advanced technology development
[NASA-CR-192528] 09 p2611 N93-25512
Small satellites and RPA's in global-change research
[AD-A260762] 09 p2765 N93-25837
Special technology area review on microwave packaging technology
[AD-A261852] 09 p2681 N93-26276
Observations on the NASA Propagation Program 09 p2685 N93-26482
A comparative assessment of R. M. Young and tipping bucket rain gauges 09 p2685 N93-26483
Japanese Technology Evaluation Center Workshop on Advanced Manufacturing Technology for Polymer Composite Structures in Japan
[PB93-165249] 09 p2641 N93-26589
The Advanced Communications Technology Satellite (ACTS): Five new technologies 10 p3022 N93-26643
Nuclear thermal propulsion technology overview 10 p2978 N93-26927
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
1991 NASA Life Support Systems Analysis workshop
[NASA-CR-4466] 10 p3085 N93-27100
1992 NASA Life Support Systems Analysis workshop
[NASA-CR-4467] 10 p3085 N93-27101

Software for adult literacy: Scope, suitability, available sources for information, and implications for federal policy
[PB93-163913] 10 p3161 N93-27416
High rate science data handling
10 p2964 N93-27709
The ECLSS advanced automation project evolution and technology assessment 10 p2966 N93-27723
Technology for Space Station Evolution. Volume 3: EVA/Manned Systems/Fluid Management System
[NASA-TM-108726] 10 p2966 N93-27786
The challenges and benefits of lunar exploration
10 p3211 N93-27957
Options for a lunar base surface architecture
10 p3214 N93-27974
Assessment of the state of the art in life support environmental control for SEI 10 p3089 N93-27978
Future space activities: How can a baby having grown up too much in a cradle be dealt with?
10 p2948 N93-28015
Study of miniature and microminiature satellite technology 10 p2949 N93-28022
Refractory metal disilicides research
[AD-A262416] 11 p3320 N93-28499
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
Polarimetric multispectral imaging technology
11 p3434 N93-28774
New technologies for UV detectors
11 p3582 N93-28786
Assessment of energy technologies contributing to environmental conservation
[DE93-781439] 11 p3468 N93-28882
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
The 17th Annual Electronics Manufacturing Seminar proceedings
[AD-A261963] 11 p3409 N93-29435
Advanced NDE technology program
[AD-A262008] 11 p3449 N93-29443
Multi-Attribute Decision Theory methodology for pollution control measure analysis
[DE93-005444] 11 p3472 N93-30008
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
The Visible Human Project of the National Library of Medicine: Remote access and distribution of a multi-gigabyte data set 11 p3617 N93-30453
The NCAT process 11 p3626 N93-30697
Technology transfer within NASA
11 p3627 N93-30708
LNG as a fuel for railroads: Assessment of technology status and economics
[PB93-188787] 12 p3713 N93-31434
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351

TECHNOLOGY TRANSFER
NT AEROSPACE TECHNOLOGY TRANSFER
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Advanced materials and processing: The Federal program in materials science and technology. A report by the FCCSET Committee on Industry and Technology to supplement the President's fiscal year 1993 budget
[PB92-199108] 02 p0238 N93-11470
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
The development and technology transfer of software engineering technology at NASA. Johnson Space Center
02 p0396 N93-11943
Selected case studies of technology transfer from mission-oriented applied research
[DE92-018957] 02 p0481 N93-12067
FNAS computational fluid dynamics
[NASA-CR-184394] 02 p0307 N93-12397
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Brazilian remote sensing community: Historical, geographical and economic aspects
[INPE-5421-PRE/1763] 03 p0634 N93-13412
Commercial non-aerospace technology transfer program for the 2000s: Strategic analysis and implementation
[NASA-TM-4424] 03 p0742 N93-13433
Research and technology in support of IAM
03 p0515 N93-13562
Considerations for the transition from fuel cell R/D to manufacturing
[DE92-019977] 03 p0640 N93-13622
NSF Science and Technology Centers
[NSF-92-104] 03 p0507 N93-13712
Fault tolerant systems practitioner's workshop
[AD-A255376] 04 p0944 N93-14563
A planning workshop: To strengthen American cognitive science for the twenty-first century
[NSF-92-4] 04 p0999 N93-14720
Geothermal Energy and the Utility Market: The Opportunities and Challenges for Expanding Geothermal Energy in a Competitive Supply Market: Proceedings
[DE92-019090] 04 p0908 N93-15271
Technology transfer: Federal efforts to enhance the competitiveness of small manufacturers
[AD-A256804] 05 p1358 N93-15704
Patent write-ups: Patents available for licensing
[AD-A256694] 05 p1402 N93-16113
INFOTECH 1992: DOE Technical Information (TI) Meeting
[DE93-000467] 05 p1352 N93-16151
Integrated automation for support of research and development
[NLR-MP-88063-U] 05 p1235 N93-16290
Future Assets, Student Talent (FAST)
[NASA-CR-191632] 05 p1332 N93-16624
NASA/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program 1992
[NASA-CR-189691] 05 p1332 N93-16760
1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-184505] 05 p1339 N93-17279
Environmental Quality Information Analysis Center multi-year plan
[DE92-040850] 05 p1204 N93-17352
Strategic factors in the development of the National Technology Transfer Network
[NASA-TM-108594] 06 p1694 N93-18169
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Tech transfer outreach
[DE93-001553] 06 p1694 N93-18533
NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191004] 06 p1754 N93-19390
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Information access: A research agenda
06 p1692 N93-19798
The organization and transfer of information
06 p1692 N93-19799
The AGARD tip research agenda for Scientific and Technical Information (STI) 06 p1692 N93-19800
Structures and materials technologies for hypersonic vehicles: Lessons from Hermes experience
[REPT-921-430-108] 07 p1824 N93-21042
Department of Energy new technology
[DE92-041170] 08 p2522 N93-22058
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 2
[NASA-CP-3189-VOL-2] 08 p2560 N93-22149
Space technology research plans
08 p2184 N93-22613
Commercial researcher perspective
08 p2184 N93-22615
The collaborative program of research in engineering sciences
[DE93-005126] 08 p2257 N93-22768
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22958
Technology utilization and American competitiveness
08 p2153 N93-23158
NASA's Education Program Inventory FY 91
[NASA-EP-284] 08 p2518 N93-23250
The SPOT system development program: SPOT AVAL
08 p2360 N93-23769
Centres for space science and technology education: A United Nations initiative 08 p2369 N93-23826
ANL's electric vehicle battery activities for USABC
[DE93-005691] 08 p2319 N93-24446
Technology transfer from NASA to targeted industries, volume 1
[NASA-CR-192757] 08 p2532 N93-24482
Technology transfer from NASA to targeted industries, volume 2
[NASA-CR-192758] 08 p2533 N93-24484
EXCHANGE
[DE93-007227] 09 p2808 N93-24962
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
Energy and Technology Review, August-September 1992
[DE93-005882] 09 p2901 N93-24974
The evaluation of technical models used for major-accident hazard installations. Report to Commission of the European Communities Directorate General 12
[CUED/A-AERO/TR-19] 09 p2668 N93-25238
Energy and Technology Review, October - December 1992
[DE93-007784] 09 p2674 N93-25299
The PACSAT Communications Experiment (PCE)
[DE93-008185] 09 p2674 N93-25308
Technology 2002: The Third National Technology Transfer Conference and Exposition, volume 1
[NASA-CP-3189-VOL-1] 09 p2901 N93-25561
Film fabrication technologies at NREL
09 p2658 N93-25563
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
NASA SBIR product catalog, 1990
[NASA-TM-105103] 10 p3163 N93-27028
Magnetic Suspension Technology Workshop
[NASA-CP-3202] 10 p2959 N93-27554
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
Reliability assessment at airline inspection facilities. Volume 2: Protocol for an eddy current inspection reliability experiment
[DOT/FAA/CT-92/12-VOL-2] 11 p3449 N93-28685
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-010658] 11 p3408 N93-29311
Technology transfer personnel exchange at the Boeing Company
[DE93-010190] 11 p3625 N93-29329
Decision maker's guide to international space
[ANSER-STDN-93-4] 11 p3669 N93-29710
Accelerating the transfer of technology for implementing domain specific software architectures
[AD-A264017] 11 p3532 N93-30014
Promoting high-performance computing and communications
[ISBN-0-16-041828-3] 11 p3522 N93-30570
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
Departmental technology transfer update
11 p3625 N93-30694
The role of the University Licensing Office in transferring intellectual property to industry
11 p3626 N93-30698
Technology transfer 11 p3626 N93-30699
National Technology Transfer Center
11 p3626 N93-30700
Technology transfer from the viewpoint of a NASA prime contractor 11 p3626 N93-30701
Sandia National Laboratories
11 p3626 N93-30702
Technology transfer needs and experiences: The NASA Research Center perspective 11 p3626 N93-30703
Technology transfer within the NASA Goddard Space Flight Center 11 p3626 N93-30704
Technology transfer and space science missions
11 p3626 N93-30705
Technology coordination 11 p3626 N93-30706
Technology transfer 11 p3627 N93-30707
Technology transfer within NASA
11 p3627 N93-30708
Technology transfer within the government
11 p3627 N93-30709
Technology transfer within the government
11 p3627 N93-30711
Technology transfer and Rockwell International
11 p3627 N93-30712
NASP technology transfer 11 p3627 N93-30713
Robotic technology evolution and transfer
11 p3627 N93-30714
High performance computing and communications program 11 p3627 N93-30715
Technology transfer between the government and the aerospace industry 11 p3628 N93-30716
National Media Laboratory 11 p3628 N93-30717
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 3, part 2
[PB93-174811] 12 p3748 N93-31105
The effect of changes in markets and trade barriers on the exchange of scientific and technical information
12 p3836 N93-31216
The modern research environment
12 p3837 N93-31221

The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178

TECHNOLOGY UTILIZATION
Speech recognition systems and their military applications
[BR91882] 02 p0280 N93-11366
Systems engineering and technical assistance in support of digital gallium arsenide insertion projects
[AD-A253751] 02 p0463 N93-11790
ONRASIA scientific information bulletin, volume 17, number 3
[AD-A255073] 02 p0490 N93-12470
Advanced Communications Technology Satellite (ACTS). Phase 1: Industrial/academic experimenters
[NASA-CR-191211] 03 p0561 N93-12679
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Industrial applications of hot dry rock geothermal energy
[DE92-018903] 03 p0637 N93-12923
Applications of satellite technology to broadband ISDN networks
[NASA-CR-189199] 03 p0562 N93-12950
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 1 through 300
[PB92-226265] 03 p0637 N93-12987
Energy related inventions program. A joint program of the Department of Energy and the National Institute of Standards and Technology. Status report for recommendations 301-563
[PB92-226273] 03 p0637 N93-12988
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-004] 03 p0513 N93-13282
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-92-005] 03 p0513 N93-13304
Commercial non-aerospace technology transfer program for the 2000s: Strategic analysis and implementation
[NASA-TM-4424] 03 p0742 N93-13433
Research and technology in support of IAM
03 p0515 N93-13562
Abstracts of phase 1 awards: NSF Small Business Innovation Research Program (SBIR): 1992
[NSF-92-80] 03 p0732 N93-13703
First steps to lunar manufacturing: Results of the 1988 Space Studies Institute Lunar Systems Workshop
03 p0761 N93-13977
Activities of Space Power Insulation Inst.
[AD-A255825] 03 p0574 N93-14034
SDIO Workshop on Piezoelectric Ceramic Actuators for Space Applications
[AD-A255959] 04 p0990 N93-14422
Industrial applications of multiaxial warp knit composites 04 p0833 N93-14750
An overview of RADARSAT payload technologies
04 p0807 N93-14933
Applications of the mobile servicing system to the space exploration initiative 04 p0809 N93-14946
ATL Products Division's entries into the computer mass storage marketplace 04 p1005 N93-15038
Technology commercialization cost model and component case study
[DE92-001280] 04 p0907 N93-15213
Acoustic resonance techniques for quality control
[DE92-040150] 04 p0895 N93-15413
Fiber-optic three axis magnetometer prototype development
[NASA-CR-191882] 05 p1301 N93-15711
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
CD-ROM applications in Professional Military Education (PME)
[AD-A256662] 05 p1231 N93-15914
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Mining nonterrestrial resources: Information needs and research topics 05 p1381 N93-16885
Robotic lunar rover technologies and SEI supporting technologies at Sandia National Laboratories
05 p1389 N93-17255
The quickest, lowest-cost lunar resource assessment program: Integrated high-tech Earth-based astronomy
05 p1390 N93-17261
Proceedings of the 2nd International Workshop on Cellular Neural Networks and their Applications
[AD-A258245] 06 p1631 N93-17821
Dr. Alexander H. Flax: Technologist of aeronautics
[AD-A258441] 06 p1747 N93-17890
Preceramic polymers: Past, present and future
[AD-A258327] 06 p1493 N93-18265
Advanced Turbine Technology Applications Project (ATTAP)
[NASA-CR-189228] 06 p1694 N93-18762
Expendable launch vehicles technology: A report to the US Senate and the US House of Representatives
[NASA-TM-108141] 06 p1456 N93-19375
Improving NASA's technology for space science
[NASA-CR-192331] 06 p1695 N93-19389
The status of photovoltaic concentrator development
[DE93-002298] 06 p1571 N93-19474
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Technology absorption and technological learning: A study of the dynamics of the process and intervening factors
[INPE-5392-TAE/013] 06 p1695 N93-19741
Laser diode initiated detonators for space applications
07 p1865 N93-20147
Current and planned use of the Navstar Global Positioning System by NASA
[NASA-TM-108190] 07 p1779 N93-21190
The 1991-2000 National Remote Sensing Program
[BCRS-91-35] 07 p1975 N93-21205
Information dissemination: Innovative ways agencies are using technology
[PB93-108462] 07 p2091 N93-21380
Manufacturing innovations and small business: How flexible manufacturing systems affect tooling and machining enterprises
[PB92-216258] 07 p2086 N93-21743
Science and technology in US international affairs
[ISBN-1-881054-00-4] 07 p2094 N93-21758
NASA SBIR abstracts of 1990 phase 1 projects
[NASA-TM-108145] 07 p2087 N93-21794
Advancing automation and robotics technology for the Space Station Freedom and for the U.S. economy
[NASA-TM-103992] 07 p2027 N93-21807
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
Design of a portable powered seat lift
08 p2429 N93-22190
Proceedings of the Third International Workshop on Neural Networks and Fuzzy Logic, volume 2
[NASA-CP-10111-VOL-2] 08 p2449 N93-22206
Intelligent systems technology infrastructure for integrated systems 08 p2145 N93-22285
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
How to get on board Space Station Freedom
08 p2183 N93-22611
OSSA Space Station Freedom science utilization plans 08 p2184 N93-22614
Commercial researcher perspective
08 p2184 N93-22615
Utilization of Space Station Freedom for technology research 08 p2188 N93-22634
Selected OAST/OSSA space experiment activities in support of Space Station Freedom
08 p2189 N93-22636
Researches and developments on typical thermal technologies for space applications
08 p2248 N93-22845
Technology and the 21st Century government organization
[DE93-002506] 08 p2519 N93-22982
Space Station Freedom Utilization Conference. Executive summary
[NASA-TM-108709] 08 p2193 N93-23001
Science, technology, and the states in America's third century
[ISBN-1-881054-03-9] 08 p2519 N93-23074
The Eighth National Space Symposium
[ISBN-0-9616962-5-7] 08 p2153 N93-23156
Technology utilization and American competitiveness
08 p2153 N93-23158
Outlook for the U.S. Space Program
08 p2153 N93-23159
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291
Remarks and proposals to adapt some Earth observations space programmes in the period of transition of the countries of central/eastern Europe; focused on Romania 08 p2362 N93-23778
Space technologies in French education
08 p2369 N93-23824
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
Innovation: Key to the future
[NASA-TM-103599] 08 p2571 N93-24095
Information handling as task layer of Columbus user support 08 p2163 N93-24383
Summary from a study group on neural networks at NDRE
[FFI-92/7015] 08 p2465 N93-24640
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
Natural disasters and their mitigation using space technology 09 p2742 N93-24804
Technology Transfer 92/93
[DE93-003623] 09 p2887 N93-24965
The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-003] 09 p2737 N93-25398
JPRS report: Science and technology. Central Eurasia: Earth sciences
[JPRS-UES-92-002] 09 p2737 N93-25426
The 1993 Goddard Conference on Space Applications of Artificial Intelligence
[NASA-CP-3200] 09 p2822 N93-25961
High performance computing and communications panel report 09 p2807 N93-26131
Technology for America's economic growth: A new direction to build economic strength
[AD-A261553] 09 p2887 N93-26458
Privatization of data communication services by domestic satellite in Thailand 10 p3025 N93-26664
Case study of technology use in adult literacy programs
[PB93-163905] 10 p3161 N93-27415
Magnetic bearings for a high-performance optical disk buffer 10 p2961 N93-27569
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 8: Phillips Laboratory
[AD-A261972] 10 p3163 N93-27642
A fault-tolerant RISC microprocessor for spacecraft applications 10 p2964 N93-27708
High efficiency low cost GaAs/Ge cell technology
10 p2968 N93-27809
Proceedings of the Lunar Materials Technology Symposium
[NASA-CR-192881] 10 p3211 N93-27956
AI in space: Past, present, and possible futures
10 p3111 N93-27988
Long Duration Exposure Facility experiment M0003 deintegration observation data base
10 p3169 N93-28288
Development of Si(1-x)Ge(x) technology for microwave sensing applications
[NASA-TM-106157] 11 p3405 N93-28610
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-007] 11 p3353 N93-28635
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-93-005] 11 p3490 N93-28683
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-027] 11 p3490 N93-28684
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-93-003] 11 p3353 N93-28691
Electrolysis performance improvement and validation experiment 11 p3267 N93-28737
A unique photon bombardment system for space applications 11 p3286 N93-28790
Energy efficient drivepower: An overview
[DE93-012435] 11 p3411 N93-30057
Energy efficient drivepower
[DE93-012436] 11 p3411 N93-30058
How to compete for NASA contracts
[NASA-TM-109238] 11 p3610 N93-30644
OAST space research and technology applications: Technology transfer successes
11 p3625 N93-30693
The NCAT process 11 p3626 N93-30697
Technology transfer 11 p3626 N93-30699
Sandia National Laboratories
11 p3626 N93-30702
Technology transfer 11 p3627 N93-30707
Technology transfer within the government
11 p3627 N93-30711
Robotic technology evolution and transfer
11 p3627 N93-30714
Aircraft structures in 2000: A technological challenge?
[MBB-LME-202-S-PUB-0485] 12 p3679 N93-31058
Commercial applications 12 p3688 N93-31441
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3650 N93-31990

The technology base for agile manufacturing
12 p3715 N93-32104

TECTONIC MOVEMENT
U TECTONICS

TECTONICS
Structural review of the Vredefort dome
01 p0108 N93-10127
Impactite and pseudotachylite from Roter Kamm Crater, Namibia 01 p0109 N93-10130
The pseudotachylites from the Vredefort structure and the Witwatersrand basin 01 p0119 N93-10174
Bronzite Granophyre: New insight on Vredefort
01 p0121 N93-10186
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Worldwide seismic catalog and the nature of seismic coupling 01 p0124 N93-10376
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Chemical environments of submarine hydrothermal systems
[NASA-CR-191258] 03 p0669 N93-13458
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion
03 p0652 N93-13481
Seismic studies of crustal structure and tectonic evolution across the central California margin and the Colorado Plateau margin 03 p0657 N93-13794
Is Ishtar Terra a thickened basaltic crust?
04 p1024 N93-14292
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Global deformation on the surface of Venus
04 p1024 N93-14297
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism
04 p1027 N93-14313
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio
04 p1028 N93-14317
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus
04 p1029 N93-14324
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Venus tectonic styles and crustal differentiation
04 p1031 N93-14332
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Tectonic connections to interior processes on Venus
04 p1039 N93-14361
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
The tectonics of Venus: An overview
04 p1042 N93-14382
The spatial distribution of coronae on Venus
04 p1043 N93-14383
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera
04 p1044 N93-14389
Episodic plate tectonics on Venus
04 p1044 N93-14390
Plate tectonics from VLBI and SLR global data
[NASA-CR-191319] 04 p0916 N93-14913
Regional seismic studies in Central Asia
[AD-A256677] 05 p1206 N93-16094
Kinematics of the New Zealand plate boundary: Relative motion by GPS across networks of 1000 km and 50 km spacing
[NASA-CR-191714] 05 p1209 N93-16938
An investigation of extensional tectonics of southern California
[NASA-CR-191359] 05 p1209 N93-17092
Palinspastic reconstruction of southeastern California and southwestern Arizona for the middle Miocene
05 p1209 N93-17093
Final report — Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811
Applications of marine gravimetry to mid-oceanic spreading centers and volcanos
06 p1590 N93-19382
Some interpretations on the geological evolution in the southeastern region of the State of Minas Gerais (Brazil), based on remote sensing imagery and gravimetric data
[INPE-5321-PRE/1718] 06 p1568 N93-19789
NASA Space Geodesy Program: GSFC data analysis, 1992. Crustal Dynamics Project VLBI geodetic results, 1979 - 1991
[NASA-TM-104572] 07 p1999 N93-20900
SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993
NASA space geodesy program: Catalogue of site information
[NASA-TM-4482] 07 p1999 N93-21374
Newly recognized ductile shear zone in the Northern Klamath Mountains, Oregon. Implications for Nevadan accretion
[PB93-115632] 07 p2000 N93-21691
The 3-D numerical investigation of the mantle dynamics associated with the breakup of Pangea
[DE93-000796] 08 p2392 N93-22807
Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Earthquake vulnerability map of the Lake Constance area 09 p2753 N93-24872
Geologic structure and processes of the eastern Pacific margin: California and Costa Rica
09 p2771 N93-25424
Crustal deformation studies in subaerial parts of the world oceanic rift system: Iceland and Afar
09 p2789 N93-25558
Regional tectonic analysis of Venus equatorial highlands and comparison with Earth-based Magellan radar images
[NASA-CR-192996] 10 p3210 N93-27164

TEE
U T SHAPE

TEETERING
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525

TEFLON (TRADEMARK)
Recession of FEP specimens from trays D11 and B7
03 p0549 N93-12786
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Electrochemical characteristics of acid electrolytes for fuel cells
[PB93-124907] 07 p1988 N93-21826
Beta cloth durability assessment for Space Station Freedom (SSF) Multi-Layer Insulation (MLI) blanket covers
[NASA-TM-104748] 08 p2243 N93-24474

TEKTITES
Tektite origin by hypervelocity asteroidal or cometary impact: The quest for the source craters
01 p0114 N93-10154
Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars
12 p3864 N93-31948

TELECHIRICS
U REMOTE HANDLING

TELECOMMUNICATION
NT AIRCRAFT COMMUNICATION
NT ALOHA SYSTEM
NT BIOTELEMETRY
NT BROADCASTING
NT CLOSED CIRCUIT TELEVISION
NT CODE DIVISION MULTIPLE ACCESS
NT COLOR TELEVISION
NT COMMUNICATION
NT DATA LINKS
NT DEFENSE COMMUNICATIONS SYSTEM (DCS)
NT EDUCATIONAL TELEVISION
NT ELECTRONIC MAIL
NT FACSIMILE COMMUNICATION
NT FREQUENCY DIVISION MULTIPLE ACCESS
NT GROUND-AIR-GROUND COMMUNICATION
NT LINE OF SIGHT COMMUNICATION
NT LUNAR COMMUNICATION
NT MULTICHANNEL COMMUNICATION
NT MULTIPLE ACCESS
NT OPTICAL COMMUNICATION
NT PACKET TRANSMISSION
NT PCM TELEMETRY
NT PULSE COMMUNICATION
NT RADIO COMMUNICATION
NT RADIO RELAY SYSTEMS
NT RADIO TELEMETRY
NT RADIOTELEPHONES
NT SATELLITE COMMUNICATION
NT SINGLE CHANNEL PER CARRIER TRANSMISSION
NT SPACE COMMUNICATION
NT SPACECRAFT ANTENNAS
NT SPACECRAFT COMMUNICATION
NT TELEMETRY
NT TELEPHONY
NT TIME DIVISION MULTIPLE ACCESS
NT TRANSOCEANIC COMMUNICATION
NT UNDERWATER COMMUNICATION
NT VIDEO COMMUNICATION
NT VOICE COMMUNICATION
NT WIDEBAND COMMUNICATION
NT WIRELESS COMMUNICATION
Acquisition 2: Procurement, acquisition, and maintenance of configuration management documentation in support of a CIS system 01 p0173 N93-10599
On understanding in communicating systems and the error in the Chinese Room thought-experiment
[RSRE-MEMO-4391] 02 p0278 N93-10977
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504
Integrated services digital network conformance testing. Layer 1, physical layer. Part 2: Basic rate U interface, user side
[PB92-181114] 02 p0418 N93-11714
Implementing system simulation of C3 systems using autonomous objects
[NASA-CR-190845] 02 p0283 N93-11716
Future FAA telecommunications plan
[AD-A249133] 02 p0283 N93-11760
Computer Science and Telecommunications Board summary of activities
[DE92-016467] 02 p0404 N93-11761
Research priorities in networking and communications
[NSF-92-109] 03 p0562 N93-13024
OSA proceedings of the topical meeting on optical amplifiers and their applications, volume 13
[AD-A252974] 03 p0711 N93-13879
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16388
TMN: Introduction and interpretation
[MEMO-INF-92-40] 05 p1140 N93-16592
Queueing systems on a circle
[MEMO-1038] 05 p1276 N93-16670
Multipath effects in a Global Positioning Satellite system receiver 05 p1059 N93-17311
Activities of the PTT — the Netherlands Post, Telephone, and Telegraph (PTT)
[ISBN-90-72125-27-4] 05 p1140 N93-17398
Toward domain-specific design environments: Some representation ideas from the telecommunications domain 05 p1249 N93-17511
Environment/tool integrator for software development, version 1.1
[AD-A257607] 05 p1253 N93-17808
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962
The Telecommunications and Data Acquisition
[NASA-CR-191998] 06 p1504 N93-18897
Systems analysis for ground-based optical navigation
06 p1434 N93-18900
The Telecommunications and Data Acquisition Report
[NASA-CR-191228] 06 p1511 N93-19413
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Study and simulation of low rate video coding schemes
[NASA-CR-191908] 07 p1880 N93-20170
Data compression in remote sensing applications
07 p1881 N93-20172

Recursively indexed differential pulse code modulation
07 p1881 N93-20175
A joint source/channel coder design
07 p1881 N93-20177
A new technology for manufacturing scheduling derived from space system operations 08 p2260 N93-22196
Activities report of the Norwegian Space Center
[ETN-93-93540] 08 p2570 N93-23107
European Telecommunications Standards Institute. Apreliminary analysis
[PB93-138824] 08 p2263 N93-23271
New method of modelling the mesoscale structure of the ionosphere with a single sensor. Impact on HF radio-location 08 p2266 N93-23603
Digital processing for positioning with one satellite
08 p2270 N93-23629
Progressive retry for software error recovery in distributed systems
[AD-A260075] 08 p2442 N93-24315
The Telecommunications and Data Acquisition Report
[NASA-CR-192887] 09 p2671 N93-24659
Synopsis of timing measurement techniques used in telecommunications 09 p2687 N93-25064
Rome Laboratory Journal, 1992
[AD-A260821] 09 p2911 N93-25910
Anomalous event diagnosis for environmental satellite systems 09 p2619 N93-25971
The Telecommunications and Data Acquisition Report
[NASA-CR-192804] 09 p2676 N93-26105
Advanced optical fiber communication systems
[AD-A261802] 09 p2856 N93-26256
A channel simulation processor for the multi-node tactical network simulator
[AD-A261810] 09 p2776 N93-26430
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659
Digital telecommunications are a key development factor: Integration of satellite into overall telecommunication networks as a way to harmonize social and economic implications 10 p3025 N93-26660
Reliability analysis of complex models using sure bounds
[NASA-CR-191445] 10 p3091 N93-26897
Applying high-level language paradigms to communications software for distributed systems
[AD-A263001] 11 p3528 N93-29463
The Telecommunications and Data Acquisition Report
[NASA-CR-193144] 11 p3384 N93-29586
The general theory of convolutional codes
11 p3385 N93-29595
GE networked mass storage solutions supporting IEEE network mass storage model 11 p3618 N93-30458
Forecasting and planning for changing patterns of Scientific and Technical Communication (STC)
12 p3838 N93-31223

TELECONFERENCING
Standardization of end-to-end performance of digital video teleconferencing/video telephony systems
[AD-A257186] 05 p1137 N93-16001
VideoMir: Satellite video conferencing during the AustroMir spaceflight 08 p2158 N93-24356
Gigabit network communications research
[AD-A260644] 09 p2675 N93-25640
Video conferencing made easy
[DE93-010798] 12 p3718 N93-32283

TELECONNECTIONS (METEOROLOGY)
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Point correlations of geopotential height and temperature at 30 mb and between 500 mb and 30 mb
[PB92-222694] 03 p0661 N93-12817
A water mass analysis of the 1991-1992 El Nino signal in the Farallon Islands region
[AD-A263490] 11 p3488 N93-29819

TELEGRAPH SYSTEMS
Activities of the PTT --- the Netherlands Post, Telephone, and Telegraph (PTT)
[ISBN-90-72125-27-4] 05 p1140 N93-17398

TELEGRAPHY
U TELEGRAPH SYSTEMS

TELEMETERS
U TELEMETRY

TELEMETRY
NT BIOTELEMETRY
NT PCM TELEMETRY
NT RADIO TELEMETRY
Design development of a neural network-based telemetry monitor 02 p0394 N93-11933
Transient Reduction Analysis using Neural Networks (TRANN)
[DE92-012150] 02 p0421 N93-12153
Investigation of the use of surface electrical currents for short-range shipboard data communications
[AD-A256197] 04 p0859 N93-14490
Development of an expendable particle sensor
[AD-A255702] 04 p0881 N93-14653
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Reusable Reentry Satellite (RRS): Telemetry, Tracking, and Command (TT/C) coverage tradeoff study
[NASA-CR-188583] 04 p0824 N93-15629
The CRRES Microelectronics Package (MEP) data processing system
[AD-A256709] 05 p1145 N93-16168
Results of the 1992 NASA/JPL Balloon Flight Solar Cell Calibration Program
[NASA-CR-191630] 05 p1197 N93-16698
MicroSat data telemetry
[AD-A257468] 05 p1076 N93-17659
Daily quality assurance software for a satellite radiometer system 06 p1562 N93-18716
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
The use of subcarriers in future DSN missions
06 p1507 N93-18915
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435
SATCOM general purpose modem DSCS 3 SCT beacon telemetry display
[AD-A258849] 06 p1458 N93-19441
Research relative to the heavy isotope spectrometer telescope experiment
[NASA-CR-192357] 07 p2097 N93-21196
A three channel telemetry system
08 p2180 N93-22162
Telescience opportunities in the precursor flights
08 p2161 N93-24376
Data compression for the Cassini radio and plasma wave instrument 08 p2432 N93-24555
A functional description of the Buffered Telemetry Demodulator (BTD) 09 p2614 N93-24667
Resolution of the COBE Earth sensor anomaly
09 p2600 N93-24700
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Synchronisation, acquisition and tracking for telemetry and data reception 09 p2614 N93-25000
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
The Generic Spacecraft Analyst Assistant (GenSAA): A tool for developing graphical expert systems
09 p2814 N93-25589
Exploitation of cyclostationarity for signal-parameter estimation and system identification
[AD-A260833] 09 p2728 N93-25784
DSN acquisition of Magellan high-rate telemetry data
09 p2614 N93-26124
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Ofeq-2 orbit, attitude, and flight evaluation
10 p2924 N93-27198
Ground installations for preparation and evaluation of flight tests 12 p3675 N93-31274

TELEOPERATOR MANEUVERING SYSTEM
U TELEOPERATORS

TELEOPERATORS
A new scheme of force reflecting control
02 p0399 N93-11960
An 8-DOF dual-arm system for advanced teleoperation performance experiments 02 p0400 N93-11964
Performance experiments with alternative advanced teleoperator control modes for a simulated solar maximum satellite repair 02 p0400 N93-11965
The development of system components to provide proprioceptive and tactile information to the human for future telepresence systems 02 p0330 N93-11968
Exoskeleton master controller with force-reflecting telepresence 02 p0330 N93-11970
Remote systems development
02 p0330 N93-11971
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
Tactile sensing and control in humans and robotic/teleoperated systems
[AD-A254408] 03 p0609 N93-12604
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
The 3-D computer vision techniques for object following and obstacle avoidance 03 p0693 N93-13245
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Vision system requirements and concept for the Special Purpose Dexterous Manipulator system (SPDM)
04 p0805 N93-14924
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover
05 p1386 N93-17236
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU]
05 p1304 N93-17273
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU]
06 p1502 N93-18284
Teleprogramming: Remote site robot task execution
06 p1641 N93-19046
Autonomous rendezvous and capture system design
08 p2138 N93-22244
Modified impedance control for robotic saw cutting: Simulation and implementation in three degrees of freedom
[DE93-002162] 08 p2312 N93-22891
Force reflecting hand controller
[NASA-CASE-NPO-17851-1-CU]
08 p2314 N93-23078
Telerobotic rovers for extraterrestrial construction
09 p2670 N93-26416
FTS evolution 10 p2970 N93-27824
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
A study of the effects of lens focal length on remote driver performance
[AD-A263191] 11 p3505 N93-28941
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056
The Sixth Annual Workshop on Space Operations Applications and Research (SOAR 1992)
[NASA-CP-3187-VOL-1] 12 p3883 N93-32097
Supervisory autonomous local-remote control system design: Near-term and far-term applications
12 p3801 N93-32100
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101
Man-machine cooperation in advanced teleoperation
12 p3784 N93-32106
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107
Interactive and cooperative sensing and control for advanced teleoperation 12 p3784 N93-32108
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109
Air Force construction automation/robotics
12 p3715 N93-32110
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development
12 p3784 N93-32112
Real-time qualitative reasoning for telerobotic systems
12 p3737 N93-32116
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119
Potential low-cost telerobotics flight experiments
12 p3737 N93-32120
RACE pulls for shared control
12 p3686 N93-32122

TELEPHONES
NT RADIOTELEPHONES
Domain-specific functional software testing: A progress report 05 p1250 N93-17521
A study of current world telecommunications and a projection of the future
[AD-A257545] 06 p1501 N93-17962

TELEPHONY
Standardization of end-to-end performance of digital video teleconferencing/video telephony systems
[AD-A257186] 05 p1137 N93-16001

Activities of the PTT — the Netherlands Post, Telephone, and Telegraph (PTT)
[ISBN-90-72125-27-4] 05 p1140 N93-17398
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505

TELEROBOTICS
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Fuzzy control system for a remote focusing microscope 02 p0314 N93-11934
Requirements and applications for robotic servicing of military space systems 02 p0230 N93-11953
Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966
Remote systems development 02 p0330 N93-11971
Self mobile space manipulator project 02 p0331 N93-11973
Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981
Space robotics: Recent accomplishments and opportunities for future research
[NASA-TM-107675] 03 p0694 N93-13442
Performance and stability of telemanipulators using bilateral impedance control 03 p0614 N93-13488
Mining equipment and operations for mining the 1982HR (Orpheus) asteroid 03 p0515 N93-13557
Automation and robotics considerations for a lunar base 03 p0619 N93-14006
SMART: A modular architecture for robotics and teleoperation
[DE92-040985] 04 p0966 N93-15385
Stereo vision controlled bilateral telerobotic remote assembly station
[AD-A257113] 05 p1302 N93-16120
Telerobotic control of a mobile coordinated robotic server
[NASA-CR-191650] 05 p1259 N93-16387
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
A telerobotic digital controller system
[NASA-CR-191799] 05 p1260 N93-16658
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
Operator-tailored adjustable control station with movable monitors and cameras for viewing systems in robotics and teleoperations
[NASA-CASE-NPO-17837-1-CU] 05 p1304 N93-17273
The roles of humans and robots as field geologists on the Moon 05 p1397 N93-17450
Design requirements for force reflecting master controllers 06 p1605 N93-18035
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU] 06 p1502 N93-18284
Evaluation of inertial devices for the control of large, flexible, space-based telerobotic arms 06 p1465 N93-18839
Voice control of a dual-arm telerobot 06 p1549 N93-19044
Teleprogramming: Remote site robot task execution 06 p1641 N93-19046
Cooperation of mobile robots for accident scene inspection
[DE93-002487] 06 p1551 N93-19478
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation
[NASA-CR-192619] 07 p1892 N93-20910
Autonomous rendezvous and capture system design 08 p2138 N93-22244
Advanced telerobotic control using neural networks 08 p2455 N93-22364
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Modeling of a full vision system using combined Visual/Haptic search for remote object identification
[AD-A260977] 09 p2801 N93-25867
Telerobotic rovers for extraterrestrial construction 09 p2670 N93-26416
EVA and telerobot interaction 10 p2967 N93-27792
Flight telerobotic servicer 10 p2970 N93-27820
Space teleoperations technology for Space Station evolution 10 p2970 N93-27823
FTS evolution 10 p2970 N93-27824
Sources sought for innovative scientific instrumentation for scientific lunar rovers 11 p3434 N93-28804
Lunar crane system 11 p3277 N93-29118
Lunar rovers and local positioning system 11 p3277 N93-29119
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Supervised autonomy in telerobotics 11 p3372 N93-30326
A video transmission system for low-bandwidth remote driving
[DE93-010275] 11 p3544 N93-30529
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Remote surface inspection system 12 p3739 N93-32099
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101
Man-machine cooperation in advanced teleoperation 12 p3784 N93-32106
Air Force research in human sensory feedback for telepresence 12 p3801 N93-32109
Air Force construction automation/robotics 12 p3715 N93-32110
Satellite Test Assistant Robot (STAR) 12 p3690 N93-32111
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development 12 p3784 N93-32112
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
Real-time qualitative reasoning for telerobotic systems 12 p3737 N93-32116
Potential roles for EVA and telerobotics in a unified worksite 12 p3690 N93-32118
Potential low-cost telerobotics flight experiments 12 p3737 N93-32120

TELESCOPES
NT GAMMA RAY TELESCOPES
NT HUBBLE SPACE TELESCOPE
NT INFRARED SPACE OBSERVATORY (ISO)
NT INFRARED TELESCOPES
NT LARGE DEPLOYABLE REFLECTOR
NT PARTICLE TELESCOPES
NT PYROHELIOMETERS
NT RADIO TELESCOPES
NT REFLECTING TELESCOPES
NT SCHMIDT TELESCOPES
NT SPACE INFRARED TELESCOPE FACILITY
NT SPACEBORNE TELESCOPES
NT SPECTROSCOPIC TELESCOPES
NT ULTRAVIOLET TELESCOPES
NT VERY LARGE ARRAY (VLA)
NT X RAY ASTROPHYSICS FACILITY
NT X RAY TELESCOPES
Evidence of plasmoid ejection in the corona from 1991 eclipse observations with the Canada-France-Hawaii telescope 01 p0181 N93-10915
The CHARON program 01 p0177 N93-10942
Interferometry with the Very Large Telescope 01 p0178 N93-10943
Ground/space co-operation for interferometry 01 p0178 N93-10946
Mechanical and thermal design of the SUN instrument 01 p0014 N93-10956
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
EURECA
[ESA-F-26] 03 p0522 N93-12964
The CHARA optical array 03 p0744 N93-13581
The optical very large array and its moon-based version 03 p0745 N93-13583
Recent astronomical results from the infrared spatial interferometer and their implications for LOUISA 03 p0745 N93-13585
Science objectives for ground- and space-based optical/IR interferometry 03 p0746 N93-13590
Telescopes on the Moon or pie in the sky? 03 p0746 N93-13591
Lunar optical telescopes: An historical perspective 03 p0746 N93-13593
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
An optical VLA on the Moon 03 p0747 N93-13596
A submillimetre polarimeter for the continuum receiver UKT14 on the James Clerk Maxwell Telescope 03 p0748 N93-13852
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
An application of artificial intelligence to automatic telescopes
[NASA-TM-108115] 04 p0965 N93-15291
Environmental assessment for the laser guide star experiment at Lawrence Livermore National Laboratory
[DE92-040316] 04 p1013 N93-15425
Development, manufacturing and alignment of 2 m diameter mirror for PRONAOS 05 p1081 N93-15752
Measuring q(sub 0) using supernovae at z approximately 0.2
[DE92-041164] 05 p1363 N93-15918
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
Required technologies for lunar astronomical observatories 05 p1363 N93-17453
Environmental effects on lunar astronomical observatories 05 p1363 N93-17454
Photoelectric analysis of the solar granulation in IR
[AD-A257811] 06 p1744 N93-18334
Planning, scheduling, and control for automatic telescopes 06 p1637 N93-18677
A bolometric millimeter-wave system for observations of anisotropy in the cosmic microwave background radiation on medium angular scales 06 p1563 N93-18717
Increasing the corrected field of view of an adaptive optical telescope
[AD-A258816] 06 p1663 N93-18995
Coma imaging of comet P/Brorsen-Metcalf at Calar Alto in late July to mid August 1989 06 p1702 N93-19131
CCD imaging of the inner coma jets of comet P/Halley 06 p1702 N93-19133
Deimos: A reddish, D-type asteroid spectrum 06 p1706 N93-19163
Palomar Planet-Crossing Asteroid Survey (PCAS): Recent discovery rate 06 p1707 N93-19168
Evaluation of the table Mountain Ronchi telescope for angular tracking 06 p1512 N93-19421
A cryogenic shutter for the VLT NIR camera
[MPE-237] 07 p1906 N93-20855
NASA Marshall Space Flight Center Solar Observatory Report, July to December 1992
[NASA-TM-108396] 08 p2542 N93-22665
Activities report of the European Southern Observatory
[ETN-93-93459] 08 p2542 N93-23118
Optical analysis of lenslet arrays
[AD-A260126] 08 p2488 N93-23702
Testing of the on-board attitude determination and control algorithms for SAMPEX 09 p2600 N93-24698
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
Development of laser guide stars and adaptive optics for large astronomical telescopes
[DE93-007511] 09 p2888 N93-25320
Development of a tool-set for simultaneous, multi-site observations of astronomical objects 09 p2878 N93-25795
Feasibility experiment for sodium-layer laser guide stars at the Lawrence Livermore National Laboratory
[DE93-007115] 09 p2715 N93-26503
How to get unlimited observing time on a 4 metre telescope 10 p3171 N93-26707
Cosmology with liquid mirror telescopes 10 p3171 N93-26708
Bonner Durchmusterung, volume 1
[NASA-RP-1297-VOL-1] 10 p3170 N93-27382
Bonner Durchmusterung, volume 2
[NASA-RP-1297-VOL-2] 10 p3170 N93-27383
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Subnanoradian, groundbased tracking of spaceborne lasers 11 p3442 N93-28823
A technique for single-pulse spectrum and pulse width measurements for an IR-FEL
[DE93-007732] 11 p3436 N93-28847
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE93-009543] 11 p3630 N93-29785
Advanced research in sky surveillance: A search for low-luminosity objects
[AD-A264832] 11 p3631 N93-30629
The VLT interferometer: Current status and expectations for the next 20 years 12 p3846 N93-31763
The lunar interferometer for solar physics 12 p3847 N93-31768
Advanced lunar-based interferometer for solar observations 12 p3847 N93-31769
Spectro-imagery with a Rotating Slip-Aperture Telescope (RSAT): Cophasing successive projections in the radon plane 12 p3849 N93-31779
The application of synthetic-beacon technology to astronomy
[AD-A265146] 12 p3850 N93-31990
Decision-theoretic control of EUVE telescope scheduling 12 p3835 N93-32134

TELESCOPING STRUCTURES
U FOLDING STRUCTURES

TELEVISION CAMERAS
Initial laboratory evaluation of color video cameras
[DE92-018274] 02 p0311 N93-11673
High-speed FPS vidicon camera
[DE92-018989] 02 p0313 N93-12069
Video camera as a visual sensor
[NAL-TR-1132] 02 p0314 N93-12373
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
A study on focusing in telescience using the TelePODI breadboard
[NLR-TP-91036-U] 05 p1305 N93-17581
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU]
06 p1502 N93-18284
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
TELEVISION EQUIPMENT
NT TELEVISION CAMERAS
NT TELEVISION RECEIVERS
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
Wake in faint television meteors
06 p1716 N93-19233
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
TELEVISION RECEIVERS
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
TELEVISION RECEPTION
Effects of wind turbines on UHF television reception: Field tests in Denmark, November 1991
[BBC-RD-1992/7] 07 p1885 N93-21365
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
TELEVISION SYSTEMS
NT CABLE TELEVISION
NT CLOSED CIRCUIT TELEVISION
NT COLOR TELEVISION
NT EDUCATIONAL TELEVISION
NT HIGH DEFINITION TELEVISION
Large area projection liquid-crystal video display system with inherent grid pattern optically removed
[NASA-CASE-NPO-16932-2-CU]
03 p0711 N93-13711
Representation and manipulation of inductive boolean functions
[AD-A256078] 04 p0967 N93-14235
A technical review of cellular radio and analysis of a possible protocol
[AD-A257560] 06 p1501 N93-17982
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU]
06 p1502 N93-18284
Introduction to study and simulation of low rate video coding schemes 07 p1880 N93-20171
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
Employing lighting techniques during on-orbit operations 08 p2151 N93-22319
AR/D image processing system
08 p2152 N93-22321
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Adaptive liquid crystal TV based joint transform correlator as applied to real-time pattern recognition
[AD-A260724] 09 p2864 N93-25655
Emerging large-screen display technology
[AD-A261066] 09 p2681 N93-26241
Digital audio and video broadcasting by satellite
10 p3023 N93-26645
Telecommunication service by leased transponders of the regional satellite 10 p3025 N93-26661
Topical meeting of broadband analog and digital optoelectronics
[AD-A264643] 11 p3581 N93-30522
A video transmission system for low-bandwidth remote driving
[DE93-010275] 11 p3544 N93-30529
TELEVISION TRANSMISSION
Use of the TV-signal in stabilizing a local rubidium oscillator 09 p2693 N93-25029
An example of a phase-segregated enhanced PAL broadcasting system
[BBC-RD-1992/6] 09 p2674 N93-25239
Experiments with the HIVITS HDTV contribution CODED
[BBC-RD-1992/12] 09 p2674 N93-25391
Digital audio and video broadcasting by satellite
10 p3023 N93-26645
TELLEGEN THEORY
U NETWORK ANALYSIS
U NETWORK SYNTHESIS
TELLURIC CURRENTS
New approaches to estimation of magnetotelluric parameters
[DE92-040280] 03 p0653 N93-13513
Two and three dimensional magnetotelluric inversion
[DE93-013233] 12 p3765 N93-32165
TELLURIDES
NT CADMIUM TELLURIDES
NT MERCURY TELLURIDES
NT ZINC TELLURIDES
Liquid tellurides: Structure and properties
[DE93-002909] 06 p1677 N93-19830
TELLURIUM
NT TELLURIUM ISOTOPES
TELLURIUM ALLOYS
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
TELLURIUM COMPOUNDS
NT CADMIUM TELLURIDES
NT MERCURY CADMIUM TELLURIDES
NT MERCURY TELLURIDES
NT TELLURIDES
NT ZINC TELLURIDES
TELLURIUM ISOTOPES
Measurement and analysis of excitation functions in (alpha,np) reactions on (128, 130)Te
[DE92-630358] 04 p0991 N93-14485
TELLURIUM 119
U TELLURIUM ISOTOPES
TEM (MICROSCOPY)
U TRANSMISSION ELECTRON MICROSCOPY
TEMPEL 2 COMET
Light curve and fan-shaped coma of comet P/Tempel 2 in 1988-1989 06 p1700 N93-19114
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
Production rates for comet P/Temple 2 from long slit CCD spectroscopy 06 p1705 N93-19156
Activity in distant comets 06 p1712 N93-19202
Twentieth century light curves and the nucleus of comet P/Tempel 2 06 p1698 N93-19231
TEMPERATE REGIONS
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
A study of mid-latitude 5577A CI dayglow emissions
[AD-A255444] 04 p0914 N93-14511
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
[PB93-116598] 07 p2019 N93-21389
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043
TEMPERATURE
NT AMBIENT TEMPERATURE
NT ATMOSPHERIC TEMPERATURE
NT BODY TEMPERATURE
NT BRIGHTNESS TEMPERATURE
NT COMBUSTION TEMPERATURE
NT CRITICAL TEMPERATURE
NT CRYOGENIC TEMPERATURE
NT CURIE TEMPERATURE
NT FLAME TEMPERATURE
NT GAS TEMPERATURE
NT GLASS TRANSITION TEMPERATURE
NT HIGH TEMPERATURE
NT IGNITION TEMPERATURE
NT INLET TEMPERATURE
NT ION TEMPERATURE
NT IONOSPHERIC TEMPERATURE
NT LAND SURFACE TEMPERATURE
NT LOW TEMPERATURE
NT NEEL TEMPERATURE
NT NOISE TEMPERATURE
NT OCEAN TEMPERATURE
NT OPERATING TEMPERATURE
NT PLANETARY TEMPERATURE
NT PLASMA TEMPERATURE
NT ROOM TEMPERATURE
NT SATELLITE TEMPERATURE
NT SEA SURFACE TEMPERATURE
NT SKIN TEMPERATURE (NON-BIOLOGICAL)
NT STAGNATION TEMPERATURE
NT STELLAR TEMPERATURE
NT SURFACE TEMPERATURE
NT TRANSITION TEMPERATURE
NT WALL TEMPERATURE
NT WATER TEMPERATURE
TEMPERATURE COMPENSATION
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
OSCCAR: Oscillator-compensated with a capacitance array 09 p2693 N93-25002
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
Temperature compensated lithium battery energy monitor
[AD-D015680] 11 p3409 N93-29605
TEMPERATURE CONTROL
Thermal management in high average power pulsed compression systems
[DE92-017055] 01 p0076 N93-10836
SUN: The Solar Ultraviolet Network
01 p0183 N93-10930
Intelligent fault management for the Space Station active thermal control system 02 p0391 N93-11930
Lunar PMAD technology assessment
[NASA-CR-189225] 02 p0347 N93-12017
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
Advanced two-phase heat transfer systems
02 p0229 N93-12459
Li/SOCl battery technology: Problems and solutions
[AD-A254514] 03 p0570 N93-12725
Performance of thermal control tape in the protection of composite materials 03 p0536 N93-12780
The Capillary Pumped Loop Flight Experiment (CAPL): A pathfinder for EOS 03 p0512 N93-13181
The LDCE Particle Impact Experiment as flown on STS-46 --- limited duration space environment candidate materials exposure (LDCE) 03 p0512 N93-13183
Aerospace applications of SINDA/FLUINT at the Johnson Space Center 03 p0586 N93-13401
Environmental effects on an optical-UV-IR synthesis array 03 p0747 N93-13595
Thermal control systems for low-temperature heat rejection on a lunar base
[NASA-CR-191286] 03 p0679 N93-13717
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Space environmental effects on silvered teflon thermal control surfaces
[AD-A255909] 03 p0554 N93-14099
Thermal fixture for testing an integrated circuit
[AD-D015380] 04 p0882 N93-15247
An alternate method for achieving temperature control in the -130 C to 75 C range 04 p0821 N93-15609
Dynamic fabrication of diamond thermal management substrates
[AD-A257213] 05 p1118 N93-15814
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Reusable Reentry Satellite (RRS): Thermal control trade study
[NASA-CR-186528] 05 p1087 N93-16719
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Thermal management in space
05 p1095 N93-16909
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
Design of a radiator shade for testing in a simulated lunar environment
[NASA-CR-192080] 05 p1229 N93-17710
Preliminary design of a radiator shading device for a lunar outpost
[NASA-CR-192016] 06 p1605 N93-18019
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591

Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace
07 p1811 N93-21123
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change
08 p2191 N93-22648
Engineering aspects of two-phase flow systems for heat transport 08 p2247 N93-22833
Liquid droplet radiator: Design concepts and development logic 08 p2247 N93-22834
Researches and developments on typical thermal technologies for space applications
08 p2248 N93-22845
First results of a Freon 12 capillary pumped loop
08 p2249 N93-22846
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 3: Space power and thermal management
[NASA-TM-108652] 08 p2519 N93-23109
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Control of environmental and clock parameters in Time and Frequency Standards Laboratory
09 p2835 N93-25007
Study of plate-fin heat exchanger and cold plate for the active thermal control system of Space Station
09 p2619 N93-26064
The reuse of logistics carriers for the first lunar outpost alternative habitat study 09 p2671 N93-26083
Improvements in X-band transmitter phase stability through Klystron body temperature regulation
09 p2678 N93-26114
Plasma current collection of Z-93 thermal control paint as measured in the Lewis Research Center's plasma interaction facility
[NASA-TM-106132] 09 p2618 N93-26215
Multivariable control for flexible IC processing
[AD-A261685] 09 p2692 N93-26366
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Design considerations for ultra-precision magnetic bearing supported slides 10 p2960 N93-27562
Environmental control and life support system
10 p2965 N93-27718
Electrical power system WP-04
10 p2968 N93-27804
Technology for Space Station Evolution. Volume 5: Structures and Materials/Thermal Control System
[NASA-TM-108728] 10 p2970 N93-27835
Thermal systems 10 p2971 N93-27843
Advanced interface heat exchangers for the Space Station main thermal bus 10 p2971 N93-27844
Space Station Freedom central thermal control system evolution 10 p2972 N93-27845
Advanced automation of a prototypic thermal control system for Space Station 10 p2972 N93-27846
Thermal control system technology discipline
10 p2973 N93-27866
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Manned lunar surface site 10 p2951 N93-28033
Thermal management in gas cooled solid state laser disk amplifiers
[DE93-009241] 10 p3048 N93-28230
The continuing materials analysis of the thermal control surfaces experiment (S0069) 10 p3007 N93-28276
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 10 p3008 N93-28277
Thermal control paints on LDEF: Results of M0003 sub-experiment 18
[AD-A263252] 11 p3329 N93-28561
In-STEP Two-Phase Flow (TPF) thermal control experiment 11 p3265 N93-28719
LDEF: 69 Months in Space. Second Post-Retrieval Symposium, part 2
[NASA-CP-3194-PT-2] 11 p3654 N93-29354
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results
11 p3429 N93-29701
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541
Thermal control of ice-stream margins
12 p3762 N93-31897
Implementing a real time reasoning system for robust diagnosis 12 p3739 N93-32138

TEMPERATURE DEPENDENCE

Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Covalent electron transfer theory of superconductivity
[AD-A253975] 01 p0074 N93-10718
Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786
Magnetic properties and critical behavior of the conductivity near the M-I transition
[DE92-018948] 02 p0461 N93-11629
The effect of temperature dependent thermal properties on parametric weld size predictions
[DE92-018816] 02 p0260 N93-12232
OH rotational temperature and concentration measurements in a supersonic jet
[DE92-006700] 02 p0252 N93-12255
Combustion characteristics of the LO2/GCH4 fuel-rich preburners for staged combustion cycle rocket engines
[NAL-TR-1124] 02 p0234 N93-12368
The nature of scales grown on binary Cr-Nb alloys
[DE92-019283] 03 p0542 N93-13080
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104
Is there a unique effective interaction profile for dislocations?
[DE92-018615] 03 p0543 N93-13545
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
Measurement of the magnetic anisotropy energy constants for magneto-optical recording media
04 p0984 N93-15509
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Thermophysical properties
[DE93-000493] 05 p1329 N93-16242
Status and covariance files of the scattering matrix of graphite
[DE93-001632] 05 p1126 N93-17463
Superconducting materials performance report, 1 May 1992 - 28 February 1993
[DE93-002786] 06 p1672 N93-18400
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3
[DE93-001718] 06 p1674 N93-18618
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
Cycle life status of SAFT VOS nickel-cadmium cells
07 p1985 N93-20511
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1860 N93-21491
Analysis of parametric drift of a MESFET-based GaAs MMIC due to 125 C storage
[DE93-000715] 07 p1894 N93-21768
Effective activation energy in the Bi-Sr-Ca-Cu-O systems
[DE93-002996] 07 p2083 N93-21983
Application of neutron diffraction technology to the determination of residual strain in engineering composites
[DE93-004249] 08 p2207 N93-22066
Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Large scale crystallization of protein pharmaceuticals in microgravity via temperature change
08 p2191 N93-22648
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Temperature-dependent electrical conductivity of soda-lime glass
[DE93-007872] 09 p2654 N93-25359
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
Temperature dependence of radiation damage and its annealing in silicon detectors
[DE93-003854] 09 p2869 N93-26494
Hot hydrogen testing of refractory metals and ceramics
[NASA-CR-192560] 10 p2998 N93-27484
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
Temperature-dependent electrical conductivity of soda-lime glass 11 p3294 N93-30978
Diffusion coefficients in molten slags
[NPL-DMM(A)-82] 12 p3703 N93-31603
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988

TEMPERATURE DIFFERENCES

U TEMPERATURE GRADIENTS

TEMPERATURE DISTRIBUTION

Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU]
02 p0216 N93-11057
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution
02 p0309 N93-12039
Preliminary study of the homogeneity of the density and temperature of long plasmas used for X laser studies
02 p0320 N93-12044
Hydrogen assisted heat transfer during diamond growth using carbon and tantalum filaments
[AD-A247944] 02 p0468 N93-12218
Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146
A preliminary study of the effect of equivalence ratio on a low emissions gas turbine combustor using KIVA-2
[DE92-018616] 03 p0613 N93-13321
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
A general purpose radiative transfer model for application to remote sensing in multidimensional systems 04 p0904 N93-14174
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696
Modelling the engine temperature distribution between shut down and restart for life usage monitoring
04 p0796 N93-15177
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Thermal analysis of magnetron sputtering designs
[DE93-000348] 04 p0870 N93-15389
Temperature distribution and thermally induced stresses in electronic packages
[AD-A257334] 05 p1144 N93-15990

A correlation of welding solidification parameters to weld macrostructure
[AD-A256702] 05 p1176 N93-16154
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
The titanium-aluminum phase diagram: A review of the near Ti-50 at. pct. Al phase fields
[AD-A255685] 05 p1112 N93-16299
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
An experimental investigation of a round turbulent jet in a cross-flow 07 p1905 N93-20689
Detection of polar stratospheric clouds from satellite 07 p1957 N93-21591
Effect of quark-gluon plasma boundary on the momentum distribution of quarks
[DE93-004166] 07 p2064 N93-21740
Sea surface temperature: Observation in off-shore of Sanriku 08 p2335 N93-22125
Observation in the East China Sea 08 p2335 N93-22126
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Heat transfer simulation with a conductive-radiative model for predicting the shape of HgI2 crystal grown in the LTVG furnace 08 p2251 N93-22863
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Convective heat transfer from discrete heat sources in a liquid filled vertical channel
[AD-A260556] 08 p2298 N93-24282
Indian Ocean analyses 09 p2733 N93-24925
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
A new LU-SGS flow solver for calculating reentry flows 09 p2579 N93-25759
The hot interstellar medium in NGC 1399 10 p3179 N93-26753
A thermal stress solution for multilayered composite cylinders
[AD-A262579] 11 p3295 N93-28657
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
The thermal structure, dust loading, and meridional transport in the Martian atmosphere during late southern summer 11 p3651 N93-29616
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments 11 p3428 N93-29624
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Local heat transfer measurement with liquid crystals on rotating surfaces including non-axisymmetric cases 11 p3255 N93-29943
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952
Cooling predictions in turbofan engine components 11 p3259 N93-29964
A magnetostatic coronal model with horizontal electric currents: Modeling the coronal streamer belt 12 p3871 N93-31366
Thermal profiles of coronal loops: Gravitational considerations 12 p3873 N93-31381
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587

TEMPERATURE EFFECTS

The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications 01 p0015 N93-10006
Influence of the preshock temperature on shock effects in quartz 01 p0115 N93-10157
Temperature-programmed oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane
[DE92-015048] 01 p0042 N93-10329
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143
Synthesis and side chain liquid crystal polymers by living ring opening metathesis polymerization. 5: Influence of mesogenic group and interconnecting group on the thermotropic behavior of the resulting polymers
[AD-A253568] 02 p0264 N93-11150
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306
Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
The potential effects of concurrent increases in temperature, CO2 and O3 on net photosynthesis, as mediated by rubisCO
[DE92-019411] 02 p0374 N93-11630
Review of the physical and mechanical properties and potential applications of the B2 compound NiAl: Unabridged version of a paper published in International materials review
[NASA-TM-105598] 02 p0258 N93-11635
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Numerical simulation for the coaxial electromagnetic launcher using hybrid potentials with FE-BE method 02 p0222 N93-11726
The mechanical and microstructural stability of austenitic stainless steels strengthened by MC-forming elements
[DE91-015314] 02 p0259 N93-11857
Laboratory and numerical studies of dynamical processes related to thermal convection in the Earth's mantle 02 p0364 N93-11900
Compensated high temperature strain gage
[NASA-CASE-LAR-14776-1] 02 p0313 N93-12205
The effect of temperature dependent thermal properties on parametric weld size predictions
[DE92-018816] 02 p0260 N93-12232
Influence of strain rate on the structure/property behavior of the alpha-2 alloy Ti-24.5Al-10.5Nb-1.5Mo
[DE92-008490] 02 p0261 N93-12256
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
Thermal effects on the frequency response of piezoelectric crystals
[DE92-019039] 03 p0720 N93-12819
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Post flight operation of a high peak power neodymium YAG laser aboard the G-449 payload flown on Space Shuttle Columbia mission 61-C 03 p0508 N93-13161
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue
[NASA-CR-190794] 03 p0626 N93-13290
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
Point defects quenched in NiAl and related intermetallic compounds 03 p0724 N93-13628
High temperature strain gage apparent strain compensation 03 p0600 N93-13672
Some problems of quantum cosmology and dark matter physics 03 p0755 N93-13829
Investigations of the mechanical behavior of graphite/PEEK (APC-2) composites 03 p0534 N93-13908
Digital caustic investigation of near surface cracks under transient thermal loading 04 p0897 N93-14217
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540
Thermal conductivity of liquid aliphatic hydrocarbons. Part 2: Alkenes, dienes and trienes
[ESDU-92025] 04 p0839 N93-14542
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Characterization of impact-limiting material
[DE92-016767] 04 p0902 N93-15210
Thermal fixture for testing an integrated circuit
[AD-D015380] 04 p0882 N93-15247
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique 04 p0995 N93-15312
An investigation of the processing, high temperature deformation and fracture characteristics of superplastic ceramics
[AD-A256519] 04 p0852 N93-15394
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Melt spinning of intermetallic alloys: Heat transfer and microstructure
[AD-A257455] 05 p1109 N93-15877
Temperature history and microstructure of alumina
[DE92-041196] 05 p1119 N93-15930
Thermal distortion limits on the performance of XUV free-electron lasers configured with a multifacet-mirror ring resonator
[DE92-040387] 05 p1171 N93-15939
Temperature distribution and thermally induced stresses in electronic packages
[AD-A257334] 05 p1144 N93-15990
Novel concepts in weld science: Role of gradients and composite structure
[DE92-040893] 05 p1176 N93-16086
The influence of heat treatment on the performance of highly corrosion resistant aluminum alloys
[AD-A257115] 05 p1111 N93-16122
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
Mode interaction in stiffened composite shells under combined mechanical and thermal loadings 05 p1189 N93-16793
The thermoviscoelastic behavior of composite materials
[ITN-93-85185] 05 p1098 N93-16856
Nucleation, crystal growth and liquid/liquid phase separation studies in inorganic glasses, glassy-metals and polymers, phase 2
[CTN-93-60631] 05 p1133 N93-16937
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
The pre-onset, transitional, and foot regions in resistance versus temperature behavior in high-T2 cuprates: Inferences regarding maximum T2
[AD-A258175] 06 p1670 N93-17923
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192

Computer modelling of cyclic deformation of high-temperature materials
[AD-A258404] 06 p1477 N93-18222
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
Optically pumped continuous wave CF4 laser
[ISBN-90-9004442-6] 06 p1541 N93-18429
Analysis of structures under fire conditions
06 p1557 N93-18754
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893
Flux concentrations on solar dynamic components due to mispointing
[NASA-TM-105756] 07 p1982 N93-20261
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
Effects of microclimate cooling on physiology and performance while flying the UH-60 helicopter simulator in NBC conditions in a controlled heat environment
[AD-A258502] 07 p2023 N93-20400
Development of power MOSFET (150 W class)
07 p1797 N93-20461
Radiation resistance evaluation test on parts and materials: Solar battery cell 07 p1800 N93-20482
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Creep of PEEK-graphite fibre composite material
07 p1930 N93-20644
Analysis of hysteresis in shape memory alloys during thermal cyclic loading 07 p1858 N93-20694
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel
07 p1950 N93-21335
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
Non-Newtonian temperature and pressure effects of a powder lubricant slurry in a rotating hydrostatic step bearing
[AD-A259325] 07 p1916 N93-21832
Flexible thermal protection materials for entry systems
08 p2177 N93-22111
Dynamics of a metal overlayer on metallic substrates: High temperature effects
[DE93-006382] 08 p2227 N93-22547
Fracture toughness (K(sub Ic) and gamma wof) of a HIPed Si3N4 at elevated temperatures
[DE93-006745] 08 p2325 N93-22896
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
High-temperature Au implantation into Ni-Be and Ni-Si alloys
[DE93-005555] 08 p2505 N93-23022
Smoke movement in a corridor-hybrid model, simple model, and comparison with experiments
[PB93-146678] 08 p2259 N93-23435
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
High temperature deformation characteristics of discontinuous fiber reinforced composites
[DE93-004466] 08 p2214 N93-24047
Stardust: Studies in microgravity of condensation and agglomeration of cosmic dust analogue
08 p2164 N93-24394
Radiation and temperature effects on electronic components investigated under the CSTI high capacity power project
[NASA-TM-106096] 09 p2687 N93-24746
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
FNAS computational modeling
[NASA-CR-192512] 09 p2863 N93-25225
Integration of design, thermal, structural, and optical analysis, including thermal animation
09 p2814 N93-25601
Active control of NITINOL-reinforced structural composites
[AD-A261062] 09 p2638 N93-25780
Deformations of active flexible rods with embedded line actuators
[AD-A261207] 09 p2729 N93-25950
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity
09 p2626 N93-26020
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Thermally induced stresses in a composite exposed to fire
[AD-A261714] 09 p2641 N93-26371
The role of gas heat pumps in electric DSM
[DE93-007858] 10 p3038 N93-27049
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves
10 p3012 N93-27737
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Rectenna thermal model development
10 p3022 N93-27986
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model
[DOT/FAA/CT-89/25] 10 p2941 N93-28055
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
Martensitic phase transitions with surface effects
[AD-A262886] 10 p3000 N93-28228
Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232
Contamination on LDEF: Sources, distribution, and history 10 p2998 N93-28272
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Environmental effects on stitched RTM composites
[NASA-CR-193221] 11 p3297 N93-29107
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
Response of energetic solids to light, heat and shock pulses
[AD-A263702] 11 p3342 N93-29296
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339
Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Radiation and temperature effects on LDEF fiber optic samples 11 p3583 N93-29700
Properties of superconducting YBa2Cu3O(6+4) ceramic materials: Effect of processing parameters
[AD-A263441] 11 p3334 N93-29790
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane
11 p3253 N93-29930
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Holmium quasi-two level laser
[AD-D015706] 11 p3440 N93-30427
Improved measurement of thermal effects on microstructure 11 p3292 N93-30959
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029
The effects of cockpit heat on aviator sleep parameters 12 p3782 N93-32266

TEMPERATURE FIELDS
U TEMPERATURE DISTRIBUTION

TEMPERATURE GRADIENTS
NT THERMOCLINES
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
TRASYS form factor matrix normalization
03 p0585 N93-13391
Fluid flow and heat convection studies for actively cooled airframes
[NASA-CR-190956] 03 p0587 N93-13406
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
Climate sensitivity study with energy balance models
03 p0666 N93-13817
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Electron-temperature-gradient-induced instability in tokamak scrape-off layers
[DE93-000623] 05 p1309 N93-16376
Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612
Nature of fluid flows in differentially heated cylindrical container filled with a stratified solution
05 p1165 N93-17334
Microstructural development during directional solidification of peritectic alloys
[NASA-CR-192090] 06 p1488 N93-18603
Rewet performance of a rectangular grooved heat pipe wick after gravitationally induced dryout
[AD-A258852] 06 p1534 N93-19367
Measurement of behavioral thermoregulation
[PB92-217033] 07 p2024 N93-21046
Crystal growth through a computer controlled, eight zone thermal gradient freeze furnace
07 p1811 N93-21123
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Marangoni convection in a spinning liquid column
[LRT-WE-9-FB-13-1991] 08 p2289 N93-22678
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Experimental investigation of the influence of the temperature gradient on the thermocapillary convection in spherical drops under low-gravity
08 p2251 N93-22862
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172
Chemical vapor infiltration with microwave heating
[DE93-005458] 08 p2243 N93-24445
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
A multi-zone muffle furnace design
[NASA-TM-106153] 10 p3009 N93-27011
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885
Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910
Investigation of thermoacoustic muffler
[AD-A262009] 11 p3562 N93-29392

TEMPERATURE INDICATORS
U TEMPERATURE MEASURING INSTRUMENTS

TEMPERATURE INSTRUMENTS
U TEMPERATURE MEASURING INSTRUMENTS

TEMPERATURE INVERSIONS
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

TEMPERATURE MEASUREMENT
Species and temperature measurement in H2/O2 rocket flow fields by means of Raman scattering diagnostics
[NASA-CR-189217] 01 p0025 N93-10086
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Sodium-lidar mesosphere examinations: Selected elements of the experimental construction of a mobile instrument and evaluation of the data acquired with a stationary Na-lidar during the DYANA campaign
[BONN-IR-91-78] 02 p0357 N93-11006
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU]
02 p0216 N93-11057
Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245

A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors
[NPL-DES-116] 02 p0289 N93-11393
A distributed data acquisition and centralized data reduction system for flexible and efficient measurements
[DE92-019021] 02 p0312 N93-11827
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution
02 p0309 N93-12039
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140
The role of advanced optical diagnostics in monitoring and controlling an MHD power plant. Part 2: 50 MW(t), POC topping cycle
[DE92-015368] 02 p0455 N93-12141
Ion temperature measurements on field reversed configuration plasmas 02 p0457 N93-12535
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Measurements of the cosmic microwave background temperature at 1.47 GHz 03 p0772 N93-13146
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar
03 p0653 N93-13614
The 1992 NASA Langley Measurement Technology Conference: Measurement Technology for Aerospace Applications in High-Temperature Environments
[NASA-CP-3161] 03 p0598 N93-13661
Temperature and heat flux measurements: Challenges for high temperature aerospace application
03 p0598 N93-13662
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
Thin film thermocouples for high temperature measurement on ceramic materials
03 p0599 N93-13666
Fabrication of thin film heat flux sensors
03 p0599 N93-13667
Gas temperature measurements using the dual-line detection Rayleigh scattering technique
03 p0599 N93-13668
Resonance lamp absorption measurement of OH number density and temperature in expansion tube scramjet engine tests 03 p0602 N93-13682
Gas temperature and density measurements based on spectrally resolved Rayleigh-Brillouin scattering
03 p0602 N93-13684
Planar laser-induced fluorescence measurements of high-enthalpy free jet flow with nitric oxide
03 p0595 N93-13685
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14066
Arc-cathode interaction study
[NASA-CR-191356] 04 p0867 N93-14721
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces
04 p0995 N93-15311
Recent diagnostic development for the Los Alamos Inertial Fusion Program
[DE92-040362] 05 p1306 N93-15849
The Global Historical Climatology Network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data
[DE92-040521] 05 p1201 N93-16497
Multicolor pyrometer for materials processing in space
[NASA-CR-190876] 05 p1132 N93-16747
Multiwavelength pyrometer for gray and non-gray surfaces in the presence of interfering radiation
[NASA-CASE-LEW-15250-1] 05 p1169 N93-17060
Measurements of the cosmic microwave background temperature at 1.47 GHz
[DE93-000587] 05 p1400 N93-17379
Laser Rayleigh and Raman diagnostics for small hydrogen/oxygen rockets
[NASA-TM-105999] 06 p1471 N93-17995
Modeling energy and mass fluxes from prairie canopies
[NASA-CR-191801] 06 p1566 N93-18232
Electron beam probing of blow-down hypersonic flows
[ONERA-NT-1992-7] 06 p1408 N93-18701
Determination of the dissipative loss of a two-port network from noise temperature measurements
06 p1505 N93-18904
Minimizing noise-temperature measurement errors
06 p1507 N93-18919
Correction of high-frequency noise-temperature inaccuracies 06 p1507 N93-18920
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering
[NASA-TM-105784] 06 p1539 N93-19651
Analysis and measurement of thermal resistance in a 3-dimensional silicon multichip module populated with assembly test chips
[DE93-000743] 07 p1888 N93-20029
World ocean circulation experiment: Data summary of Japan Meteorological Agency surveys along 137 deg E (1967-1988)
[PB92-219658] 07 p2012 N93-21014
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461
Rate of heating of the forest interior
[INPE-5235-RPQ/647] 07 p1979 N93-21648
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
Total temperature probes for high-temperature hypersonic boundary-layer measurements
[NASA-TM-4407] 07 p1908 N93-21816
A modular, programmable measurement system for physiological and spaceflight applications
08 p2305 N93-22201
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Techniques for improving the accuracy of cyrogenic temperature measurement in ground test programs
[NASA-TM-105996] 08 p2302 N93-22484
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Development of a laser-induced fluorescence system for application to rocket plumes
[AD-A259760] 08 p2205 N93-24025
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
Thermoelasticity in quartz 09 p2841 N93-25047
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
Fibre optic sensors for heat transfer studies
09 p2853 N93-25748
Flame structure studies of a lean, 20 torr H2/N2O/AR flame employing molecular beam mass spectrometry
09 p2627 N93-26025
An experimental and analytical study of the unsteady combustion of homogeneous energetic solids using the laser-recoil method 09 p2630 N93-26042
Research support for the Laboratory for Lightwave Technology
[AD-A261488] 09 p2856 N93-26343
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
Thermal control system technology discipline
10 p2973 N93-27866
Correction-free pyrometry in radiant wall furnaces
[NASA-CASE-NPO-18655-1-CU]
10 p3046 N93-28322
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880
Cooling predictions in turbofan engine components
11 p3259 N93-29964
Measurement of projectile surface temperature by means of its infrared radiation: A preliminary study
[AD-A264053] 11 p3432 N93-30032
In-situ temperature and concentration measurements of organosilicon decomposition in a chemical vapor deposition reactor
[ONERA-P-1990-3] 11 p3313 N93-30109
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405
Studies of curvature, strain, and unsteady effects on premixed flames 11 p3316 N93-30646
Temperature-electromotive force reference functions and tables for the letter-designated thermocouple types based on the ITS-90
[PB93-190338] 12 p3729 N93-31214
SQUIDs in thermal detectors of weakly interacting particles
[DE93-609531] 12 p3729 N93-31247
High temperature, oxidation resistant noble metal-Al alloy thermocouple
[NASA-CASE-LEW-15515-1] 12 p3729 N93-31298
Heat transfer measurements using infra-red thermography in rarefied flows
[RAE-TM-W-1] 12 p3724 N93-31336
Temperature measurements in the inner corona
12 p3877 N93-31402
Measuring electron temperature in the extended corona 12 p3880 N93-31422
Rayleigh-Brillouin scattering for high-pressure gas temperature measurements 12 p3693 N93-31556
Spectra and structure functions of temperature fluctuations in the inner solar wind
12 p3860 N93-31720
Non-contact heat flux measurement using a transparent sensor
[NASA-TM-106252] 12 p3713 N93-32330

TEMPERATURE MEASURING INSTRUMENTS

NT BATHYTHERMOGRAPHS
NT OPTICAL PYROMETERS
NT PYROMETERS
NT RADIATION PYROMETERS
NT RESISTANCE THERMOMETERS
NT TEMPERATURE PROBES
NT THERMOCOUPLE PYROMETERS
NT THERMOMETERS
A cryogenic phonon detector to search for dark matter particles 02 p0481 N93-11198
Temperature and heat flux measurements: Challenges for high temperature aerospace application
03 p0598 N93-13662

TEMPERATURE PROBES

Electronic triple point cell
[AD-D015374] 03 p0597 N93-13501
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat flux microsensor measurements and calibrations
03 p0599 N93-13665
Fabrication of thin film heat flux sensors
03 p0599 N93-13667
Total temperature probes for high-temperature hypersonic boundary-layer measurements
[NASA-TM-4407] 07 p1908 N93-21816
A thermal type probe for low velocity measurements
08 p2165 N93-24397

TEMPERATURE PROFILES

Internal explosion in laser ablation of superconducting targets
[AD-A253701] 01 p0090 N93-10799
Strain-gauge balance performance and internal temperature gradients measured in a cryogenic environment
[RAE-TM-AERO-2232] 02 p0218 N93-11906
SAC contrail formation study
[AD-A254410] 03 p0499 N93-12605
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar
03 p0653 N93-13614
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Estimation of EOF expansion coefficients from incomplete data
[AD-A255252] 03 p0697 N93-13886
Experimental observation of the influence of furnace temperature profile on convection and segregation in the vertical Bridgman crystal growth technique
04 p0995 N93-15312

Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Rate of heating of the forest interior
[INPE-5235-RPQ/647] 07 p1979 N93-21648
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
Utilization of NOAA/AVHRR data for energy balance of Lake Constance (Switzerland)
11 p3458 N93-28926
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
Determination of gas phase species and temperature profiles above solid propellants
11 p3346 N93-30080

TEMPERATURE RATIO
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118

TEMPERATURE SCALES
Solar radio flares 1989-1991. Solar microwave flares observed at Metsaehovi Radio Research Station in 1989-1991
[PB93-111896] 07 p2101 N93-21786
Temperature-electromotive force reference functions and tables for the letter-designated thermocouple types based on the ITS-90
[PB93-190338] 12 p3729 N93-31214

TEMPERATURE SENSORS
NT THERMISTORS
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
SiC device development for high temperature sensor applications 03 p0601 N93-13677
Infrared fiber-optical temperature sensor
[AD-D015495] 05 p1167 N93-16492
High temperature smart sensors and actuators
[AD-A256985] 05 p1158 N93-16517
Techniques for improving the accuracy of cyrogenic temperature measurement in ground test programs
[NASA-TM-105996] 08 p2302 N93-22484
Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
SiC microsensor with piezoresistive diamond sensing elements
[AD-A261346] 09 p2868 N93-26312
Program for an improved hypersonic temperature-sensing probe
[NASA-CR-186025] 11 p3431 N93-29066

TEMPERING
International ADI-Seminar: Austempered Ductile Iron
[PB92-180660] 02 p0256 N93-11244
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616

TEMPLATES
An indicator of message quality for a single optical sensor using a template based tracking algorithm
[AD-A252704] 01 p0139 N93-10881
Porous materials by design. Plasma oxidation of hydrocarbon templates in polysilsesquioxanes
[DE93-005372] 08 p2218 N93-22505
Sequential deposition of copper on solid gold (111): A statistical model
[AD-A260269] 08 p2234 N93-24233
Template synthesis of electronically conductive polymers: A new route for achieving higher electronic conductivities
[AD-A261616] 09 p2658 N93-26437
A local search template
[MEMO-COSOR-92-11] 10 p3092 N93-27230
New carbohydrate-based materials
[DE93-011116] 10 p3006 N93-28351

TEMPORAL DISTRIBUTION
Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
Temporal scattering and response software users' manual, version 2 and 3
[DE92-040934] 02 p0282 N93-11632
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Zodiacal emission 03 p0772 N93-13147
Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision
[AD-A256059] 04 p0937 N93-14580
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
[DE92-019170] 04 p0911 N93-15272
Global zones of particle precipitation as observed by EXOS-C
[AD-A256397] 04 p0917 N93-15486
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Complex temporal and spatial patterns in nonequilibrium processes
[DE93-001845] 05 p1281 N93-17531
Spatial and temporal variations in the column density distribution of comet Halley's CN coma
06 p1717 N93-19238
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Phase of the quantum harmonic oscillator with applications to optical polarization
10 p3142 N93-27322
Temporal synchronization of frequency hopped DPSK
11 p3365 N93-30285

TEMPORAL RESOLUTION
Observation of solar flares at high resolution
01 p0182 N93-10923
Emittance measuring device for charged particle beams
[AD-D015371] 02 p0442 N93-11060
X-UV spectroscopy temporal resolution
02 p0318 N93-12028
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy
02 p0254 N93-12050
Spatio-temporal masking: Hyperacuity and local adaptation
[AD-A257934] 06 p1595 N93-18006
Sporadic E layer formation during the Geminid meteor shower 06 p1723 N93-19529
STARE: A new coherent radar in Scandinavia
06 p1517 N93-19572
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Land use mapping from multitemporal satellite images and ancillary data, using a neural network paradigm
08 p2354 N93-23576
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain)
09 p2738 N93-24780
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo) 09 p2740 N93-24790
Geologic and hydrogeologic mapping of Iceland with multisensor data (JERS-1, ERS-1, SPOT, Landsat and SEASAT) 09 p2740 N93-24792
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map
09 p2743 N93-24807
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862
The sub 60 ps timing resolution using large area silicon avalanche diodes
[DE93-007723] 09 p2688 N93-25365
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
Subnanosecond high power performance of a bistable optically-controlled GaAs switch
[DE93-008285] 11 p3406 N93-28944
Combining qualitative and quantitative spatial and temporal information in a hierarchical structure: Approximate reasoning for plan execution monitoring
12 p3835 N93-32132

TENNESSEE
Small business profiles, 1992. Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
[PB93-110955] 08 p2519 N93-23286
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423

TENNESSEE VALLEY (AL-KY-TN)
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637

TENSILE CREEP
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region
02 p0269 N93-11985
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
Tensile creep behavior of polycrystalline alumina fibers
[NASA-TM-106269] 11 p3340 N93-30938

TENSILE DEFORMATION
Experimental and numeric analysis of constraints in a bonded stepped lap joint subjected to traction
01 p0054 N93-10516
Fracture mechanics of model fiber composites
02 p0237 N93-11247
The effect of precipitate forming elements in Al 4.5 percent Mg alloys on the measured acoustic emission and on Luelers band deformation
[DE92-016864] 02 p0465 N93-12073
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908

TENSILE PROPERTIES
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Spectrum fatigue behaviour of powder metallurgy aluminum alloys
[AD-A255060] 02 p0262 N93-12468
Mechanical properties of centrifugally cast metal matrix composites
[AD-A254321] 02 p0243 N93-12483
Fatigue and fracture of intermetallic alloys
[AD-A254543] 03 p0540 N93-12603
Small-strain and finite-strain finite element analyses of plane-strain tensile elastic-plastic crack growth
03 p0621 N93-12628
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
Tensile properties of textile composites
04 p0834 N93-14754
Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308
Mechanical properties of martensitic alloy AISI 422
[DE93-004834] 08 p2229 N93-22882
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HIPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
Elevated temperature fracture of advanced powder metallurgy aluminum alloy 8009
08 p2231 N93-23588
Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972
Effect of high-temperature loading on mechanical properties of Nicalon fibers and Nicalon fiber/SiC matrix composites
[DE93-006420] 08 p2214 N93-24030
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103

Development of dispersion-strengthened XD (trademark) Cu alloys for high heat-flux applications
[NASA-CR-191124] 09 p2653 N93-24761
Mechanical properties of martensitic alloy AISI 422
[DE93-006563] 09 p2649 N93-25255
Processing and mechanical properties of laminated metal composites of Al/Al-25 vol. percent SiC and ultrahigh carbon steel/brass
[DE93-007504] 09 p2635 N93-25383
Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
APU diaphragm testing
[NASA-TM-108254] 11 p3272 N93-29501
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 2
[AD-A263814] 11 p3335 N93-29881
Development of a test program to evaluate structural defects in Glass-Reinforced Plastic (GRP), volume 1
[AD-A263813] 11 p3335 N93-29886
Mechanical properties of several magnesium and aluminum composites
[AD-A262481] 11 p3299 N93-30137
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
Mechanical properties of composite materials
11 p3290 N93-30951

TENSILE STRENGTH
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Curing and mechanical properties of T800-V398 graphite/bismaleimide at different temperatures
[DLR-MITT-92-02] 02 p0237 N93-11143
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
Mechanical properties of epoxy/alumina trihydrate-filled compositions 03 p0534 N93-13950
Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites
04 p0829 N93-14193
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Effects of high thermal neutron fluences on Type 6061 aluminum
[DE92-040569] 04 p0846 N93-15348
Carborane-catalyzed graphitization in polyarylacetylene-derived carbon-carbon composites
[AD-A256826] 05 p1096 N93-15705
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
Post-impact behavior of composite solid rocket motor cases 05 p1095 N93-17299
The influence of long term thermal aging on the microstructure and mechanical properties of modified 9Cr-1Mo steel
[DE93-001373] 05 p1116 N93-17479
The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
Characterization and defect analysis of high temperature aluminum-based metal matrix composites
06 p1480 N93-19060
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Open and filled hole static tensile strength characterization of metal matrix composite SCS-9/Beta21s
[AD-A258829] 06 p1480 N93-19091
Ultimate strength of geometrically imperfect angle columns
[PB93-111771] 07 p1947 N93-21235
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Theoretical models for the ultimate strength and flaw resistance of unidirectionally-reinforced ceramic-matrix composites
[DE93-005881] 08 p2207 N93-22410
Development and production of sandwich rods with load transmitting elements carrying high tension and compression loads
[DLR-FB-91-33] 08 p2208 N93-22657
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Interface engineering in oxide fiber/oxide matrix composites
[AD-A261705] 09 p2641 N93-26579
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
Aligned, short-fiber composites by novel flow processing methods
[DE93-008701] 11 p3296 N93-28904
Aluminium-high strength material by mechanical alloying and reaction milling: Basics of processing and characterisation of material
[ESA-TT-1249] 11 p3324 N93-29272
Studies of fiber-matrix adhesion on compression strength 11 p3304 N93-30846
Mechanical properties of composite materials
11 p3290 N93-30951
Direct tension experiments on compacted granular materials 11 p3292 N93-30960
Application of hardness testing in foundry processing operations: A university and industry partnership
11 p3292 N93-30961
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646

TENSILE STRESS
Experimental and theoretical behavior of adhesively bonded composite structures under tensile stress at the edge vicinity 01 p0053 N93-10515
Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409
Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189676] 02 p0239 N93-11611
The measurement and calculation of birefringence in quenched polycarbonate specimens
02 p0269 N93-11986
Some observations on stress graphitization in carbon-carbon composites
[AD-A256819] 05 p1096 N93-15683
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
In-line load cell for flexible strength member materials
[AD-D015507] 05 p1186 N93-16609
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267

TENSILE TESTS
Transverse tension, transverse compression, and inplane shear JANNAF round robin test methods standardization results 01 p0016 N93-10007
Isotopic tailoring with 59-Ni to study the effect of helium on microstructural evolution and mechanical properties of neutron-irradiated Fe-Cr-Ni alloys
[DE92-019372] 02 p0257 N93-11557
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region
02 p0269 N93-11985
Mechanical properties for advanced engine materials
[AD-A252632] 02 p0242 N93-12181
Method and apparatus for gripping test specimens
[NASA-CASE-LEW-15345-1] 02 p0329 N93-12327
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Crack initiation and growth in notched CFRE laminates: FEM analyses and tests 05 p1077 N93-15725
The role of grain boundary chemistry and structure in the environmentally-assisted intergranular cracking of nickel-base alloys
[DE93-003126] 05 p1114 N93-16927
Strength and rupture-life transitions caused by secondary carbide precipitation in HT-9 during high-temperature low-rate mechanical testing
[DE93-002917] 06 p1489 N93-19514
Traction and shearing dynamics of a three dimensional carbon/carbon composite
[REPT-921-430-109] 07 p1833 N93-20931
Delamination development under fatigue loading
07 p1842 N93-21521
Stress corrosion cracking susceptibility of irradiated Type 304 stainless steels
[DE93-003005] 07 p1857 N93-21985
A new method of impact tension testing of adhesively-bonded joints 08 p2212 N93-23939
Stress distribution in composite flatwise tension test specimens
[NASA-TM-106074] 09 p2634 N93-25071
Room temperature fracture of FeCo
[DE93-008266] 09 p2650 N93-25519
Design and evaluation of a uniaxial pull test for lithium hydride/deuteride
[DE93-010760] 11 p3451 N93-28832
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Perforated carbon-epoxy plates damage modeling for quasi-static biaxial loading
[ESA-TT-1273] 12 p3740 N93-31428
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33
12 p3681 N93-31744
Fatigue crack growth results for Ti-6Al-4V, IMI 685, and Ti-17 12 p3682 N93-31746

TENSION
Payout tension control system for reel mounted cable
[AD-D015362] 02 p0325 N93-11423
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764

TENSOR ANALYSIS
Investigation of the bond strength of a discrete skin-stiffener interface 07 p1843 N93-21527
Beyond two dimensions
[DE93-606084] 11 p3606 N93-30786
Some aspects of invariant theory in plasticity. Part 2: Constitutive relations for perfectly locking materials. Comments on perfectly plastic solids
12 p3742 N93-32321

TENSOR FIELDS
U TENSORS

TENSORS
NT STRESS TENSORS
Solitons and instantons in string theory
03 p0728 N93-13753
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Classical and quantum mechanics of a spinning particle interacting with anti-symmetric non-abelian tensor fields
[NIKHEF-H/92-1] 10 p3155 N93-27306

Commutative diagrams and tensor calculus in Riemann spaces
[SSCL-PREPRINT-741] 10 p3122 N93-28195
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368
Non-scalar uncertainty: Uncertainty in dynamic systems 11 p3517 N93-29565
Integrals of motion on the group of invariance of an interval in three-dimensional spaces
[DE93-606090] 11 p3606 N93-30797
A simple formula for reducing Feynman diagrams to scalar integrals
[DE92-644717] 11 p3607 N93-30916
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644743] 11 p3557 N93-30926
On the energy-momentum tensors for field theories in spaces with affine connection and metric
[DE92-644744] 11 p3557 N93-30927
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003

TERBIUM COMPOUNDS
Optical instrumentation and characterization for magneto-optical recording media 04 p0980 N93-14168

TERCOM
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178

TEREPHTHALATE
Liquid-crystalline main-chain polymers with flexible side chains: Synthesis, structure, processing and properties of poly(p-phenylene terephthalate)s with alkoxy side chains
[ETN-93-94041] 12 p3709 N93-31520

TERMINAL BALLISTICS
Determination of the dynamic unload/reload characteristics of ceramics
[AD-A253513] 01 p0035 N93-10221
Penetration mechanics of composites
[AD-A249230] 02 p0240 N93-11835
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Tests for determining failure criteria of ceramics under ballistic impact
[AD-A256652] 05 p1119 N93-15911
Flash radiographic studies of hypervelocity projectile interactions with explosives
[AD-A258387] 06 p1497 N93-18260
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
Investigation and modeling of penetration process for composite laminates impacted by a blunt-ended projectile 09 p2637 N93-25675
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
Comparison of impact results for several polymeric composites over a wide range of low impact velocities 11 p3304 N93-30848
Single crystal tungsten kinetic energy penetrators
[DE93-012570] 12 p3706 N93-32296
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

TERMINAL GUIDANCE
NT LASER GUIDANCE
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 1
[DOT/FAA/CT-92/2-VOL-1] 02 p0205 N93-11704
Controller evaluation of initial data link terminal air traffic control services: Mini study 2, volume 2
[DOT/FAA/CT-92/2-VOL-2] 02 p0205 N93-11705
Comparative analysis of guidance algorithms for the hyper velocity missile and AFTI/F-16
[AD-A256728] 05 p1068 N93-16067
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137

TERMINOLOGY
Revised nomenclature for defects at or near the Si/SiO2 interface
[DE92-040975] 04 p0997 N93-15651
Software process development and enactment: Concepts and definitions
[AD-A258465] 06 p1619 N93-18243
From asteroid clusters to families: A proposal for a new nomenclature 06 p1705 N93-19151
An operational system for subject switching between controlled vocabularies
[NASA-CR-192333] 06 p1693 N93-19935
Defining contract terms
[AD-A259088] 07 p2085 N93-20394
NASA thesaurus combined file postings statistics
[NASA-CR-192259] 07 p2090 N93-20602
Terminology and assessment methods of solid propellant rocket exhaust signatures
[AGARD-AR-287] 08 p2204 N93-22998
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Agreement in naming objects and concepts for information retrieval 09 p2881 N93-25826
Machine aided indexing from natural language text
[NASA-CR-4512] 10 p3164 N93-26901
Application of ray tracing in radiation heat transfer
[NASA-TM-106206] 11 p3419 N93-29075
List of acronyms in environmental sciences
[KNMI-PUBL-180-ED-1] 12 p3838 N93-31596
Coordinating Council. Tenth Meeting: Information retrieval: The role of controlled vocabularies
[NASA-TM-108764] 12 p3843 N93-32403

TERMS
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
NASA thesaurus combined file postings statistics
[NASA-CR-192259] 07 p2090 N93-20602
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Glossary of environmental terms and acronym list
[PB93-158004] 09 p2765 N93-25851
Termination of term writing by interpretation
[RUU-CS-92-14] 10 p3114 N93-27381
Handbook of frequently used acronyms and glossary of terms
[DE93-011388] 11 p3616 N93-30123
Coordinating Council. Tenth Meeting: Information retrieval: The role of controlled vocabularies
[NASA-TM-108764] 12 p3843 N93-32403

TERNARY ALLOYS
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
The influence of microgravity on the microstructure and properties of eutectics, phase 3
[CTN-93-60628] 05 p1133 N93-16936
Electronic structure of substitutionally disordered alloys: Direct configurational averaging
[DE93-002548] 06 p1489 N93-19480
Metal alloy and method of preparation thereof
[AD-D015670] 09 p2652 N93-26234
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
Some effects of composition and microstructure on the B2 in equilibrium to DO3 ordered phase transition in Fe3Al alloys
[DE93-009724] 11 p3325 N93-29813
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Flexible storage medium for write-once optical tape 11 p3621 N93-30473

TERNARY SYSTEMS
A general approximation solution for the mass transfer in laminar multicomponent boundary layers along a streaming plate plane
[ETN-93-92738] 06 p1530 N93-18629

TERNARY SYSTEMS (DIGITAL)
U DIGITAL SYSTEMS

TERRACES (LANDFORMS)
NT COLORADO PLATEAU (US)
NT PLATEAUS

TERRAIN
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
System integration issues in digital photogrammetric mapping
[AD-A254046] 01 p0103 N93-10781
Structure of the nocturnal boundary layer over a complex terrain
[DE92-018141] 02 p0362 N93-11669
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
Photogrammetric GIS technology: Feature mapping on digital stereo imagery
[AD-A254255] 02 p0477 N93-11748
Automated extraction of aircraft runway patterns from radar imagery
[AD-A254258] 02 p0218 N93-11751
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1
[AD-A254619] 03 p0611 N93-12906
Remote sensing of Earth terrain
[NASA-CR-190908] 03 p0633 N93-13084
Impact of Digital Terrain Elevation Data (DTED) resolution on terrain visualization: Simulation versus reality
[AD-A254237] 03 p0634 N93-13333
Using iterative orthophoto refinements to correct Digital Elevation Models (DEM's)
[AD-A254625] 03 p0634 N93-13345
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-191365] 03 p0654 N93-13719
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio 04 p1028 N93-14317
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping 04 p1040 N93-14368
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera 04 p1044 N93-14389
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0906 N93-15007
Taxonomy of flight variables 04 p0787 N93-15022
Radar scene generation for tactical decision aids
[AD-A257069] 04 p0863 N93-15495
Parametric height field ray tracing 04 p0955 N93-15556
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
An approach to automated terrain classification from digital elevation model
[AD-A258210] 06 p1452 N93-17986
Computer program for wind speeds and turbulence properties: Flat or hilly sites in terrain with roughness changes
[ESDU-92032] 06 p1585 N93-18043
Flight above a virtual world 06 p1609 N93-19766
Numerical simulations of drainage flows on Mars 06 p1742 N93-19816
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Information base procedures for generation of synthetic thermal scenes
[AD-A259202] 07 p2090 N93-20549
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data 07 p1954 N93-21576
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787

Radar seeker based autonomous navigation update system using topography feature matching techniques
08 p2256 N93-22030
Use of geodetic methods in detecting terrain movements with special reference to the Global Positioning System
[ISBN-0-315-69179-4] 08 p2393 N93-23190
Aircraft accident report: United Airlines flight 585, Boeing 737-291, N999UA, uncontrolled collision with terrain for undetermined reasons, 4 miles south of Colorado Springs Municipal Airport, Colorado Springs, Colorado, 3 March 1991
[PB92-910407] 08 p2117 N93-23191
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Ternd). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Multisensor data applications for digital landscape models 08 p2350 N93-23550
Semi-automatic derivation of digital elevation models from stereoscopic 3-line scanner data
08 p2350 N93-23552
A Digital Landscape Model for Europe (DLME)
08 p2351 N93-23554
The creation of a DEM from SPOT data
08 p2355 N93-23582
Realistic landscape visualization based on satellite images 08 p2355 N93-23583
The comparison of satellite radar altimeter derived heights with global digital terrain model heights
08 p2355 N93-23584
The promise of raster data processing in digital terrain modelling 08 p2356 N93-23585
Use of the 1991 ASCOT field study data in a mesoscale model employing a four-dimensional data assimilation technique
[DE93-002683] 09 p2769 N93-24672
ILS mathematical modeling study of an ILS glide slope proposed for runway 19L at the Meridian Naval Air Station, Mississippi
[DOT/FAA/CT-TN93/8] 09 p2584 N93-24741
Use of airborne imaging spectrometry to the definition of optimised specifications for land applications with future spaceborne imaging spectrometers
09 p2738 N93-24776
The use of polarimetric multifrequency SAR for characterizing terrain classes 09 p2738 N93-24777
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
Use of the Environmental Resource Management and Analysis System at the Fernald Environmental Management Project
[DE93-002943] 09 p2760 N93-24955
Efficient generation of synthetic terrain imagery for automatic target recognition
[AD-A260705] 09 p2756 N93-25653
Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724
Effects of Taiwan orography on the motion and structure of typhoons
[AD-A261819] 09 p2786 N93-26270
Optimal configuration analysis for the Robotic All-Terrain Lunar Exploration Rover
[DE93-008340] 10 p3052 N93-28152
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Simulation of landscape disturbances and the effect of climatic change
[DE93-011615] 11 p3472 N93-30131
Spacecraft studies of Phobos and Mars
[NASA-CR-193298] 11 p3651 N93-30635
A catalog of landscape features. A modeling instrument for the ATKIS information system
12 p3745 N93-31264
Chemical transport during formation and alteration of Martian impact and volcanic deposits
12 p3865 N93-31953
RATLER: Robotic All-Terrain Lunar Exploration Rover
12 p3737 N93-32117

TERRAIN ANALYSIS
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11958
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
RJARS: RAND's version of the jamming aircraft and radar simulation
[AD-A255560] 05 p1138 N93-16059
Automated classification of basic-level terrain features in digital elevation models
[AD-A256932] 05 p1190 N93-16504
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647
Testing of an automatic, low altitude, all terrain ground collision avoidance system 06 p1434 N93-19924
Image interpretation for landforms using expert systems and terrain analysis 08 p2342 N93-23213
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM
08 p2354 N93-23573
Operational geocoding of ERS-1 SAR imagery
08 p2359 N93-23765
Land cover, an essential component of the CORINE information system on the environment: GIS implications
09 p2740 N93-24787
The regional planning and control using the satellite data 09 p2740 N93-24788
Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789
Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods
09 p2741 N93-24798
Swedish forest information atlas
09 p2749 N93-24847
Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848
Information-based criteria of terrain navigability. Part 1: Data-base analysis 10 p2921 N93-27178
Digital parallel processor array for optimum path planning
[NASA-CASE-NPO-18727-1-CU]
10 p3108 N93-28427
Terrain and coverage prediction analyses for non-geostationary orbit EHF satellite communications
11 p3389 N93-29902

TERRAIN CONTOUR MATCHING NAVIGATION SYSTEM
U TERCOM

TERRAIN FOLLOWING AIRCRAFT
Appraisal of digital terrain elevation data for low-altitude flight
[NASA-TM-103896] 01 p0007 N93-10745
Integration of radar altimeter, precision navigation, and digital terrain data for low-altitude flight
[NASA-TM-103958] 02 p0205 N93-12320
Optimal trajectories for aircraft terrain following and terrain avoidance: A literature review update
[AD-A264075] 11 p3260 N93-30604

TERRESTRIAL DUST BELT
Studies of the charging of a thin dust layer in a plasma 05 p1313 N93-17320

TERRESTRIAL MAGNETISM
U GEOMAGNETISM

TERRESTRIAL PLANETS
NT EARTH (PLANET)
NT MARS (PLANET)
NT VENUS (PLANET)
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Comets: Role and importance to exobiology
06 p1592 N93-18556
Space exploration of planetary and satellite atmospheres 08 p2535 N93-23890

TERRESTRIAL RADIATION
Global change and the dark of the moon
[AD-A255181] 02 p0486 N93-12380
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
The earth's radiation belts, auroral zones, and polar caps: Particle models, event studies, and effects on materials
[AD-A256716] 05 p1207 N93-16173
Development and use of data analysis procedures for the CRRES payloads AFGL-701-2/Dosimeter and AFGL-701-4/Fluxmeter and application of the data analysis results to improve the static and dynamic models of the earth's radiation belts
[AD-A258710] 07 p1823 N93-20380
Earth radiation and cloud cover analysis using NOAA satellite data 07 p1956 N93-21587

TEST BEDS
U TEST STANDS

TEST CHAMBERS
NT ANECHOIC CHAMBERS
NT HYPERBARIC CHAMBERS
NT PRESSURE CHAMBERS
NT REVERBERATION CHAMBERS
NT VACUUM CHAMBERS
Acoustical evaluation of the NASA Lewis 9 by 15 foot low speed wind tunnel
[NASA-TP-3274] 02 p0218 N93-12016
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Liquid flow reactor and method of using
[AD-D015392] 04 p0893 N93-15232
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
A new approach for performing contamination control bakeouts in JPL thermal vacuum test chambers
04 p0823 N93-15618
A study of the stability of two-liquid droplets under microgravity conditions
[CU-MAE-89-01] 05 p1131 N93-16496
Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Hazards of explosives dusts: Particle size effects
[DE93-009380] 09 p2668 N93-25498
Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507
Mathematical modeling and control law development for the atmospheric monitoring and control system of the Controlled Environment Research Chamber (CERC) at NASA Ames Research Center
[AD-A261978] 11 p3261 N93-29436

TEST EQUIPMENT
High sensitivity probes for silicon VLSI internal node testing
[AD-A253924] 01 p0169 N93-10764
Method and apparatus for gripping test specimens
[NASA-CASE-LEW-15345-1] 02 p0329 N93-12327
Multichip module high speed testing
[AD-A254825] 03 p0570 N93-12731
Test and control computer user's guide for a digital beam former test system
[NASA-CR-189208] 03 p0685 N93-13291
Parametric study of air sampling cyclones
04 p0779 N93-14173
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
Vision development test bed: The cradle of the MSS artificial vision system 04 p0810 N93-14948
Thermal fixture for testing an integrated circuit
[AD-D015380] 04 p0882 N93-15247
An environmental testing facility for Space Station Freedom power management and distribution hardware
04 p0820 N93-15601
Portable radar simulator
[AD-D015453] 05 p1139 N93-16459
Flammability testing for the screening of space materials
[ESA-PSS-01-721-ISSUE-2] 07 p1849 N93-21195
Automated connector force testing
[DE93-004634] 07 p1907 N93-21704
Design and characterization of the BVX: An 8-channel CMOS preamplifier-shaper for silicon strips
[DE93-003619] 07 p1894 N93-21733
Commercial Precipitation Static (P-static) test equipment 09 p2711 N93-24901
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
An apparatus for gripping test specimens
[NASA-CASE-LEW-15345-2] 10 p3052 N93-28127
Loading and testing a light scattering cell with a binary fluid mixture near its critical composition
[NASA-CR-193147] 11 p3415 N93-28557

Lunar regolith penetrators and cutters
11 p3276 N93-29117
Rotational fluid flow experiment
11 p3235 N93-29761
The USAF Advanced Turbine Aerothermal Research Rig (ATARR) 11 p3255 N93-29945
Design review of fluid film bearing testers
[NASA-CR-193299] 12 p3735 N93-31731

TEST FACILITIES
NT ANECHOIC CHAMBERS
NT BALLISTIC RANGES
NT BLOWDOWN WIND TUNNELS
NT COMBUSTION WIND TUNNELS
NT CRYOGENIC WIND TUNNELS
NT ENGINE TESTING LABORATORIES
NT HYDRAULIC TEST TUNNELS
NT HYPERSONIC WIND TUNNELS
NT LOW SPEED WIND TUNNELS
NT MISSILE RANGES
NT REVERBERATION CHAMBERS
NT ROCKET TEST FACILITIES
NT SHOCK TUNNELS
NT SLOTTED WIND TUNNELS
NT SUBSONIC WIND TUNNELS
NT SUPERSONIC WIND TUNNELS
NT TEST RANGES
NT TEST STANDS
NT TRANSONIC WIND TUNNELS
NT WIND TUNNELS
Facility for cold flow testing of solid rocket motor models 01 p0011 N93-10021
Noise studies for environmental impact assessment of an outdoor engine test facility 01 p0149 N93-10672
Improve SSME power balance model
[NASA-CR-184464] 01 p0026 N93-10756
Magnetohydrodynamic projects at the CDIF
[DE92-018190] 01 p0164 N93-10819
An experimental technique for performing 3-D LDA measurements inside whirling annular seals
01 p0093 N93-10894
A multipurpose vacuum-ultraviolet test facility
01 p0011 N93-10953
Ground test facilities for evaluating nuclear thermal propulsion engines and fuel elements
[DE92-017039] 02 p0231 N93-10973
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
Rotational CARS measurements in a rotating cavity with axial throughflow of cooling air: Oxygen concentration measurements
[PNR-90935] 02 p0244 N93-11035
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Developments in icing test techniques for aerospace applications in the RAE Pyestock (England) altitude test facility
[RAE-TM-P-1214] 02 p0207 N93-11485
A development approach for nuclear thermal propulsion
[DE92-018020] 02 p0232 N93-11596
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
Flight termination systems commonality standard
[AD-A255349] 04 p0789 N93-14517
Space based radar: Test of large space structures
04 p0808 N93-14941
Space craft verification at the David Florida Laboratory
04 p0809 N93-14943
Personal computer based test- and emulation equipment for maintenance and ground support
04 p0778 N93-15185
Experimental determination of magnetohydrodynamic seawater thruster performance in a two Tesla test facility
[DE92-019042] 04 p0826 N93-15215
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy
04 p0820 N93-15598
The design concept of the 6-degree-of-freedom hydraulic shaker at ESTEC 04 p0820 N93-15600
An environmental testing facility for Space Station Freedom power management and distribution hardware
04 p0820 N93-15601
A new thermal vacuum facility at the Martin Marietta Waterton plant 04 p0814 N93-15607
INTESPACE's new thermal-vacuum test facility: SIMMER 04 p0814 N93-15613
TQM in a test environment 04 p0823 N93-15620
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
Control of combined vibrations and multi-axis test
05 p1085 N93-15784
The use of reverberant-room acoustic testing for spacecraft structures and their payloads
05 p1085 N93-15786
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
Experimental investigation of an ejector-powered free-jet facility
[NASA-TM-105868] 05 p1056 N93-16704
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Active suspension design for a Large Space Structure ground test facility 06 p1469 N93-18941
Flight Testing
[AGARD-CP-519] 06 p1442 N93-19901
Evaluation of candidate working fluid formulations for the electrothermal - chemical wind tunnel
[NASA-CR-192196] 07 p1788 N93-20312
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
Research on advanced spacecraft testing technology
07 p1796 N93-20452
Safety validation test equipment operation
07 p1801 N93-20487
Review on safety validation test
07 p1802 N93-20488
NASA Center update: Jet Propulsion Laboratory
07 p1983 N93-20492
Progress in the development of the laser-based R/D test-bed system 07 p1811 N93-21127
The influence of the rotor test facilities ROTEST and ROTOS on the rotor inflow
[DLR-MITT-91-16] 07 p1785 N93-21173
Six-Degree-of-Freedom Test Facility
07 p1817 N93-21443
Autonomous rendezvous and capture development infrastructure 07 p1818 N93-21446
NIST impact test facility
[PB92-226315] 07 p1788 N93-21467
Creep Laboratory manual
[NPL-DMM(A)-37] 07 p1951 N93-21565
The high temperature materials laboratory: A research and user facility at the Oak Ridge National Laboratory
[DE93-003592] 07 p1953 N93-21994
Six-Degree-of-Freedom Test Facility
08 p2136 N93-22231
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Test facilities for evaluating nuclear thermal propulsion systems
[DE93-002468] 08 p2202 N93-22411
Closed Ecological Life Support Systems (CELSS) Test Facility 08 p2187 N93-22628
Potential pressurized payloads: Fluid and thermal experiments 08 p2189 N93-22639
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility
[DE93-004778] 08 p2404 N93-22964
A summary of recent activities at the National Solar Thermal Test Facility
[DE92-040969] 08 p2379 N93-22967
Pyroshock simulation for satellite components using a tunable resonant fixture, phase 1
[DE93-005382] 08 p2325 N93-22975
Concept definition study for an extremely large aerophysics range facility
[NASA-CR-4491] 08 p2133 N93-22987
Nuclear thermal propulsion technology: Results of an interagency panel in FY 1991
[NASA-TM-105711] 09 p2621 N93-24740
Space exploration initiative candidate nuclear propulsion test facilities
[NASA-TM-105710] 09 p2622 N93-24753
Space Nuclear Thermal Propulsion Test Facilities Subpanel
[NASA-TM-105708] 09 p2622 N93-25105
Advanced Launch System (ALS) test requirements
[MCR-91-5004] 09 p2610 N93-26181
Conceptual design for the Space Station Freedom fluid physics/dynamics facility
[NASA-TM-103663] 09 p2618 N93-26209
Duct protection coating concept development and test: Test specimen fabrication, conditioning, and testing documentation.
[AD-A261250] 09 p2657 N93-26278
Development of a large-scale, outdoor, ground-based test capability for evaluating the effect of rain on airfoil lift
[NASA-TM-4420] 10 p2928 N93-26899
Nuclear Propulsion Technical Interchange Meeting, volume 2
[NASA-CP-10116-VOL-2] 10 p2980 N93-26951
Facilities 10 p2954 N93-26963
Plum Brook facilities 10 p2954 N93-26964
NEP facilities (LeRC) 10 p2954 N93-26965
Space nuclear thermal propulsion: Evaluation of PIPET at the INEL's CTF 10 p2955 N93-26967
Space Nuclear Thermal Propulsion (SNTP) Air Force facility 10 p2955 N93-26968
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
A laboratory study of subjective response to sonic booms measured at White Sands Missile Range
[NASA-TM-107746] 10 p3130 N93-27272
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Modal testing using a full instrumentation technique
[DE93-009635] 10 p3046 N93-28373
A new facility for advanced rocket propulsion research
[NASA-TM-106193] 11 p3270 N93-28696
CSI-Star: A low-cost CSI orbital testbed
11 p3263 N93-28707
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Improved design concepts for millimeter wave power sources
[AD-A264060] 11 p3411 N93-29922
FASSET: A development model for a Canadian EHF MILSATCOM system 11 p3363 N93-30268
Task allocation and real-time considerations for the Robot Controller Test Station (RCTS)
11 p3364 N93-30278
Development of an antenna measurement facility operating in the 2 GHz - 100 GHz frequency range
11 p3369 N93-30308
Thermal effects testing at the National Solar Thermal Test Facility
[DE93-009825] 11 p3465 N93-30391
Flight test of avionic and air-traffic control systems
[ESA-TT-1279] 12 p3675 N93-31271
The DLR test aircraft in the FZ-BS, -VFW 614/ATTAS, Dornier DO 228-101, MBB BO105 S-3
12 p3675 N93-31272
The basic measurement equipment of the DLR test aircraft 12 p3675 N93-31273
Instigation and processing of flight tests in DLR
12 p3675 N93-31275
ATTAS experimental-cockpit and ATMOS for component and system investigations in flight guidance
12 p3676 N93-31276
Testing of an experimental FMS
12 p3676 N93-31277
Pallet for helicopter test instrumentation
12 p3676 N93-31279
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

TEST FIRING
Hot fire test results of subscale tubular combustion chambers 01 p0018 N93-10020
Hot fire test results of subscale tubular combustion chambers
[NASA-TP-3222] 02 p0232 N93-11614
Gas generator igniter performance at extremely low temperatures 10 p2922 N93-27188
Qualitative model-based diagnostics for rocket systems
[NASA-TM-106234] 10 p2956 N93-28052

TEST PILOTS
Aircrew acceptance of automation in the cockpit
06 p1608 N93-19761

TEST RANGES
NT BALLISTIC RANGES
NT MISSILE RANGES
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Lightning threat warning system at the Tonopah Test Range
[DE92-040444] 02 p0221 N93-11631
Establishment of a test course for high accuracy dynamic positioning systems
[AD-A255407] 04 p0789 N93-14501
Estimating test range capacity
[AD-A262493] 11 p3270 N93-28938

TEST STANDS
Testing techniques 01 p0078 N93-10060
A summary of the JANNAF workshop on diagnostics
02 p0248 N93-11451
Measured data for the Sandia 34-meter vertical axis wind turbine
[DE92-019807] 02 p0348 N93-12075
EMTP based stability analysis of space station electric power system in a test bed environment
[NASA-TM-105845] 04 p0871 N93-15503
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
A proposal of an architecture for the coordination level of intelligent machines
[NASA-CR-191990] 06 p1613 N93-18516

Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Design and application of electromechanical actuators for deep space missions
[NASA-CR-192227] 06 p1551 N93-19946
Advanced expander test bed program
[NASA-CR-191049] 07 p1828 N93-19991
Single link flexible beam testbed project
[NASA-CR-192743] 07 p1947 N93-21307
Autonomous rendezvous and capture development infrastructure 08 p2137 N93-22235
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
30 KA, 5000 V solid-state opening switch for inductive energy storage
[AD-A259763] 08 p2281 N93-23483
Combined convective radiative heat transfer enhancement in an advanced gas-fired surface combustor heater
[PB93-138915] 08 p2297 N93-24141
Columbus automation testbed: A tool for users 08 p2164 N93-24390
Telescience testbedding for physiological experiments under hypobaric hypoxic conditions 08 p2165 N93-24398
Telescience Testbed Program: A study of software for SIRTF instrument control
[NASA-CR-192764] 08 p2442 N93-24476
A large hemi-anechoic enclosure for community-compatible aeroacoustic testing of aircraft propulsion systems
[NASA-TM-106015] 09 p2846 N93-26551
Fault-tolerant onboard digital information switching and routing for communications satellites
[NASA-TM-4471] 10 p2956 N93-26895
Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27566
Interferometer testbed: Overview and hardware summary 10 p3058 N93-27889
Control design for the SERC experimental testbeds 10 p3058 N93-27891
Optical interferometer testbed 10 p3060 N93-28168
CSI-Star: A low-cost CSI orbital testbed 11 p3263 N93-28707
Graphical interface between the CIRSSE testbed and CimStation software with MCS/CTOS
[NASA-CR-193276] 11 p3527 N93-29218
Load test set-up for the Airmass Sunburst Ultra-Light Aircraft 11 p3249 N93-29776
The USAF Advanced Turbine Aerothermal Research Rig (ATARR) 11 p3255 N93-29945
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641

TEST VEHICLES
NT FLIGHT TEST VEHICLES
Utilization of compressed natural gas in medium- and heavy-duty engine route vehicles
[PB92-217546] 03 p0611 N93-12908
Development of test procedures for hybrid/electric vehicles
[DE93-001943] 05 p1180 N93-17579
Evaluation of a Schatz heat battery on a flexible-fueled vehicle. Phase 2
[PB92-204585] 07 p1893 N93-21377
Development of test procedures for hybrid/electric vehicles
[DE93-005179] 08 p2316 N93-23336

TESTERS
U TEST EQUIPMENT

TESTING
U TESTS

TESTING MACHINES
U TEST EQUIPMENT

TESTING TIME
System model development for nuclear thermal propulsion
[NASA-TM-105761] 01 p0025 N93-10457
Learning characteristics of a space-time neural network as a tether skiprope observer 08 p2197 N93-22176

TESTS
Change analysis
[AD-A253567] 01 p0146 N93-10795

TETHERED BALLOONS
Stabilized platform for tethered balloon soundings of broadband long- and short-wave radiation
[DE93-007876] 11 p3383 N93-29308

TETHERED SATELLITES
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
SEDS1 mission software verification using a signal simulator 05 p1254 N93-17321
Space time neural networks for tether operations in space 08 p2456 N93-22370
Instrumentation for hypersonic aerodynamics research with tethered satellites
[NASA-CR-191435] 08 p2442 N93-24539
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Tethered Satellite System Contingency Investigation Board
[NASA-TM-108704] 09 p2616 N93-25231
An alternate approach to space missions involving a long tether 09 p2616 N93-25470
STS-46 Space Shuttle mission report
[NASA-CR-193058] 09 p2613 N93-25991
Data analysis support for the Shuttle Potential and Return Electron Experiment (SPREE) on the Tethered Satellite System 1 (TSS-1) flight
[AD-A261646] 09 p2618 N93-26232
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1
[NASA-TP-3347] 10 p2959 N93-27162
SPREE Interactive Data Analysis Tool (SIDAT)
[AD-A262782] 11 p3273 N93-29306
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534
Clustering of tethered satellite system simulation data by an adaptive neuro-fuzzy algorithm 11 p3512 N93-29535
Application of non-standard signal processing to ELF noise characterization for the TSS1-OESEE programme 11 p3397 N93-30743
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines 11 p3399 N93-30755
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution. Appendix 7 --- Transform Domain Skiprope Observer for tethered satellites
[NASA-CR-192836] 12 p3756 N93-31041
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks 12 p3687 N93-31069
System study of tether technology with particular consideration of transport utilization possibilities in space transportation
[ILR-MITT-270(1992)] 12 p3685 N93-31207
Tethered systems control 12 p3689 N93-31453
A concept of deployable tethered interferometer 12 p3691 N93-31787

TETHERING
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Equations of motion of slung-load systems, including multilift systems
[NASA-TP-3280] 03 p0503 N93-12815
Tether deployment monitoring system, phase 2
[NASA-CR-184098] 03 p0522 N93-13425
Tethers 05 p1089 N93-16915
SEDS1 mission software verification using a signal simulator 05 p1254 N93-17321
Advanced propulsion for LEO-Moon transport. 2: Tether configurations in the LEO-Moon system 05 p1393 N93-17421
Studies of dynamic processes related to active experiments in space plasmas
[NASA-CR-191771] 05 p1313 N93-17801
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Learning characteristics of a space-time neural network as a tether skiprope observer 08 p2197 N93-22176
The Data Egg: A new solution to text entry barriers 08 p2530 N93-22192
Relative motion pinwheel
[AD-D015629] 08 p2123 N93-24222
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Tethered Satellite System Contingency Investigation Board
[NASA-TM-108704] 09 p2616 N93-25231
An alternate approach to space missions involving a long tether 09 p2616 N93-25470
The dynamic phenomena of a tethered satellite: NASA's first Tethered Satellite Mission, TSS-1
[NASA-TP-3347] 10 p2959 N93-27162
The dynamics and control of space tethers 11 p3274 N93-28629
Learning characteristics of a space-time neural network as a tether skiprope observer 11 p3512 N93-29534
Tethered aerostat VLF/LF transmitter system design considerations 11 p3399 N93-30753
System study of tether technology with particular consideration of transport utilization possibilities in space transportation
[ILR-MITT-270(1992)] 12 p3685 N93-31207
Tethered systems control 12 p3689 N93-31453

TETHERLINES
Experimental demonstration of offset control with an application to the tethered payload 01 p0014 N93-10521
The order n simulation of tether motions based on a rigid body tether model 02 p0225 N93-11999
Tethers 05 p1089 N93-16915
Design of a reusable kinetic energy absorber for an astronaut safety tether to be used during extravehicular activities on the Space Station
[NASA-CR-192015] 06 p1605 N93-17973
A method to predict the orbital lifetimes of free tethers and tether-trailing satellites using artificial neural networks
[AD-A258547] 06 p1471 N93-19899
Numerical stabilities aspects of cable dynamics simulation 07 p1931 N93-20650
An investigation of the unexpected attitude dynamics experienced by the OEDIPUS-A tethered sounding rocket payload 07 p1830 N93-20724
Space time neural networks for tether operations in space 08 p2456 N93-22370
TSS tether cable meteoroid/orbital debris damage analysis
[NASA-TM-108404] 10 p2957 N93-27023
The dynamics and control of space tethers 11 p3274 N93-28629

TETRACHLOROMETHANE
U CARBON TETRACHLORIDE

TETRAETHYL ORTHOSILICATE
Solid polymer electrolytes for rechargeable batteries
[DE93-001603] 04 p0871 N93-15485

TETRAGONS
NT PARALLELOGRAMS
NT RECTANGLES
NT TRAPEZOIDS

TETRAHEDRONS
Be3(AsO4)2 2H2O: A new berylloarsenate phase containing bridged tetrahedral 3-rings
[AD-A262518] 11 p3592 N93-28584

TETRAHYDROFURAN
Determination of the weight average molecular weight of SRM 1480
[PB92-222934] 03 p0553 N93-13785
X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide
[AD-A258551] 06 p1678 N93-19954
NMR studies of molecules in liquid crystals and graphite
[DE93-010423] 11 p3569 N93-29805

TETRANITROTETRAZACYCLOOCTANE
U HMX

TETRAZOLES
Kinetic tetrazolium microtiter assay
[NASA-CASE-MSC-21979-1] 05 p1223 N93-17049

TETRODES
Upgrading the LAMPF 201 MHz RF generators
[DE93-010715] 11 p3406 N93-28830

TEXAS
Small business profiles, 1992. Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
[PB93-110971] 08 p2520 N93-24159

TEXTBOOKS
Syllabus physical meteorology, part 1
[KNMI-TR-140-PT-1] 11 p3484 N93-30114

TEXTILES
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
FIBER-TEX 1991: The Fifth Conference on Advanced Engineering Fibers and Textile Structures for Composites
[NASA-CP-3176] 04 p0832 N93-14744
Tensile properties of textile composites 04 p0834 N93-14754
NASA/USRA advanced design program activity, 1991-1992
[NASA-CR-192063] 05 p1135 N93-17778
Textiles and Composites 1992
[VTT-SYMPOSIUM-133] 07 p1834 N93-21129
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials 07 p1836 N93-21141
New types of textile fabrics for fibre composites 07 p1836 N93-21142

Relationships between layer linkage and mechanical properties of 3D woven textile structures
07 p1836 N93-21144
Applications of Visil fibres in functional textiles
07 p1837 N93-21154
The total quality approach in the development of technical textiles 07 p1838 N93-21156
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications
07 p1838 N93-21158
Silicone softeners: Today 07 p1838 N93-21159
Lightweight flexible composite tent materials
[AD-A263021] 11 p3295 N93-28660
The 1990-1991 project summaries
11 p3230 N93-29731
Infiltration/cure modeling of resin transfer molded composite materials using advanced fiber architectures
11 p3303 N93-30843
Advanced fiber/matrix material systems
11 p3305 N93-30854

TEXTS

Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
Reject mechanisms for massively parallel neural network character recognition systems
[PB92-213412] 03 p0689 N93-13198
A minimalist global user interface
04 p0957 N93-15566
FASTUS: A system for extracting information from natural-language text
[AD-A259435] 07 p2087 N93-20011
The Data Egg: A new solution to text entry barriers
08 p2530 N93-22192
Apropo: An algebraic preprocessor for parameterizing finite element analyses
[DE93-006989] 08 p2466 N93-22527
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Advanced information processing
[AD-A260245] 08 p2529 N93-24258
Improving information search at the user interface: The impact of graphical innovation on query formulation and expression 09 p2873 N93-24905
Pyroshock: Bibliography
[DE93-007605] 09 p2726 N93-25489
Visualizing the semantic content of large text databases using text maps 09 p2826 N93-25982
GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
A model for processing the SGML document in version oriented hypertext systems
[ETN-93-93797] 11 p3611 N93-28528
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
Automating multilingual communication
12 p3837 N93-31219

TEXTURES

Self-organized rock textures and multiring structure in the Duolun crater 01 p0123 N93-10195
Visualizing wind velocities by advecting cloud textures
[DE92-014717] 02 p0371 N93-12154
Nonlinear resistive grid wavelet transformations for texture feature extraction
[AD-A254705] 02 p0285 N93-12332
Crystallographic texture effects in hydroforming of aluminum sheet
[DE92-040368] 05 p1110 N93-15937
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
Texture segmentation in aerial photographs and satellite images
[ITN-93-85174] 05 p1191 N93-16738
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems
08 p2354 N93-23577
Microstructure and texture control of fatigue in hydrogen and marine environments
[AD-A259808] 08 p2231 N93-23642
Microtextured metals for stray-light suppression in the Clementine startracker 11 p3286 N93-28785
Improved heat removal by microscopic surface texturing of capillaries
[AD-A263483] 11 p3424 N93-29966

THAILAND

Search for the 700,000-year-old source crater of the Australasian tektite strewn field
01 p0120 N93-10177
Environmental data set in Thailand
08 p2338 N93-22145
Monitoring of deforestation: Results of the Bangkok conference 08 p2367 N93-23811

THALLIUM

Monitoring interfacial dynamics by pulsed laser techniques
[DE92-040302] 03 p0606 N93-13514
Microstructural characterization of Ag-sheathed Tl-Ba-Ca-Cu-O and Bi-Sr-Ca-Cu-O superconducting tapes by analytical electron microscopy
[DE93-002980] 07 p2083 N93-21981

THALLIUM ALLOYS

Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759

THALLIUM COMPOUNDS

Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Method of making Tl-Sr-Ca-Cu-Oxide superconductors comprising heating at elevated pressures in sealed container
[AD-D015482] 05 p1321 N93-16489
Development of high Tc (greater than 100 K) Bi, Tl and Y-based materials as superconducting circuit elements
[NASA-CR-192344] 09 p2863 N93-25219

THAWING

U MELTING

THEMATIC MAPPERS (LANDSAT)

Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701
The preservation of LANDSAT data by the National Land Remote Sensing Archive 04 p1003 N93-14777
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577
Thematic Mapper land use classification as a remote sensing contribution for hydrologic runoff prediction model
[ESA-TT-1238] 08 p2342 N93-22461
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM
08 p2354 N93-23573
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783
Lithologic mapping with LANDSAT Thematic Mapper guided by laboratory spectral measurements, Air, Niger (Africa) 09 p2742 N93-24803
Application of multitemporal Landsat-MSS and -TM data for the development of an inundation-risk-map
09 p2743 N93-24807
European applications of space-borne Earth observation for land cover mapping 09 p2745 N93-24820
Remote sensing of land resource management in agriculture with regard to its influence on the environment 09 p2750 N93-24850
Biodiversity indication by Earth observation data
09 p2751 N93-24858
Atmospheric correction of Landsat/TM data over mountainous terrain for forestry applications
09 p2752 N93-24862
Classifying multispectral data by neural networks
09 p2825 N93-25976
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
Model-oriented correction of thematic mapper raw data 11 p3459 N93-28930
The estimation and scaling of land-surface fluxes of latent and sensible heat with remotely sensed data over a grassland site 11 p3462 N93-30045
Land use database for the Netherlands using LANDSAT Thematic Mapper pictures
[BCRS-91-32] 11 p3483 N93-30839

THEMATIC MAPPING

The regional land use of Paraiba Valley and the North Coast of Sao Paulo State, Brazil
04 p0905 N93-14450
Methods for analysis of networks within a geographical information system
[INPE-5299-PRE/1704] 06 p1693 N93-19835
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Thematic maps as data bank objects
07 p1968 N93-20536
Report of the NERC Unit for Thematic Information Systems
[REPT-1989/91] 07 p1968 N93-20846
End-to-end tests of satellite data
07 p1953 N93-21571
Classification of TM data as a contribution to remote sensing for a hydrological run-off model
08 p2341 N93-22448
The Mavale project: Evaluation of potential pollution sources to superficial and subterranean water resources in the Paraiba do Sul Valley, Brazil
[INPE-5318-PRE/1715] 08 p2385 N93-23105
System design for ARTEMIS environmental monitoring
08 p2349 N93-23545
Image treatment and geographical information systems at the service of the Common Agricultural Policy
08 p2351 N93-23555
Assessment of actual land use by means of an integrated LIS 08 p2353 N93-23568
TM-SPOT multitemporal analysis on areas devasted by fire 08 p2355 N93-23580
Remote sensing satellite and thematic applications in high schools and elementary schools in France
08 p2370 N93-23829
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Spectral remote sensing of anomalous mineralogy induced by hydrocarbon migration and uranium mineralization, San Rafael Swell, Utah, USA
09 p2739 N93-24783
Complex investigation of a system industrial site-environment using remote sensing and landscape-geochemical methods
09 p2741 N93-24798
The use of remote sensing and GIS for the assessment of environmental degradation caused by fires, applied upon South-Euboia (central Greece) 09 p2742 N93-24802
Remote sensing of coastal zone Sabkha deposits, Gulf of Sirt, Libya 09 p2746 N93-24827
Inherent optical properties of lakes as measured by Landsat 5 Thematic Mapper 09 p2746 N93-24828
Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data
[ED-659-CP] 09 p2746 N93-24829
Evaluation of nearshore suspended sediment concentration through Landsat TM data: First results
09 p2747 N93-24833
Monitoring and evaluation of morphohydrographical changes in the Danube Delta by remote-sensing
09 p2747 N93-24834
Coastal environmental mapping using Landsat data
[ED-658-CP] 09 p2747 N93-24835
The national parks of Bavarian Forest and Sumava: A Landsat TM perspective on the structure and dynamics of the largest woodland of Central Europe
09 p2748 N93-24837
Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843
Forest decline monitoring using Landsat TM, digital stand data and DEMs 09 p2749 N93-24846
Swedish forest information atlas
09 p2749 N93-24847
Observation of forest damages in the Harz mountains by means of satellite remote sensing
09 p2749 N93-24848
Toward a satellite based crop information system in Hungary 09 p2750 N93-24849

EUROSTARS: A system for thematic analysis of remote sensed data 09 p2753 N93-24871
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430
Proceedings of the 8th User Seminar of the German Remote Sensing Data Center of the German Aerospace Establishment (DLR)
[DLR-MITT-92-09] 11 p3456 N93-28915
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213

THEOREM PROVING
Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Formal mechanization of device interactions with a process algebra
[NASA-CR-189644] 02 p0405 N93-12347
Proof of theorems in Z
[AD-A255711] 04 p0968 N93-14431
An introduction mechanism for recursive functions: A case study
[MEMO-INF-92-34] 05 p1264 N93-16337
Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
Note on the average rank of LYM-sets
[MEMO-1036] 05 p1266 N93-16640
Polling systems and multiple branching processes
[CWI-BS-R9128] 05 p1267 N93-16726
Open problems in rewriting
[CWI-CS-R9114] 05 p1267 N93-16727
A short proof of the decidability of bisimulation for normal BPA processed
[CWI-CS-R9151] 05 p1267 N93-16731
The Hahn-Exton q-Bessel function
[ISBN-90-9004649-6] 05 p1271 N93-17587
The uncertainty principle
[ETN-92-92533] 05 p1331 N93-17589
A contribution to the theory and practice of multivariate splines
[ISBN-90-9004534-1] 05 p1272 N93-17591
The error committed by stopping Newton iteration in the numerical solution of stiff initial value problems
[TW-92-02] 05 p1272 N93-17593
Modal derivation rules
[ML-91-07] 05 p1274 N93-17784
A note on the diagonalizable algebras of PA and ZF
[ML-91-09] 05 p1274 N93-17792
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
Sub-groups of Z(sup n), standard basis, and linear diophantine systems
[INRIA-RR-1510] 06 p1615 N93-17836
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
Feasible interpretability
[ML-91-11] 06 p1643 N93-17868
Modal frame classes revisited
[ML-91-12] 06 p1643 N93-17869
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
Analytica: An experiment in combining theorem proving and symbolic computation
[AD-A258656] 06 p1628 N93-19958
Upside-down meta-interpretation of the model elimination theorem-proving procedure for deduction and abduction
[AD-A259436] 07 p2046 N93-20012
On the existence of (0,2)-graph of order 18
[RR-887-I] 07 p2051 N93-20800
A Gentzen-system for CTL
[RR-865-I-IMAG-122-LIFIA] 07 p2051 N93-20803
Fast theorem proving in intuitionistic propositional logic
[CWI-CS-R9157] 07 p2051 N93-20840
Forcing colorations, intervals and the perfect graph conjecture (an extended abstract)
[RR-867-M] 07 p2053 N93-20945
General antifactors of graphs
[RR-868-M] 07 p2054 N93-20946
Counterexamples to three conjectures concerning perfect graphs
[RR-870-M] 07 p2054 N93-20948
Graphs with maximum number of minimum cuts
[RR-880-M] 07 p2054 N93-21168
Deterministic communication complexity of the Hamming distance
[MEMO-1026] 07 p2056 N93-21399
Use of fuzzy relational information retrieval technique for generating control strategies in resolution-based automated reasoning 09 p2874 N93-25258
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013
Maximum imprecision related to intervals of measures and Bayesian inference with conjugate imprecise prior densities
[MEMO-COSOR-92-07] 10 p3124 N93-27276
Upper and lower bounds for the waiting time in the symmetric shortest queue system
[MEMO-COSOR-92-09] 10 p3127 N93-27278
Characteristic sets in commutative algebra: An overview
[MEMO-COSOR-92-24] 10 p3112 N93-27281
Contributions to the Twente Workshop on Hamiltonian Graph Theory
[MEMO-1043] 10 p3115 N93-27469
On Hamilton-connectedness of Cayley graphs 10 p3115 N93-27470
On Hamiltonian properties of 2-tough graphs 10 p3115 N93-27471
The Hopping Lemma 10 p3115 N93-27473
The complete closure of a graph 10 p3115 N93-27476
Two problems related to results of Chvatal-Erdos 10 p3116 N93-27478
Concerning the circumference of certain families of graphs 10 p3116 N93-27479
Ore-type conditions for cycles through specified vertices 10 p3116 N93-27480
Hamilton cycles in path-tough graphs 10 p3116 N93-27481
Cubic graphs containing k vertex-disjoint subgraphs of given cyclomatic number 10 p3116 N93-27482
Provably recursive programs
[CWI-CS-R9212] 10 p3097 N93-27500
On the adequacy of graph rewriting for simulating term rewriting
[CWI-CS-R9204] 10 p3098 N93-27540
On transfinite abstract reduction systems
[CWI-CS-R9205] 10 p3117 N93-27550
Incidence and lattice calculus with applications to stochastic geometry and image analysis
[CWI-BS-R9213] 10 p3126 N93-28089
Some limit theorems in log density
[W-9108] 10 p3126 N93-28120
Real theorem provers deserve real user-interfaces
[INRIA-RR-1684] 10 p3105 N93-28444
Automated reasoning with function evaluation for COCOLOG
[INRIA-RR-1713] 11 p3529 N93-29488
Packing odd paths
[CWI-BS-R9207] 11 p3549 N93-29849
Sequent calculi for normal modal propositional logics
[LP-92-12] 12 p3806 N93-31533
Generic modal resolution
[REPT-92-90] 12 p3807 N93-31635

THEOREMS
NT ADDITION THEOREM
NT BAYES THEOREM
NT BERNOULLI THEOREM
NT BINOMIAL THEOREM
NT DUALITY THEOREM
NT EQUIPARTITION THEOREM
NT EXISTENCE THEOREMS
NT FLOQUET THEOREM
NT GAUSS-MARKOV THEOREM
NT POMERANCHUK THEOREM
NT RECIPROCITY THEOREM
NT RIESZ THEOREM
NT STOKES THEOREM (VECTOR CALCULUS)
NT UNIQUENESS THEOREM
NT VIRIAL THEOREM
Matching and vertex packing: How hard are they?
[AD-A245928] 02 p0423 N93-10991
Implicit parallelism in genetic algorithms
[REPT-92-012] 02 p0418 N93-11180
Geometrical concepts about learning rules in networks with binary and ternary output functions
[REPT-92-020] 02 p0411 N93-11592
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
MINT: The multiple error LMS algorithm, and the design of inverse filters for multi-channel sound reproduction systems
[ISVR-TR-211] 03 p0700 N93-13439
A proof of the Church-Rosser theorem and its representation in a logical framework
[AD-A256574] 04 p0942 N93-14268
Proof of theorems in Z
[AD-A255711] 04 p0968 N93-14431
Compactness and Loewenheim-Skolem properties in pre-institution categories
[MEMO-INF-92-27] 04 p0968 N93-15094
Low energy theorems in pion production
[DE92-040071] 04 p0977 N93-15279
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Quantum mechanics and polarization correlations for photons
[MEMO-1035] 05 p1329 N93-16639
Note on the average rank of LYM-sets
[MEMO-1036] 05 p1266 N93-16640
Cycles containing all vertices of maximum degree
[MEMO-1044] 05 p1268 N93-16844
A contribution to the theory and practice of multivariate splines
[ISBN-90-9004534-1] 05 p1272 N93-17591
A note on the diagonalizable algebras of PA and ZF
[ML-91-09] 05 p1274 N93-17792
The kinematics of presupposition
[LP-92-05] 06 p1613 N93-17829
A system of dynamic modal logic
[LP-92-08] 06 p1615 N93-17831
Quantifiers into the world of types
[LP-92-09] 06 p1642 N93-17832
Shortest paths of bounded curvature in the plane
[INRIA-RR-1503] 06 p1642 N93-17835
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
Modal frame classes revisited
[ML-91-12] 06 p1643 N93-17869
Testing superperfection of k-trees
[RUU-CS-92-09] 06 p1645 N93-18196
Lambda-calculi for (strict) parallel functions
[INRIA-RR-1387] 06 p1646 N93-18435
Observing localities
[INRIA-RR-1485] 06 p1647 N93-18614
Determination of the zone of the stall cell by means of the baroclinic wave theory 06 p1531 N93-18733
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
A central limit theorem for autoregressive integrated moving average processes
[AD-A258923] 06 p1650 N93-19445
Analytica: An experiment in combining theorem proving and symbolic computation
[AD-A258656] 06 p1628 N93-19958
Dynamic systems and normal forms
[RR-883-M] 07 p2051 N93-20784
Plane multiflows with a fixed number of demands
[RR-885-M] 07 p2034 N93-20788
On the existence of (0,2)-graph of order 18
[RR-887-I] 07 p2051 N93-20800
A Gentzen-system for CTL
[RR-865-I-IMAG-122-LIFIA] 07 p2051 N93-20803
Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848
Discrete orthogonal wavelets
[REPT-91-45] 07 p2052 N93-20862
General antifactors of graphs
[RR-868-M] 07 p2054 N93-20946
Counterexamples to three conjectures concerning perfect graphs
[RR-870-M] 07 p2054 N93-20948
Maximal Kripke-type semantics for modal and superintuitionistic predicate logics
[ML-92-02] 07 p2054 N93-21009
An order-theoretic model for the algebra of communicating processes
[RUU-CS-92-02] 07 p2054 N93-21034
Graphs with maximum number of minimum cuts
[RR-880-M] 07 p2054 N93-21168
Hexagonal grid drawings
[RUU-CS-92-06] 07 p2055 N93-21172
Fundamental symmetry tests with antihydrogen
[DE93-005467] 08 p2479 N93-22541
Rigorous QCD predictions for decays of P-wave quarkonia
[DE93-004853] 08 p2481 N93-22744
Relationships between bankruptcy games and minimum cost spanning tree games
[MEMO-1058] 08 p2469 N93-23356
Towards computer-supported creative design based on Altshuller's theory of inventive problem solving
[MEMO-INF-92-49] 08 p2438 N93-23358
Taming chaotic circuits
[AD-A259495] 08 p2439 N93-23449
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
Monte Carlo approach to the approximation of invariant measures
[PB93-159069] 09 p2830 N93-26317
On Hamilton-connectedness of Cayley graphs 10 p3115 N93-27470
The power of parallel projection
[RUU-CS-92-17] 10 p3100 N93-27908
Incidence and lattice calculus with applications to stochastic geometry and image analysis
[CWI-BS-R9213] 10 p3126 N93-28089
The commutant lifting theorem for contractions on Krein spaces
[W-9107] 10 p3128 N93-28119

Notes on Krein spaces
[W-9109] 10 p3128 N93-28121
The commutant lifting theorem in the Krein space setting: A proof based on the coupling method
[W-9208] 10 p3128 N93-28125
Lie groups whose set of compact subgroups is inductive
[ETN-93-93791] 11 p3547 N93-28524
Classification theorem for principal fibre bundles, Berry's phase, and exact cycle evolution
[DE93-011114] 11 p3556 N93-28601
Closed-loop control with delayed information
[INRIA-RR-1638] 11 p3541 N93-28638
Mixed limit theorems for pattern analysis
[AD-A263735] 11 p3549 N93-29854
Undecidability of modal and intermediate first-order logics with two individual variables
[ML-92-06] 12 p3804 N93-31480

THEORETICAL PHYSICS
NT NEWTON THEORY
NT QUANTUM THEORY
Research in theoretical particle physics
[DE92-016181] 01 p0154 N93-10605
Research program in experimental and theoretical high energy physics
[DE92-016219] 01 p0156 N93-10618
Theoretical nuclear physics
[DE92-019286] 03 p0706 N93-12822
Theoretical high energy physics
[DE92-015480] 03 p0707 N93-13189
Guide to QSPIRES and the particle physics databases on SLACVM
[DE92-018099] 03 p0737 N93-13275
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-006] 03 p0698 N93-13303
Dual mass and torsion 03 p0728 N93-13498
Theoretical interpretation of high-energy nuclear collisions
[DE92-040845] 05 p1296 N93-16128
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Theoretical particle physics
[DE93-000649] 05 p1329 N93-16357
Global continuous symmetry and the 17keV neutrino
[PREPRINT-868] 05 p1288 N93-16966
Experimental and theoretical high energy physics research
[DE93-001495] 05 p1298 N93-16986
Proceedings of the fifth workshop on elementary-particle picture of the universe
[DE92-538746] 05 p1375 N93-17190
The pion contribution to semi-inclusive deep inelastic scattering with slow baryons in the final state
[KVI-881] 05 p1293 N93-17399
Escape- and spreading width of the isobaric analog state
[KVI-884] 05 p1293 N93-17400
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
Workshop on hadron structure from photo-reactions at intermediate energies
[DE93-001904] 06 p1655 N93-18509
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
Natural selection and particle physics: A thrust for artificial intelligence research
[INPE-5335-PRE/1734] 06 p1641 N93-19823
Physics-like mathematical model for chaos and ergodic criticality in four dimensions 07 p1944 N93-20729
Theoretical models of neutron emission in fission
[DE93-005482] 08 p2485 N93-22343
Investigations in dynamics of gauge theories in theoretical particle physics
[DE93-007260] 08 p2484 N93-24448
Anti-gravity: The key to 21st century physics
[DE93-006929] 08 p2475 N93-24463
Topics in CP violation
[DE93-007615] 09 p2847 N93-25323
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-004] 09 p2844 N93-25402
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-92-003] 09 p2844 N93-25403
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-001] 09 p2844 N93-25404
From fractals to wormholes via string theory 09 p2871 N93-25742
On the octonionic Nahm equations and self-dual membranes in 9 dimensions
[DE93-007974] 10 p3128 N93-26673
Covariant harmonic oscillators: 1973 revisited 10 p3147 N93-27358
Variational methods in general relativity: Mitteleuropean mathematical inaccuracy and Italian rigour. The contribution of A. Palatini
[SSCL-PREPRINT-760] 10 p3156 N93-28145
Studies in theoretical high energy particle physics
[DE93-007990] 11 p3574 N93-28565
Research in theoretical nuclear physics
[DE93-008380] 11 p3565 N93-28960
Research in theoretical physics
[DE93-008401] 11 p3603 N93-28961
JPRS report: Science and technology. Central Eurasia: Physics and mathematics
[JPRS-UPM-93-002] 11 p3560 N93-29022
A survey of problems in divertor and edge plasma theory
[DE93-007531] 11 p3586 N93-29056
New Mexico Center for Particle Physics: Studies of fundamental interactions
[DE93-008302] 11 p3566 N93-29261
Task A: Theory of elementary particles
[DE93-010561] 11 p3569 N93-29841
Continuation of: Applications of gauge theories to enhance numerical solutions of mixed potential integral equations
[AD-A263763] 11 p3550 N93-29876
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
NATO Advanced Research Workshop on Frontiers of Optical Phenomena in Semiconductor Structure of Reduced Dimension
[AD-A264813] 11 p3581 N93-30666
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
Connections between quantized affine algebras and superalgebras
[DE93-606065] 11 p3551 N93-30810
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
Convergence rates and finite-dimensional approximations for nonlinear ill-posed problems involving monotone operators in Banach spaces
[DE93-619670] 12 p3809 N93-32287

THEORIES
Elements of a theory of natural decision making 04 p0786 N93-15021

THERAPY
NT CHEMOTHERAPY
NT RADIATION THERAPY
Center of Excellence in laser medicine
[DE92-018760] 02 p0384 N93-11445
AFRRI reports
[AD-A254581] 03 p0674 N93-12649
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
Automatic detection of seizures with applications 09 p2796 N93-25592
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759
Pharmacokinetics and Pharmacodynamics in Space
[NASA-CP-10048] 11 p3494 N93-29502

THERMAL ABSORPTION
NT POLAR CAP ABSORPTION

THERMAL ACCOMMODATION COEFFICIENTS
U ACCOMMODATION COEFFICIENT

THERMAL AGITATION
U THERMAL ENERGY

THERMAL ANALYSIS
Tank chilldown analysis and verification with a flightweight, 175 cu ft tank under normal gravity with liquid hydrogen 01 p0024 N93-10045
Shortened Test Heating Season (STHS) 01 p0043 N93-10314
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
Mechanical and thermal design of the SUN instrument 01 p0014 N93-10956
Studies of interactive plasma processes in the polar cusp
[NASA-CR-190892] 02 p0357 N93-10964
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU] 02 p0216 N93-11057
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
Thermal stress and strain analysis in traveling autogenous welds
[DE92-019363] 02 p0326 N93-11556
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Thermostructural tailoring of fiber composite structures
[NASA-TM-105882] 02 p0242 N93-12078
Semiconductor measurement technology: Version 2.0 of the TXYZ thermal analysis program: TXYZ20
[PB92-217603] 03 p0570 N93-12978
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
The Fourth Annual Thermal and Fluids Analysis Workshop
[NASA-CP-10106] 03 p0584 N93-13385
Running SINDA '85/FLUINT interactive on the VAX 03 p0584 N93-13390
Development status of SINDA/FLUINT and SINAPS 03 p0585 N93-13393
A SINDA thermal model using CAD/CAE technologies 03 p0585 N93-13394
Analysis of fluid/mechanical systems using EASY5 03 p0586 N93-13397
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189150] 03 p0626 N93-13443
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189151] 03 p0627 N93-13444
Coupled structural/thermal/electromagnetic analysis/tailoring of graded composite structures
[NASA-CR-189152] 03 p0627 N93-13445
Spacecraft thermal design verification in Canada 04 p0808 N93-14940
Space based radar: Test of large space structures 04 p0808 N93-14941
Composite materials in space: Results from the LDEF satellite 04 p0811 N93-14955
Advances in TMG 04 p0811 N93-14956
Thermal analysis of magnetron sputtering designs
[DE93-000348] 04 p0870 N93-15389
Fingerprinting of materials: Technical supplement 05 p1199 N93-15917
Rapid texturing of high temperature superconductors from amorphous precursors
[DE93-001217] 05 p1319 N93-16360
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Development of a commercial photovoltaic concentrator module
[DE93-002594] 05 p1196 N93-16655
STME nozzle thermal analysis 05 p1095 N93-17291
Design and analysis of the cryopump for the D3-D advanced divertor
[DE93-001357] 05 p1179 N93-17389
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Analysis and measurement of thermal resistance in a 3-dimensional silicon multichip module populated with assembly test chips
[DE93-000743] 07 p1888 N93-20029
Development of cure cycles: From laboratory analysis and testing to production of large scale composites
[MBB-Z-0442-92-PUB] 07 p1833 N93-20845
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
Thermal protection systems for aerobrakes 08 p2176 N93-22110
COMMIX-1AR/P: A three-dimensional transient single-phase computer program for thermal hydraulic analysis of single and multicomponent systems
[DE93-006044] 08 p2289 N93-22694
Method of measuring nighttime U-values using the Mobile Window Thermal Test (MoWiTT) Facility
[DE93-004778] 08 p2404 N93-22964
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Gel time measurements on carbon fiber/epoxy resin prepregs
[ICAS-90-4-10-4] 08 p2210 N93-23400
Methodology development for thermal analysis of space power microwave rectifying antennas (rectennas) 08 p2264 N93-23504
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 1
[NASA-CR-192697] 08 p2511 N93-24146
Coupled structural, thermal, phase-change and electromagnetic analysis for superconductors, volume 2
[NASA-CR-192698] 08 p2511 N93-24147
A heat transfer analysis of a mobile vehicle radiation-shielded operator compartment
[DE93-007428] 09 p2800 N93-25318
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Integration of design, thermal, structural, and optical analysis, including thermal animation 09 p2814 N93-25601

SRB environment evaluation and analysis. Volume 1: Redesigned SRB flight heating evaluation
[NASA-CR-192517] 09 p2631 N93-26053
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
Nuclear Engine System Simulation (NESS) version 2.0
10 p2981 N93-26958
An efficient solution procedure for the thermoelastic analysis of truss space structures
10 p2923 N93-27191
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Rectenna thermal model development
10 p3022 N93-27986
Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451
Thermal and mechanical analysis of flip-chips on a liquid cooled multichip module
[DE93-007609] 11 p3405 N93-28641
Thermal Analyzer for Planetary Soil (TAPS): An in situ instrument for mineral and volatile-element measurements 11 p3643 N93-28782
A DTA/GC for the in situ identification of the Martian surface material 11 p3646 N93-28800
TESLA test cell cryostat support post thermal and structural analysis
[DE93-008365] 11 p3407 N93-29048
Application of ray tracing in radiation heat transfer
[NASA-TM-106206] 11 p3419 N93-29075
A generalized approach to the thermal analysis of the Long Duration Exposure Facility's flight experiments
11 p3428 N93-29624
Progress report on the ultra heavy cosmic ray experiment (AO178) 11 p3654 N93-29646
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results
11 p3429 N93-29701
Aero-thermal design of a cooled transonic NGV and comparison with experimental results
11 p3257 N93-29957
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541
Determination of the oxidative stability of perfluoropolyalkyl ethers and correlation with chemical structure
[NASA-TM-106223] 12 p3712 N93-32367
Thermal stability of lithiated vanadium oxide (LVO), gamma-lithium vanadium bronze (gamma-LiV2O5) and vanadium dioxide (VO2) thermal battery cathode materials
[RAE-TR-92047] 12 p3722 N93-32422

THERMAL BARRIERS (PLASMA CONTROL)

Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909

THERMAL BATTERIES

Evaluation of epoxy cured with Ethacure 100 curing agent for use in headers for thermal batteries
[DE92-019326] 02 p0267 N93-11552
Evaluation of flotation for purification of pyrite for use in thermal batteries
[DE92-019330] 02 p0290 N93-11553
DOE battery program for weapon applications
[DE93-002476] 06 p1522 N93-19637
Laser-initiated ordnance for air-to-air missiles
07 p1864 N93-20139
Pyrite cathode material for a thermal battery
[AD-D015600] 07 p1891 N93-20792
Ordnance thermal battery
[AD-D015722] 11 p3412 N93-30201
Thermal stability of lithiated vanadium oxide (LVO), gamma-lithium vanadium bronze (gamma-LiV2O5) and vanadium dioxide (VO2) thermal battery cathode materials
[RAE-TR-92047] 12 p3722 N93-32422

THERMAL BOUNDARY LAYER

Potassium D-line fitting for investigation of MHD boundary layers
[DE92-019020] 02 p0454 N93-11826
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080

THERMAL BUCKLING

Thermal buckling of heated laminated composite circular cylindrical shells 01 p0051 N93-10504
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835

THERMAL CONDUCTIVITY

CO2 laser frequency doubling
[AD-A251060] 02 p0314 N93-10997
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
Effect of interfacial thermal conductance and fiber orientation on the thermal diffusivity/conductivity of unidirectional fiber-reinforced ceramic matrix composites
04 p0864 N93-14190
Modeling of the thermal elasto-plastic behavior for composite materials using the homogenization method
04 p0830 N93-14466
Thermal conductivity of liquid aliphatic hydrocarbons. Part 2: Alkenes, dienes and trienes
[ESDU-92025] 04 p0839 N93-14542
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
ISOCAM experiment cryogenic test results
[REPT-921-440-104] 04 p0825 N93-15140
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
A comparison of superconductor and manganin technology for electronic links used in space mission applications
[NASA-CR-4477] 04 p0997 N93-15587
Thermophysical properties
[DE93-000493] 05 p1329 N93-16242
A survey and analysis of commercially available hydrogen sensors
[NASA-TM-105878] 05 p1170 N93-17777
Prediction of rigid silica based insulation conductivity
[NASA-TP-3276] 06 p1524 N93-17925
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Heat transfer device
[NASA-CASE-LEW-14162-4] 07 p1832 N93-20568
The effect of fiber concentration, length and orientation on the thermal conductivity of a polycarbonate/pitch-based carbon fiber composite 07 p1834 N93-21133
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-007806] 08 p2237 N93-22915
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
Design and validation of optimal experiments for estimating thermal properties of composite materials
09 p2635 N93-25541
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Semiconductor cooling apparatus
[NASA-CASE-LEW-14162-3] 11 p3299 N93-29614
Diamond nucleation of surfaces using carbon clusters
[AD-A264634] 11 p3599 N93-30548
High thermal conductivity of diamond
11 p3294 N93-30977
Thermal conductivities of slags
[NPL-DMM(A)-68] 12 p3705 N93-31322
Analysis of effective thermal conductivity of fibrous materials
[NASA-CR-193242] 12 p3709 N93-31636
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

THERMAL CONDUCTORS

A simple node and conductor data generator for SINDA 03 p0585 N93-13392

THERMAL CONTROL COATINGS

Changes in oxidation state of chromium during LDEF exposure 01 p0034 N93-10581
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Z306 molecular contamination ad hoc committee results 03 p0546 N93-12774
Thermal control surfaces on the MSFC LDEF experiments 03 p0547 N93-12778
Anodized aluminum on LDEF: A current status of measurements on chromic acid anodized aluminum
03 p0544 N93-12779
Fluorescence of thermal control coatings on S0069 and A0114 03 p0548 N93-12781
Long Duration Exposure Facility M0003-5 thermal control coatings on DoD flight experiment
03 p0548 N93-12782
Skylab D024 thermal control coatings and polymeric films experiment 03 p0548 N93-12784
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Method of applying a thermal barrier coating system to a substrate
[NASA-CASE-LEW-15020-2] 04 p0832 N93-14706
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Four space application material coatings on the long-duration exposure flight (LDEF)
[NASA-TM-104574] 06 p1493 N93-18370
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-1] 06 p1495 N93-19332
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
LEO resistant thermal control materials and dry lubricants for the mobile servicing system
07 p1848 N93-20818
Protective coating development for Space Station Freedom at McDonnell Douglas
07 p1849 N93-20820
Characterization and durability testing of plasma-sprayed zirconia-yttria and hafnia-yttria thermal barrier coatings. Part 1: Effect of spray parameters on the performance of several lots of partially stabilized zirconia-yttria powder
[NASA-TP-3295] 08 p2227 N93-22556
Space environmental effects on LDEF composites: A leading edge coated graphite epoxy panel
10 p2992 N93-28265
LDEF thermal control coatings post-flight analysis
10 p3008 N93-28278
Selected results for LDEF thermal control coatings
10 p3008 N93-28279
Fluorescence measurements of the thermal control experiments coatings on LDEF S0069 and A0114
10 p3008 N93-28280
Second LDEF Post-Retrieval Symposium interim results of experiment A0034 10 p3008 N93-28283
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221
LDEF microenvironments, observed and predicted
11 p3283 N93-29623
Next generation optical instruments and space experiment based on the LDEF thermal control surfaces experiment (S0069) 11 p3583 N93-29706
Plasma sprayed ceramic thermal barrier coating for NiAl-based intermetallic alloys
[NASA-CASE-LEW-15535-1] 12 p3705 N93-31294

THERMAL CONVECTION

U FREE CONVECTION

THERMAL CURRENTS

U CONVECTIVE FLOW

THERMAL CYCLING TESTS

Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277

Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Hubble Space telescope thermal cycle test report for large solar array samples with BSFR cells (Sample numbers 703 and 704)
[NASA-TM-108373] 01 p0104 N93-10809
Application of polyimides to aeroengine components
[PNR-90907] 02 p0334 N93-11013
Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065
An evaluation of the blind lap joint for the surface mount attachment of chip components
[DE92-017045] 02 p0277 N93-12106
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
Thermal cycling behavior of unidirectional and cross-plied P100 Gr/6061 aluminum composites
[AD-A257506] 06 p1477 N93-18077
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
Effects of material degradation on large space structures dynamic response
[AD-A258574] 07 p1823 N93-20324
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
LEO resistant thermal control materials and dry lubricants for the mobile servicing system 07 p1848 N93-20818
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
Ruled and holographic experiment (AO 138-5) 11 p3434 N93-29696
Analyses of space environment effects on active fiber optic links orbited aboard the LDEF 11 p3583 N93-29699
Thermal cycler temperature variation and its effect on the polymerase chain reaction
[AD-A264660] 11 p3337 N93-30541
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553

THERMAL DECOMPOSITION
NT PYROLYSIS
Epitaxial magnetic oxides
[AD-A253667] 01 p0035 N93-10230
High resolution absolute absorption cross sections of NO2 at 295, 573, and 673 K at visible wavelengths: Comprehensive data tables
[AD-A255261] 04 p0839 N93-14530
Thermal decomposition of HNIW and HNIW-Based formulations
[AD-A255613] 04 p0854 N93-15011
Thermal isomerization and decomposition of ethynyldisilanes
[DE92-040578] 05 p1102 N93-16012
Development of rate expressions for the thermal decomposition of RDX
[DE93-005345] 08 p2244 N93-22502
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Photopromoted and thermal decomposition of nitric oxide by metal oxides
[AD-A259766] 08 p2224 N93-24422
Determination of the thermal stability of perfluoropolyalkyl ethers by tensimetry
[NASA-TM-106081] 09 p2654 N93-25093
Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033
Development of rate expressions for the thermal decomposition of RDX 09 p2629 N93-26034
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
Thermal decomposition and stabilization of ammonium dinitramide 09 p2630 N93-26038
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
Thermal decomposition of energetic materials. 3: Temporal behaviors of the rates of formation of the gaseous pyrolysis products from condensed-phase decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261965] 10 p3008 N93-27666
Thermal decomposition of nitramines 11 p3318 N93-30065
Observation of reaction intermediates in crystalline RDX 11 p3318 N93-30067
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Thermal decomposition pathways of RDX in the condensed phase 11 p3347 N93-30083
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574
Surface chemistry of N2H4 on Si(100)-2x1
[AD-A264819] 11 p3316 N93-30627

THERMAL DEGRADATION
A statistical analysis of elevated temperature gravimetric cyclic oxidation data of 36 Ni- and Co-base superalloys based on an oxidation attack parameter
[NASA-TM-105934] 06 p1486 N93-18069
Energetic material response to abnormal environments 11 p3350 N93-30095

THERMAL DIFFUSION
Thermoconvective instability in the solar core 03 p0771 N93-13849
Crystal growth in a microgravity environment
[NASA-CASE-MFS-28473-1] 04 p0992 N93-14707
Experimental evidence of off-diagonal transport term and the discrepancy between energy/particle balance and perturbation analyses
[DE92-556732] 05 p1309 N93-16237
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656
A method of making a single layer multi-color luminescent display
[NASA-CASE-LAR-14811-1] 07 p1888 N93-20119
Thermal analysis of transmissive elements in high average power laser beam delivery systems
[DE93-009235] 10 p3049 N93-28451
Follow up on the crystal growth experiments of the LDEF 11 p3602 N93-29381
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539

THERMAL DIFFUSIVITY
Characterization and durability testing of plasma-sprayed zirconia-yttria and hafnia-yttria thermal barrier coatings. Part 1: Effect of spray parameters on the performance of several lots of partially stabilized zirconia-yttria powder
[NASA-TP-3295] 08 p2227 N93-22556
Thermal diffusivity measurement of diamond materials
[AD-A260431] 08 p2238 N93-22947
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349
Clementine 2: A double asteroid flyby and impactor mission 11 p3268 N93-28770
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
On the ideality of using a step-function current in a metallic foil to simulate a step-function heat-flux source
[AD-A264627] 11 p3413 N93-30539
High thermal conductivity of diamond 11 p3294 N93-30977

THERMAL DISSOCIATION
The importance of hindered rotations and other anharmonic effects in the thermal dissociation of small unsaturated molecules: Application to HCN
[DE92-040734] 05 p1285 N93-16268

THERMAL EFFECTS
U TEMPERATURE EFFECTS

THERMAL EFFICIENCY
U THERMODYNAMIC EFFICIENCY

THERMAL EMISSION
NT THERMIONIC EMISSION
Development of a portable infrared emission spectrometer AA460 PIRES
[NASA-CR-190849] 03 p0598 N93-13656
Third Stokes parameter emission from a periodic water surface
[NASA-CR-192334] 08 p2342 N93-22454
The effects of cloud inhomogeneities upon radiative fluxes, and the supply of a cloud truth validation dataset
[NASA-CR-191711] 09 p2787 N93-26492
Multi-thermal emission associated with a limb prominence following two subflares and a coronal mass ejection 12 p3876 N93-31399
Imaging circumstellar disks around young stars by multi-aperture interferometry 12 p3847 N93-31766
Polametric passive remote sensing of ocean surface
[AD-A265874] 12 p3746 N93-32173

THERMAL ENERGY
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
A quantitative analysis of the effect of ELMs on H-mode thermal energy confinement in DIII-D
[DE92-017704] 03 p0712 N93-12687
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Solar reforming applications study summary
[DE93-002286] 08 p2244 N93-22424
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004738] 08 p2378 N93-22966
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
A review of the experience gained in 10 years operation of Gould's solar industrial process heat system
[DE93-003991] 08 p2381 N93-23970
Aquifer thermal energy (heat and chill) storage
[DE93-006446] 09 p2759 N93-25183
Regolith thermal energy storage for lunar nighttime power 10 p3067 N93-27984
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349

THERMAL ENERGY STORAGE
U HEAT STORAGE

THERMAL ENVIRONMENTS
Physiologically constrained aerocapture for manned Mars missions 02 p0226 N93-12185
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
Method for fabricating ohmic contacts on semiconducting diamond
[AD-D015432] 04 p0850 N93-14825
Acoustic and thermal testing of the Titan/Centaur upper stage 04 p0814 N93-15621
An experimental examination of the thermal and acoustic environments on runway joint seals
[AD-A257965] 05 p1073 N93-17734
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Rapid Thermal Processing (RTP) of semiconductors in space
[NASA-CR-193110] 10 p3009 N93-28408

THERMAL EXPANSION
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Fracture of a metal/ceramic couple: Tantalum (titanium)/sapphire 03 p0554 N93-14074
Thermal, mechanical, and electroelastic behavior of composite materials 04 p0835 N93-15146
Development of low-expansion ceramics for diesel engine applications
[DE92-041380] 04 p0853 N93-15438
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
Conditioning instabilities of the Greenland Sea
[AD-A257547] 06 p1589 N93-18279
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Oxidation resistant overlay coatings for low expansion substrates
[NASA-CASE-LEW-15154-1] 06 p1495 N93-19332
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Measurement of the expansion coefficient between -150 C and +150 C for material composites for space applications
[REPT-921-430-115] 07 p1833 N93-20939

Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Advanced reinforcement systems for intermetallic applications
[NASA-CR-4488] 08 p2209 N93-22875
Moire interferometry at high temperatures 08 p2328 N93-23380
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Thermoelasticity in quartz 09 p2841 N93-25047
Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658
Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691
A three-dimensional model for the residual stresses in a unidirectional composite plate 09 p2728 N93-25825
Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry
[AD-A260794] 09 p2639 N93-25918
Thermal expansion measurements of polymer matrix composites and syntactics
[MTL-TR-92-27] 09 p2640 N93-25954
Thermal expansion behavior of LDEF metal matrix composites 10 p2993 N93-28269
The design and testing of a high-temperature graphite dilatometer
[AD-A262185] 11 p3430 N93-28488
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Adaptive optics for high power beam lines using diamond crystal monochromators
[DE93-009328] 12 p3824 N93-31987

THERMAL FATIGUE
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
Mechanisms and modelling of environment-dependent fatigue crack growth in a nickel based superalloy
[AD-A253967] 01 p0033 N93-10717
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
A creep cavity growth model for creep-fatigue life prediction of a unidirectional W/Cu composite
[NASA-TM-105780] 02 p0333 N93-10967
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
Computational simulation of probabilistic lifetime strength for aerospace materials subjected to high temperature, mechanical fatigue, creep and thermal fatigue
[NASA-CR-190794] 03 p0626 N93-13290
Thermal fatigue analysis of metal matrix composite with spherical reinforcements
[AD-A255313] 04 p0831 N93-14672
Prediction of thermal cycling induced matrix cracking 05 p1100 N93-16780
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Investigation of fatigue behavior in notched cross-ply titanium metal matrix composite at elevated temperature
[AD-A258922] 06 p1481 N93-19444
Fatigue behavior of a cross-ply ceramic matrix composite under tension-tension and tension-compression loading
[AD-A259209] 06 p1482 N93-19846
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252
Fatigue in single crystal nickel superalloys
[AD-A259191] 07 p1856 N93-20275
Effects of thermal and mechanical fatigue on the flexural strength of G40-600/PMR-15 cross-ply laminates
[NASA-TM-106016] 07 p1832 N93-20317
Evaluation of tensile static, dynamic, and cyclic fatigue behavior for a HIPed silicon nitride at elevated temperatures
[DE93-005149] 08 p2210 N93-23311
Fatigue in single crystal nickel superalloys
[AD-A261742] 09 p2652 N93-26282
Thermomechanical fatigue behavior of a silicon carbide fiber-reinforced calcium aluminosilicate glass-ceramic matrix composite
[AD-A262265] 10 p2991 N93-27676
Mechanics of elevated temperature fatigue damage in fiber-reinforced ceramics
[AD-A262403] 11 p3329 N93-28495
Overview of piping issues and trends
[DE93-006628] 11 p3354 N93-28893
Thermal shock and fatigue behavior of ceramic tubes 12 p3739 N93-31139
Cumulative fatigue damage behavior of MAR M-247 12 p3696 N93-31575
Secondary orientation effects in a single crystal superalloy under mechanical and thermal loads 12 p3696 N93-31578
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582
Fatigue in single crystal nickel superalloys
[AD-A265451] 12 p3706 N93-31795

THERMAL GRAVIMETRY
U THERMOGRAVIMETRY

THERMAL INSTABILITY
Thermoconvective instability in the solar core 03 p0771 N93-13849
The magnetothermal stability of radially stratified line-tied coronal loops 12 p3876 N93-31400

THERMAL INSULATION
Superconducting applications in propulsion systems. Magnetic insulation for plasma propulsion devices
[NASA-CR-184401] 02 p0233 N93-12013
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Effects of the LDEF environment on the Ag/FEP thermal blankets 03 p0548 N93-12785
Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475
High-performance, non-CFC-based thermal insulation: Gas filled panels
[DE93-001525] 05 p1118 N93-15809
Energy and global warming impacts of CFC alternative technologies for foam building insulations
[DE92-019477] 05 p1200 N93-16085
ASRM case insulation design and development
[NASA-CR-191947] 05 p1090 N93-16605
Prediction of rigid silica based insulation conductivity
[NASA-TP-3276] 06 p1524 N93-17925
Resource availability at Taurus-Littrow 06 p1736 N93-18792
Reentry systems: Material technology needs 08 p2176 N93-22108
Flexible thermal protection materials for entry systems 08 p2177 N93-22111
Thermal protection systems for space transportation vehicles 08 p2177 N93-22113
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Variable pressure insulating jackets for high-temperature batteries
[DE93-006404] 08 p2283 N93-24027
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Predicted and observed directional dependence of meteoroid/debris impacts on LDEF thermal blankets 11 p3638 N93-29358
Space Shuttle Orbiter thermal protection system design and flight experience
[NASA-TM-104773] 12 p3727 N93-32198

THERMAL MAPPING
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809
Nonuniformity effects in a hybrid platinum silicide imaging device
[AD-A256339] 04 p0983 N93-15197
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor
[AD-A256699] 05 p1212 N93-16153
Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830
Dual-band infrared imaging applications: Locating buried minefields, mapping sea ice, and inspecting aging aircraft
[DE93-000516] 05 p1304 N93-17225
Linear mixing model applied to coarse resolution satellite data 06 p1565 N93-18073
Photoluminescent thermography in hypersonic blowdown wind tunnel: Feasibility study with pinpoint measurement
[ONERA-NT-1992-8] 06 p1407 N93-18617
Condensation phase of the Martian south polar cap 06 p1740 N93-19804
Microwave spectroscopy of the active sun
[NASA-CR-192135] 07 p2100 N93-20571
The use of thermal infrared remote sensing for water management: Report of the operational research
[BCRS-91-34] 07 p1969 N93-20954
Growth and characterization of binary and pseudo-binary 3-5 compounds exhibiting non-linear optical behavior. Undergraduate research opportunities in microgravity science and technology
[NASA-CR-192143] 07 p2068 N93-21363
SST monitoring of the European seas with AVHRR data 07 p1963 N93-21629
Mapping of satellite-derived sea surface temperatures at high resolution in cloudy regions 07 p1963 N93-21630
A comprehensive comparison between skin and multi-channel sea surface temperatures as derived from AVHRR 07 p1963 N93-21632
Generation and distribution of remotely-sensed sea surface temperature images 07 p1964 N93-21637
Image analysis by integration of disparate information 09 p2824 N93-25973
Quantification of thermographic mapping techniques
[AD-A264020] 11 p3391 N93-30016
Analysis of thermal bar using boundary-layer integral equations gradients
[MATHS-REPT-A-177] 11 p3462 N93-30107

THERMAL NEUTRONS
Miniature neutron sources: Thermal neutron sources and their users in the academic field
[DE92-018793] 03 p0702 N93-13070
The use of ring ratios to detect sample differences in passive neutron counting
[DE92-018920] 03 p0702 N93-13076
Effects of high thermal neutron fluences on Type 6061 aluminum
[DE92-040569] 04 p0846 N93-15348
Surface physics with cold and thermal neutron reflectometry
[DE93-001986] 05 p1286 N93-16361
A pulsed fast-thermal neutron interrogation system 07 p1765 N93-21866
Detector selection for nuclear-based explosive detection system 07 p1766 N93-21869
Explosive detection system based on Electronic Neutron Generator (ENG) 07 p1766 N93-21870
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
Bomb/no bomb: From multivariate analysis to artificial neural systems 07 p1776 N93-21934
Fast nuclear spectroscopy for explosive detection systems 07 p1777 N93-21937
A systems approach to the explosive detection problem 07 p1778 N93-21942
Logistics and the 'ilities' requirements for explosive detection systems 07 p1778 N93-21944
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945

THERMAL NOISE
Performance evaluation of a radar by computer
[AD-A257543] 06 p1500 N93-17960
Thermally induced vibrations in a temperature-rate dependent thermoelastic solid with a spherical cavity 07 p1933 N93-20663
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Processing, fabrication, and demonstration of HTS integrated microwave circuits
[AD-A263161] 11 p3406 N93-28940
The flight performance of the Galileo orbiter USO 11 p3386 N93-29603

THERMAL PLASMAS
Comprehensive computational model for thermal plasma processing
[DE92-018015] 02 p0454 N93-12066
The collaborative program of research in engineering sciences
[DE92-016838] 02 p0490 N93-12477
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Plasma separation 05 p1313 N93-16892
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
A DE-1/whistler study of the thermal plasma structure and dynamics in the dusk bulge sector of the magnetosphere
[NASA-CR-192088] 06 p1579 N93-18850
Static galactic halo and galactic wind 10 p3198 N93-26862
Plasma/particle interaction in subsonic argon/helium thermal plasma jets
[DE93-010808] 11 p3589 N93-30181

THERMAL POWER
U TURBOGENERATORS

THERMAL PROPERTIES
U THERMODYNAMIC PROPERTIES

THERMAL PROTECTION
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Reusable thermal protection system development: A prospective 02 p0227 N93-12448
Thermal protection systems manned spacecraft flight experience 02 p0227 N93-12449
Advanced ceramic matrix composites for TPS 02 p0228 N93-12450
Thermal protection using very high temperature ceramics 02 p0228 N93-12451
Predicted and tested performance of durable TPS 02 p0228 N93-12454
Current research in oxidation-resistant carbon-carbon composites at NASA. Langley Research Center 02 p0229 N93-12456
Active cooling from the sixties to NASP 02 p0208 N93-12458
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle mission STS-47
[NASA-TM-107553] 03 p0520 N93-13032
Emittance measurements of Space Shuttle orbiter reinforced carbon-carbon
[NASA-TP-3293] 04 p0903 N93-15530
Ablative thermal protection structure design of ballistic reentry spacecraft
[AD-A256908] 05 p1087 N93-16027
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-52
[NASA-TM-107554] 06 p1457 N93-19050
Research on heat-resistance technology for HOPE 07 p1791 N93-20426
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
SRB frustrum 'smiley' cracking phenomenon study
[NASA-CR-192522] 07 p1829 N93-20912
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe 07 p1838 N93-21160
Correlation of results of radiant heat test and convective heat test for three layered protective clothing 07 p1838 N93-21161
Nuclear thermal rocket entry heating and thermal response preliminary analysis
[DE93-002460] 07 p1830 N93-21728
Entry Systems Panel deliberations 08 p2176 N93-22105
Space assembled entry systems certification 08 p2176 N93-22106
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
Reentry systems: Material technology needs 08 p2176 N93-22108
Thermal protection systems for all-weather reusable launch vehicles 08 p2176 N93-22109
Thermal protection systems for aerobrakes 08 p2176 N93-22110
Flexible thermal protection materials for entry systems 08 p2177 N93-22111
Ceramic matrix composites (continuous fiber reinforced) thermal protection systems 08 p2177 N93-22112
Thermal protection systems for space transportation vehicles 08 p2177 N93-22113
Thermal protection materials at NASA Ames Research Center 08 p2177 N93-22114
Some materials perspectives for space transportation systems 08 p2177 N93-22115
Materials and structures technologies for hypersonics 08 p2177 N93-22116
Rigid fibrous ceramics for entry systems 08 p2177 N93-22117
Static and aerothermal tests of a superalloy honeycomb prepackaged thermal protection system
[NASA-TP-3257] 08 p2297 N93-24096
An investigation of the degradation of Fluorinated Ethylene Propylene (FEP) copolymer thermal blanketing materials aboard LDEF in the laboratory
[NASA-CR-192824] 09 p2653 N93-25078
Remtech SSME nozzle design TPS
[NASA-CR-192516] 09 p2631 N93-26056
The effects of simulated low Earth orbit environments on spacecraft thermal control coatings
[NASA-TM-106146] 10 p2957 N93-27019
Debris/ice/TPS assessment and integrated photographic analysis for Shuttle Mission STS-55
[NASA-TM-107559] 11 p3271 N93-29136
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221
Space Shuttle Orbiter thermal protection system design and flight experience
[NASA-TM-104773] 12 p3727 N93-32198

THERMAL RADIATION
NT BLACK BODY RADIATION
TRASYS form factor matrix normalization 03 p0585 N93-13391
A SINDA '85 nodal heat transfer rate calculation user subroutine 03 p0587 N93-13403
Radiation fluxes at the FIFE site
[NASA-CR-191717] 05 p1208 N93-16718
Water surface temperatures from satellite thermal images 08 p2340 N93-22444
Jet Engine hot parts IR Analysis Procedure (J-EIRP)
[NASA-TM-105914] 08 p2125 N93-22588
Transient radiation properties of strongly radiating turbulent flames 08 p2221 N93-23181
Thermal infrared radiation transfer in the planetary boundary layer 09 p2772 N93-25688
Thermal radiation in non-metalized solid rocket motors: Effect on burning rate and temperature sensitivity 09 p2626 N93-26020

THERMAL REACTORS
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Nuclear propulsion technology advanced fuels technology 10 p2979 N93-26935

THERMAL RESISTANCE
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Heat resistant diffusion coating for niobium alloy
[AD-A255542] 03 p0554 N93-13873
Growth and properties of co-evaporated superconducting YBaCuO thin films
[ETN-92-92798] 06 p1673 N93-18441
Research on heat-resistance technology for HOPE 07 p1791 N93-20426
Research on HOPE communication and data processing equipment 07 p1792 N93-20429
Development and tests on OREX vehicle thermal structure system 07 p1793 N93-20433
Development of high heat radiation printed boards 07 p1796 N93-20456
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Aramids in high performance protective clothing 07 p1837 N93-21155
Developments in heat and flame resistant textiles for protective clothing and barrier fabrics 07 p1838 N93-21157
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Advanced insulations for refrigerator/freezers: The potential for new shell design incorporating polymer barrier construction
[PB93-146991] 08 p2259 N93-24635
Rectenna thermal model development 10 p3022 N93-27986
Advanced insulations for refrigerator/freezers: The potential for new shell designs incorporating polymer barrier construction
[DE93-010600] 11 p3353 N93-28570
Biophysical model for handwear insulation testing
[AD-A262926] 11 p3505 N93-28884
Novel polymer compositions for high-temperature membrane applications, phase 1
[PB93-174126] 11 p3331 N93-29201
The microchannel heatsink with liquid nitrogen cooling
[DE93-009258] 11 p3422 N93-29300
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Microstructural studies of ceramic thermal carrier coatings; how it influences coatings thermomechanical resistance
[ONERA-NT-1992-9] 12 p3709 N93-31597

THERMAL RESOURCES
NT GEOTHERMAL RESOURCES
NT GEYSERS

THERMAL SHIELDING
U HEAT SHIELDING

THERMAL SHOCK
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 3: Stress and reliability analysis of layered composite cylinders under thermal shock
[AD-A257461] 05 p1090 N93-16131
Factors influencing the thermal shock behavior of ceramics
[DE93-005762] 08 p2236 N93-22690
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
DOE fundamentals handbook: Material science
[DE93-012225] 11 p3314 N93-30200
Thermal shock and fatigue behavior of ceramic tubes 12 p3739 N93-31139

THERMAL SIMULATION
The Seventeenth Space Simulation Conference. Terrestrial Test for Space Success
[NASA-CP-3181] 04 p0819 N93-15593
A new thermal vacuum facility at the Martin Marietta Waterton plant 04 p0814 N93-15607
NTP system simulation and detailed nuclear engine modeling 10 p2980 N93-26957
Development of IR radiation simulator for spacecraft thermal testing 10 p2924 N93-27201

THERMAL SINKS
U HEAT SINKS

THERMAL STABILITY
The effect of elevated temperatures on the properties of thermally stable silicon-based elastomers for adhesives, sealants, and insulator applications 01 p0015 N93-10006
Chemical and thermal stability of refrigerant-lubricant mixture with metal
[DE92-015117] 01 p0044 N93-10398
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457

Transverse flexural tests as a tool for assessing damage to PMR-15 composites from isothermal aging in air at elevated temperatures
[NASA-TM-105848] 03 p0529 N93-12737
Studies of plasticized-polymer electrolytes containing mixed Zn(2) and Li(1)
[AD-A254818] 03 p0545 N93-12755
Spectroscopy and reactions of hydrazoic acid on silicon single crystal surfaces (III). HN3 and DN3 on Si(111)-7 x 7
[AD-A255241] 04 p0842 N93-14669
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
[AD-A255242] 04 p0992 N93-14670
High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812
A high precision sandwich reflector for FIRST: Design and mechanical analysis of the sandwich core
05 p1082 N93-15759
The DARPA high-performance polymer program. Volume 2: Appendix: Selected presentation material from the program review held on 14-15 January 1992
[AD-A257309] 05 p1121 N93-16156
The DARPA high-performance polymer program. Volume 1: Program background and highlights of the program review held on 14-15 January 1992
[AD-A257308] 05 p1121 N93-16190
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-000537] 05 p1121 N93-16192
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Molecular-scale hybrid polymer ceramics
06 p1496 N93-18487
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system
06 p1496 N93-19402
Numerical calculation on ionospheric electron and ion temperatures in the presence of turbulence
06 p1726 N93-19548
Advances in laser diodes for pyrotechnic applications
07 p1865 N93-20146
Interferometric JFTOT tube deposit measuring device
[AD-D015599] 07 p1866 N93-20247
Thermal/chemical stability of ceramic cross flow filter materials
[DE93-002710] 07 p1860 N93-21491
Ultra-stable, low phase noise dielectric resonator stabilized oscillators for military and commercial systems
08 p2287 N93-22179
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels data sets
[AD-A260220] 08 p2220 N93-22917
Broadband erbium-doped fiber sources for the fiber-optic gyroscope 08 p2304 N93-23723
Combustion and heat transfer studies utilizing advanced diagnostics: Fuels research
[AD-A260249] 08 p2246 N93-24332
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Determination of the thermal stability of perfluoropolyalkyl ethers by tensimetry
[NASA-TM-106081] 09 p2654 N93-25093
Characterization of ceramic capacitors for high-voltage pulse-discharge applications
[DE93-007601] 09 p2689 N93-25417
Design and validation of optimal experiments for estimating thermal properties of composite materials
09 p2635 N93-25541
Mullite whiskers and mullite-whisker felt
09 p2642 N93-25586
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033
Chemistry during the induction time in heated nitramines 09 p2629 N93-26035
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402
Synthesis and properties of a cation-conducting, high temperature polymer electrolyte
[AD-A263557] 11 p3334 N93-29825
Chemical and thermal stability of refrigerant-lubricant mixtures with metals
[DE93-013082] 12 p3715 N93-32163
Non-destructive, ultra-low resistance, thermally stable contacts for use on shallow junction InP solar cells
[NASA-TM-106228] 12 p3750 N93-32201
Thermal stability of lithiated vanadium oxide (LVO), gamma-lithium vanadium bronze (gamma-LiV2O5) and vanadium dioxide (VO2) thermal battery cathode materials
[RAE-TR-92047] 12 p3722 N93-32422

THERMAL STRESSES
Effects of anode material on arcjet performance
01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Damage accumulation process in advanced metal matrix composite under thermal cycling
[AD-A248674] 01 p0027 N93-10277
Generation of thermal strains in carbon fibre-reinforced bismaleimide (PMR-15) composites, part 1, 2 and 3
[PNR-90976-PT-1-2-3] 02 p0236 N93-11065
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Thermal stress and strain analysis in traveling autogenous welds
[DE92-019363] 02 p0326 N93-11556
Design of a high-temperature experiment for evaluating advanced structural materials
[NASA-TM-105833] 02 p0337 N93-11624
Molecular orientation induced by cooling stresses in polycarbonate. 1: Free quenching
02 p0269 N93-11987
Molecular orientation induced by cooling stresses in polycarbonate. 2: Constrained quench and injection moulding 02 p0270 N93-11988
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
Analysis of delamination in composite laminates under low-velocity impact 02 p0243 N93-12532
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Thermal stress in US Air Force operations
[AD-A255785] 03 p0676 N93-14027
Physiological stress from chemical defense clothing and equipment
[AD-A255786] 03 p0676 N93-14028
The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
Digital caustic investigation of near surface cracks under transient thermal loading 04 p0897 N93-14217
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Modeling of the thermal elasto-plastic behavior for composite materials using the homogenization method
04 p0830 N93-14466
Sunshade support structure: Structure and testing
05 p1080 N93-15748
Thermoviscoelastic analysis of pavements
05 p1070 N93-16313
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
Thermal plastic strain fatigue life of the roll
07 p1924 N93-20354
On the vibration of thermally stressed laminated composite cylindrical shells 07 p1930 N93-20648
Thermally induced vibrations in a temperature-rate dependent thermoelastic solid with a spherical cavity
07 p1933 N93-20663
Derating requirements applicable to electronic, electrical, and electro-mechanical components for ESA space systems
[ESA-PSS-01-301-ISSUE-2] 07 p1893 N93-21194
High performance sapphire windows
08 p2310 N93-22198
Finite-element pre-analyses for pressurized thermoshock tests. Vessel 1: Tests 4, 5, and 6
[VTT-PUBS-103] 08 p2326 N93-23120
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
Stress and reliability analyses of multilayered composite cylinder under thermal and mechanical loads
09 p2726 N93-25533
Flow instability in particle-bed nuclear reactors
10 p2979 N93-26934
An efficient solution procedure for the thermoelastic analysis of truss space structures
10 p2923 N93-27191
A thermal stress solution for multilayered composite cylinders
[AD-A262579] 11 p3295 N93-28657
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Advanced thermally-stable, coal-derived, jet fuels program: Experiment system and model development
[AD-A262747] 11 p3342 N93-29402
Thermal shock and fatigue behavior of ceramic tubes
12 p3739 N93-31139
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029

THERMAL VACUUM TESTS
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
Manned testing in a simulated space environment
04 p0820 N93-15602
A new thermal vacuum facility at the Martin Marietta Waterton plant 04 p0814 N93-15607
INTESPACE's new thermal-vacuum test facility: SIMMER 04 p0814 N93-15613
Outgassing and dimensional changes of polymer matrix composites in space 10 p2992 N93-28262
Long Duration Exposure Facility (LDEF) low temperature Heat Pipe Experiment Package (HEPP) flight results
11 p3429 N93-29701

THERMIONIC CATHODES
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963

THERMIONIC CONVERSION SYSTEMS
U THERMIONIC POWER GENERATION

THERMIONIC CONVERTERS
NT SOLAR BLANKETS
A heat pipe coupled planar thermionic converter: Performance characterization, nondestructive testing, and evaluation
[AD-A254941] 03 p0727 N93-12546

THERMIONIC DIODES
Analysis of TOPAZ 2 and SPACE-R space nuclear power plants using a modified thermionic model
[AD-A262612] 11 p3286 N93-28474

THERMIONIC EMISSION
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Thermionic emission current in a single barrier varactor 10 p3012 N93-27735

THERMIONIC POWER GENERATION
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
An evolution strategy for lunar nuclear surface power
10 p2988 N93-27963
Analysis of TOPAZ 2 and SPACE-R space nuclear power plants using a modified thermionic model
[AD-A262612] 11 p3286 N93-28474
Thermion: Verification of a thermionic heat pipe in microgravity 11 p3235 N93-29757

THERMIONIC REACTORS
U ION ENGINES
U NUCLEAR ROCKET ENGINES

THERMIONICS
Thermionic current measurement in quartz
09 p2840 N93-25045

THERMISTORS
High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172

THERMITES
The sensitivity of energetic materials to friction, impact, and electrostatic stimuli
[DE92-041227] 04 p0855 N93-15478

THERMOCHEMICAL PROPERTIES
NT HEAT OF COMBUSTION
NT HEAT OF FORMATION
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736

THERMOCHEMISTRY
NT AEROTHERMOCHEMISTRY
NT COMBUSTION CHEMISTRY
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Probing flame chemistry with MBMS, theory, and modeling
[DE92-011433] 02 p0251 N93-12119

Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
Systems of evolution equations in thermochemical equations
[AD-A254891] 02 p0253 N93-12282
Thermochemistry of transition metal clusters
[DE92-018713] 02 p0262 N93-12480
Nonideal thermoequilibrium calculations using a large product species data base
[DE92-040839] 03 p0735 N93-12813
Thermochemistry of atmospheric metal reactions
[AD-A248651] 03 p0543 N93-13733
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
Verification of thermodynamic codes REACT and EQUILIB for the study of non-aqueous inorganic systems
[DE93-001403] 06 p1679 N93-19470
Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588
Reaction and diffusion in turbulent combustion
[DE93-006185] 08 p2216 N93-22055
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Development and application of computational aerothermodynamics flowfield computer codes
[NASA-CR-192940] 09 p2574 N93-24736
Dehydration kinetics and thermochemistry of selected hydrous phases, and simulated gas release pattern in carbonaceous chondrites 10 p2997 N93-26684
Transient simulation of ram accelerator flowfields 10 p2986 N93-27139
CSTL technical activities 1992
[PB93-173482] 10 p3219 N93-27399
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Oxygen production on the Lunar materials processing frontier 10 p3088 N93-27967
Thermodynamics of swelling and collapse of polyelectrolytic gels
[ETN-93-93485] 11 p3331 N93-29064
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials 11 p3343 N93-30063
Thermal oxidation of HCN by NO2 in shock waves 11 p3318 N93-30064
Thermal decomposition of nitramines 11 p3318 N93-30065
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Study of codeposition of aluminum-haffnium and deposition of yttrium by the cementation technique: Elaboration of Ni-Cr-Al and Ni-Cr-Al-Hf felt materials
[ONERA-NT-1990-9] 11 p3336 N93-30112
A summary of the JANNAF Workshop on Methods for Exchange of Gun Propellant Burning Rate Information
[AD-A264113] 12 p3713 N93-32030

THERMOCLINES

Behavior of an ocean general circulation model at four different horizontal resolutions
[DE93-001341] 05 p1219 N93-15807
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
Modelling of interfacial and thermocline waves
[AERO-REPT-9209] 06 p1525 N93-18103
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Modelling of interfacial and thermocline waves
[AERO-REPT-9211] 06 p1525 N93-18105
Modelling of interfacial and thermocline waves
[AERO-REPT-9212] 06 p1526 N93-18106
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
Observations of an intrathermocline vortex 09 p2788 N93-24769

THERMOCOUPLE PYROMETERS

New pyro-optic techniques for imaging of long wavelength IR-Radiation (pyro-optic initiation program)
[AD-A260969] 09 p2856 N93-26224
Non-contact heat flux measurement using a transparent sensor
[NASA-TM-106252] 12 p3713 N93-32330

THERMOCOUPLES

NT THERMOPILES
Aerothermal test results from the second flight of the Pegasus booster
[NASA-TM-4391] 02 p0296 N93-10969
Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
High heat flux measurements and experimental calibrations/characterizations 03 p0598 N93-13663
Heat flux microsensor measurements and calibrations 03 p0599 N93-13665
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
Fabrication of thin film heat flux sensors 03 p0599 N93-13667
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
Physical and chemical processes governing the CO2 laser-induced deflagration of ammonium dinitramide (ADN) 09 p2629 N93-26037
Dynamic gas temperature measurements using a personal computer for data acquisition and reduction
[NASA-TM-106119] 10 p3091 N93-27024
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions 11 p3253 N93-29933
Temperature-electromotive force reference functions and tables for the letter-designated thermocouple types based on the ITS-90
[PB93-190338] 12 p3729 N93-31214
High temperature, oxidation resistant noble metal-Al alloy thermocouple
[NASA-CASE-LEW-15515-1] 12 p3729 N93-31298
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555

THERMODYNAMIC CYCLES

NT BRAYTON CYCLE
NT CARNOT CYCLE
NT RANKINE CYCLE
NT STIRLING CYCLE
Magnetohydrodynamic projects at the CDIF
[DE92-018190] 01 p0164 N93-10819
MHD Integrated Topping Cycle Project
[DE92-016610] 01 p0164 N93-10861
Evaluation of diurnal thermal energy storage combined with cogeneration systems
[DE93-004798] 08 p2378 N93-22966
Diffusion-absorption heat pump
[PB93-165777] 10 p3037 N93-26620

THERMODYNAMIC EFFICIENCY

Hydrodynamic efficiencies in implosion experiments 02 p0308 N93-12030
Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196
Reversible thermodynamic cycle for AMTEC power conversion
[DE92-016814] 03 p0571 N93-13197
Laboratory evaluation of an ozone-safe nonazeotropic refrigerant mixture in a Lorenz-Meutzner refrigerator freezer design
[DE92-041252] 05 p1134 N93-17367
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
By-passing of heat exchangers in gas turbines 10 p2922 N93-27189

THERMODYNAMIC EQUILIBRIUM

Liquid-liquid equilibria in binary systems: Monte-Carlo simulation for calculating the effect of nonrandom mixing
[DE92-017020] 02 p0263 N93-10972
Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171
Combustion of LOX with H2(sub g) under subcritical, critical, and supercritical conditions and experimental observation of dense spray and mixing of impinging jets
[NASA-CR-191222] 05 p1104 N93-16647
Charge-induced structural relaxation in amorphous semiconductors
[MBB-Z-0265-89-PUB] 05 p1151 N93-17641
Molecular theory and computer simulation studies of natural and synthetic gas mixtures
[PB92-235696] 07 p1850 N93-21651
Radiative transfer models
[NASA-CR-192433] 07 p1979 N93-21698
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
Double simple-harmonic-oscillator formulation of the thermal equilibrium of a fluid interacting with a coherent source of phonons 10 p3145 N93-27342
Radiative interactions in molecular gases under local and nonlocal thermodynamic equilibrium conditions
[NASA-CR-193223] 11 p3604 N93-29168
Decomposition of hydrogen sulfide for small scale gas processing.
[PB93-174704] 11 p3316 N93-30658
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177

THERMODYNAMIC PROPERTIES

NT CRITICAL POINT
NT CRITICAL PRESSURE
NT CRITICAL TEMPERATURE
NT EMISSIVITY
NT ENTHALPY
NT ENTROPY
NT FREE ENERGY
NT GIBBS FREE ENERGY
NT HEAT OF COMBUSTION
NT HEAT OF FORMATION
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
NT MELTING POINTS
NT PYROELECTRICITY
NT SPECIFIC HEAT
NT SUPERCRITICAL PRESSURES
NT SURFACE ENERGY
NT THERMAL CONDUCTIVITY
NT THERMAL DIFFUSION
NT THERMAL DIFFUSIVITY
NT THERMAL EXPANSION
NT THERMAL INSTABILITY
NT THERMAL STABILITY
NT THERMOCHEMICAL PROPERTIES
NT THERMOPHYSICAL PROPERTIES
NT VAPOR PRESSURE
NT VOLATILITY
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics 01 p0003 N93-10306
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU] 02 p0216 N93-11057
Basicity and optical basicities of slags
[NPL-DMM(A)-48] 02 p0447 N93-11408
Tables of thermodynamic properties of helium magnet coolant, revision A
[DE92-019098] 02 p0471 N93-11656
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
The effect of temperature dependent thermal properties on parametric weld size predictions
[DE92-018816] 02 p0260 N93-12232
Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502
Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788
Journal of Research of the National Institute of Standards and Technology, May-June 1992, volume 97, number 3
[PB92-217637] 03 p0698 N93-12805
Thermodynamically consistent theories for elastoplasticity coupled with damage
[DE92-018283] 03 p0627 N93-13515
Molecular theories and computer simulations of liquid crystals 03 p0725 N93-13843
The preliminary Long Duration Exposure Facility (LDEF) materials data base
[NASA-TM-107692] 04 p0828 N93-14459
Studies of components for thermally regenerative electrochemical systems
[AD-A256124] 04 p0842 N93-14664

Micromechanical concepts for the estimation of property evolution and remaining life 05 p1079 N93-15740
Fluctuations and thermodynamic variables in mean field spin glass models
[PREPRINT-883] 05 p1330 N93-17019
The effects of mixed layer dynamics on ice growth in the central Arctic
[AD-A257553] 06 p1575 N93-17968
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Nanotechnology 06 p1678 N93-18489
Mathematical modelling of materials 06 p1557 N93-18753
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
Liquid tellurides: Structure and properties
[DE93-002909] 06 p1677 N93-19830
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
S. G. Romanovskiy method of thermal treatment and drying of nonconducting materials (Description of an invention for an author's certificate)
[AD-A258631] 07 p1831 N93-20000
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Thermodynamic modeling for organic solid precipitation
[DE93-000104] 07 p1851 N93-21767
A thermodynamic study of the vapor pressures of C-4 and pure RDX 07 p1772 N93-21906
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Thermophysical properties
[DE93-006427] 08 p2216 N93-22056
Methods for predicting properties and tailoring salt solutions for industrial processes 08 p2226 N93-22183
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Thermal diffusivity measurement of diamond materials
[AD-A260431] 08 p2238 N93-22947
Time-reversible Maxwell's demon
[AD-A260170] 08 p2460 N93-23709
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139
Quartz crystal twinning under mechanical stress: Finite element analysis 09 p2839 N93-25032
Thermodynamic, kinetic, and structural properties of linear polyethylene crystallized from polymer-diluent mixture 09 p2864 N93-25528
Photoexcitation of carbon fullerenes
[AD-A260739] 09 p2849 N93-25644
Thermal decomposition and stabilization of ammonium dinitramide 09 p2630 N93-26038
Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174
Thermal decomposition of energetic materials. 4: Deuterium isotope effects and isotopic scrambling condensed-phased decomposition of 1,3,5-trinitrohexahydro-s-triazine
[AD-A261804] 09 p2662 N93-26387
Thermodynamic properties of natural gas mixtures
[PB93-167112] 09 p2872 N93-26509
Thermodynamic properties of natural gas mixtures
[PB93-156818] 09 p2872 N93-26558
Thermodynamic analysis of the binary systems Mo-V, Ni-V, Si-V, and Ti-V
[PB93-173185] 10 p3155 N93-26637
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
Structure and thermodynamics of the soft ion model electrolyte solutions
[AD-A262293] 10 p3136 N93-28246
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747
The thermodynamic properties of thianthrene and phenoxathiin
[DE93-000124] 11 p3603 N93-28964
Thermal properties of organic and modified inorganic aerogels
[DE93-009230] 11 p3311 N93-29263
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Thermodynamic properties of natural gas mixtures
[PB93-162816] 11 p3604 N93-29428
Advanced NDE technology program
[AD-A262008] 11 p3449 N93-29443
Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768
Thermodynamic properties of natural gas mixtures
[PB93-176162] 11 p3604 N93-29794
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206
Thermodynamic and structural properties of metallic glasses and supercooled liquids
[ISBN-0-315-72443-9] 11 p3605 N93-30359
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558
Effective interactions between concentration fluctuations and charge transfer in chemically ordering liquid alloys
[DE93-606724] 11 p3327 N93-30778
Knot invariants and cellular automata
[AD-A264199] 11 p3607 N93-30884
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937
Development of technical processes for manufacturing heavy metal fluoride glass fibers
[ETN-93-94200] 12 p3707 N93-31047
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177
Application of the SAHA equation to high temperature (greater than or equal to 6000 K) rocket exhaust
[AD-A264004] 12 p3692 N93-31291
The development of SiC whisker fabrication technology for nuclear applications
[DE93-605320] 12 p3710 N93-31828
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043
Physical characterization and study of the electrical magnetic and thermal properties of the ceramic high Tc superconductor Y1Ba2Cu3O(7-x)
[DE92-640219] 12 p3711 N93-32187
Enhancements to the Engine Data Interpretation System (EDIS)
[NASA-CR-193363] 12 p3800 N93-32230
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317

THERMODYNAMICS
NT AEROTHERMODYNAMICS
NT COMBUSTION PHYSICS
NT NONEQUILIBRIUM THERMODYNAMICS
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Atomic approaches to defect thermochemistry
[AD-A254278] 01 p0167 N93-10425
Entropy of disorder in thermomechanics of damage in heterogeneous solids 01 p0050 N93-10498
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection 01 p0051 N93-10502
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
Local-equilibrium formalism applied to mechanics of solids
[DE92-016852] 01 p0170 N93-10787
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Internal variables in the local-equilibrium approximation
[DE92-016854] 02 p0471 N93-12102
Computer program for calculating and fitting thermodynamic functions
[NASA-RP-1271] 03 p0728 N93-12967
Structural integrity of composites under load and thermal insult 03 p0530 N93-13012
Mixed-layer parameterization in models of the Indian Ocean
[AD-A255937] 04 p0925 N93-14428
Convective scale 4-D data assimilation using simulated single-Doppler radar observations 04 p0921 N93-14683
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
Adsorption and diffusion of fluids in well-characterized adsorbent materials
[DE92-040160] 04 p0843 N93-15414
Sample container technology 05 p1078 N93-15728
The hydrothermal synthesis of ceramic powders
[ETN-92-92785] 05 p1125 N93-16607
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Compatibility of potential reinforcing ceramics with Ni and Fe aluminides
[NASA-CR-192232] 06 p1494 N93-18784
Integrated modeling of advanced optical systems 06 p1463 N93-18832
Forced precession of the cometary nucleus with randomly placed active regions 06 p1719 N93-19251
Behavior of a quasi-isotropic ply metal matrix composite under thermo-mechanical and isothermal fatigue loading
[AD-A258902] 06 p1481 N93-19443
Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635
Thermodynamic data for fifty reference elements
[NASA-TP-3287] 07 p2084 N93-19977
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
Structure and dynamics of premixed flames in microgravity 07 p1853 N93-20198
Microgravity combustion of dust suspensions 07 p1853 N93-20201
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
A boundary element formulation for thermo-hydrodynamic lubrication problem 07 p1918 N93-20704
Thermodynamic flow description of a ramjet for determination of engine forces and moments
[ESA-TT-1266] 07 p1786 N93-21288
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Towards a first-principles thermodynamics of solids
[DE93-002544] 08 p2514 N93-22426
Theories of elastoplasticity coupled with continuum damage mechanics
[DE93-007426] 08 p2323 N93-22534
The influence of the hydrologic cycle on the extent of sea ice with climatic implications
[NASA-CR-192772] 08 p2413 N93-22700
The scientific microgravity fluid mechanics program of ZARM 08 p2247 N93-22832
Thermodynamical behaviour of supercritical oxygen in the Hermes spaceplane environmental conditions 08 p2249 N93-22850
Thermodynamic and stochastic theory of hydrodynamic and power-producing processes
[DE93-006891] 08 p2515 N93-23028
Materials science on parabolic aircraft: The FY 1987-1989 KC-135 microgravity test program
[NASA-TM-4456] 08 p2252 N93-23171
The nature of the glass transition and its determination by thermal analysis
[DE93-006746] 09 p2654 N93-25374
Measurements and computations of external heat transfer and film cooking in turbines
[RAE-TM-P-1223] 09 p2592 N93-25455
Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919

Detection of atomic oxygen and hydrogen in solid propellant flames and pyrolysis gases using multiphoton laser-induced fluorescence 09 p2628 N93-26029

Thermodynamic analysis of the binary systems Mo-V, Ni-V, Si-V, and Ti-V
[PB93-173185] 10 p3155 N93-26637

Development of a pulse ramjet based on twin valveless pulse combustors coupled to operate in antiphase 10 p2922 N93-27186

Decoherence of multimode thermal squeezed coherent states 10 p3145 N93-27344

NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424

Structure and thermodynamics of the soft ion model electrolyte solutions
[AD-A262293] 10 p3136 N93-28246

Determining the surface heat flux distribution over the tropical Pacific Ocean by the adjoint method 10 p3074 N93-28249

A one-dimensional continuum model for shape-memory alloys
[AD-A262505] 11 p3321 N93-28656

Tailored interfaces for metal-matrix composites-fundamental considerations
[AD-A263048] 11 p3298 N93-29130

Quantum group and symmetry of the heat equation
[DE93-607560] 11 p3605 N93-30779

Modeling studies of ice-ocean dynamics and thermodynamics
[AD-A264084] 12 p3769 N93-31082

Contribution to the theoretical study and finite-element approximation of the multidimensional, multispecies, hyperbolic system of gas dynamics
[ESA-TT-1275] 12 p3724 N93-31429

EXAM: A two-state thermodynamic analysis program
[PB93-191658] 12 p3703 N93-31817

Stress-rupture behavior of small diameter polycrystalline alumina fibers
[NASA-TM-106256] 12 p3712 N93-32382

THERMOELASTICITY

Non-linear thermoelasticity of rubberlike solids 01 p0045 N93-10474

Analytical method of calculating the thermoelastic constants of a multi-phase unidirectional composite
[NPL-DMM(A)-57] 02 p0238 N93-11409

Boundary element method for axisymmetric thermoelastic analysis 03 p0624 N93-13097

Finite element versus boundary element analysis of two-dimensional coupled thermoelasticity 03 p0625 N93-13142

Modeling of the thermal elasto-plastic behavior for composite materials using the homogenization method 04 p0830 N93-14466

Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473

Thermally induced vibrations in a temperature-rate dependent thermoelastic solid with a spherical cavity 07 p1933 N93-20663

On the thermoelastohydrodynamic lubrication dimensionless problem formulations 07 p1917 N93-20693

Boundary element formulation for thermoelastohydrodynamic contact problems 07 p1918 N93-20705

Numerical analysis of the thermoelastic effects in laminated structures and its use in the identification of defects 07 p1841 N93-21511

Thermoelasticity in quartz 09 p2841 N93-25047

Thermoelastic stresses in multi-layered media in non-uniform temperature fields
[AD-A260901] 09 p2727 N93-25658

Quantifying distributed damage in composites via the thermoelastic effect 09 p2637 N93-25691

Thermomechanical response of shape memory composites
[AD-A260828] 09 p2639 N93-25919

An efficient solution procedure for the thermoelastic analysis of truss space structures 10 p2923 N93-27191

Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559

A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029

THERMOELECTRIC CONVERSION SYSTEMS

U THERMOELECTRIC POWER GENERATION

THERMOELECTRIC COOLING

Calorimetric examination of the polarization cluster of the beginning ferroelectric material KTaO3
[ETN-93-93418] 07 p2084 N93-21067

Thermoelectric cooler design
[AD-A262149] 10 p3010 N93-27545

THERMOELECTRIC GENERATORS

Activated transport in AMTEC electrodes
[DE92-016810] 01 p0075 N93-10786

Milliwatt Generator Project
[DE92-015348] 02 p0294 N93-12156

Alternate electrode materials for the SP100 reactor
[DE92-019570] 03 p0706 N93-12970

Efficiency of an AMTEC recirculating test cell, experiments, and projections
[DE92-016811] 03 p0571 N93-13196

Reversible thermodynamic cycle for AMTEC power conversion
[DE92-016814] 03 p0571 N93-13197

Nuclear energy technology 05 p1300 N93-16908

Improvements in manufacture of iridium alloy materials
[DE92-017126] 05 p1298 N93-16932

Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015

AMTEC vapor-vapor series connected cells
[NASA-CASE-NPO-18667-1-CU] 06 p1522 N93-19330

GPHS-RTGs in support of the Cassini mission
[DE93-002035] 07 p1825 N93-21702

An evolution strategy for lunar nuclear surface power 10 p2988 N93-27963

THERMOELECTRIC MATERIALS

A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989

A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691

High temperature rare earth and Si-Ge thermoelectric materials
[DE93-006913] 08 p2513 N93-24462

THERMOELECTRIC POWER GENERATION

The NASA CSTI high capacity power project
[NASA-TM-105813] 02 p0221 N93-11398

THERMOELECTRICITY

Liquid tellurides: Structure and properties
[DE93-002909] 06 p1677 N93-19830

Thermochemical evaluation of proposed electrothermal-chemical propellants
[AD-A259110] 07 p1866 N93-20588

A solid state approach to the production of kilogram quantities of Si80Ge20 thermoelectric alloys
[DE93-004476] 08 p2508 N93-23691

Solid-state isotopic power source for computer memory chips 09 p2694 N93-25596

An evolution strategy for lunar nuclear surface power 10 p2988 N93-27963

THERMOGRAMS

U RECORDING INSTRUMENTS
U TEMPERATURE MEASURING INSTRUMENTS

THERMOGRAPHY

Study of optical techniques for the Ames unitary wind tunnel. Part 5: Infrared imagery
[NASA-CR-191385] 04 p0804 N93-14809

Radiometric infrared focal plane array imaging system for thermographic applications
[NASA-CR-189701] 05 p1168 N93-16830

Photoluminescent thermography in hypersonic blowdown wind tunnel: Feasibility study with pinpoint measurement
[ONERA-NT-1992-8] 06 p1407 N93-18617

Noncontact nondestructive tests
[ETN-93-93060] 07 p1919 N93-20929

Infrared imaging of fibre reinforced plastic composites 07 p1838 N93-21162

Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326

Passive (self-powered) fiber-optic sensors
[DE93-005761] 08 p2486 N93-22762

In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768

Quantification of thermographic mapping techniques
[AD-A264020] 11 p3391 N93-30016

Logarithmic time scale in thermographic Non Destructive Evaluation (NDE) of materials 11 p3359 N93-30246

Heat transfer measurements using infra-red thermography in rarefied flows
[RAE-TM-W-1] 12 p3724 N93-31336

THERMOGRAVIMETRY

Thermal control/oxidation resistant coatings for titanium-based alloys 02 p0229 N93-12457

Effects of orbital exposure on Halar during the LDEF mission 03 p0549 N93-12788

Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441

Thermal decomposition of HMX, mononitroso-RDX, TNCHP and K6 in the liquid phase: Results from simultaneous thermogravimetry modulated beam mass spectrometry measurements 09 p2628 N93-26033

Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535

THERMOHYDRAULICS

A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635

THERMOLUMINESCENCE

DosiMir: Radiation measurements inside the Soviet Space Station Mir, first results 08 p2160 N93-24371

THERMOMECHANICAL TREATMENT

NT HOT ISOSTATIC PRESSING
NT HOT PRESSING

Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190

Effect of thermomechanical treatments on the aging response of centrifugally cast silicon carbide/aluminum composites
[AD-A256204] 04 p0836 N93-15236

Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924

The role of particles in recrystallization of a thermomechanically processed Al-Mg alloy
[AD-A257315] 05 p1111 N93-15982

Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227

The deformation characteristics and microstructural dynamics of an Al-10Mg-0.1Zr alloy
[AD-A257738] 05 p1117 N93-17667

The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852

Thermomechanical processing of aluminum alloy 2519 for grain refinement and superplasticity
[AD-A257859] 06 p1487 N93-18308

Deformation induced microstructural and microchemical changes during thermomechanical treatment
[DE93-005060] 06 p1490 N93-19635

Improved techniques for thermomechanical testing in support of deformation modeling
[NASA-TM-105944] 08 p2323 N93-22555

Study of grain refinement in Al alloy 2519 using backscattering orientation-contrast mode in the scanning electron microscope
[AD-A260886] 09 p2651 N93-25632

THERMOMECHANICS

U THERMODYNAMICS

THERMOMETERS

NT RESISTANCE THERMOMETERS

Electronic triple point cell
[AD-D015374] 03 p0597 N93-13501

Temperature measurements with micrometer spatial resolution
[AD-A255897] 03 p0603 N93-14086

Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461

High resolution digital thermometer
[PAT-APPL-7-831603] 08 p2304 N93-24172

SQUIDs in thermal detectors of weakly interacting particles
[DE93-609531] 12 p3729 N93-31247

THERMOMETRY

U TEMPERATURE MEASUREMENT

THERMONUCLEAR ENERGY

U THERMONUCLEAR POWER GENERATION

THERMONUCLEAR EXPLOSIONS

Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587

THERMONUCLEAR POWER GENERATION

Structural design of cryostat and port penetration of International Thermonuclear Experimental Reactor (ITER)
[DE93-753267] 11 p3587 N93-29243

THERMONUCLEAR PROPULSION

U NUCLEAR PROPULSION

THERMONUCLEAR REACTIONS

NT CONTROLLED FUSION
NT NUCLEAR FUSION

Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326

Development of high power microwave source
[DE93-753316] 11 p3436 N93-28980

A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981

THERMOPHORESIS

Transport phenomena and interfacial kinetics in multiphase combustion systems.
[AD-A255999] 04 p0838 N93-14418

THERMOPHYSICAL PROPERTIES
NT CRITICAL POINT
NT CRITICAL PRESSURE
NT CRITICAL TEMPERATURE
NT EMISSIVITY
NT HEAT OF FUSION
NT HEAT OF VAPORIZATION
NT LATENT HEAT
NT MELTING POINTS
NT PYROELECTRICITY
NT SPECIFIC HEAT
NT SUPERCRITICAL PRESSURES
NT THERMAL CONDUCTIVITY
NT THERMAL DIFFUSION
NT THERMAL DIFFUSIVITY
NT THERMAL STABILITY
NT VAPOR PRESSURE
NT VOLATILITY
Materials compatibility and lubricants research on CFC-refrigerant substitutes: Thermophysical properties
[DE92-015116] 01 p0043 N93-10397
Thermophysical properties
[DE93-000493] 05 p1329 N93-16242
Thermal protection materials: Thermophysical property data
[NASA-RP-1289] 06 p1558 N93-18765
Thermophysical properties
[DE93-006427] 08 p2216 N93-22056
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-006426] 08 p2237 N93-22884
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
NIST standard reference data products catalog, 1993
[PB93-173409] 10 p3219 N93-27424
Physical properties of fluorinated propane and butane derivatives as alternative refrigerants
[PB93-173102] 10 p3010 N93-27528
Composition dependence of fluid thermophysical properties: Theory and modeling
[DE93-011119] 10 p2996 N93-28352
Tables of experimental data used for the correlation of the thermophysical properties of ethane
[PB93-173417] 11 p3313 N93-29768
Experiments on a general thermoacoustic engine
[AD-A265864] 12 p3817 N93-32317
THERMOPHYSICS
U THERMODYNAMICS
THERMOPILES
Fabrication of thin film heat flux sensors
03 p0599 N93-13667
A novel, high energy-density electrical storage device for electric weapons
[AD-A255205] 04 p0867 N93-14666
THERMOPLASTIC RESINS
NT PEEK
Consolidation of powder coated thermoplastic preform process modeling
[AD-A255094] 03 p0529 N93-12757
Predictive forming of advanced thermoplastic composite structures 03 p0529 N93-12835
The crystallization and crystalline properties of LARC-TPI
[NASA-CR-191001] 03 p0721 N93-13022
Development of a 1000 g, 10 ms mechanical shock test capability
[DE92-019193] 03 p0624 N93-13077
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
Characterization of thermotropic liquid crystalline polymer blends by positron annihilation lifetime spectroscopy
[AD-A253616] 03 p0552 N93-13325
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
Mechanics of composite materials for spacecraft
[AD-A255380] 04 p0831 N93-14550
Spirobislactone acrylate polymers
[AD-D015443] 04 p0850 N93-14802
Method of local shaping of thermoplastics
[AD-A255913] 04 p0856 N93-15105
Proceedings of the First Annual Advanced Polymer Components Symposium
[AD-A256679] 05 p1121 N93-16095
Morphology, properties, and stability of thermoplastic polymer blends
[ETN-92-92791] 05 p1124 N93-16491
Design for producing fiberglass fabric in a lunar environment
[NASA-CR-192068] 05 p1135 N93-17770
Short range order in amorphous polycondensates
[DE93-001650] 06 p1494 N93-18708
Imide/arylene ether copolymers containing phosphine oxide groups
[NASA-CASE-LAR-14925-1] 07 p1859 N93-20567
Advanced industrial materials. An overview
07 p1845 N93-20623
Thermoplastic composites 07 p1845 N93-20625
Creep damage of carbon fiber reinforced PEEK
07 p1862 N93-20639
Thermoplastic composites for structural applications: Past and future 07 p1834 N93-21131
Manufacturing of high quality polypropylene/glass fibre prepreg tape 07 p1834 N93-21134
Thermoplastic tape winding parameters
07 p1835 N93-21135
Continuous fiber reinforced thermoplastic composites
07 p1835 N93-21138
Knitted carbon fiber reinforced thermoplastics: Structural characterization with image analysis
07 p1839 N93-21163
Continuous fiber thermoplastic prepreg
[NASA-CASE-LAR-14459-1] 08 p2215 N93-24597
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
Inelastic behavior of thermoplastic composites
09 p2636 N93-25674
Characterization of aerospace grade resins and composites through pressurized volumetric dilatometry
[AD-A260794] 09 p2639 N93-25918
A new class of high strength molding resins, phase 1
[AD-A262691] 10 p3005 N93-28117
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984
Design and manufacturing concepts for thermoplastic structures 11 p3301 N93-30434
F-15 composite engine access door
11 p3302 N93-30442
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
A thermoelastic model for thick composite rings
[AD-A264112] 12 p3701 N93-32029
THERMOPLASTICITY
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Enabling technologies for economical manufacturing of composites
[AD-A253615] 03 p0531 N93-13324
Effects of layer waviness on compression-loaded thermoplastic composite laminates
03 p0532 N93-13724
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
The effect of the interphase/interface region on creep and creep rupture of thermoplastic composites
04 p0829 N93-14193
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
Environmentally compliant thermoplastic powder coating, phase 1
[AD-A257232] 05 p1120 N93-15966
An introduction to the rubber forming of thermoplastic composites
[LR-683] 05 p1122 N93-16212
Lunar preform manufacturing
[NASA-CR-192064] 05 p1135 N93-17775
Mode 2 damage development in carbon fibre reinforced plastics 07 p1842 N93-21523
An analytical/numerical correlation study of the multiple concentric cylinder model for the thermoplastic response of metal matrix composites
[NASA-CR-191142] 10 p2990 N93-27086
The environmental and impact resistance of adhesively bonded thermoplastic fibre composites
[AD-A263202] 10 p2992 N93-28383
Influence of ply waviness on stiffness and strength reduction of composite laminates
[AD-A263224] 11 p3294 N93-28559
Gordon Research Conferences, 1991
[AD-A264275] 11 p3317 N93-30816
A 69 cent look at thermoplastic softening
11 p3292 N93-30963
THERMOREGULATION
A review of models of the human temperature regulation system
[AD-A258023] 06 p1595 N93-17918
Validation of two temperature pill telemetry systems in humans during moderate and strenuous exercise
[AD-A259068] 06 p1599 N93-19072
Measurement of behavioral thermoregulation
[PB92-217033] 07 p2024 N93-21046
Melatonin, the pineal gland, and circadian rhythms
[AD-A264099] 12 p3772 N93-31061
THERMOSETTING RESINS
NT EPOXY RESINS
NT KEVLAR (TRADEMARK)
NT NYLON (TRADEMARK)
NT PHENOLIC RESINS
NT POLYAMIDE RESINS
Influence of cure shrinkage on process-induced stress and deformation in thick thermosetting composites
[AD-A254325] 03 p0529 N93-12842
A tough high performance composite matrix
[NASA-CASE-LAR-14338-1] 03 p0531 N93-13416
Structural study of thermohardening matrices: Deformation of composite matrices in relation to their molecular structure
[ONERA-RT-12/3521-M] 04 p0836 N93-15253
Advanced industrial materials. An overview
07 p1845 N93-20623
Dielectric and dynamic mechanical properties of ATBN-containing thermosets
[DREA-CR-91-444] 08 p2239 N93-23725
Carborane-(silane or siloxane)-unsaturated hydrocarbon based thermosetting polymers
[AD-D015718] 11 p3338 N93-30580
Carborane-(siloxane or silane)-unsaturated hydrocarbon based polymers
[AD-D015717] 11 p3338 N93-30586
Performance of thermal adhesives in forced convection 11 p3293 N93-30974
THERMOSPHERE
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A253228] 01 p0125 N93-10711
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
Investigations of the dynamics and thermodynamics of the mesosphere lower thermosphere and upper thermosphere at the polar regions with optical ground-based remote sensing
[AD-A254746] 03 p0650 N93-12845
Self-consistent modeling of the ionosphere-thermosphere-magnetosphere system
[AD-A253232] 03 p0651 N93-13276
Local-time asymmetries in the Venus thermosphere
04 p1023 N93-14290
The thermosphere and ionosphere of Venus
04 p1026 N93-14307
LISA: A limb imaging spectrograph for airglow
04 p0811 N93-14952
Thermosphere-ionosphere-mesosphere energetics and dynamics (TIMED). The TIMED mission and science program report of the science definition team. Volume 1: Executive summary
[NASA-CR-191377] 05 p1208 N93-16683
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
Visible Airglow Experiment data analysis
[NASA-CR-192119] 06 p1577 N93-18361
EISCAT measurements in the E and F regions during the 12-16 February 1990 LTCS campaign
06 p1726 N93-19546
INDI 06 p1730 N93-19570
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990
06 p1733 N93-19589
The effects on the ionosphere of inertia in the high latitude neutral thermosphere
[NASA-CR-192358] 07 p1998 N93-20758
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics
09 p2896 N93-25285
Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483
Spectral energetics of the lower thermosphere
11 p3477 N93-29467
THERMOSTABILITY
U THERMAL STABILITY
THERMOTROPISM
U ANISOTROPY
U TEMPERATURE EFFECTS
THERMOVISCOELASTICITY
Thermoviscoelastic analysis of pavements
05 p1070 N93-16313

The thermoviscoelastic behavior of composite materials
[ITN-93-85185] 05 p1098 N93-16856
THESAURI
Document processing 01 p0174 N93-10600
An operational system for subject switching between controlled vocabularies
[NASA-CR-192333] 06 p1693 N93-19935
NASA thesaurus combined file postings statistics
[NASA-CR-192259] 07 p2090 N93-20602
Knowledge-based machine indexing from natural language text: Knowledge base design, development, and maintenance
[NASA-CR-4523] 10 p3164 N93-26902
Coordinating Council. Tenth Meeting: Information retrieval: The role of controlled vocabularies
[NASA-TM-108764] 12 p3843 N93-32403
THESES
Nuclear structure from radioactive decay
[DE93-002795] 06 p1654 N93-18392
THICK FILMS
Piezoelectric and electrostrictive materials for transducers applications, volume 4
[AD-A250892] 01 p0072 N93-10282
Prototype superconducting planar transformers using high-Tc thin and thick films
[AD-A254230] 01 p0077 N93-10897
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films
[AD-A256329] 04 p0869 N93-15194
Glassy binder system for ceramic substrates, thick films and the like
[AD-D015472] 05 p1123 N93-16472
Conductive paints
[DE93-006511] 08 p2236 N93-22713
Infrared vacuum soldering process for thick-film hybrid microcircuits
[DE93-007483] 08 p2285 N93-24451
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Atomic scale stitching of beryllium coatings to carbon substrates using 200-keV carbon ions
[DE93-007392] 08 p2485 N93-24565
Adhesion of thick film Au to alumina ceramics
[DE93-009802] 11 p3339 N93-30656
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
Affecting factors to the electrical properties of RuO2 thick-film resistors
[DE93-768332] 12 p3721 N93-32055
THICK PLATES
Compression buckling of thick orthotropic plates with a step thickness change 01 p0046 N93-10478
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Linear and nonlinear analyses of thick composite circular plates using the finite element method 01 p0096 N93-10873
On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates 04 p0901 N93-14587
Barely visible damage threshold in a BMI 07 p1843 N93-21524
Behavior of a steel-liner-and-bolts system under very high thermal and mechanical loading: The CONVEX Liner Add-On to DIAMOND FORTUNE
[DE93-007512] 09 p2731 N93-26507
THICK WALLS
An analytic description of thick-wall bubbles
[DE92-016465] 02 p0432 N93-11759
THICKNESS
Ultrasonic characterization of highly attenuative thick composites
[AD-A253347] 01 p0027 N93-10272
Plasma measurements in magnetospheric tail
[MPE-233] 02 p0361 N93-11352
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
Kind-band failure analysis of thick composites in compression
[AD-A255431] 04 p0831 N93-14509
The interface crack problem in nonhomogeneous bonded materials of finite thickness
[AD-A256990] 05 p1184 N93-16188
Thickness selection for laminated plates subjected to in-plane loads and bending moments
[ESDU-92033] 06 p1477 N93-18044
Effect of thickness and ply layup on the collapse characteristics of cylindrical composite shells with large cutouts
[AD-A258909] 06 p1481 N93-19354
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use 07 p1844 N93-21534
Use of ERS-1 SAR data in numerical sea ice modeling 07 p1957 N93-21592
The Xu-Tec process of introducing normally solid materials into substrate surfaces
[DE93-005124] 07 p1861 N93-21708
Use of radar technology for pavement layer evaluation
[PB92-226166] 07 p1912 N93-21744
Advanced reinforcement systems for intermetallic applications
[NASA-CR-4488] 08 p2209 N93-22875
Text and references to accompany 'Map Showing the Thickness and Character of Quaternary Sediments in the Glaciated United States East of the Rocky Mountains'
[PB93-129864] 08 p2392 N93-22894
Report of the Sea Ice Thickness Workshop
[AD-A259696] 08 p2414 N93-23663
Ice thickness measurement system for the icing research tunnel calibration
[NASA-TM-106095] 09 p2708 N93-24737
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
Silicon crystal under bending
[DE93-010522] 11 p3593 N93-28888
Composite laminate stiffnesses and their sensitivities
[DLR-FB-92-16] 11 p3296 N93-29007
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090
Velocities of Thwaites and Land glaciers 12 p3760 N93-31885
THICKNESS RATIO
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
THIN AIRFOILS
NT INFINITE SPAN WINGS
NT THIN WINGS
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method 06 p1410 N93-19281
THIN BODIES
Boundary element analysis of acoustical thin-body and nonuniqueness problems using a normal derivative integral equation 03 p0631 N93-13951
THIN FILMS
NT DIAMOND FILMS
NT FERROMAGNETIC FILMS
NT LANGMUIR-BLODGETT FILMS
NT MONOMOLECULAR FILMS
Nonlinear studies of surface and interfaces of advanced semiconductor materials
[AD-A253365] 01 p0164 N93-10105
Piezoelectric and electrostrictive materials for transducers applications, volume 1
[AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2
[AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 4
[AD-A250892] 01 p0072 N93-10282
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Pseudomorphic semiconducting heterostructures from combinations of AlN, GaN, and selected SiC polytypes: Theoretical advancement and its coordination with experimental studies of nucleation, growth, characterization, and device development
[AD-A253330] 01 p0166 N93-10355
Growth, nitrogen vacancy reduction, and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A253331] 01 p0166 N93-10356
Simple shearing flow of a 3D foam
[DE92-011151] 01 p0036 N93-10399
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Pre-oxidation anneal kinetics: Interface degradation of thin SiO2 films on silicon
[AD-A253142] 01 p0030 N93-10414
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
Hydrocarbon surface chemistry on Si(100)
[AD-A252803] 01 p0027 N93-10465
Spectroscopic ellipsometric measurements of the dielectric function of germanium dioxide films on crystal germanium
[AD-A253137] 01 p0168 N93-10614
Spectroscopic differential reflectance as an analytical probe for microelectronic processing
[AD-A253134] 01 p0073 N93-10656
Semiconductor-metal eutectic composites for high power switching
[AD-A253930] 01 p0074 N93-10755
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Signal and noise analysis of a-Si:H radiation detector-amplifier system
[DE92-016928] 01 p0075 N93-10790
Atomic force microscope studies of CuCl island formation on CaF2(111) substrates
[AD-A252499] 01 p0034 N93-10880
Prototype superconducting planar transformers using high-Tc thin and thick films
[AD-A254230] 01 p0077 N93-10897
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
Interfacial and thin film chemistry in electron device fabrication
[AD-A253579] 02 p0288 N93-11257
A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors
[NPL-DES-116] 02 p0289 N93-11393
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-190596] 02 p0270 N93-11993
Numerical simulation of a pressure gradient in a multilayer target: Temperature evolution 02 p0309 N93-12039
Superconducting multilayer structures grown by ALL-MBE
[DE92-018011] 02 p0465 N93-12065
Growth of 2-6 thin-films from single-source precursors based on sterically encumbered sitel ligands
[DE92-017077] 02 p0466 N93-12099
Infrared phonon structure in epitaxial films of Tl2Ca2Ba2Cu3O10 at low temperatures
[DE92-017078] 02 p0466 N93-12109
Effect of microstructure on passive film formation and breakdown on Al alloys
[AD-A245863] 02 p0260 N93-12118
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Growth, characterization, and device development in monocrystalline diamond films
[AD-A252648] 02 p0271 N93-12184
Development of contractor cells, phase 1
[DE92-017343] 02 p0348 N93-12222
Workshop on Adhesion and Intermolecular Forces
[AD-A255191] 02 p0272 N93-12276
Ion beams as a means of deposition and in-situ characterization of thin films and thin film layered structures
[DE92-016397] 02 p0469 N93-12310
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3
[NASA-TM-105890] 02 p0469 N93-12325
High temperature superconductor materials and applications
[NASA-CR-184426] 02 p0470 N93-12396
Ferroelectric memory devices and a proposed standardized test system design
[AD-A255159] 02 p0405 N93-12425
MMIC GaAs bonding investigation
[AD-A254773] 02 p0470 N93-12464
Two-fluid measurements on thin films
[PB92-205350] 02 p0308 N93-12475
Chemical sensors based on ultrathin film composite membranes
[AD-A254644] 03 p0595 N93-12619
Electrochemical and chemical characteristics of a new ambient temperature Li(I) polymer electrolyte
[AD-A254918] 03 p0545 N93-12651

High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691
Long Duration Exposure Facility M0003-5 recent results on polymeric films 03 p0549 N93-12789
Development of large-area monolithically integrated silicon-film photovoltaic modules
[DE92-010600] 03 p0637 N93-12838
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
CONCAP 4: A Complex Autonomous Payload (CAP) for growing organic thin films in microgravity 03 p0511 N93-13178
Study of short-range motion of atomic hydrogen in amorphous silicon by neutron reflectometry
[DE92-016392] 03 p0703 N93-13194
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Effect of O2 partial pressure on post annealed Ba2YCu3O(7-delta) thin films
[DE92-014949] 03 p0722 N93-13323
Y1Ba2Cu3O(7-delta) thin film dc SQUIDs (superconducting quantum interference device)
[ITN-92-85167] 03 p0723 N93-13362
Narrow bandgap semiconducting silicides: Intrinsic infrared detectors on a silicon chip
[NASA-CR-190882] 03 p0571 N93-13430
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Development of a computer model for polycrystalline thin-film CuInSe2 and CdTe solar cells
[DE92-016444] 03 p0639 N93-13529
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Thin film thermocouples for high temperature measurement on ceramic materials 03 p0599 N93-13666
Fabrication of thin film heat flux sensors 03 p0599 N93-13667
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Intrinsic bistable photonic materials by copper colloid formation in silica
[AD-A255505] 03 p0711 N93-13866
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition 03 p0726 N93-13904
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Noise measurements of YBa2Cu3O7 thin film high-temperature superconductors 03 p0726 N93-13933
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Surface phonon dispersion of MoS2
[AD-A255835] 03 p0727 N93-14083
Electrical conductivity measurements in evaporated cadmium telluride thin films 04 p0865 N93-14191
Fracture analyses of thin films, interfaces, and joints 04 p0897 N93-14215
A geometrically nonlinear stress-deflection relation for thin film/substrate systems 04 p0848 N93-14287
Long term stability in thin film ferroelectric memories
[AD-A256290] 04 p0991 N93-14439
High temperature polymer dielectric film insulation
[AD-A255243] 04 p0849 N93-14527
Reliability of sol-gel derived ferroelectric memories
[AD-A255358] 04 p0991 N93-14560
Characterisation and dynamic modelling of the near-earth space particulate environment 04 p1019 N93-14637
Reliability of sol-gel derived ferroelectric memories
[AD-A255240] 04 p0849 N93-14668
Thin-film permanent magnets for integrated electromagnetic components
[AD-A256175] 04 p0972 N93-14679
Method of forming a multiple layer dielectric and a hot film sensor therewith
[NASA-CASE-LAR-13678-3] 04 p0881 N93-14714
Characterization of PZT films fatigued at low frequency
[AEROSPACE-ATR-91(8308)-2] 04 p0992 N93-14795
NREL photovoltaic subcontract reports: Abstracts and document control information
[DE92-016406] 04 p0907 N93-14817
Control of thermocapillary convection in a two-layer liquid system 04 p0809 N93-14945
New electronic materials
[AD-A255612] 04 p0868 N93-15010
Jet vapor deposition of thin films for solid oxide and other fuel cell applications
[DE92-019980] 04 p0851 N93-15222
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Growth, characterization and device development in monocrystalline diamond films
[AD-A256283] 04 p0994 N93-15244
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
The crack problem for an orthotropic half plane stiffened by elastic films
[AD-A256471] 04 p0903 N93-15374
The 17th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces
[AD-A257061] 04 p0996 N93-15449
Instrumentation of the variable-angle magneto-optic ellipsometer and its application to M-O media and other non-magnetic films 04 p0984 N93-15508
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Oxidation processes in magneto-optic and related materials 04 p0985 N93-15516
The design and fabrication of a single leakage-channel grating coupler 04 p0986 N93-15518
Rapid silicon dioxide film formation on clean silicon surfaces
[AD-A257261] 05 p1143 N93-15891
Nucleation and growth in electrodeposition of thin copper films on pyrolytic graphite
[DE92-041216] 05 p1111 N93-15967
RF vacuum microelectronics
[AD-A257208] 05 p1145 N93-16004
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
A preliminary examination of Y 1 (a proprietary thin-film ferroelectric produced by Symetrix Corporation)
[AD-A255692] 05 p1146 N93-16395
Method and system for electron beam lithography
[AD-D015397] 05 p1146 N93-16399
Plasma physics, and transportation and use of positively charged particle beams
[AD-D015398] 05 p1310 N93-16400
Measurement of fracture toughness in thin films and small volumes using nanoindentation methods
[DE92-040711] 05 p1320 N93-16445
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
Amorphous silicon pixel radiation detectors and associated thin film transistor electronics readout
[DE92-040379] 05 p1147 N93-16512
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
Optical characterization of sputtered carbon films
[DE92-041209] 05 p1124 N93-16530
B4C solid target boronization of the MST reversed-field pinch
[DE93-002736] 05 p1310 N93-16921
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
Energetics, bonding mechanism and electronic structure of metal/ceramic interfaces
[DE93-003121] 05 p1098 N93-16826
Electrooptic properties of PZT thin films for image storage applications
[DE92-008523] 05 p1303 N93-16928
Spectroscopic and microstructural characterization of solution chemistry effects in PZT thin film processing
[DE92-008675] 05 p1322 N93-16929
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
Enhanced fatigue and retention in ferroelectric thin film memory capacitors by post-top electrode anneal treatment
[NASA-CASE-NPO-18551-1-CU] 05 p1150 N93-17277
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Microstructural and electronic properties of highly oriented Tl(0.5)Pb(0.5)Sr2CaCu2O7 films on LaAlO3
[DE93-000655] 05 p1326 N93-17365
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
Molecular films for opto-electronics
[AD-A258070] 05 p1305 N93-17702
Feasibility of silicon nitride films by vapor deposition at low temperature: Comparison of dichlorsilane-ammonia and disilane gaseous systems
[LAAS-92249] 06 p1490 N93-17812
Positron lifetime spectroscopy for investigation of thin polymer coatings
[NASA-TM-4421] 06 p1491 N93-17945
Writing electronically active nanometer-scale structures with a scanning tunneling microscope
[MBB-Z-0367-91-PUB] 06 p1671 N93-18117
Crystalline-amorphous contrast formation in thermally crystallized SiC
[MBB-Z-0373-91-PUB] 06 p1671 N93-18118
The Fourth Conference on Organized Thin Films
[AD-A258315] 06 p1672 N93-18310
Theory of artifact diamond
[AD-A258474] 06 p1672 N93-18311
Research and development on advanced silicon carbide thin film growth techniques and fabrication of high power and microwave frequency silicon carbide-based device structures
[AD-A257913] 06 p1672 N93-18367
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Thin film processing of photorefractive BaTiO3
[NASA-CR-192194] 06 p1673 N93-18427
Growth and properties of co-evaporated superconducting YBaCuO thin films
[ETN-92-92798] 06 p1673 N93-18441
Atomic and electronic structure of metals and alloys: Clean surfaces and chemisorbed molecules
[DE93-004371] 06 p1487 N93-18452
High-temperature superconducting electronics 06 p1523 N93-18464
Novel interconnect deposition technology 06 p1523 N93-18465
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
Photoemission from Ag, Cu, and CsI
[DE93-001964] 06 p1541 N93-18512
Interfacial reaction in a-Si/Au and a-Si/Cu thin film bilayers
[DE93-002324] 06 p1674 N93-18[illegible]
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Amorphous magnetic insulators for microwave device applications
[AD-A259029] 06 p1508 N93-18954
Growth, nitrogen vacancy reduction and solid solution formation in cubic GaN thin films and the subsequent fabrication of superlattice structures using AlN and InN
[AD-A258804] 06 p1675 N93-18983
Some recent results on stresses in thin films and precipitates
[AD-A258807] 06 p1559 N93-18986
Processability of polythiophene thin films by ultraviolet photo bleaching
[AD-A259043] 06 p1495 N93-19021
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Generic properties of layered superconductors
[DE93-002985] 06 p1676 N93-19498
Ion beam-based characterization of multicomponent oxide thin films and thin film layered structures
[DE93-003004] 06 p1676 N93-19627
Magnetic multilayer interface anisotropy
[DE93-004951] 06 p1676 N93-19634
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
X ray characterization of Au/Ni multilayer thin films
[NIAR-92-7] 06 p1678 N93-19881
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Laser damage in thin film optical coatings
[AD-A259425] 07 p1909 N93-20005
Examination of laser conditioning using atomic force microscopy
[DE93-001328] 07 p1909 N93-20020
Oriented, single-phase thin films of potassium tantalate-niobate
[AD-D015543] 07 p2077 N93-20027
Atomic and electronic structure of ultrathin films 07 p2078 N93-20287
Thin film processing of photorefractive BaTiO3
[NASA-CR-192169] 07 p2079 N93-20311
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581

Analysis of surfaces from the LDEF A0114, phase 2
[NASA-CR-192306] 07 p1847 N93-20756
Structural equilibration in intrinsic, single-doped, and compensated TFT's: Experiments and calculations
[MBB-Z-0377-91-PUB] 07 p1891 N93-20841
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933
Electrochemical deposition of thin film semiconductors in microgravity: A feasibility study
07 p1803 N93-21079
Development of superconducting thin films with a critical temperature greater than 110 K
[AD-A257988] 07 p2080 N93-21224
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Sensor technology for internal inspection systems
[PB93-101020] 07 p1907 N93-21652
The role of microstructural phenomena in magnetic thin films
[DE93-005132] 07 p2081 N93-21710
Current Status, Research Needs, and Opportunities in Applications of Surface Processing to Transportation and Utilities Technologies
[DE92-016446] 07 p1861 N93-21765
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Sputter-deposition and characterization of molybdenum disulfide thin films
[DE93-004801] 08 p2235 N93-22048
Chemically prepared Pb(Zr,Ti)O3 thin films: The effects of orientation and stress
[DE93-004501] 08 p2500 N93-22324
Polycrystalline thin films
[DE93-000070] 08 p2500 N93-22336
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
Sol-gel/rhodamine 6G composite films with tailored microstructures
[DE93-005364] 08 p2208 N93-22504
Thin silicon solar cells
[DE93-007420] 08 p2376 N93-22532
Investigation of the kinetics of surface-limited thin film growth of SiGe alloys
[DE93-005419] 08 p2502 N93-22538
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
[NASA-TM-105943] 08 p2206 N93-22586
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Experimental studies of critical behavior of systems with quenched disorder
[DE93-005090] 08 p2228 N93-22717
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
Structure and dynamics in low dimensional guest-host solids
[DE93-006498] 08 p2504 N93-22887
Computer simulation of the anomalous elastic behavior of thin films and superlattices
[DE93-004154] 08 p2504 N93-22939
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Charge trapping centers in ferroelectric ceramics
[DE93-005359] 08 p2238 N93-22954
Ion and electron beam processing of condensed molecular solids to form thin films
[DE93-007273] 08 p2504 N93-22955
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
X ray absorption fine structure strain determination in thin films 08 p2326 N93-23072
Magnetotransport and magnetometer studies of magnetic thin, sandwich and multilayer films
08 p2505 N93-23100
Physical properties of ultrathin films of high-temperature superconductors 08 p2506 N93-23197
Plasma technology 08 p2496 N93-23263
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films
[DE93-005367] 08 p2507 N93-23326
Amorphous diffusion barriers for electronic device applications
[ETN-93-93476] 08 p2281 N93-23366
Process toward a comprehensive control system for molecular beam epitaxy
[AD-A259724] 08 p2507 N93-23468
New 3-5 cell design approaches for very high efficiency
[DE92-010558] 08 p2381 N93-23697
Spectroscopic ellipsometry and interference reflectometry measurements of CVD silicon grown on oxidized silicon
[DE93-005767] 08 p2509 N93-24017
Nitride semiconductors for ultraviolet detection
[AD-A259545] 08 p2510 N93-24040
Processing of patterned ferroelectric capacitors
[AD-A259936] 08 p2284 N93-24131
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
The surface plasmon spectroscopy applications in microgravity: The measurement theory and preliminary experimental layout 08 p2165 N93-24396
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
Basic studies of 3-5 high efficiency cell components
[DE92-010563] 08 p2382 N93-24432
Research on high efficiency, large-area CuInSe2-based thin-film modules
[DE93-000077] 08 p2513 N93-24433
Low-temperature deposition of ZrC thin films from a single source precursor
[DE93-007333] 08 p2514 N93-24518
Metrologic support for the DARPA/NRL-XRL Mask Program: Ellipsometric analyses of SiC thin films on Si
[PB93-152098] 08 p2225 N93-24632
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Development of thin film thermocouples on ceramic materials for advanced propulsion system applications
[NASA-TM-106017] 09 p2709 N93-25173
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Analysis of pull-tests for determining the effects of ion implantation on the adhesion of iron films to sapphire substrates
[DE93-006732] 09 p2725 N93-25373
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454
High resolution interface nanochemistry and structure
[DE93-009750] 09 p2635 N93-25501
Role of polycrystallinity in CdTe and CuInSe2 photovoltaic cells
[DE93-000045] 09 p2759 N93-25504
Fast diagnostics of laser ablation used for pulsed laser deposition
[DE93-005155] 09 p2713 N93-25508
Film fabrication technologies at NREL
09 p2658 N93-25563
Optical and scratch resistant properties of diamondlike carbon films deposited with single and dual ion beams
09 p2658 N93-25564
A novel method for characterization of superconductors: Physical measurements and modeling of thin films
09 p2871 N93-25584
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Research on lead titanate films for radiation detection
[AD-A261187] 09 p2849 N93-25823
Extruded films from modified polypropylene resin: Dielectric and breakdown studies
[AD-A261382] 09 p2657 N93-26341
RF vacuum microelectronics
[AD-A261784] 09 p2692 N93-26565
Magnetic thin films and nanostructures: Anisotropy, microstructure, and their inter-relationship
[DE93-007714] 10 p3002 N93-26611
Silicon-Film(tm) on ceramic solar cells
[DE93-009608] 10 p3065 N93-27108
Sol-gel preparation of ion-conducting ceramics for use in thin films
[DE93-007720] 10 p3003 N93-27616
Paramagnetic nitrogen defects in silicon nitride
[DE93-008341] 10 p3151 N93-27619
Innovative sputtering techniques for CIS and CdTe submodule fabrication
[DE93-000085] 10 p3065 N93-27626
Direct visualization of defect structures contained within self-assembled organomercaptan monolayers: Combined use of electrochemistry and scanning tunneling microscopy
[AD-A263031] 10 p3152 N93-27922
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-28007
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
Silazine to silica 10 p2997 N93-28257
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
Extremely high rate deposition of polymer multilayer optical thin film materials
[DE93-009127] 10 p3053 N93-28433
When are thin films of metals metallic?
[DE93-009718] 10 p3007 N93-28437
New technologies for UV detectors
11 p3582 N93-28786
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28874
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Structure and switching dynamics in ferroelectric crystal and liquid crystal thin films
[AD-A263664] 11 p3594 N93-29293
Investigation of ion beam mixing of iron marker layers in aluminum oxide by RBS
[DE93-010727] 11 p3594 N93-29314
Proceedings of the 25th European Conference on the Application of Polar Dielectrics to celebrate the 25th anniversary of the Dielectric Society, incorporating the 1st International Workshop on Integrated Ferroelectrics
[AD-A263427] 11 p3332 N93-29337
Real time self-directed MBE flux control incorporation in situ ellipsometry, phase 1
[AD-A263501] 11 p3595 N93-29341
Ambient-atmosphere compatible superconducting fullerenes
[AD-A262025] 11 p3595 N93-29397
Characterization of copper iodide thin films fabricated via laser assisted molecular beam epitaxy
[AD-A262823] 11 p3596 N93-29430
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Shear sensitive monomer-polymer laminate structure and method of using same
[NASA-CASE-LAR-14654-1-CU] 11 p3452 N93-29613
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Thermal effects of a coolant film along the suction side of a high pressure turbine nozzle guide vane
11 p3253 N93-29930
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
Materials for adaptive structural acoustic control, volume 2
[AD-A264620] 11 p3563 N93-30385
RF vacuum microelectronics
[AD-A264528] 11 p3412 N93-30409
Fundamental studies of the mechanical behavior of microelectronics thin film materials
[AD-A264334] 11 p3337 N93-30417
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
Growth model of Au films on Ru(001)
[DE92-642126] 11 p3602 N93-30998
Role of oxygen vacancies in anodic TiO2 thin films
[DE92-642137] 11 p3602 N93-31027
NMR studies of organic thin films
[AD-A264903] 12 p3707 N93-31066
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
Prometheus in space: Survey report of Research Committee on Functional New Material
12 p3710 N93-31728

Functionalized polymeric materials for electronics and optics
[AD-A265788] 12 p3710 N93-31802
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033
Effects of surface defects on the local electric field in inhomogeneous media
[DE93-011035] 12 p3830 N93-32182
Method and apparatus for characterizing the quality for electrically thin semiconductor films
[AD-D015734] 12 p3830 N93-32206
Evaluation of chemical conversion material (protective coating) exposed to space environmental conditions
[NASA-TM-108416] 12 p3730 N93-32366

THIN PLATES
On the behavior of a higher-order plate bending element 01 p0047 N93-10481
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads 02 p0335 N93-11200
Acoustic measurement of the mechanical properties of thin material specimens
[AD-A253538] 02 p0434 N93-11752
Analysis of cracked plates subjected to out-of-plane loadings 03 p0629 N93-13804
Broadband vibroacoustic frequency control via piezoelectric films
[ONERA-RT-8/3654-RY-010-R] 04 p0974 N93-15129
High speed thin plate fatigue crack monitor
[NASA-CASE-LAR-14816-1-SB] 06 p1559 N93-19329
The free vibration of isotropic and specially orthotropic triangular plates 07 p1935 N93-20673
Semi-numerical approach to the buckling of composite panel 07 p1935 N93-20676
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
Nonlinear analysis of plates by the finite element method 07 p1939 N93-20698
Electroelastic equations for electroded thin plates subject to large driving voltages
[AD-A261123] 09 p2675 N93-25772

THIN WALLED SHELLS
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
On the stability of confined shells under external pressure 02 p0335 N93-11202
Structural optimization of thin shells using finite element method
[NASA-TM-105903] 03 p0625 N93-13157
An elasticity solution for a transversely isotropic material containing a spherical shell under axisymmetric loading 03 p0628 N93-13728
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
TELECOM 2 deployable reflectors 05 p1082 N93-15761
A nonconforming approximate solution to a specially orthotropic axisymmetric thin shell subjected to a harmonic displacement boundary condition
[AD-A257733] 05 p1188 N93-17690
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Optimal design and imperfection sensitivity of nonlinear shell structures
[FFA-TN-1992-30] 12 p3739 N93-31123

THIN WALLS
Design and evaluation of ion source for satellite charge control
[AD-A255172] 02 p0227 N93-12408
Analysis of advanced thin-walled composite structures 04 p0895 N93-14158
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
Energy equation for beam lateral buckling
[PB92-225390] 07 p1946 N93-21019
The flexural behaviour of thin-walled singly symmetric columns
[PB92-225408] 07 p1946 N93-21020
Post-buckling analysis of thin-walled channel sections undergoing local and distortional buckling
[PB93-112928] 07 p1947 N93-21236
J-integral of circumferential crack in large diameter pipes
[DE93-003708] 08 p2326 N93-23050
Inward electrostatic precipitation of interplanetary particles
[NASA-CR-192786] 08 p2552 N93-24477
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591

THIN WINGS
NT INFINITE SPAN WINGS
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
Leading edge vortices in a chordwise periodic flow 10 p2927 N93-27218

THINNERS
U SOLVENTS

THIOLS
Characterization of self-assembled carboxylate monolayers and multilayers at copper and silver
[DE93-002526] 05 p1126 N93-17467
The characterization of organic monolayers at gold surfaces using scanning tunneling microscopy and atomic force microscopy correlation with macrostructural properties
[DE93-001218] 05 p1327 N93-17476
Scanning probe lithography. Part 1: Scanning tunneling microscope-induced lithography of self-assembled n-alkanethiol monolayer resists
[AD-A263130] 11 p3432 N93-29476
Observation of phase-separated nanometer scale molecular domains in mixed self-assembled monolayers
[AD-A263470] 11 p3569 N93-29839

THIOUREAS
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293

THOMSON EFFECT
U THERMOELECTRICITY

THOMSON SCATTERING
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018508] 02 p0453 N93-11730
Development of a new plasma diagnostic of the critical surface and studies of the ion acoustic decay instability using collective Thomson scattering
[DE92-018526] 02 p0453 N93-11731
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137

THORAX
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557

THORIUM
High-precision thorium RIMS for geochemistry
[DE92-017405] 02 p0250 N93-11918

THORIUM COMPOUNDS
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
Spectroscopic and magnetic studies of tetravalent Pa and trivalent Th compounds
[DE92-041214] 05 p1100 N93-15676

THORON
U RADON ISOTOPES

THREADS
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Method and devices for the in situ repair of damaged threads
[AD-D015416] 04 p0891 N93-14881
Single screw interrupted thread positive displacement mechanism
[AD-D015596] 07 p1915 N93-20790
Blind fastening apparatus
[NASA-CASE-LAR-14542-1] 08 p2311 N93-22384
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852

THREAT EVALUATION
Intelligent security assessment for a mobile robot
[AD-A265003] 12 p3799 N93-32078

THREE AXIS STABILIZATION
TechSAT attitude control 10 p2924 N93-27197

THREE BODY PROBLEM
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
Orbit determination error analysis and station-keeping for liberation point trajectories 03 p0518 N93-14038
Future directions in electron-ion collision physics
[DE93-000500] 05 p1292 N93-17374
Asteroid-type orbit evolution near the 5:2 resonance 06 p1708 N93-19171
3-D orbital evolution model of outer asteroid belt 06 p1718 N93-19245
On the normalized Hamiltonian formulation of the restricted three-body problem 07 p1944 N93-20727
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
Configuration space Faddeev calculations
[DE93-006080] 08 p2475 N93-23337
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem 09 p2603 N93-24718
Optimal transfers between libration-point orbits in the elliptic restricted three-body problem 09 p2608 N93-25758
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289

THREE DIMENSIONAL BODIES
Three dimensional curved beam elements with large translations and rotations 01 p0063 N93-10560
Hierarchic models for laminated plates 03 p0528 N93-12629
Sensing and interpretation of 3-D shape and motion 03 p0692 N93-13240
Numerical analysis of scattering from certain conducting and dielectric bodies of arbitrary shape
[ISBN-0-315-63282-8] 03 p0569 N93-14066
On the development and application of a modified boundary element method for the analysis of three dimensional elastostatic problems in thick plates 04 p0901 N93-14587
Three-dimensional nuclear magnetic resonance imaging of green-state ceramics
[DE93-000930] 04 p0851 N93-15282
Optimization of three dimensional meshes
[ETN-92-92554] 06 p1647 N93-19008
Multimodal optimization of vibrating space frames 07 p1931 N93-20652
A new method for recognizing quadric surfaces from range data and its application to telerobotics and automation
[NASA-CR-192619] 07 p1892 N93-20910
Magnetron sputtering on 3D components with less accessible areas
[MBB-Z-0360-91-B-PUB] 07 p1878 N93-21745
3D object recognition: Symmetry and virtual views
[AD-A259738] 08 p2460 N93-23474
Towards a vision algorithm compiler for recognition of partially occluded 3-D objects
[AD-A259711] 08 p2440 N93-23638
Recognizing 3D objects for 2D images: An error analysis
[AD-A260150] 08 p2469 N93-23707
Why do we see three-dimensional objects?
[AD-A259892] 08 p2424 N93-23986
Representation and recognition of free-form surfaces
[AD-A259883] 08 p2441 N93-24019

THREE DIMENSIONAL BOUNDARY LAYER
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633
The three-dimensional turbulent boundary layer: Theory and application 03 p0588 N93-13749
An experimental investigation of the three-dimensional boundary layer on a rotating disk 03 p0589 N93-13806
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Three dimensional boundary-layer transition on a swept cylinder 05 p1161 N93-16817
Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818
Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829

On the stability of nonlinear viscous vortices in three-dimensional boundary layers
[NASA-CR-189637] 07 p1899 N93-20254
Three-dimensional turbulent boundary layer flow over a spinning cylinder
[NASA-TM-102240] 08 p2300 N93-24533
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
Roughness-induced generation of crossflow vortices in three-dimensional boundary layers
[NASA-CR-4505] 10 p2929 N93-27096
On the role of secondary instabilities in laminar-turbulent transition of 2D and 3D boundary layers
10 p2931 N93-27430
Unsteady transition measurements on a pitching three-dimensional wing 10 p2934 N93-27450
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
The development of a mixing layer under the action of weak streamwise vortices
[NASA-TM-106089] 11 p3418 N93-28947

THREE DIMENSIONAL COMPOSITES
Tension and compression fatigue response of unnotched 3D braided composites
[NASA-CR-189678] 02 p0239 N93-11611
Micromechanics of finite length fibers in composite materials 03 p0532 N93-13490
Advanced stitching technology
04 p0832 N93-14746
Advances in 3-dimensional braiding
04 p0833 N93-14748
Development of generalized 3-D braiding machines for composite preforms 04 p0833 N93-14749
Modeling of Euclidean braided fiber architectures to optimize composite properties 04 p0834 N93-14755
Improved inhomogeneous finite elements for fabric reinforced composite mechanics analysis
04 p0834 N93-14757
The prediction of the overall behavior of viscous composites
[ITN-93-85184] 05 p1098 N93-16855
Nonlinear probabilistic finite element models of laminated composite shells
[NASA-CR-191069] 07 p1833 N93-20919
Traction and shearing dynamics of a three dimensional carbon/carbon composite
[REPT-921-430-109] 07 p1833 N93-20931
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103

THREE DIMENSIONAL FLOW
NT SECONDARY FLOW
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
Analysis of wing-body junction flowfields using the incompressible Navier-Stokes equations, volumes 1 and 2 01 p0003 N93-10320
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
A study of the wall-pressure fluctuations downstream of a blade-wall junction
[ECL-91-07] 02 p0299 N93-11363
The effects of chemistry on weld profiles in partial and full penetration welds
[DE92-016865] 02 p0327 N93-11679
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
An engineering method for interactive inviscid-boundary layers in three-dimensional hypersonic flows
02 p0203 N93-12529
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
Experimental studies of the flowfields and their effects due to a pair of lift jets discharging in the ground effect region 03 p0580 N93-13217
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102
Recent advances in numerical simulation and control of asymmetric flows around slender bodies
[PAPER-W.1.2] 04 p0875 N93-14688
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3] 04 p0875 N93-14689
Three-dimensional computational study of asymmetric flows using Navier-Stokes equations
[ISBN-90-5410-029-X] 04 p0875 N93-14690
The 3D Navier-Stokes flow analysis for shared and distributed memory MIMD computers
[AD-A256038] 04 p0878 N93-15187
On explicit algebraic stress models for complex turbulent flows
[NASA-CR-189725] 04 p0879 N93-15481
Center for Modeling of Turbulence and Transition (CMOTT): Research Briefs, 1992
[NASA-TM-105834] 05 p1152 N93-15792
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613
Streamwise computation of a circular-to-rectangular transition duct potential flow field
[NIAR-92-17] 05 p1159 N93-16628
Performance comparison of axisymmetric and three-dimensional hydrogen film coolant injection in a 110N hydrogen/oxygen rocket
[NASA-TM-105967] 05 p1091 N93-16714
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Boundary layer transition in Coriolis force field
05 p1160 N93-16815
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
A numerical study of mixing in supersonic combustors with hypermixing injectors
[NASA-CR-191027] 06 p1405 N93-17884
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6] 06 p1527 N93-18326
Validation of central and upwind 3D compressible flow solvers 06 p1529 N93-18564
Endwall flows and blading design for axial flow compressors 06 p1531 N93-18730
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
Rarefied gas numerical wind tunnel. Part 7: OREX
06 p1410 N93-19280
Code development for hypersonic real-gas flow simulations toward the design of space vehicles
06 p1411 N93-19293
Numerical calculation of hypersonic non-equilibrium flow around OREX 06 p1412 N93-19296
Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297
The 3D Navier-Stokes calculation of flow about scramjet inlet with strut 06 p1412 N93-19298
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
A numerical investigation of 3D transverse injection into the supersonic flow behind rearward facing step
06 p1415 N93-19316
Three-dimensional measurement of turbulent shear flows using digital image processing
06 p1415 N93-19319
Assessment of higher order turbulence models for complex two- and three-dimensional flowfields
[NASA-TM-103944] 07 p1897 N93-20035
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence
[NASA-TM-103926] 08 p2294 N93-23417
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
Tip-vortex/airframe interactions
08 p2111 N93-23489
Three-dimensional isothermal flow simulations of an MHD secondary combustor
[DE93-006631] 08 p2497 N93-24035
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver
[NASA-CR-4490] 08 p2127 N93-24108
The effects of three-dimensional imposed disturbances on bluff body near wake flows
[AD-A259501] 08 p2298 N93-24311
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124
Three-dimensional flow in radial turbomachinery and its impact on design
[NASA-CR-192957] 09 p2593 N93-25668
Flow and heat transfer experiments in the turbine airfoil/endwall region 09 p2704 N93-25725
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
Three-dimensional compressible stability-transition calculations using the spatial theory
10 p2931 N93-27431
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method
10 p2935 N93-27455
Development of a 3-D Implicit Euler Code for Hypersonic and High Supersonic Flows
[ONERA-RSF-23/1123-AY-230A]
11 p3417 N93-28744
Numerical simulation of perfect fluid flows around complex 3D configurations by a multidomain solver using the MUSCL approach 11 p3417 N93-28745
An experimental study of flow over a 6 to 1 prolate spheroid at incidence 11 p3239 N93-29124
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Nonlinear relaxation algorithms for the compressible Navier-Stokes equations in two and three dimensions
11 p3421 N93-29177
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows
11 p3259 N93-29963
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968
Nonlinear spectroscopy of multicomponent droplets and two- and three-dimensional measurements in flames
[AD-A264341] 11 p3425 N93-30162
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147
Overview of aerothermodynamic loads definition study
12 p3697 N93-31583
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine
12 p3697 N93-31584
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
A continuation method for computing non-linear 3-D free surface flows
[DE93-008704] 12 p3727 N93-32175

THREE DIMENSIONAL MODELS
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11958
Linear and geometrically nonlinear p-version three dimensional curved shell element for isotropic, generally orthotropic and laminated composite materials
02 p0339 N93-12194
The 3-D nonlinear constitutive modeling approach for composite materials
[AD-A255022] 03 p0528 N93-12584
Numerical simulation of a squall line: Tests of a new cumulus parameterization scheme
03 p0662 N93-13124
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319

Thermal issues at the SSC 03 p0584 N93-13387
Hydrodynamical calculations of stellar interactions 03 p0755 N93-13764
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
Numerical simulation of compressible Couette flow stability: Non-linear and three-dimensional effects 03 p0594 N93-14077
Monte Carlo modeling of the resurfacing of Venus 04 p1025 N93-14299
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere 04 p1037 N93-14351
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0 [AD-A255434] 04 p0944 N93-14566
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
CAD-based off-line programming and sensor signal processing in robotics [F-2-2] 04 p0949 N93-15299
The 3D modeling of high numerical aperture imaging in thin films 04 p0985 N93-15513
Volume rendering using the Fourier projection-slice theorem 04 p0953 N93-15541
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation [AD-A256782] 04 p0838 N93-15625
FAA unified pavement analysis 3-D finite element method 05 p1070 N93-16314
Three-dimensional stress analysis of multilayered airport pavements: Integral transform approach 05 p1072 N93-16319
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations [DE93-002515] 05 p1201 N93-16363
A three-dimensional model of cloud dynamics, microphysics, and chemistry 05 p1213 N93-16506
The 2 + 1 dimensional quantum gravity as a gaussian fermionic system and the 3D-Ising model [PREPRINT-855] 05 p1330 N93-16961
Autonomous environment modeling by a mobile robot [LAAS-91381] 05 p1179 N93-17493
Automating the design of scientific computing software 05 p1249 N93-17516
Studies of dynamic processes related to active experiments in space plasmas [NASA-CR-191771] 05 p1313 N93-17801
Aerodynamic design and analysis of fans using 3D computational codes [DS-2140] 06 p1404 N93-17880
Three dimensional inviscid compressible calculations around axial flow turbine blades [DS-2159] 06 p1524 N93-17881
A plan for developing a hierarchal three-dimensional landscape signature model [AD-A257550] 06 p1564 N93-17965
On the time dependent hydrodynamic model for semiconductors [ETN-93-93027] 06 p1518 N93-18098
Mapping of sea bottom topography with spaceborne SAR [BCRS-91-14] 06 p1589 N93-18430
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
Interplanetary magnetic field changes and condensations in comet Halley's plasma tail 06 p1704 N93-19147
3-D orbital evolution model of outer asteroid belt 06 p1718 N93-19245
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data [INPE-5435-TAE/016] 06 p1588 N93-19638
Dust transport into Martian polar latitudes 06 p1742 N93-19815
Three-dimensional Navier-Stokes heat transfer predictions for turbine blade rows [NASA-TM-105800] 07 p1897 N93-19969
Multidisciplinary tailoring of hot composite structures [NASA-TM-106027] 07 p1920 N93-19971
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices 07 p1865 N93-20150
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads [AD-A258723] 07 p1921 N93-20325
Comprehensive simulation study on local and global development of auroral arcs and field-aligned potentials [NIFS-195] 07 p2073 N93-20764
Validity and well-formedness of dimension and tolerance information in solid modeling systems [PAPER-C-2-2] 07 p2035 N93-20831
Tolerance, chains and setting of machines: Three dimensional statistical model of machined dimensions [PAPER-C-2-5] 07 p2036 N93-20833
A 3D world model builder with a mobile robot [INRIA-RR-1546] 07 p2047 N93-20871
Generalized 3D Voronoi diagram: First results [RR-879-M] 07 p2039 N93-21051
Electromagnetic finite element analysis of a solenoid [DE93-004635] 07 p1894 N93-21724
ROBOSIM: An intelligent simulator for robotic systems 08 p2465 N93-22161
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Recent results of multimagnetical simulations of the Ising model [DE93-005213] 08 p2475 N93-22951
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Recognizing 3D objects for 2D images: An error analysis [AD-A260150] 08 p2469 N93-23707
Space efficient 3D model indexing [AD-A259571] 08 p2462 N93-24085
Distance metric between 3D models and 2D images for recognition and classification [AD-A260069] 08 p2463 N93-24313
Anisotropic reflections in mountainous terrain to determine the absorption of solar radiation from satellite data [ESA-TT-1262] 08 p2558 N93-24633
Demonstration for novel self-organization theory by three-dimensional magnetohydrodynamic simulation [NIFS-212] 09 p2859 N93-25227
A method for transient, three-dimensional neutron transport calculations [DE93-007243] 09 p2847 N93-25256
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
An alternate approach to space missions involving a long tether 09 p2616 N93-25470
A three-dimensional model for the residual stresses in a unidirectional composite plate 09 p2728 N93-25825
ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL [AD-A261608] 09 p2790 N93-26164
Numerical simulations of bent, disrupted radio jets 10 p3188 N93-26813
A numerical simulation of galaxy subcluster mergers 10 p3192 N93-26833
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method 10 p2935 N93-27455
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry [AD-A262101] 10 p3130 N93-28179
High strain Lagrangian hydrodynamics: A three dimensional SPH code for dynamic material response [AD-A262798] 10 p3043 N93-28378
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models [AD-A263209] 10 p3075 N93-28384
Recognizing parameterized objects from range data [OUEL-1918/92] 11 p3523 N93-28486
High performance dispersion model PHYSIC [DE93-753303] 11 p3467 N93-28536
Direct volume visualization of three-dimensional vector fields [DE93-009233] 11 p3524 N93-28550
Three dimensional reconstruction of complex shapes based on the Delaunay triangulation [INRIA-RR-1697] 11 p3547 N93-28616
Three-dimensional numerical simulation of gradual opening in a wave rotor passage [NASA-CR-191157] 11 p3252 N93-29072
NASTRAN analysis for the Airmass Sunburst model 'C' Ultralight Aircraft 11 p3249 N93-29777
Three-dimensional simulation analysis of the standing-wave free-electron laser two-beam accelerator [DE93-010461] 11 p3575 N93-29870
Applications of three-dimensional modeling in electromagnetic exploration 11 p3391 N93-30010
Three-dimensional graphical representation of objects according to movement data in realtime [ESA-TT-1258] 11 p3521 N93-30104
Tactile sensing for 3-dimensional shape estimation 11 p3357 N93-30232
Three-dimensional modeling of pollutant transport in surface waters [PB93-190627] 12 p3751 N93-31203
3D reconstruction methods of coronal structures by radio observations 12 p3874 N93-31387
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Three-dimensional numerical simulation of interplanetary magnetic field changes at 1 AU as a consequence of simulated solar flares 12 p3860 N93-31723
Regional modeling analysis of the dependencies of atmospheric oxidants to perturbations in NOx and hydrocarbon emissions [PB93-180925] 12 p3754 N93-32070

THREE DIMENSIONAL MOTION
NT SECONDARY FLOW
NT THREE DIMENSIONAL FLOW
Heat transfer in a liquid metal crucible with an integral blackbody cavity [DE92-019640] 03 p0576 N93-12825
Sensing and interpretation of 3-D shape and motion 03 p0692 N93-13240
On development of a three-dimensional particle motion tracking system [DE92-015846] 03 p0704 N93-13263
A weighted iterative algorithm for neuromagnetic imaging [DE92-040244] 03 p0675 N93-13522
Input relegation control for gross motion of a kinematically redundant manipulator [DE93-002735] 05 p1178 N93-16920
Numerical evaluation of general n-dimensional integrals by the repeated use of Newton-Cotes formulas [DE93-715528] 05 p1270 N93-17473
Multiple-arm joint rate solution by branch result assembly 07 p1918 N93-20708
Comparison of the efficiency of the various methods for rigid-body displacement analyses 07 p1941 N93-20709
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Nonlinear friction effects on precise motion control of a manipulator 07 p1918 N93-20713
Variational theory of motion of curved, twisted and extensible elastic rods [AD-A261028] 09 p2729 N93-25941
A corner matching and tracking strategy applied to videophony [OUEL-1933/92] 11 p3380 N93-28896
Integrals of motion on the group of invariance of an interval in three-dimensional spaces [DE93-606090] 11 p3606 N93-30797
Characterisation and control of a flexible robot subject to torque ripple [OUEL-1952/92] 12 p3734 N93-31156

THRESHOLD GATES
Fuzzy operators and cyclic behavior in formal neuronal networks 11 p3519 N93-29576

THRESHOLD LOGIC
Fuzzy set methods for object recognition in space applications [NASA-CR-191986] 07 p2041 N93-21563

THRESHOLD VOLTAGE
Back-gate bias generator [AD-A255126] 02 p0295 N93-12421

THRESHOLDS (PERCEPTION)
A proposal on the quality of the binary thresholds of a contour detection [REPT-91-075] 12 p3806 N93-31544

THROATS
Numerical modeling of a vortex stabilized arcjet [NASA-CR-190797] 04 p0826 N93-14883
Experimentation in the low-density plume of a simulated electrothermal thruster for computer code validation [NASA-CR-191112] 09 p2622 N93-24758
Erosion sensitivity of graphitic nozzles for solid-propellant rocket motors 10 p2926 N93-27215

THROMBOSIS
Fundamental diagnostic hematology: The bleeding and clotting disorders (second edition) [PB93-188670] 12 p3773 N93-31158

THROTTLING
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039

Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Low bandwidth robust controllers for flight
[NASA-CR-193085] 10 p2946 N93-27156
Knowledge-based reasoning in the Paladin tactical decision generation system
[NASA-CR-4507] 10 p2946 N93-27603

THROWING
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192078] 05 p1229 N93-17806

THRUST
NT HIGH THRUST
NT JET THRUST
NT LOW THRUST
NT ROCKET THRUST
NT STATIC THRUST
NT VARIABLE THRUST
Introduction to the Rolls-Royce design process
[PNR-90939] 02 p0210 N93-11039
Civil aircraft engines: The next generation
[PNR-90962] 02 p0211 N93-11085
A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819
Nozzle/cowl optimization for a hypersonic vehicle on a typical trajectory
[AD-A258827] 06 p1441 N93-19089
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Thick-section structural composites and composite structures
[AD-A260081] 08 p2215 N93-24316
Studies of several small seawater MHD thrusters using the high-field solenoid of MIT's Bitter Magnet Laboratory
[AD-A260645] 09 p2860 N93-25641
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877

THRUST AUGMENTATION
Low bandwidth robust controllers for flight
[NASA-CR-191774] 05 p1069 N93-17800
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480
Evaluation of low power augmented hydrazine thrusters 10 p2927 N93-27216
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

THRUST BEARINGS
A test facility for the thermofluid-dynamics of gas bearing lubrication films
[PNR-90897] 02 p0263 N93-11032
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523
Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524
Design and test of a magnetic thrust bearing 10 p2961 N93-27567
Hybrid bearings for turbopumps and the like
[NASA-CASE-MFS-28491-1] 10 p3052 N93-28326

THRUST CHAMBERS
Hot fire fatigue testing results for the compliant combustion chamber 01 p0022 N93-10038
Hot fire fatigue testing results for the compliant combustion chamber
[NASA-TP-3223] 01 p0026 N93-10743
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
Examination of various turbulence models for application in liquid rocket thrust chambers
[NASA-CR-184406] 02 p0233 N93-12009
Characteristics of heat transfer to nickel plated chamber walls of high pressure rocket combustors
[NAL-TR-1126T] 02 p0234 N93-12372
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
Pressure fed thrust chamber technology program
[NASA-CR-184461] 03 p0526 N93-12968
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine 09 p2626 N93-26017
Space transportation booster engine thrust chamber technology, large scale injector
[NASA-CR-192531] 09 p2633 N93-26557
Design verification test matrix development for the STME thrust chamber assembly
[NASA-TM-108406] 10 p2986 N93-27251
Reliability assessment of thrust chamber cooling concepts using probabilistic analysis techniques
[NASA-CR-190785] 11 p3288 N93-29068
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

THRUST CONTROL
NT THRUST VECTOR CONTROL
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Control of a varying thrust spacecraft for autonomous space rendezvous 08 p2139 N93-22246
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Analysis of thrust modulation of ram-rockets by a vortex valve 10 p2922 N93-27187
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
Blowdown thrust profile prediction 12 p3689 N93-31448

THRUST FAULTS
U GEOLOGICAL FAULTS

THRUST LOADS
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Design and test of a magnetic thrust bearing 10 p2961 N93-27567
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641
Lubrication of an 85-mm ball bearing with RP-1
[NASA-TM-106254] 12 p3686 N93-31670

THRUST MEASUREMENT
Multiple degree-of-freedom force and moment measurement for static propulsion testing using magnetic suspension technology 10 p2955 N93-27566

THRUST POWER
U THRUST

THRUST PROGRAMMING
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204

THRUST REVERSAL
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208

THRUST VECTOR CONTROL
Supersonic confined jet nozzles 01 p0016 N93-10009
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles 01 p0017 N93-10015
Droppable jet vane TVC
[AD-D015341] 02 p0214 N93-11046
Propulsion integration results of the STOL and Maneuver Technology Demonstrator 03 p0502 N93-13228
Application of an adaptive clustering network to flight control of a fighter aircraft, phase 1
[AD-A253388] 05 p1068 N93-16036
Electrical actuation technology bridging, volume 1
[NASA-CR-191705] 05 p1148 N93-16756
Longitudinal-control design approach for high-angle-of-attack aircraft
[NASA-TP-3302] 06 p1451 N93-19108
Robust nonlinear control of vectored thrust aircraft
[NASA-CR-192727] 09 p2596 N93-25199
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
X-31 demonstration of integrated flight and propulsion control for effective combat at extreme angles of attack 11 p3260 N93-28851
Requirements for pilot assistance in a thrust-vectoring combat aircraft 11 p3504 N93-28870
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043
Comparison of straight and 15 degree vectored nozzles using a six component thrust stand
[NASA-CR-193291] 12 p3725 N93-31641
A parametric analysis of endoatmospheric Low-Earth-Orbit maintenance
[AD-A265868] 12 p3685 N93-32319

THRUST-WEIGHT RATIO
Aero engine ceramics: The vision, the reality, and the progress
[PNR-90983] 02 p0264 N93-11066

THRUSTORS
Fundamental studies on erosion in MPD thrusters
[AD-A253900] 01 p0159 N93-10252
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
Scaling of 100 kW class applied-field MPD thrusters
[NASA-CR-190791] 03 p0525 N93-12638
Analysis of fluid/mechanical systems using EASY5 03 p0586 N93-13397
Second Magnetoplasmadynamic Thruster Workshop
[NASA-CP-10109] 06 p1666 N93-18635
The MPD thruster program at JPL 06 p1666 N93-18638
MPD thruster technology 06 p1666 N93-18639
Los Alamos research in nozzle based coaxial plasma thrusters 06 p1666 N93-18640
Review of recent work on MPD thrusters at MIT 06 p1666 N93-18641
Magnetoplasmadynamic thruster flows: Problems and progress 06 p1666 N93-18642
OL-AC Phillips Laboratory MPD thruster research program 06 p1667 N93-18644
Recent advances in MPD thruster research at Princeton 06 p1667 N93-18645
Ion source AHKS-30
[DLR-MITT-91-20] 07 p1860 N93-21041
Simplified Aid For Crew Rescue (SAFR) 10 p2967 N93-27793
Fuzzy based attitude controller for flexible spacecraft with on/off thrusters
[NASA-CR-188250] 12 p3690 N93-32226

THULIUM
NT THULIUM ISOTOPES

THULIUM ISOTOPES
Thulium heat sources for space power application
[DE93-002249] 12 p3691 N93-31168

THULIUM 171
U THULIUM ISOTOPES

THUNDERSTORMS
A comparison of radar rainfall estimates and rain gage measurements during two Denver thunderstorms
[AD-A254267] 02 p0369 N93-11817
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
Temporal monitoring of VHF and LF atmospherics and their relation to lightning
[AD-A252617] 02 p0371 N93-12180
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
The modelling of turbulence and downbursts for flight simulators 03 p0507 N93-13542
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
ER-2 investigations of lightning and thunderstorms 07 p2006 N93-20088
Meteorological events in Arizona and New Mexico during Swamp
[PB93-100410] 07 p2013 N93-21227
National Center for Atmospheric Research, Fiscal Year 1991
[PB93-129914] 07 p2000 N93-21547
An experimental search for gamma radiation associated with thunderstorm activity
[DE93-006939] 08 p2403 N93-22584
The 1992 International Aerospace and Ground Conference on Lightning and Static Electricity: Addendum
[DOT/FAA/CT-92/20-ADD-1] 09 p2777 N93-24875
Lightning precursor signatures from dual-polarization radar measurements of storms 09 p2777 N93-24877
Study of atmospheric electrical events above complex terrain 09 p2780 N93-24897
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900

Comparative performance of lightning air terminals under natural storm conditions 09 p2781 N93-24902
The charge and size of precipitation particles inside thunderstorms and mesoscale convective systems on the Great Plains 09 p2781 N93-25275
The North Dakota thunderstorm project
[PB93-153039] 09 p2785 N93-25776
The initiation of lightning and the growth of electric fields in thunderstorms
[AD-A261455] 09 p2787 N93-26352
Guide for conducting convective windstorm surveys
[PB93-148427] 09 p2787 N93-26570
Proceedings of the Thunder and Lighting Seminar and the 3D Lightning Warning Workshop
[AD-A262766] 11 p3482 N93-29304
Thunderstorm forecast study for Eglin AFB, Florida
[AD-A263423] 11 p3483 N93-29810
Stand alone lightning detection equipment used at Canadian Forces air bases 11 p3367 N93-30295

THYRATRONS
A study of small solid-state switched TEA CO2 lasers 03 p0607 N93-13814
High power switching and other high power devices
[AD-A256974] 05 p1146 N93-16253
Pulsed electrostatic kickers with low beam impedance for AmPS 10 p3139 N93-28341

THYRISTORS
A study of small solid-state switched TEA CO2 lasers 03 p0607 N93-13814
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191780] 05 p1168 N93-17001
Silicon device performance measurements to support temperature range enhancement
[NASA-CR-191957] 06 p1523 N93-19893
Characterization and snubbing of a bidirectional MCT in a resonant ac link converter
[NASA-CR-192230] 07 p1889 N93-20258
The ignition diffusion concerning contacted and non contacted n(+) emitter interruptions
[ETN-93-92564] 07 p1891 N93-20878
Magnetic switching techniques for high power pulse generation
[ISBN-90-9004705-0] 07 p1892 N93-20935
High speed solid state circuit breaker 09 p2694 N93-25598
Investigations of the transient behavior of the cathode fall region in planar and hollow cathodes
[AD-A261636] 09 p2691 N93-26171

TIBET
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period 08 p2405 N93-23219
Satellite communication services for Tibet autonomous region by domestic satellite in China 10 p3023 N93-26650

TIBIA
Shape optimization of tibial prosthesis components
[NASA-CR-191123] 10 p3081 N93-27085

TID
U TRAVELING IONOSPHERIC DISTURBANCES

TIDAL FLATS
Morphodynamics of intertidal regions
[BCRS-92-03] 05 p1220 N93-16574

TIDAL OSCILLATION
U TIDES

TIDAL WAVES
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089

TIDES
NT ATMOSPHERIC TIDES
NT EARTH TIDES
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
Study of tidal interactions in M81-M82-NGC3077 system 04 p1010 N93-14195
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
Geophysical parameters from the analysis of laser ranging to Starlette
[NASA-CR-192406] 06 p1541 N93-18605
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
Preliminary results of altimeter data analysis for studying the water exchange between the Atlantic Ocean and the Nordic Seas 07 p1965 N93-21641
Sea level variation 09 p2734 N93-24929
A coastal hazards data base for the US East Coast
[NASA-TM-108265] 09 p2791 N93-26586
The effect of tidal fields on the shapes and kinematics of dark halos 10 p3177 N93-26740
Tidal interactions and the formation of Magellanic spiral galaxies 10 p3190 N93-26821
Cluster tidal fields: Effects on disk galaxies 10 p3191 N93-26824
Spectral energetics of the lower thermosphere 11 p3477 N93-29467
Tides of Massachusetts and Cape Cod Bays
[AD-A264790] 12 p3770 N93-31983

TIG WELDING
U GAS TUNGSTEN ARC WELDING

TILES
Thermal protection system of the Space Shuttle's orbiter 08 p2176 N93-22107
Thermal certification tests of Orbiter Thermal Protection System tiles coated with KSC coating slurries
[NASA-TM-104766] 11 p3278 N93-29221

TILT
U ATTITUDE (INCLINATION)

TILT ROTOR AIRCRAFT
NT V-22 AIRCRAFT
NT XV-15 AIRCRAFT
Tilt rotor hover aeroacoustics
[NASA-CR-177598] 01 p0147 N93-10458
Design of an air traffic computer simulation system to support investigation of civil tiltrotor aircraft operations
[NASA-CR-190811] 02 p0204 N93-11139
The Fourth Workshop on Dynamics and Aeroelastic Stability Modeling of Rotorcraft Systems
[AD-A255065] 02 p0208 N93-12485
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover 03 p0497 N93-14035
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Open airscrew VTOL concepts
[NASA-CR-177603] 06 p1403 N93-17883
Screening studies of advanced control concepts for airbreathing engines
[NASA-TM-106042] 09 p2592 N93-25079
Rotorcraft master plan 11 p3236 N93-30677
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197
Civil tiltrotor transport point design: Model 940A
[NASA-CR-191446] 12 p3701 N93-32234

TILT WING AIRCRAFT
NT CL-84 AIRCRAFT
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft
[NASA-TM-103872] 01 p0011 N93-10741
An investigation of two-propeller tilt wing V/STOL aircraft flight characteristics
[AD-A257751] 05 p1064 N93-17694
Open airscrew VTOL concepts
[NASA-CR-177603] 06 p1403 N93-17883

TILTING
U ATTITUDE (INCLINATION)

TILTING ROTORS
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197

TIMBER IDENTIFICATION
Monitoring of growth environment of forest 08 p2336 N93-22135

TIMBER INVENTORY
Standwise forest inventory and mapping for operational management planning 09 p2752 N93-24863

TIME
NT ACCESS TIME
NT BURNING TIME
NT EPHEMERIS TIME
NT FLIGHT TIME
NT MTBF
NT REACTION TIME
NT RELAXATION TIME
NT RESPONSE TIME (COMPUTERS)
NT SIDEREAL TIME
NT TESTING TIME
NT TRANSIT TIME
Liquid xenon time projection chamber for gamma rays in the MeV region: Development status 04 p1014 N93-15592
An imperative language for task-level programming: Definition in temporal logics
[INRIA-RR-1406] 06 p1622 N93-18575
Predit: A temporal predictive framework for scheduling systems 06 p1639 N93-18691
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
Hydrogen masers for space 09 p2716 N93-24980
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983
Atomic time scales for dynamical astronomy 09 p2832 N93-24984
How can millisecond pulsars improve the long term stability of atomic time scales? 09 p2832 N93-24985
Prospects of two-way international time scale comparisons 09 p2832 N93-24988
A new modem for microwave time synchronisation via geosynchronous telecommunication satellites 09 p2686 N93-24999
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
Control of environmental and clock parameters in Time and Frequency Standards Laboratory 09 p2835 N93-25007
Mixed constellation synchronization of GPS time 09 p2836 N93-25015
GPS standardization for the needs of time transfer 09 p2836 N93-25016
Comparison of GLONASS and GPS time transfers 09 p2836 N93-25017
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Time-interpolation method for digital beamformers
[AD-D015709] 11 p3383 N93-29275

TIME CONSTANT
Computer based analysis and synthesis of retinal function
[AD-A260514] 08 p2423 N93-24420
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325

TIME DELAY
U TIME LAG

TIME DEPENDENCE
On the measurement of time-dependent quantum phases
[DE92-630206] 01 p0170 N93-10387
An assessment of the correspondence principle in comparison to nonlinear viscoelastic theory: A case study 01 p0051 N93-10501
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions 01 p0066 N93-10575
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Beam-plasma interactions and radiation generation during the ejection of electron and ion beams in space
[AD-A253993] 02 p0224 N93-11736
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
The time-dependent stress-optical behaviour of polycarbonate in the glass transition region 02 p0269 N93-11985
Speedup properties of phases in the execution profile of distributed parallel programs
[DE92-019965] 03 p0689 N93-12810
Analytical studies of nonlinear partial differential equations of interest in nonlinear optics
[AD-A254931] 03 p0696 N93-13027
Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664
A surface pressure altitude prediction model
[AD-A255834] 03 p0688 N93-14082
The dynamics of spatially extended lasers 04 p0883 N93-14123
Decision making in a dynamic task environment: The effect of time pressure
[AD-A256557] 04 p0937 N93-14602
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Time stability of Monte Carlo device simulation
[DE92-019375] 05 p1275 N93-15884
Quantum groups and Lie-admissable time evolution
[SSCL-PREPRINT-793] 05 p1264 N93-16349
Normal forms in real time process algebra
[CWI-CS-R9149] 05 p1265 N93-16367
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558

Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942
Neural network training by integration of adjoint systems of equations forward in time
[NASA-CASE-NPO-18586-1-CU] 05 p1261 N93-17276
Structure in gamma ray burst time profiles: Statistical Analysis 1 05 p1344 N93-17308
An investigation of the effects of history dependent damage in time dependent fracture mechanics, variable load conditions
[DE93-004288] 05 p1187 N93-17606
Lie-isotropic energy-dependence of the neutral K(sub S) lifetime
[PREPRINT-874] 06 p1652 N93-17824
Preconditioned conjugate gradient techniques for the solution of time-dependent differential equations
[REPT-92-19] 06 p1643 N93-17844
On the behavior of non-Newtonian fluids: Analysis, computation, and experiment
[AD-A258177] 06 p1524 N93-17908
Non-fickian moisture diffusion in polymeric composites
[AD-A257919] 06 p1492 N93-18003
Time-dependent computational studies of premixed flames in microgravity
[NASA-CR-191051] 06 p1498 N93-18387
Computational Fluid Dynamics, volume 1
[VKI-LS-1992-04-VOL-1] 06 p1528 N93-18540
Solution of the time-dependent incompressible Navier-Stokes equations by finite elements 06 p1528 N93-18542
Time management situation assessment (TMSA) 06 p1639 N93-18692
A first-order global model of Late Cenozoic climatic change: Orbital forcing as a pacemaker of the ice ages 06 p1581 N93-18973
Development of a fractional-step method for the unsteady incompressible Navier-Stokes equations in generalized coordinate systems
[NASA-TM-103912] 06 p1532 N93-19009
Alternative formulations of the Laplace Transform Boundary Element (LTBE) numerical method for the solution of diffusion-type equations
[DE92-041172] 06 p1648 N93-19468
Space charge, heterojunction and elastic stress effects in ferroelectric thin films
[AD-A258655] 06 p1678 N93-19957
Solution of a one-dimensional ablation model
[INPE-5357-TDI/464] 07 p1900 N93-20321
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
On a possible non-Lorentzian energy-dependence of the K neutral(sub S)
[PREPRINT-807] 07 p2053 N93-20903
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
A computational study of the time dependent crack growth process
[DE93-004397] 08 p2324 N93-22751
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
A combined Galerkin/collocation spectral method for transient solution of flow past a spherical droplet
[DE93-005251] 08 p2293 N93-23300
Time-resolved reflectivity study of solid-phase epitaxial regrowth in relaxed and strained Si(1-x)Ge(x)
[DE93-005154] 08 p2506 N93-23312
Three dimensional transient analysis of microstrip circuits in multilayered anisotropic media
[AD-A259829] 08 p2281 N93-23433
Effect of code augmentation or truncation on the signals produced by a time-integrating correlator
[AD-A259802] 08 p2264 N93-23458
Normal modes of the atmosphere as estimated by principal oscillation patterns and derived from quasi-geostrophic theory
[MPIM-81] 08 p2397 N93-23857
Time dependent classification of features with a nonlinear, dynamic network
[VTT-PUBS-83] 08 p2448 N93-23868
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
Numerical studies for the RAM accelerator
[AD-A259949] 08 p2224 N93-24423
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
BBU code development for high-power microwave generators
[DE93-007111] 09 p2688 N93-25397
Numerical simulation of time-dependent thermocapillary convection in layered fluid systems 09 p2700 N93-25472
Energy transfer properties and mechanisms
[DE93-008540] 09 p2849 N93-25488
Kinetic studies in gas-phase reaction mechanisms important to the combustion process of high energy density materials: The H2/NO2 reaction 09 p2628 N93-26027
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
Moving-finite-element solution of time-dependent partial differential equations in two space dimensions
[CWI-NM-R9206] 10 p3113 N93-27303
Analysis of local uniform grid refinement
[CWI-NM-R9211] 10 p3114 N93-27364
Response of a Nb/Al2O3/Nb tunnel junction to picosecond electrical pulses
[DE93-010416] 11 p3594 N93-29249
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Multigrid schemes for time-dependent incompressible Navier-Stokes equations
[REPT-92-102] 12 p3725 N93-31657
Time-varying reconnection in a stagnation-point flow geometry 12 p3827 N93-31697
On waveform multigrid method
[NASA-CR-191455] 12 p3808 N93-31843
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994
A decision-theoretic approach to the display of information for time-critical decisions: The Vista project 12 p3784 N93-32152
Is time a real time? An overview of time ontology in informatics
[REPT-92-046] 12 p3842 N93-32383
Adaptive RLS identification with generalized forgetting techniques
[REPT-92-037] 12 p3810 N93-32390

TIME DIVISION MULTIPLE ACCESS

Architecture and device development for optical networks
[AD-A253247] 01 p0158 N93-10693
All-digital multicarrier demodulators for on-board processing satellites in mobile communication systems 02 p0285 N93-12207
National Defense Science and Engineering Graduate Fellowship Program in electrical engineering
[AD-A256975] 05 p1146 N93-16254
Comparison of two random access techniques for the North American MSAT system 11 p3370 N93-30315

TIME DIVISION MULTIPLEXING

Data Multiplexing Network (DMN). Phase 3: Equipment Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/49] 07 p1779 N93-20612
The Data Multiplexing Network (DMN) phase 3 Extended Distance Data Cable (EDDC) test and evaluation
[DOT/FAA/CT-TN93/11] 09 p2680 N93-26160
Fiber grating-based sensing system with interferometric wavelength-shift detection
[AD-D015697] 11 p3577 N93-29038
Data Multiplexing Network (DMN) equipment Operational Test and Evaluation (OT&E) integration test report
[AD-A263172] 11 p3538 N93-29490

TIME FUNCTIONS

New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183
Redheffer's lemma and H(infinity)-control or infinite-dimensional systems
[W-9206] 05 p1259 N93-16355
Normal forms in real time process algebra
[CWI-CS-R9149] 05 p1265 N93-16367
Simulation method for stationary Gaussian random functions based on the sampling theorem
[PB93-127496] 07 p2059 N93-21818
Selection and transmission of information. Issue 22: Republic interdepartmental collection (selected articles)
[AD-A262825] 11 p3615 N93-29431

TIME LAG

Mathematical analysis of multi-sensor cross-correlation processing for source localization
[DREA-CR-89-433] 01 p0068 N93-10366
The combustion time lag and its role in ramjet combustion instability 02 p0245 N93-11137
Completeness of a delay-insensitive algebra
[CS-9203] 05 p1264 N93-16352
An M/G/1 queue with dependence between interarrival and service times
[CWI-BS-R9125] 05 p1276 N93-16849
Summary of the effects of engine throttle response on airplane formation-flying qualities
[NASA-TM-4465] 08 p2131 N93-23123
Time delay measurements of current primary FAA air/ground transmitters and receivers
[DOT/FAA/CT-TN93/14] 11 p3379 N93-28555
Time-interpolation method for digital beamformers
[AD-D015709] 11 p3383 N93-29275
Supervisory autonomous local-remote control system design: Near-term and far-term applications 12 p3801 N93-32100
Performance analysis of a robotic system for space-based assembly 12 p3801 N93-32101
Integration of advanced teleoperation technologies for control of space robots 12 p3784 N93-32107

TIME MARCHING

On techniques for digital simulation of random response of nonlinear oscillators 01 p0055 N93-10523
Preconditioned time-difference methods for solving advective-diffusive systems
[DE92-014790] 05 p1262 N93-15879
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
Time dependent formulation of the heat transfer problem in nonhomogeneous media 07 p1905 N93-20691
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Further development of the CANAERO computer code to include a time-stepping capability
[DREA-CR-91-478] 07 p2042 N93-21820
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation
[AD-A260351] 08 p2470 N93-24169
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet
[NASA-TM-106240] 11 p3252 N93-29162
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934

TIME MEASUREMENT

GPS Army research and applications
[AD-A254262] 01 p0007 N93-10424
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
The VELOPT code for estimating performance of a Fabry-Perot velocimeter
[DE92-015566] 03 p0596 N93-12831
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting
[AD-A254745] 03 p0596 N93-12844
RF system description for the ground test accelerator radio-frequency quadrupole
[DE92-040239] 03 p0563 N93-13045
A timing analysis of level-clocked circuitry
[AD-A256796] 05 p1143 N93-15888
Time stress measurement devices for enhancement of onboard bit performance 06 p1608 N93-19762
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
Redesigning the window protocol: The block acknowledgement revisited
[RUU-CS-92-04] 07 p2039 N93-21170
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570
Cosmic string cosmology 09 p2891 N93-24907
Frequency and Time Forum
[ESA-SP-340] 09 p2831 N93-24978
Hydrogen masers for space 09 p2716 N93-24980
The application of the PRARE principle for precise two-way time transfer to space-based atomic clocks 09 p2832 N93-24983
Atomic time scales for dynamical astronomy 09 p2832 N93-24984
How can millisecond pulsars improve the long term stability of atomic time scales? 09 p2832 N93-24985
Relativistic effects for low Earth orbit satellites using GPS 09 p2608 N93-24986
Prospects of two-way international time scale comparisons 09 p2832 N93-24988

A new modem for microwave time synchronisation via geosynchronous telecommunication satellites
09 p2686 N93-24999
A system design for laser time synchronization via geodetic satellite Ajisai 09 p2716 N93-25005
The accuracy of SYLT- and RNS-based time scales at MTI and SNT during 1990-1991
09 p2835 N93-25006
Analytical techniques for improved time transfer using common view of direct broadcasting satellites
09 p2835 N93-25008
Comparison of GLONASS and GPS time transfers
09 p2836 N93-25017
Collaboration in the UK on time transfer using the GLONASS system 09 p2837 N93-25019
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Time stability: An improvement of the multi-variance method for the oscillator noise analysis
09 p2839 N93-25036
The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048
Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049
Oscillators for mobile GPS receivers
09 p2694 N93-25055
Designing for frequency and time metrology at the 10 to the minus 18 power level 09 p2842 N93-25059
Time generation and distribution system for a military national synchronization 09 p2842 N93-25060
Timing and time signal distribution in digital communications networks 09 p2686 N93-25061
Timing a national telecommunications network using GPS 09 p2687 N93-25062
Strategies for synchronisation in an evolving telecommunications network 09 p2687 N93-25063
Synopsis of timing measurement techniques used in telecommunications 09 p2687 N93-25064
Large amplitude striations in an RF discharge
[DE93-753244] 11 p3379 N93-28534
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023
Foreign technology assessment: Environmental evaluation of a radiation-hard oscillator/divider
[DE93-011481] 11 p3412 N93-30127
Modeling industrial distributed control systems with Petri nets
[REPT-92-079] 12 p3714 N93-31465

TIME MEASURING INSTRUMENTS
NT ATOMIC CLOCKS
NT CLOCKS
NT TIMING DEVICES

TIME OF FLIGHT SPECTROMETERS
Development of a geometry-compensated neutron time-of-flight detector for ICF applications with approximately 200 ps time response
[DE92-018024] 02 p0450 N93-11153
Plasma temperatures from first-hit neutron time-of-flight spectra
[DE92-018006] 02 p0454 N93-12060
Development of laser-ion beam photodissociation methods
[DE92-040512] 04 p0886 N93-15058
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment
[ONERA-RT-18/3641-PY] 04 p0975 N93-15130
CoMA: A high resolution Time-Of-Flight Secondary Ion Mass Spectrometer (TOF-SIMS) for in situ analysis of cometary matter 06 p1721 N93-19272
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection
07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer
07 p1773 N93-21915
Laser range camera data fusion
[DE93-005159] 08 p2263 N93-23313
A remote laser-mass spectrometer for determination of elemental composition 11 p3434 N93-28775
A low-cost, lightweight, and miniaturized Time-Of-Flight Mass Spectrometer (TOFMS) 11 p3434 N93-28817
Detonation mass spectrometry
11 p3319 N93-30076
Interaction of solar wind ions with thin carbon foils: Calibration of time-of-flight spectrometers
12 p3880 N93-31423

TIME OPTIMAL CONTROL
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
Discrete time system piecewise linear filtering with small observation noise
[INRIA-RR-1451] 06 p1633 N93-18611
Minimizing total inventory cost on a single machine in just-in-time manufacturing
[MEMO-COSOR-92-20] 10 p3093 N93-27247
Robust feedforward/feedback control synthesis for uncertain dynamical systems 11 p3542 N93-29079

TIME SERIES ANALYSIS
Adequate sampling of a chaotic time series
[AD-A254170] 01 p0127 N93-10664
Stationary time series analysis using information and spectral analysis
[AD-A257279] 02 p0425 N93-11431
Interactive analysis of gappy bivariate time series using AGSS
[AD-A255160] 02 p0429 N93-12426
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7
03 p0657 N93-13830
Application of satellite altimetry to study the Gulf of Alaska gyre 03 p0635 N93-13969
Statistical error in a chord estimator of correlation dimension: The rule of five
[DE93-000687] 05 p1276 N93-17195
Least squares harmonic analysis applied to phenomena related to Earth rotation
[ETN-92-92532] 05 p1192 N93-17588
Interpretation of time series from nonlinear systems. Volume 58: Proceedings of the IUTAM Symposium and NATO Advanced Research Workshop on the Interpretation of Time Series from Nonlinear Mechanical Systems
[AD-A258028] 05 p1277 N93-17674
Reconstruction of linear and nonlinear continuous time models from discrete time sampled-data systems
[RR-406] 06 p1646 N93-18458
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
Geodynamic contributions to global climatic change
06 p1575 N93-18963
Late quaternary time series of Arabian Sea productivity: Global and regional signals 06 p1580 N93-18969
Modeling orbital changes on tectonic time scales
06 p1581 N93-18971
Plio-Pleistocene time evolution of the 100-ky cycle in marine paleoclimate records 06 p1581 N93-18972
Analysis of whole-sky imager data to determine the validity of PCFLOS models
[AD-A259042] 06 p1587 N93-19020
Toward an optimal strategy for sampling chaotic time series using the Smale-Williams dynamical system
[AD-A258550] 06 p1650 N93-19953
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984
Modelling robot trajectory errors using time series
07 p1942 N93-20716
Inverse sequential detection of parameter changes in developing time series
[NASA-CR-191996] 07 p2059 N93-21191
Mean seasonal cycles and interannual variations at 0 deg, 110 deg W and 0 deg, 140 deg W during 1980-1991
[PB93-114726] 07 p2014 N93-21388
Advantages of tapering finite data records for spectral analysis
[PB93-116614] 07 p2092 N93-21475
Market penetration of new energy technologies
[DE92-016409] 08 p2375 N93-22323
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Topological organization of (low-dimensional) chaos
[DE93-003693] 08 p2514 N93-22753
Adaptive filters for monitoring localized brain activity from surface potential time series
[DE93-003795] 08 p2420 N93-22774
Complex principal oscillation pattern analysis
[MPIM-86] 08 p2468 N93-23061
Nonlinear dynamical modeling and prediction of the terrestrial magnetospheric activity
08 p2392 N93-23135
Nonlinear techniques for forecasting solar activity directly from its time series 09 p2603 N93-24716
Observations of an intrathermocline vortex
09 p2788 N93-24769
The continuous plankton recorder survey: A long-term, basin-scale oceanic time series
09 p2736 N93-24937
Ocean time-series near Bermuda: Hydrostation S and the US JGOFS Bermuda Atlantic time-series study
09 p2736 N93-24938
Inverse sequential procedures for the monitoring of time series
[NASA-CR-192959] 09 p2765 N93-25666
Time series analysis and multivariate analysis
[AD-A261014] 09 p2830 N93-25860
Coastal ocean processes: A science prospectus
[AD-A261702] 09 p2790 N93-26384
Moored instrument for time series studies of primary production and other microbial rate processes
[DE93-010148] 10 p3079 N93-26943
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Identification of significant outliers in time series data
[AD-A262437] 10 p3125 N93-27659
Including maximum sustained wind speed in a time series model to forecast hurricane movement
[AD-A262510] 10 p3078 N93-27663
Validity of approximations for time periodic solutions of a forced non-linear hyperbolic differential equation
[REPT-92-47] 10 p3118 N93-27883
Fractional brownian motion, wavelets, and infrared detector noise
[AD-A262956] 10 p3129 N93-28290
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Mean seasonal cycles and interannual variations at 0 deg, 165 deg E during 1986-1992
[PB93-186195] 12 p3768 N93-31874

TIME SHARING
Performance evaluation and modeling techniques for parallel processors
[NASA-CR-190974] 02 p0419 N93-12395
A study on the effectiveness of lockup-free caches for a Reduced Instruction Set Computer (RISC) processor
[AD-A257662] 05 p1231 N93-17681
Implementation of a parallel unstructured Euler solver on shared and distributed memory architectures
[NASA-CR-189742] 06 p1532 N93-18769
STEP development methods: Specification of semantics for information sharing
[PB93-113686] 07 p2091 N93-21218
Complexity of scheduling multiprocessor tasks with prespecified processor allocations
[CWI-BS-R9211] 10 p3108 N93-27990
Decay-usage scheduling in multiprocessor and distributed systems. 1: Theory
[REPT-92-105] 12 p3795 N93-31864

TIME SIGNALS
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
A timing analysis of level-clocked circuitry
[AD-A256796] 05 p1143 N93-15888
Pseudo Wigner-Ville distribution, computer program, and its applications to time-frequency domain problems
[AD-A261839] 09 p2813 N93-26431
Fundamental study of the signal processing by optics
[DE93-776265] 11 p3577 N93-28982
Distributed traffic signal control using fuzzy logic
11 p3513 N93-29543

TIME TEMPERATURE PARAMETER
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Thermal fracture service life analysis of a case bonded visco-elastic cylinder 02 p0339 N93-12008
An experimental approach to determine the heat transfer coefficient in directional solidification furnaces
04 p0995 N93-15311
Far infrared, magnetic, and electronic studies of high T(sub c) superconducting materials
[AD-A257050] 04 p0996 N93-15444
Time-temperature analysis of damage initiation and growth in composite laminates 08 p2215 N93-24217
Luminescence and picosecond photo-induced absorption of polyaniline
[AD-A260002] 08 p2242 N93-24436
An evaluation of thermal energy storage options for precooling gas turbine inlet air
[DE93-005980] 09 p2758 N93-24975
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458

TIMERS
U TIMING DEVICES

TIMING
U TIME MEASUREMENT

TIMING DEVICES
Quartz crystal resonators and oscillators for frequency control and timing applications: A tutorial, revision 5.2
[AD-A254892] 02 p0469 N93-12283
A distributed timing system for sychronizing control and data correlation
[DE92-018603] 03 p0690 N93-12564
Tutorials from the 23rd Annual Precise Time and Time Interval (PTTI) Applications and Planning Meeting
[AD-A254745] 03 p0596 N93-12844
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056

Office of Spaceflight Standard Spaceborne Global Positioning System (GPS) user equipment project
07 p1780 N93-21417
Manned versus unmanned rendezvous and capture
08 p2137 N93-22234

TIMOSHENKO BEAMS
Vibrations of a flexible Timoshenko beam under gravity
01 p0053 N93-10512
Response of a beam to transverse impulsive and high frequency loads
01 p0056 N93-10526
A piecewise continuous Timoshenko beam model for the dynamic analysis of tapered beam-like structures
06 p1561 N93-19459
Passive damping augmentation of flexible beam-like lattice trusses for large space structures
10 p2923 N93-27192
Vibration localization in rotating shafts
11 p3454 N93-30626

TIN
NT TIN ISOTOPES

TIN ALLOYS
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
The effect of low Au concentrations on the properties of eutectic Sn/Pb
[DE92-041206] 05 p1109 N93-15675
Comparison of bismuth-lead and bismuth-tin to tin-lead as alternate solder alloys
[DE93-006041] 08 p2230 N93-23024
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036

TIN COMPOUNDS
NT TIN OXIDES
Experimental investigation of cooling perimeter and disturbance length effect on stability of Nb3Sn cable-in-conduit conductors
[DE92-538568] 05 p1149 N93-17007

TIN ISOTOPES
Processing high-(Tc) superconductors with GeV heavy ions
[DE92-040755] 05 p1315 N93-15926

TIN OXIDES
Influence of surface defects and local structure on oxygenate reaction pathways over metal oxide surfaces
[DE92-040013] 03 p0539 N93-13573
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479

TIP SPEED
A concept for a counterrotating fan with reduced tone noise
[NASA-TM-105736] 02 p0433 N93-11370
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873
Induced inflow velocity and blade surface pressure measurements for a helicopter model in forward flight. Volume 1: Advance ratio of 0.37, thrust coefficient of 0.0081, and hover tip speed of 710 ft/sec
[NASA-TM-104224] 08 p2116 N93-24532

TIPS
NT BLADE TIPS
NT CRACK TIPS
NT NOSE TIPS
NT WING TIPS

TIRES
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Method and apparatus for cleaning rubber deposits from airport runways and roadways
[NASA-CASE-LAR-14483-1] 08 p2256 N93-22035
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508

TIROS N SERIES SATELLITES
Automatic pattern recognition techniques for geometrical correction on satellite data
03 p0687 N93-13913

TIROS SATELLITES
NT TIROS N SERIES SATELLITES
Adjustment of TIROS operational vertical sounder data to a vertical view
[NOAA-TR-NESDIS-64] 10 p3071 N93-27059

TISSUES (BIOLOGY)
NT ADIPOSE TISSUES
NT EPITHELIUM
Method for culturing mammalian cells in a perfused bioreactor
[NASA-CASE-MSC-21293-2] 01 p0129 N93-10109
Method for culturing mammalian cells in a horizontally rotated bioreactor
[NASA-CASE-MSC-21294-2] 01 p0129 N93-10110
Interaction of electromagnetic fields with chondrocytes in gel culture
[AD-A253727] 01 p0070 N93-10747
Effects of spaceflight on the proliferation of jejunal mucosal cells
[NASA-CR-191303] 03 p0675 N93-13449
Nerves and tissue repair
[AD-A255299] 04 p0934 N93-14535
Autoradiographic distribution and applied pharmacological characteristics of dextromethorphan and related antitissue/anticonvulsant drugs and novel analogs
[AD-A255607] 04 p0935 N93-15009
Radon: Chemical and physical processes associated with its distribution
[DE93-003718] 05 p1204 N93-17470
High density cell culture system
[NASA-CASE-MSC-22060-1] 06 p1593 N93-19037
Cellular and tissue injury during nonfreezing cold injury and frostbite
[AD-A260574] 09 p2795 N93-25900
Dose in water from external irradiation by electrons: Radiation protection data
[PB93-173425] 10 p3131 N93-27425
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759
The chronic effects of jP-8 jet fuel exposure on the lungs
[AD-A264162] 11 p3495 N93-30153
Theoretical-experimental study of the non-thermal effects of the polarized laser radiation in living tissues
[DE93-607212] 11 p3441 N93-30775

TITAN
Studies of radiative emission from the simulated shock layer of the Huygens probe
03 p0521 N93-12834
Investigations of Titan's troposphere and surface and Jupiter's great red spot with infrared observations
04 p1022 N93-14146
Cassini atmospheric chemistry mapper. Volume 1. Investigation and technical plan
[NASA-CR-190947] 04 p1021 N93-15079
Titan
06 p1592 N93-18553
Cassini: Mission to Saturn and Titan
06 p1592 N93-18559
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres
[NASA-CR-192145] 07 p2099 N93-21642
Cassini/Huygens: A mission to Saturn and Titan
08 p2539 N93-23918
DSN observations of Titan
09 p2680 N93-26129
Residual mean meridional circulation in titan's middle atmosphere
[PB93-162931] 09 p2898 N93-26571

TITAN LAUNCH VEHICLES
NT TITAN 4 LAUNCH VEHICLE
Pneumatic motor powered Thrust Vector Control (TVC) for liquid propelled launch vehicles
01 p0017 N93-10015
Acoustic and thermal testing of the Titan/Centaur upper stage
04 p0814 N93-15621
Low cost, SPF aluminum cryogenic tank structure for ALS
[NASA-CR-189654] 06 p1554 N93-18030

TITAN 4 LAUNCH VEHICLE
Analysis of Titan 4 launch responsiveness
[AD-A259021] 06 p1456 N93-18950

TITANATES
NT BARIUM TITANATES
NT ILMENITE
NT LEAD TITANATES
NT LEAD ZIRCONATE TITANATES
NT MAGNESIUM TITANATES
NT PEROVSKITES
NT PIEZOELECTRIC CERAMICS
NT STRONTIUM TITANATES
Conductive titanate fiber and its production method
[DE92-014738] 01 p0039 N93-10627

TITANIUM
System design and relaxation oscillations of a titanium-sapphire laser
[AD-A254264] 01 p0089 N93-10725
On the dependence of the dynamic crack tip temperature fields in metal upon crack tip velocity and material parameters
[AD-A253657] 02 p0335 N93-11219
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
The 7th World Conference on Titanium
[AD-A255674] 04 p0844 N93-14132
The use of a novel manufacturing process for high performance titanium plate fin heat exchangers
[PNR-90934] 04 p0879 N93-15473
Modeling of microstructural effects on fracture processes at high loading rates
[AD-A255684] 05 p1183 N93-15958
A study of the Lute Metering Structure
05 p1189 N93-17294
A Ti:Sapphire laser for the new polarized electron source
[DE93-004016] 06 p1541 N93-18448
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Melting of cognetic depleted and enriched reservoirs and the production of high Ti Mare basalts
06 p1739 N93-18812
Mechanical behavior of titanium aluminide under engine operating conditions
[AD-A258884] 06 p1550 N93-19079
Reduction of bend losses for titanium diffused waveguides in lithium niobate
[ETN-93-92558] 07 p1884 N93-20750
The role of passive surface films on corrosion fatigue crack initiation
[DE93-006512] 08 p2325 N93-22888
Monitoring damage growth in titanium matrix composites using acoustic emission
[NASA-TM-107742] 09 p2634 N93-25072
Joining carbon composite fins to titanium heat pipes
[AD-A261970] 10 p2991 N93-27667
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
Plastic deformation behaviour of oxide dispersion strengthened titanium alloys
[ONERA-NT-1990-6] 11 p3326 N93-30138
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176

TITANIUM ALLOYS
NT NITINOL ALLOYS
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
Ohmic contacts to compound semiconductors
01 p0076 N93-10830
Thermal residual stresses in silicon-carbide/titanium (0/90) laminate
[NASA-TM-107649] 02 p0236 N93-11072
Microstructure and mechanical properties of reactive hot isostatic pressed TiAl powder material
[GKSS-91/E/60] 02 p0256 N93-11336
Titanium-aluminides by hot isostatic pressing of cold extruded titanium-aluminium powder mixtures
[GKSS-91/E/67] 02 p0256 N93-11337
Thermomechanical fatigue behavior of SiC/Ti-24Al-11Nb in air and argon environments
[NASA-TM-105723] 02 p0238 N93-11399
The conversion of plastic work to heat around a dynamically propagating crack in metals
[AD-A253801] 02 p0258 N93-11782
Multi-layer light-weight protective coating and method for application
[NASA-CASE-LAR-14448-1] 02 p0269 N93-11912
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Design and development of Ni-base superalloy and Ti alloys
[NRIM-SR-92-01] 02 p0261 N93-12322
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Thermal control/oxidation resistant coatings for titanium-based alloys
02 p0229 N93-12457
Influence of cold work level on the irradiation creep and creep rupture of titanium-modified austenitic stainless steels
[DE92-019078] 03 p0541 N93-12820
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
The 7th World Conference on Titanium
[AD-A255674] 04 p0844 N93-14132
HIP consolidation of aluminum-rich intermetallic alloys and their composites
[NAWCADWAR-92003-60] 04 p0845 N93-14726
Environmentally assisted cracking of high strength beta titanium alloys
[AD-A256196] 05 p1109 N93-15699
Deformation twinning in ordered alloys transformation induced ductility in intermetallics
[DE93-002879] 05 p1111 N93-16148

The titanium-aluminum phase diagram: A review of the near Ti-50 at. pct. Al phase fields
[AD-A255685] 05 p1112 N93-16299
Fatigue propagation behaviour of short cracks in titanium alloys
[ESDU-92023] 05 p1113 N93-16637
First-principles approach to alloy phase stability
[DE93-001323] 05 p1115 N93-17031
The beta-CEZ, a new high performance titanium alloy for aerospace engines
[DS-2022] 06 p1485 N93-17852
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Fatigue of continuous fiber reinforced metallic materials
[NASA-TM-107700] 06 p1478 N93-18379
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Corrosion fatigue of titanium in sea water under cathodic polarization
[VTT-PUBS-91] 06 p1488 N93-18655
Behavior of a titanium matrix composite under quasi-static tensile and compressive loading
[AD-A258828] 06 p1480 N93-19090
Phase stability of FCC- and HCP-based intermetallics: The Ti-Al and Cd-Mg systems
[DE93-002558] 06 p1489 N93-19486
Deformation of TiNi shape memory alloy under thermomechanical cycles 07 p1858 N93-20695
Grain refinement of Al-Cu-Ti alloys in microgravity 07 p1810 N93-21120
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479
Fatigue crack propagation of titanium alloys in salt water
[GKSS-91/E/46] 07 p1856 N93-21551
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
The surface interaction of oxygen with a gamma TiAl
[DE93-003847] 08 p2227 N93-22517
Pressure-reaction synthesis of titanium composite materials
[PB93-135036] 08 p2208 N93-22591
Theoretical study of electron-phonon interaction in beta-phase NiTi and Ni-Al alloys
[DE93-004733] 08 p2228 N93-22738
An investigation into the multiaxial fatigue behavior of IMI 829 titanium alloy 08 p2327 N93-23182
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Residual stress measurements in continuous fiber titanium matrix composites
[DE93-003733] 08 p2232 N93-23686
Micromechanics of fatigue
[AD-A260577] 09 p2729 N93-25901
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Solidification processing and phase transformations in ordered high temperature alloys
[AD-A261751] 09 p2652 N93-26284
Modeling fatigue crack growth in cross ply titanium matrix composites
[NASA-TM-108988] 10 p2990 N93-27062
Fundamentals of mechanical behavior in intermetallic compounds
[AD-A262443] 10 p2999 N93-27660
The temperature dependence of the deformation and oxidation behavior of an age-hardenable beta + alpha-two titanium alloy
[AD-A262232] 11 p3320 N93-28491
International Conference on Martensitic Transformations (ICOMAT 92)
[AD-A262739] 11 p3321 N93-28591
Microstructural effects on the deformation and fracture of the alloy Ti-25Al-10Nb-3B-1Mo
[AD-A263095] 11 p3323 N93-29144
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799
Improvement in ductility of the intermetallic compound Ti3Al
[ESA-TT-1276] 11 p3325 N93-30105
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
AGARD Engine Disc Cooperative Test Programme
[AGARD-R-766-ADD] 12 p3681 N93-31741
Fractographic investigation of IMI 685 crack propagation specimens for SMP SC33 12 p3681 N93-31743
Material characterization and fractographic examination of Ti-17 fatigue crack growth specimens for SMP SC33 12 p3681 N93-31744
Low cycle fatigue behaviour of titanium disc alloys 12 p3682 N93-31745
Fatigue crack growth results for Ti-6Al-4V, IMI 685, and Ti-17 12 p3682 N93-31746
Crack growth prediction results 12 p3682 N93-31748
Low cycle fatigue behaviour of titanium disc alloys
[NLR-TP-91346-U] 12 p3683 N93-32372

TITANIUM BORIDES
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515

TITANIUM CARBIDES
Fabrication of high temperature materials by exothermic synthesis and subsequent dynamic consolidation
[DE92-019836] 04 p0834 N93-14819
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801
Strain measurement in individual phases of an Al/TiC composite during mechanical loading
[DE93-003806] 08 p2208 N93-22432
Explosive consolidation of combustion synthesized TiC and TiB2: Precursor morphology effects
[AD-A263186] 11 p3341 N93-28515
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115

TITANIUM COMPOUNDS
NT BARIUM TITANATES
NT ILMENITE
NT LEAD TITANATES
NT LEAD ZIRCONATE TITANATES
NT MAGNESIUM TITANATES
NT PEROVSKITES
NT PIEZOELECTRIC CERAMICS
NT RUTILE
NT STRONTIUM TITANATES
NT TITANATES
NT TITANIUM BORIDES
NT TITANIUM CARBIDES
NT TITANIUM NITRIDES
NT TITANIUM OXIDES
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Processing and properties of Ti5Si3
[DE93-007284] 09 p2649 N93-25149
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115
Two new titanium pyroarsenates: Alpha-TiAs2O7 and Beta-TiAs2O7
[AD-A264632] 11 p3599 N93-30518
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176

TITANIUM DIOXIDE
U TITANIUM OXIDES

TITANIUM NITRIDES
Molecular and polymeric ceramic precursors
[DE93-002841] 05 p1127 N93-17657
Interfacial structure of Si3N4 brazed with an Ag-Cu-Ti alloy
[DE93-003777] 07 p2081 N93-21738
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Design of interfaces in metal matrix composites
[AD-A262052] 11 p3296 N93-29001
Laser gas alloying of titanium materials
[ETN-93-93805] 11 p3325 N93-30115
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174

TITANIUM OXIDES
NT ILMENITE
NT RUTILE
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Theory of the electronic and structural properties of solid state oxides
[DE92-040499] 04 p0993 N93-14909
Ion-beam modification of Gd2Ti2O7
[DE93-001514] 05 p1328 N93-17652
neoKREEP: A new lunar component at Apollo 17 06 p1737 N93-18797
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Vickers indentation hardness of stoichiometric and reduced single crystal TiO2 (rutile) from 25 to 800 C
[NASA-TM-105959] 09 p2633 N93-26204
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060

TITRATION
The effect of alkyl substituents on the macrocycle ring on enantiomeric recognition by chiral pyridino-18-crown-6 for 1-naphthylethylamine
[AD-A265513] 12 p3704 N93-31918

TNT (TRINITROTOLUENE)
U TRINITROTOLUENE

TOBACCO
Correlation of serum alpha sub 1 antitrypsin with cigarette smoking and pulmonary function status in Greek pilots, for a ten year period 02 p0384 N93-11318
Smoking status and body composition, exercise, dietary intake, and alcohol/caffeine consumption
[AD-A250648] 02 p0385 N93-11893
Tobacco and health of the pilot
[ETN-93-93693] 08 p2421 N93-23414
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316
Survey of smoking habits in the Spanish Air Force 12 p3781 N93-32262

TOILETS
Variable-Volume Flushing (V-VF) device for water conservation in toilets 08 p2429 N93-22167

TOKAMAK DEVICES
D-He-3 spherical torus fusion reactor system study
[AD-A253358] 01 p0155 N93-10102
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
An analytic determination of beta poloidal and internal inductance in an elongated tokamak from magnetic probe measurements
[DE92-016294] 01 p0160 N93-10331
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Polarimetry of motional Stark effect and determination of current profiles in D3-D
[DE92-016258] 01 p0161 N93-10393
VH-mode discharges in the D3-D tokamak
[DE92-016257] 01 p0161 N93-10463
Edge ion dynamics in H-mode discharges in D3-D
[DE92-016255] 01 p0162 N93-10619
The effect of current profile changes on confinement in the D3-D tokamak
[DE92-016256] 01 p0163 N93-10620
Magnetic fusion with high energy self-colliding ion beams
[DE92-016860] 01 p0156 N93-10643
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Global Alfven eigenmodes in D3-D
[DE92-016250] 01 p0163 N93-10760
Variational full wave calculation of fast wave current drive in D3-D using the ALCYON code
[DE92-016572] 01 p0163 N93-10761
Scaling of lower hybrid current drive with temperature
[DE92-018541] 02 p0449 N93-10988
Direct electron absorption of fast waves on the D3-D tokamak
[DE92-016254] 02 p0449 N93-11041
Ion temperature measurements in tokamak plasmas by Rutherford scattering
[PB92-184738] 02 p0451 N93-11245
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
High beta and confinement studies on TFTR
[DE92-018647] 02 p0452 N93-11568

Low energy helium implantation in evaporated nickel surfaces
[DE92-019297] 02 p0257 N93-11600
Heat load material studies: Simulated tokamak disruptions
[DE92-018275] 02 p0452 N93-11674
Results from the US/USSR exchange for heat load material studies of simulated tokamak disruptions
[DE92-018285] 02 p0453 N93-11694
Nonlinear effects of ICRF power on drift wave stability and transport in tokamaks, task 1
[DE92-018488] 02 p0453 N93-11729
Fast cooling phenomena with ice pellet injection in the JIPP T-IIU tokamak
[DE92-782105] 02 p0454 N93-11834
Helium transport studies on D3-D
[DE92-016251] 02 p0455 N93-12307
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
A quantitative analysis of the effect of ELMs on H-mode thermal energy confinement in DIII-D
[DE92-017704] 03 p0712 N93-12687
Investigation of component failure rates for pulsed versus steady state tokamak operation
[DE92-019758] 03 p0713 N93-12856
Nonlinear studies of m = 1 modes in high-temperature plasmas
[DE92-019395] 03 p0714 N93-12913
A design for an advanced divertor for D3D and ITER: The radiative slot divertor
[DE92-019579] 03 p0714 N93-12932
DIII-D edge physics database
[DE92-019577] 03 p0714 N93-12971
Tokamak equilibria and transport based on Grad's thirteen moment description
[DE92-019960] 03 p0715 N93-13038
Future development of the D3-D tokamak program
[DE92-040051] 03 p0715 N93-13044
Fluctuation studies on CASTOR and ASDEX tokamaks at lower hybrid current drive
[IPPCZ-319] 03 p0715 N93-13093
Fusion: Magnetic confinement
[DE92-019876] 03 p0716 N93-13107
Fast wave current drive experiment on the D3-D tokamak
[DE92-016253] 03 p0716 N93-13193
Diagnostics systems for the TBR-E tokamak
[INPE-5428-RPQ/662] 03 p0716 N93-13257
Measurements of the temperature in the edge plasma of the CASTOR tokamak by a triple Langmuir probe
[IPPCZ-318] 03 p0716 N93-13330
A fast scanning probe for D3-D
[DE92-040260] 03 p0717 N93-13511
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Achieving high Q(sub DD) operation in high poloidal beta discharges in TFTR
[DE92-019494] 03 p0718 N93-13535
Analysis of rotation experiments in TFTR --- tokamak fusion test reactor 04 p0987 N93-14129
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
Theoretical and numerical studies in magnetic fusion
[DE92-040674] 04 p0988 N93-15349
A power compensation system for phased operation of the JET A2 antenna arrays
[DE92-041020] 04 p0863 N93-15440
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD anaiysis
[DE93-000600] 05 p1306 N93-15697
Physics of the L-mode to H-mode transition in tokamaks
[DE92-040697] 05 p1306 N93-15827
Measurement of impurity ion densities and energies in the divertor and edge regions of Alcator C-Mod tokamak
[DE92-040510] 05 p1307 N93-15922
Tritium pellet injector for the tokamak fusion test reactor
[DE93-001205] 05 p1307 N93-16044
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
Theoretical plasma physics
[DE92-040854] 05 p1308 N93-16185
Experimental evidence of off-diagonal transport term and the discrepancy between energy/particle balance and perturbation analyses
[DE92-556732] 05 p1309 N93-16237
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
Small steady-state tokamak (TST) for divertor testing
[DE93-001213] 05 p1309 N93-16274
Enhancement of D3-D neutral beam system for higher performance
[DE93-000878] 05 p1309 N93-16307
Correlation theory of a two-dimensional plasma turbulence with shear flow
[DE93-000880] 05 p1309 N93-16308
Electron-temperature-gradient-induced instability in tokamak scrape-off layers
[DE93-000623] 05 p1309 N93-16376
Tokamak turbulence in self-regulated differentially rotating flow and L-H transition dynamics
[DE93-000443] 05 p1310 N93-16451
High beta and second stability region transport and stability analysis
[DE93-000886] 05 p1310 N93-16534
JT-60 configuration parameters for feedback control determined by regression analysis
[DE92-556731] 05 p1310 N93-16650
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974
Current drive with fast waves, electron cyclotron waves, and neutral injection in the D3-D tokamak
[DE93-001359] 05 p1311 N93-16985
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
The ARIES-1 tokamak reactor study, volume 2
[DE93-002185] 05 p1311 N93-17037
Theoretical reversed field pinch and tokamak studies
[DE93-002775] 05 p1312 N93-17085
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
A need for non-tokamak approaches to magnetic fusion energy
[DE93-000794] 05 p1331 N93-17232
New D3-D tokamak plasma control system
[DE93-000877] 05 p1312 N93-17388
Design and analysis of the cryopump for the D3-D advanced divertor
[DE93-001357] 05 p1179 N93-17389
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Bias-sustained shield plasma
[DE93-001908] 06 p1666 N93-18511
Poloidal flow generation by resistive pressure-gradient-driven turbulence
[DE93-001638] 06 p1667 N93-18707
Advanced divertor program results from D3-D
[DE93-002675] 06 p1668 N93-19619
The CQL3D Fokker-Planck code
[DE93-002962] 06 p1668 N93-19754
Suggestions for the magnetic diagnostic fixing system in the inside of tokamak TBR-E
[INPE-5277-NTC/298] 06 p1668 N93-19836
Stability of TAE modes in DIII-D
[DE93-002677] 06 p1669 N93-19897
Critical issues and experimental examination on sawtooth and disruption physics
[NIFS-157] 06 p1670 N93-19951
Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments
[DE93-002319] 07 p2069 N93-20026
High frequency ion Bernstein wave heating experiment on JIPP T-2U tokamak
[NIFS-165] 07 p2070 N93-20113
Steady state tokamak sustained by bootstrap current without seed current
[NIFS-159] 07 p2070 N93-20155
Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156
The effects of externally imposed magnetic perturbations on plasmas in TEXT 07 p2071 N93-20282
Review of Japanese results on heating and current drive
[NIFS-193] 07 p2071 N93-20294
Model of the L-mode confinement in tokamaks
[NIFS-187] 07 p2072 N93-20545
A review on application of MHD theory to plasma boundary problems in tokamaks
[NIFS-163] 07 p2073 N93-20762
A role of neutral hydrogen in CHS plasmas with reheat and collapse and comparison with JIPP T-IIU tokamak plasmas
[NIFS-186] 07 p2073 N93-20763
L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192
Current-drive and plasma-formation experiments on the Versator-2 tokamak using lower-hybrid and electron-cyclotron waves
[DE93-002333] 07 p2075 N93-21482
TFTR experimental data analysis collaboration
[DE93-002365] 07 p2075 N93-21483
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Simulation models for tokamak plasmas
[DE93-002876] 07 p2076 N93-21988
Kinetic theory of toroidicity and ellipticity-induced Alfven eigenmodes
[DE93-003634] 07 p2077 N93-21995
Thermally driven turbulence and transport in a sheared system
[DE93-006125] 08 p2491 N93-22053
The University of Wisconsin-Madison Torsatron/Stellarator Laboratory program
[DE93-005922] 08 p2492 N93-22419
Lcw frequency RF current drive
[DE93-005130] 08 p2260 N93-22421
Influence of alpha particle absorption on fundamental deuterium heating in a fusion plasma
[DE93-006824] 08 p2492 N93-22513
High beta effects and nonlinear evolution of the TAE instability
[DE93-004170] 08 p2492 N93-22522
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764
Fusion plasma theory. Task 3: Auxiliary radiofrequency heating of tokamaks
[DE93-005129] 08 p2493 N93-22796
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Applications of divertor biasing to the next generation tokamaks
[DE93-005848] 08 p2494 N93-23023
Electron cyclotron emission measurements on the Texas Experimental Tokamak 08 p2494 N93-23066
Selection of an appropriate tokamak operating regime using magnetohydrodynamic and current drive constraints 08 p2495 N93-23167
Electron-beam rocket acceleration of hydrogen pellets
[DE93-002822] 08 p2171 N93-23685
Recent D3-D results --- tokamak reactor
[DE93-004468] 08 p2496 N93-23690
A transmission/escape probabilities model for neutral particle transport in the outer regions of a diverted tokamak
[DE93-006550] 08 p2497 N93-24045
Analysis of non-thermal electron cyclotron emission during electron cyclotron current drive experiments on the D3-D tokamak 08 p2498 N93-24187
Poloidal magnetic field profile measurements on the microwave tokamak experiment using far-infrared polarimetry 08 p2498 N93-24294
Edge effects during DIII-D divertor biasing
[DE93-005847] 08 p2498 N93-24325
An ICRF antenna edge plasma density profile diagnostic for DIII-D
[DE93-006729] 08 p2498 N93-24328
Theoretical studies on plasma heating and confinement
[DE93-007617] 08 p2499 N93-24452
Tritium permeation model for plasma facing components
[DE93-007044] 08 p2499 N93-24465
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
Effect of continuous eigenvalue spectrum on plasma transport in toroidal systems
[NIFS-214] 09 p2859 N93-25215
TSC plasma halo simulation of a D3-D vertical displacement episode
[DE93-008688] 09 p2860 N93-25493
Plasma confinement theory and transport simulation
[DE93-009755] 10 p3149 N93-26617
Coherent structures in tokamak plasmas workshop: Proceedings
[DE93-009558] 10 p3149 N93-28233
Development of a positronium atom diagnostic beam to study transport in tokamaks
[DE93-010916] 10 p3149 N93-28335

On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
Confinement and stability of VH-mode discharges in the D3-D tokamak
[DE93-008988] 10 p3150 N93-28349
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
New remote maintenance approach for TPX
[DE93-007857] 11 p3584 N93-28583
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
Moment approach to fast ion neoclassical transport and viscous forces
[DE93-753305] 11 p3585 N93-28979
A study on radiation shielding analysis for toroidal field coils of a tokamak-type fusion reactor
[DE93-753398] 11 p3585 N93-28981
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
Effects of neutral gas collisions on the power transmission factor at the divertor sheath
[DE93-009320] 11 p3588 N93-29334
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Bootstrap current profiles and scaling in large aspect ratio tokamaks
[DE93-753158] 11 p3589 N93-30003
Fundamental studies of fusion plasmas
[DE93-013144] 11 p3589 N93-30189
Preliminary design study of a steady state tokamak device
[DE93-764162] 11 p3589 N93-30397
Operation of a 20-channel grating polychromator diagnostic system and its application to sawtooth observations in JT-60U
[DE93-764388] 11 p3590 N93-30398
Optimization for steady-state and hybrid operations of ITER by using scaling models of divertor heat load
[DE93-764151] 11 p3590 N93-30649
Plasma Physics Network Newsletter, no. 5
[DE93-606216] 11 p3591 N93-30795
Tokamak plasma shape identification based on the boundary integral equations
[DE93-715383] 12 p3825 N93-31097

TOLERANCES (MECHANICS)
NT IMPACT TOLERANCES
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
The imaging Fourier transform spectrometer: Performance and tolerance analysis 01 p0086 N93-10952
A study of the effects of tolerances on rigging screws, turnbuckles, and associated components in BS4429: 1987
[NPL-DMM(A)-53] 02 p0325 N93-11326
Using NDT techniques in the maintenance of aeronautical products
[REPT-921-430-102] 02 p0332 N93-11587
Study of compression-loaded and impact-damaged structurally efficient graphite-thermoplastic trapezoidal-corrugation sandwich and semisandwich panels
[NASA-TP-3264] 02 p0239 N93-11623
Properties of five toughened matrix composite materials
[NASA-TP-3254] 03 p0528 N93-12590
A method of representating dimensions and tolerances in solid based freeform surfaces
[PNR-90998] 04 p0951 N93-15386
An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404
Damage tolerance checking on Ni/H2 battery cells 05 p1081 N93-15754
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Damage tolerance assessment of boron/epoxy repairs to fuselage lap joints
[AD-A258383] 06 p1439 N93-18257
Tolerancing for function in a CAD/CAM environment
[PAPER-C-1-1] 07 p2034 N93-20824
New methodologies toward the integration of tolerancing in CAD/CAM systems
[PAPER-C-1-2] 07 p2035 N93-20825
Elements of computer-aided tolerance analysis
[PAPER-C-1-3] 07 p2035 N93-20826
Vectorial tolerancing
[PAPER-C-1-4] 07 p2035 N93-20827
Development of algorithms for composite positional tolerance measurement using coordinate measuring machines
[PAPER-C-1-6] 07 p2035 N93-20829
Functional tolerancing in CAD/CAM
[PAPER-C-2-1] 07 p2035 N93-20830
Validity and well-formedness of dimension and tolerance information in solid modeling systems
[PAPER-C-2-2] 07 p2035 N93-20831
Toward a computer aided functional tolerancing model
[PAPER-C-2-4] 07 p2036 N93-20832
Tolerance, chains and setting of machines: Three dimensional statistical model of machined dimensions
[PAPER-C-2-5] 07 p2036 N93-20833
Tolerancing in the context of the automated manufacturing and the design axioms
[PAPER-C-2-6] 07 p2036 N93-20834
On improving accuracy of machining centers
[PAPER-C-3-1] 07 p2036 N93-20835
Problems of quality inspection and diagnosing in modern manufacturing systems
[PAPER-C-3-2] 07 p2036 N93-20836
Damage tolerance and arrest characteristics of pressurized graphite/epoxy tape cylinders
[NASA-CR-192618] 07 p1945 N93-20915
Traceability for radio frequency coaxial line standards
[NPL-DES-114] 08 p2277 N93-22451
Ultrasonic polishing 09 p2670 N93-25580
Reliable stress and fracture mechanics analysis of complex aircraft components using a h-p version of FEM
[AD-A260628] 09 p2726 N93-25638
Damage tolerance assessment and usage variation analysis for C-130 aircraft in the Israeli Air Force 10 p2926 N93-27210
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
Mechanical behaviour of a closed collar model for an 11.5 T dipole
[NIKHEF-H/92-03] 11 p3576 N93-30019
Mold bolt and means for achieving close tolerances between bolts and bolt holes
[NASA-CASE-MFS-28720-1] 11 p3447 N93-30567
Developments in impact damage modeling for laminated composite structures 11 p3305 N93-30857
Progressive failure methodologies for predicting residual strength and life of laminated composites 11 p3307 N93-30866
Structural dynamics: Probabilistic structural analysis methods. Program overview 12 p3694 N93-31562

TOLERANCES (PHYSIOLOGY)
NT ACCELERATION TOLERANCE
NT COLD TOLERANCE
NT HEAT TOLERANCE
NT HUMAN TOLERANCES
NT RADIATION TOLERANCE
Effects of dextromethamphetamine on subjective fatigue
[AD-A258252] 06 p1594 N93-17822
Stress resistance as a diagnostic category in air traffic controller selection
[DLR-FB-92-13] 08 p2422 N93-24092

TOLLMIEN-SCHLICHTING WAVES
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Receptivity of the boundary layer over a flat plate with different leading-edge geometries: Numerical simulations 08 p2294 N93-23402
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388

TOLUENE
Mobility of toluene in polystyrene-toluene solutions: A NMR study
[AD-A253203] 01 p0031 N93-10794
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Anaerobic microbial transformation of aromatic hydrocarbons and mixtures of aromatic hydrocarbons and halogenated solvents
[AD-A255696] 04 p0932 N93-14557
Modification and evaluation of a microwave plasma/atomic emission detector system
[PB92-217959] 07 p2074 N93-21203
Electron transfer, proton transfer and photoaddition reactions in isolated clusters
[AD-A262719] 10 p3137 N93-28398

TOMAHAWK MISSILES
Development and qualification of the US Cruise Missile Propulsion System 05 p1094 N93-17619

TOMATOES
P0004-1 quick look
[NASA-CR-192459] 08 p2193 N93-23009
Final results of space exposed experiment developed for students 11 p3492 N93-29702

TOMOGRAPHY
NT COMPUTER AIDED TOMOGRAPHY
Electrical resistance tomography used in environmental restoration
[DE92-018003] 01 p0103 N93-10763
Cognition in the brain: Investigations using positron emission tomography
[AD-A254280] 01 p0132 N93-10765
Tomographic/interferometric studies of active stars and binaries 01 p0182 N93-10920
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
The tomographic formulation of spotlight mode synthetic aperture radar extended to three dimensional targets
[DE92-013666] 02 p0280 N93-11234
High resolution image processing of geophysical data with diffraction tomography
[DE92-014134] 02 p0359 N93-11235
Fundamental analysis of the tomographic imaging system for reconstructing ionospheric distributions 02 p0365 N93-12209
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
Acoustic tomographic monitoring of the atmospheric boundary layer 03 p0651 N93-13143
X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022
Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy 04 p0829 N93-14192
Imaging Earth's interior: Tomographic inversions for mantle P-wave velocity structure 04 p0913 N93-14225
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Laser-based studies with an ion-trap mass spectrometer: Ion tomography and analytical applications
[DE92-017529] 04 p0887 N93-15135
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411
Flow visualization and combustion diagnostic 06 p1485 N93-18480
The use of geometric prior information in Bayesian tomographic image reconstruction: A preliminary report
[DE92-041215] 06 p1624 N93-18867
Flexible prior models in Bayesian image analysis
[DE93-003728] 07 p2059 N93-21736
Effect of cytoskeletal reagents on stretch activated ion channels
[AD-A261089] 09 p2793 N93-25764
Tomographic analysis of sight infrared spectra of low pressure flames 09 p2628 N93-26030
Inverse problems in nondestructive evaluations
[AD-A261370] 09 p2722 N93-26337
Array data acquisition with wireless LAN telemetry as applied to shallow water tomography in the Barents sea
[AD-A262183] 10 p2957 N93-27681
Tomographic analysis of line-of-sight infrared spectra of low-pressure flames
[AD-A263185] 11 p3309 N93-28514
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141

TOMS
U TOTAL OZONE MAPPING SPECTROMETER

TONOMETRY
U PRESSURE MEASUREMENT

TOOLING
Special tooling disposition for aircraft entering post production support
[AD-A261614] 09 p2573 N93-26168
Development of an updated pinch-welding capability
[DE93-009823] 11 p3442 N93-28552

TOOLS
NT DRILL BITS
NT MACHINE TOOLS
NT MILLING MACHINES
NT SAWS
NT SPACE TOOLS
NT WRENCHES
Bearing servicing tool
[NASA-CASE-MSC-21881-1] 04 p0891 N93-14871
Retractable tool bit having latch type catch mechanism
[NASA-CASE-GSC-13359-1] 06 p1547 N93-18286
Split rail gripper assembly and tool driver therefor
[NASA-CASE-GSC-13370-2] 06 p1547 N93-18288

TOPEX
Nonconservative force model parameter estimation strategy for TOPEX/Poseidon precision orbit determination
[NASA-TM-104575] 03 p0519 N93-13372
Precision radiation force modeling for the TOPEX/Poseidon mission 04 p0817 N93-14586
TOPEX/Poseidon science investigations plan
[NASA-CR-190616] 04 p0925 N93-14964
The western Mediterranean Sea: An area for a regional validation for TOPEX/Poseidon and a field for geophysical and oceanographic studies 04 p0926 N93-14965
The use of satellite altimetry in the study of weakly defined and variable oceanic gyres
04 p0926 N93-14966
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
North-Australian tropical seas circulation study
04 p0926 N93-14968
Geophysical investigations with TOPEX/Poseidon altimetry data 04 p0918 N93-14969
Mesoscale and large-scale variability of the Antarctic circumpolar current 04 p0926 N93-14970
Ocean transport and variability studies of the South Pacific, Southern, and Indian Oceans
04 p0927 N93-14971
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Studies of the intermediate and deep circulation in the western equatorial Atlantic 04 p0927 N93-14973
Application of TOPEX/Poseidon altimetry to ocean dynamics and geophysics 04 p0927 N93-14974
Circulation of the gyres of the world ocean: Observation modeling using TOPEX/Poseidon altimeter data
04 p0927 N93-14975
South African TOPEX/Poseidon altimeter experiment
04 p0928 N93-14976
Global ocean tides through assimilation of oceanographic and altimeter satellite data in a hydrodynamic model 04 p0928 N93-14978
Low-frequency variability of sea level as related to the heat balance of global oceans 04 p0928 N93-14979
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
Geophysical validation of TOPEX/Poseidon altimetry products 04 p0918 N93-14982
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Ocean circulation using altimetry
04 p0929 N93-14984
The dynamics and energetics of midlatitude western boundary currents: A comparison of the Kuroshio Extension and the Gulf Stream
04 p0929 N93-14985
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Mean sea surface and gravity investigations using TOPEX/Poseidon altimeter data
04 p0930 N93-14990
Global ocean tide mapping using TOPEX/Poseidon altimetry 04 p0930 N93-14991
Application of precise altimetry to the study of precise leveling of the sea surface, the Earth's gravity field, and the rotation of the Earth 04 p0907 N93-14992
Present-day plate motions: Retrieval from the TOPEX/Poseidon orbitography network (DORIS system)
04 p0918 N93-14993
Equatorial and eastern boundary current variability in the North and South Pacific Oceans
04 p0931 N93-14994
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
Oceanic transports of mass, heat, and salt in the western North Pacific 04 p0931 N93-14996
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data
04 p0931 N93-14997
Analysis of altimeter data jointly with seafloor electric data (vertically integrated velocity) and VCTD-yoyo data (detailed profiles of VCTD) 04 p0931 N93-14998
A TOPEX/Poseidon study of oceanic effects on observations of the Earth's interior
04 p0918 N93-14999
Precise orbit computation and sea surface modeling
04 p0813 N93-15000
Marine research using data from TOPEX/Poseidon
04 p0932 N93-15001
Global ocean circulation by altimetry
04 p0932 N93-15002
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
Experimental and theoretical determination of sea-state bias in radar altimetry
[NASA-CR-191712] 05 p1191 N93-16758
NASA Center update: Jet Propulsion Laboratory
07 p1983 N93-20492
TOPEX/Poseidon battery performance
07 p1984 N93-20507
TOPEX/POSEIDON joint verification plan
[NASA-CR-192792] 06 p2413 N93-22804
Star tracker operation in a high density proton field
09 p2600 N93-24699
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704

TOPOGRAPHY
NT LUNAR TOPOGRAPHY
NT TERRAIN
New perspectives on the Popigai impact structure
01 p0110 N93-10138
The Zhamanshin impact feature: A new class of complex crater? 01 p0110 N93-10139
Phase-stepping fiber-optic projected fringe system for surface topography measurements
[NASA-CASE-LEW-14996-1] 02 p0446 N93-11058
Spatial data transformation: Feature attribute conversion issues and practical experience
[AD-A254238] 02 p0477 N93-11741
Generation of 3-D surface maps in waste storage silos using a structured light source 02 p0399 N93-11958
Satellite imagery goes to the field
[AD-A254449] 03 p0632 N93-12598
Tributary and gap nighttime air flow comparisons
[DE92-018875] 03 p0662 N93-13075
Impact of Digital Terrain Elevation Data (DTED) resolution on terrain visualization: Simulation versus reality
[AD-A254237] 03 p0634 N93-13333
Topographic surveyor: Transitioning to the 90's
[AD-A254688] 03 p0499 N93-13351
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Is Ishtar Terra a thickened basaltic crust?
04 p1024 N93-14292
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Monte Carlo modeling of the resurfacing of Venus
04 p1025 N93-14299
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Venusian sinuous rilles 04 p1033 N93-14337
Derivation of surface properties from Magellan altimetry data 04 p1033 N93-14340
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales
04 p1034 N93-14343
Magellan stereo images and Venusian geology
04 p1035 N93-14347
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
The spatial distribution of coronae on Venus
04 p1043 N93-14383
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera
04 p1044 N93-14389
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography
04 p1044 N93-14395
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
Assimilation of altimeter topography into oceanic models 04 p0927 N93-14972
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Ocean topography mapping, improvement of the marine geoid, and global permanent ocean circulation studies from TOPEX/Poseidon altimeter data
04 p0928 N93-14981
General circulation of the South Atlantic between 5 deg N and 35 deg S 04 p0929 N93-14987
Ocean dynamics in the Nordic Seas using satellite altimetry 04 p0930 N93-14988
An integrated research program for TOPEX/Poseidon with emphasis on the Pacific Ocean
04 p0931 N93-14995
The determination and interpretation of ocean surface topography using TOPEX/Poseidon altimeter data
04 p0931 N93-14997
Adaptive mesh in visualization of terrain elevation data
[AD-A255481] 04 p0908 N93-15007
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364
Built-up area feature extraction
[AD-A256933] 05 p1190 N93-16206
Lunar Observer Laser Altimeter observations for lunar base site selection 05 p1395 N93-17437
A plan for developing a hierarchal three-dimensional landscape signature model
[AD-A257550] 06 p1564 N93-17965
Code vector density in topographic mappings
[AD-A258222] 06 p1492 N93-18122
Multi-discipline Arctic oceanography and acoustics program: The Geodesic Underice Tramway System (GUTS)
[AD-A258323] 06 p1589 N93-18254
Mapping of sea bottom topography with spaceborne SAR
[BCRS-91-14] 06 p1589 N93-18430
Updating topographic maps using orbital images in a microcomputer environment
[INPE-5409-PRE/1756] 06 p1567 N93-19739
The image digitizing system
[AD-A258665] 06 p1628 N93-19948
Feature mapping in a photogrammetric GIS
[AD-A258595] 07 p1965 N93-19967
Investigation of the role of thermal boundary layer processes in initiating convection under the NASA SPACE Field Program 07 p2005 N93-20080
Reports on cartography and geodesy, series 1, number 106
[ETN-93-92583] 07 p1967 N93-20528
Development of an automated cartographic system
07 p1967 N93-20530
Computer aided cartographic generalization for the DCM derivation, with regard to feature displacement
07 p1967 N93-20532
ATKIS: The introduction phase at IfAG
07 p1967 N93-20533
Cokriging surface elevation and seismic refraction data for bedrock topography
[DE93-001369] 07 p1999 N93-21225
Digital topographic approach to modeling: The distribution of precipitation to mountainous terrain
[PB93-106649] 07 p2015 N93-21535
Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data
07 p1954 N93-21576
Radar seeker based autonomous navigation update system using topography feature matching techniques
08 p2256 N93-22030
Tunneling magnetic force microscopy
08 p2514 N93-22194
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Ternd). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Innovative applications of repeated satellite SAR surveys 08 p2349 N93-23541
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
Potentialities and limitations of topographic mapping from synthetic aperture radar 08 p2350 N93-23547
The orbital imaging system and its potential for digital terrain models of the Earth 08 p2350 N93-23548
Assessment and correction of the impact of topography and atmosphere on remote sensing forest mapping of alpine regions 08 p2370 N93-23832
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
Orbit determination support of the Ocean Topography Experiment (TOPEX)/Poseidon operational orbit
09 p2601 N93-24704
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA)
09 p2602 N93-24707
Synchrotron radiation X ray topography study of lateral field resonators 09 p2833 N93-24994
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality
09 p2838 N93-25025
Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044

Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument
09 p2711 N93-25614
Topography from shading and stereo
09 p2879 N93-25803
Isolation and analysis of key components of seafloor relief
[AD-A261635] 09 p2790 N93-26170
Interaction of an eddy with a continental slope
[AD-A261550] 09 p2791 N93-26578
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Multibeam laser altimeter for planetary topographic mapping 11 p3442 N93-28780
The German PAF (Processing and Archiving Facilities) for ERS-1 11 p3457 N93-28916
Charting the remote southern oceans with geosat altimetry
[AD-A263452] 11 p3461 N93-29817
ARI: Internal gravity waves at abrupt topography
[AD-A263795] 11 p3477 N93-29879
Simulation of landscape disturbances and the effect of climatic change
[DE93-011615] 11 p3472 N93-30131
Access and content of the EDBS topographic-cartographic information system (ATKIS)
12 p3745 N93-31267
Code vector density in topographic mappings
[RSRE-MEMO-4669] 12 p3746 N93-31611
Radar studies of the West Antarctic ice streams
12 p3760 N93-31891
Airborne gravity and other geophysical techniques for understanding the lithosphere beneath the West Antarctic Ice Sheet 12 p3761 N93-31894

TOPOLOGY
NT HOMOTOPY THEORY
NT METRIC SPACE
Global structure of a polynomial autonomous system on the plane
[DE92-630230] 01 p0144 N93-10389
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
The object instancing paradigm for linear fractal modeling 04 p0956 N93-15559
Hausdorff metric for capacities
[CWI-BS-R9127] 05 p1268 N93-16833
Topological approach for the study of electromagnetic coupling
[ONERA-P-1992-2] 07 p1881 N93-20230
Fuzzy connectivity and mathematical morphology
[TELECOM-PARIS-92-D-001] 07 p2053 N93-20940
Automatic design of a Maglev controller in state space
[AD-A259336] 07 p2047 N93-21261
Topological organization of (low-dimensional) chaos
[DE93-003693] 08 p2514 N93-22753
The Mathai-Quillen formalism and topological field theory
[NIKHEF-H/92-07] 10 p3155 N93-27496
Grid minors of graphs on the torus
[CWI-BS-R9205] 10 p3117 N93-27526
Classification of minimal graphs of given face-width on the torus
[CWI-BS-R9203] 10 p3117 N93-27607
Graphs on the torus and geometry of numbers
[CWI-BS-R9204] 10 p3117 N93-27608
Topology of hybrid objects
[ETN-93-93594] 11 p3546 N93-28466
NetStat: A probabilistic network connectivity analysis tool
[AD-A262838] 11 p3529 N93-29647
Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3367 N93-29890
Gravitation of global topological defects
12 p3757 N93-31130
Cut locus and medial axis in global shape interrogation and representation
[PB93-189884] 12 p3786 N93-31199
Geographical and topographical data from satellite images used in developing a digital road topology database 12 p3745 N93-31266
Three-neutrino oscillations in matter and topological phases
[DE93-608386] 12 p3813 N93-31290
Structurally stable quadratic systems without limit cycles
[REPT-92-58] 12 p3805 N93-31501
The crease structure of the Karush-Kuhn-Tucker set in parametric optimization
[REPT-92-62] 12 p3806 N93-31551

TORCHES
Pipe crawler development for duct elbow removal
[DE93-002169] 08 p2313 N93-22892
Development and use of hydrogen-air torches in an altitude facility
[NASA-TM-106047] 09 p2598 N93-26214

TORNADO AIRCRAFT
U MRCA AIRCRAFT

TORNADOES
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Climatic variation of storms 07 p2006 N93-20084
Positive cloud-to-ground flashes in severe storms
09 p2780 N93-24896
Initialization of a modeled convective storm using Doppler radar-derived fields 09 p2782 N93-25294
Guide for conducting convective windstorm surveys
[PB93-148427] 09 p2787 N93-26570
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889

TOROIDAL PLASMAS
Investigation of the effect of large core changes in toroidal plasma rotation and radial electric field on confinement in H-mode discharges in the D3-D tokamak
[DE92-016252] 01 p0161 N93-10392
Edge ion dynamics in H-mode discharges in D3-D
[DE92-016255] 01 p0162 N93-10619
High beta and confinement studies on TFTR
[DE92-018647] 02 p0452 N93-11568
Biasing experiments on the Advanced Toroidal Facility
[DE92-040033] 03 p0717 N93-13518
Achieving high Q(sub DD) operation in high poloidal beta discharges in TFTR
[DE92-019494] 03 p0718 N93-13535
Fine structure of auroral particle acceleration
04 p0912 N93-14121
The sulfur emission and periodicity of the Jupiter plasma torus in 1988 04 p1022 N93-14156
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
Exact analytical solution of the toroidal singular mode equations
[DE92-040223] 04 p0988 N93-15419
Toroidal effects on drift wave turbulence
[DE93-000498] 05 p1306 N93-15672
Theoretical studies of turbulence and anomalous transport in toroidal confinement devices
[DE93-000402] 05 p1307 N93-16091
Plasma physics research in the MST toroidal confinement device
[DE93-000491] 05 p1309 N93-16241
Map model for nonlinear alpha particle interaction with toroidal Alfven waves
[DE93-001851] 05 p1311 N93-16973
Multiple-gap theory of toroidal Alfven waves with kinetic effects
[DE93-001852] 05 p1311 N93-16974
Magnetic fusion theory and experimental research and development
[DE93-002539] 05 p1311 N93-17003
Long wavelength magnetic fluctuations in toroidal plasmas
[DE93-002352] 05 p1312 N93-17199
Identification of toroidal field errors in a modified betatron accelerator
[AD-A257983] 06 p1660 N93-18289
Roles of electric field on toroidal magnetic confinement
[NIFS-200] 06 p1669 N93-19884
Hamiltonian for the toroidal helical magnetic field lines in the vacuum
[NIFS-201] 06 p1669 N93-19885
On the Lagrangian of the linearized MHD equations
[NIFS-154] 06 p1670 N93-19933
Effects of nonclassical ion losses on radial electric field in CHS torsatron/heliotron
[NIFS-160] 07 p2069 N93-20112
Steady state tokamak sustained by bootstrap current without seed current
[NIFS-159] 07 p2070 N93-20155
Transition to H-mode by energetic electrons
[NIFS-158] 07 p2070 N93-20156
Thought analysis on self-organization theories of MHD plasma
[NIFS-164] 07 p2070 N93-20159
Physical mechanism of E(sub psi)-driven current in asymmetric toroidal systems
[NIFS-172] 07 p2070 N93-20263
The effects of externally imposed magnetic perturbations on plasmas in TEXT
07 p2071 N93-20282
Effects of net toroidal current on Mercier criterion in the Large Helical Device
[NIFS-174] 07 p2072 N93-20543
Long pulse discharges sustained by second harmonic electron cyclotron heating using a 35 GHz gyrotron in the Advanced Toroidal Facility
[NIFS-183] 07 p2072 N93-20544
Beta-limiting phenomena in high-aspect-ratio toroidal helical plasmas
[NIFS-188] 07 p2072 N93-20546
Neoclassical theory of the plasma edge
[PB93-123586] 07 p2075 N93-21668
Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121887] 07 p2076 N93-21809
Effect of alpha particles on toroidal Alfven eigenmodes
[DE93-003635] 07 p2076 N93-21830
Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch
[DE93-005831] 08 p2493 N93-22869
Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504
Density dependence of line intensities and application to plasma diagnostics
[NIFS-209] 09 p2857 N93-24950
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
Effect of continuous eigenvalue spectrum on plasma transport in toroidal systems
[NIFS-214] 09 p2859 N93-25215
Thermal and electric oscillation driven by orbit loss in helical systems
[NIFS-213] 09 p2860 N93-25346
JT-60 Upgrade vertical stability experiments and analysis
[DE93-753131] 11 p3583 N93-28530
Nonlinear coupling of tearing fluctuations in the Madison Symmetric Torus
[DE93-010131] 11 p3584 N93-28602
Self-organized profile relaxation by ion temperature gradient instability in toroidal plasmas
[DE93-009580] 11 p3585 N93-28910
Electron cyclotron heating and current drive in toroidal geometry
[DE93-010400] 11 p3586 N93-29049
Poloidal field measurements during transient phenomena on MTX: Sawtooth perturbations and the effect of ECH on disruptions
[DE93-010516] 11 p3587 N93-29303
Bootstrap current profiles and scaling in large aspect ratio tokamaks
[DE93-753158] 11 p3589 N93-30003

TOROIDS
Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351
Classification of minimal graphs of given face-width on the torus
[CWI-BS-R9203] 10 p3117 N93-27607
Graphs on the torus and geometry of numbers
[CWI-BS-R9204] 10 p3117 N93-27608
A 250 mA toroid monitor for the measurement of the bundle current in the stretcher mode of AmPS
[DIGEL-1992-1] 11 p3413 N93-30835

TORQUE
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
Torque resolver design for tendon-driven manipulators
[DE92-017395] 03 p0609 N93-12698
Split torque transmission load sharing
[NASA-TM-105884] 03 p0610 N93-12736
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
Implementation of robotic force control with position accommodation
[NASA-CR-191850] 05 p1178 N93-16663
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718

A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives 06 p1507 N93-18917
Efficient and accurate on-line computation of motor torques for robotic manipulators 07 p1918 N93-20710
Momentum accumulation due to solar radiation torque, and reaction wheel sizing, with configuration optimization 09 p2600 N93-24695
Pressure torques and circulation changes in Rocky Mountain lee cyclones 09 p2783 N93-25724
Effects of solar radiation pressure torque on the rotational motion of an artificial satellite 10 p2924 N93-27199
Solar sail attitude control including active nutation damping in a fixed-momentum wheel satellite 10 p2925 N93-27203
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
Study on decreasing torque noise resulting from feedback noise for the modified bang-bang controller
[AD-A263178] 11 p3407 N93-29010

TORQUE MEASURING APPARATUS
U TORQUEMETERS

TORQUE MOTORS
Mathematical modeling of bent-axis hydraulic piston motors 06 p1507 N93-18916
Reducing the net torque and flow ripple effects of multiple hydraulic piston motor drives 06 p1507 N93-18917

TORQUE SENSORS (NONROBOTICS)
U TORQUEMETERS

TORQUE SENSORS (ROBOTICS)
CAD-based off-line programming and sensor signal processing in robotics
[F-2-2] 04 p0949 N93-15299
Characterisation and control of a flexible robot subject to torque ripple
[OUEL-1952/92] 12 p3734 N93-31156

TORQUEMETERS
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119

TORQUERS
TechSAT attitude control 10 p2924 N93-27197

TORSION
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C
[NASA-TM-105765] 03 p0625 N93-13153
Dual mass and torsion 03 p0728 N93-13498
Finite element analysis of elastic fracture under unsteady translational and rotational loading 04 p0899 N93-14469
Use of the thin-walled torsion specimen
[AD-A255593] 04 p0901 N93-14790
Engine life assessment test case TF41 LP compressor shaft torsional fatigue 04 p0799 N93-14896
Experimental investigation of cyclic thermomechanical deformation in torsion
[NASA-TM-105938] 06 p1554 N93-17996
A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987
Inelastic nonuniform torsion of steel I-beams
[PB93-118776] 08 p2333 N93-24589
Suspension device for low-frequency structures
[NASA-CASE-LAR-14272-1-CU] 08 p2169 N93-24598
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228
Tensile properties of epoxy encapsulants
[DE93-008494] 10 p3005 N93-28207
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578
The geometry of complex space-times with torsion
[DE92-641343] 11 p3608 N93-31003
Axial and torsional fatigue behavior of a cobalt-base alloy 12 p3697 N93-31582
Torsional vestibulo-ocular reflex measurements for identifying otolith asymmetries possibly related to space motion sickness susceptibility
[NASA-CR-193304] 12 p3774 N93-32364

TORSIONAL STRESS
Validation of an automated torsional and warping stress analysis program
[AD-A256035] 04 p0902 N93-15260
Cyclic behavior modelling
[ECL-92-09] 07 p1920 N93-20060
Multiaxial fatigue life prediction using a shear stress based critical plane failure criterion 07 p1921 N93-20332
Effect of phase lag on cyclic durability of laminated composite 07 p1922 N93-20333
Testing rig for low cycle fatigue tests in combined bending and torsion 07 p1923 N93-20345
A variational approach for torsion of multiply connected composite sections 07 p1845 N93-20633
The effects of surface treatment on torsional fatigue failure in recoil springs
[AD-A259345] 07 p1952 N93-21987

TORSIONAL VIBRATION
A consistent cracked bar vibration theory 02 p0339 N93-12000
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
Vibration localization in rotating shafts 11 p3454 N93-30626
Sensitivity analysis of coupled bending and torsional vibrations in flexible robot arms
[MEMO-1088] 12 p3735 N93-31526

TORSO
Sudden loading and fatigue effects on the human spine
[PB93-167526] 11 p3493 N93-29199

TORUSES
Tori and chaos in a nonlinear dynamo model for solar activity
[MPE-PREPRINT-218] 02 p0488 N93-11351
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
Numerical simulation of the Jovian torus-driven plasma transport 08 p2554 N93-23403

TOTAL ENERGY SYSTEMS
Variational derivation of equation for generalized pair correlation function 05 p1254 N93-16778
Communications and control for electric power systems
[NASA-CR-192794] 08 p2261 N93-22477

TOTAL OZONE MAPPING SPECTROMETER
Ozone and temperature trends 02 p0350 N93-11089
A comprehensive mission to planet Earth: Woods Hole Space Science and Applications Advisory Committee Planning Workshop
[NASA-TM-108011] 02 p0343 N93-11878
Nimbus-7 Total Ozone Mapping Spectrometer (TOMS) Antarctic ozone atlas: August through November 1991
[NASA-RP-1283] 03 p0661 N93-12700
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Kelvin waves in total column ozone
[NASA-CR-192984] 09 p2764 N93-25431
Rossby-gravity waves in tropical total ozone data
[NASA-CR-192983] 09 p2764 N93-25432
Results from the US/Russian Meteor-3/Total Ozone Mapping Spectrometer
[NASA-TM-104576] 11 p3467 N93-28682

TOTAL QUALITY MANAGEMENT
Total Quality Management (TQM) concepts applied to instruction
[DE92-013399] 01 p0171 N93-10270
Space Transportation Engine Program (STEP), phase B
[NASA-CR-184062] 01 p0025 N93-10350
The application of manufacturing systems engineering for aero engine gears
[PNR-90944] 02 p0324 N93-11054
Principles of information resource management: A foundation for the future
[AD-A254447] 03 p0733 N93-12597
Statistical process management: An essential element of quality improvement
[DE92-019934] 03 p0619 N93-13036
Performance measurement for information systems: Industry perspectives
[NASA-CR-191369] 03 p0738 N93-13737
An examination of the Total Quality Management (TQM) concept given current Federal/DoD competition initiatives
[AD-A255556] 03 p0620 N93-13876
Coordinating Council. Ninth Meeting: Total Quality Management
[NASA-TM-108106] 03 p0738 N93-13885
TQM in a test environment 04 p0823 N93-15620
Total quality management: Strengths and barriers to implementation and cultural adaptation 05 p1182 N93-16788
Systems design analysis applied to launch vehicle configuration
[NASA-TP-3326] 06 p1455 N93-18141
A paradigm shift in Air Force medicine
[AD-A258334] 06 p1596 N93-18159
Paradigm shift: Can TQM save DOD's procurement process?
[AD-A258319] 06 p1552 N93-18253
Meeting the challenge of responding to stakeholder information needs: A program model
[DE93-002047] 06 p1683 N93-18409
Total quality management: It works for aerospace information services
[NASA-TM-108980] 06 p1684 N93-19938
Quality assurance in the future industrial plant
[PAPER-C-3-3] 07 p1919 N93-20837
Total quality assurance
[PAPER-C-3-5] 07 p1920 N93-20839
Database language SQL: Integrator of CALS data repositories
[PB93-113637] 07 p2040 N93-21239
Continuous improvement on a research and development environment
[DE93-001561] 07 p2086 N93-21304
Process management: The quality way to improvement
[PB93-154532] 08 p2321 N93-23445
You want it when: A TQM guide to customer service
[PB93-154540] 08 p2520 N93-23446
Total quality implementation guide
[PB93-154524] 08 p2520 N93-23447
Total Quality Management: Good enough for government work
[AD-A259847] 08 p2520 N93-23954
Implementing total quality management (TQM) 1: The command imperative
[AD-A259885] 08 p2520 N93-23981
Total quality management in the Federal Government. Implementation of TQM in federal agencies receiving the Federal Quality Institute Quality Improvement Prototype Award, 1990-1992
[PB93-154573] 08 p2521 N93-24306
An evaluation of schedule metrics used within aeronautical systems center
[AD-A260113] 08 p2521 N93-24413
Implementation of quality improvement techniques for management and technical processes in the ACRV project 09 p2723 N93-26074
Design and implementation of a pilot orientation program for new NASA engineering employees
[NASA-TM-105907] 09 p2872 N93-26205
Application of quality function deployment to the design of a lithium battery
[DE93-008346] 10 p3033 N93-28459

TOTAL VARIATION DIMINISHING SCHEMES
U TVD SCHEMES

TOUCH
NT TACTILE DISCRIMINATION
An active tactile perception system 04 p0805 N93-14926

TOUCHDOWN
Example of statistical techniques applied to analysis of measurements of the landing airborne manoeuvre. (Multiple linear regression with two independent variables and one dependent variable.)
[ESDU-92022] 05 p1062 N93-16636

TOUGHNESS
NT NOTCH SENSITIVITY
Strength-toughness requirements for thick-walled high pressure vessels
[AD-A253756] 01 p0095 N93-10750
Analysis of precracking parameters and fracture toughness for ceramic single-edge-precracked-beam specimens
[NASA-TM-105568] 02 p0263 N93-10962
Semi-interpenetrating polymer network for tougher and more microcracking resistant high temperature polymers
[NASA-CASE-LAR-13925-2] 02 p0264 N93-11059
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-101] 02 p0239 N93-11586
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Micromechanisms of deformation and fracture in aluminum based MMC's: Interface effects
[AD-A253560] 02 p0259 N93-11850
Fracture toughness testing of polymer matrix composites
[NASA-TP-3199] 02 p0243 N93-12302
Notch dimensions for three-point bend fracture specimens based on compliance analyses
[AD-A254641] 03 p0620 N93-12580

Polypropylene fibers in portland cement concrete pavements
[DOT/FAA/RD-92/9] 03 p0551 N93-13259
Ductile phase toughening of molybdenum disilicide by low pressure plasma spraying
[DE92-007409] 03 p0551 N93-13315
Shallow-crack toughness results for reactor pressure vessel steel
[DE92-017813] 03 p0626 N93-13320
Oxidative stability of LARC (tm)-TPI films
[NASA-TM-107696] 03 p0552 N93-13441
Toughening mechanisms in weak matrix ceramic composites 03 p0553 N93-13780
Characterizing longitudinal splitting and delamination fracture toughness of composites 04 p0831 N93-14607
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-118] 07 p1839 N93-21295
The roles of slip geometry and hardening behavior in intergranular toughness
[DE93-005647] 07 p2081 N93-21712
Experimental investigations of the fracture toughness enhancement associated with shallow flaws
[DE93-003100] 08 p2322 N93-22412
Mechanical properties of ferritic and ferritic-pearlitic ductile iron
[DE93-007670] 08 p2229 N93-22912
Two-parameter fracture mechanics theory and applications
[AD-A259907] 08 p2330 N93-23993
Mechanical properties of martensitic alloy AISI 422
[DE93-006563] 09 p2649 N93-25255
High temperature fracture toughness of Ni3Al alloy IC-396M
[DE93-008564] 09 p2650 N93-25492
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Aluminum alloys for ALS cryogenic tanks: Comparative measurements of cryogenic mechanical properties of Al-Li alloys and alloy 2219
[PB93-173441] 10 p2999 N93-27530
High-toughness graphite/epoxy composite material experiment 10 p2992 N93-28263
The effect of temperature on the impact behavior of TiB2 reinforced XDTM-TiAl intermetallic matrix composites
[AD-A262924] 11 p3296 N93-28886
Transformation plasticity in ductile solids
[DE93-008636] 11 p3321 N93-28902
Whisker toughening of ceramic materials: A review
[DE93-011565] 11 p3336 N93-30129
Effects of intra- and inter-laminar resin content on the mechanical properties of toughened composite materials 11 p3303 N93-30845
Cycles in tough graphs: Updating the last four years
[MEMO-1091] 12 p3810 N93-32398

TOWED BODIES
Modeling and control of a trailing wire antenna towed by an orbiting aircraft
[AD-A256450] 04 p0859 N93-14610
Dynamics and control of maneuverable tethered flight vehicles 09 p2615 N93-24767
Experimental study of the effect of helical grooves on an infinite cylinder
[AD-A260890] 09 p2676 N93-25912
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578

TOWED TARGETS
U TARGETS
U TOWED BODIES

TOWERS
NT AIRPORT TOWERS
DSS-14 subreflector actuator dynamics during the Landers earthquake 11 p3386 N93-29600
Oceanographic research towers in european waters
[AD-A264795] 11 p3489 N93-30612

TOWING
A complete set of field equations for the dynamic simulation of a towed cable system
[AD-A262570] 11 p3442 N93-28578

TOWNSEND AVALANCHE
Prediction of electromagnetic pulse generation by picosecond avalanches in high-pressure air
[DE92-019382] 02 p0282 N93-11675

TOWNSEND DISCHARGE
NT GAS DISCHARGES

TOWNSEND SURFACES
U TOWNSEND AVALANCHE

TOXIC DISEASES
NT CARBON MONOXIDE POISONING

TOXIC HAZARDS
Toxic substances registry system: Index of material safety data sheets
[NASA-TM-108582] 07 p2024 N93-20998
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Surface-coating-free materials workshop
[PB93-101160] 07 p1861 N93-21683
The generation of carbon monoxide in compartment fires 08 p2117 N93-23093
Non-chromated surface pretreatments for aluminum
[AD-A260130] 08 p2232 N93-23704
AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes 09 p2769 N93-25571
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations
[DOT/FAA/AM-93/8] 10 p3083 N93-27158
Evaluation of NO(x)-induced toxicity
[AD-A261034] 10 p3084 N93-28122
Application of sensors to the control of robotic systems
[DE93-009837] 11 p3543 N93-30012
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197
TSCA confidential business information security manual
[PB93-184844] 12 p3839 N93-31833
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils
[PB93-172948] 12 p3715 N93-32408
Micro-organisms, cytotoxins and radioactive preparation: Risks at rescue operations in hospital environment
[FOA-A-40065-4.5] 12 p3772 N93-32423

TOXICITY
NT CARBON MONOXIDE POISONING
Limited toxicity and mutagenicity testing of five unicharge propellant compounds
[AD-A252339] 01 p0043 N93-10636
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits 02 p0381 N93-11305
Low toxicity high temperature PMR polyimide
[NASA-CASE-LAR-14639-1] 04 p0849 N93-14709
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265
Fires on board aircraft: Toxicological risk in flight 06 p1428 N93-19694
Analysis strategy for organic bromine flame-retardant compounds as environmental contaminants 07 p1839 N93-21164
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Active Hydrazine Vapor Sampler (AHVS) 08 p2225 N93-22165
Practical problems related to flammability and combustion in space 08 p2226 N93-22839
Solid-state (31)P magic angle spinning (MAS) NMR study of the partitioning and reaction of organophosphorus esters adsorbed on synthetic resin catalysts
[AD-A259889] 08 p2242 N93-24321
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Application of non-thermal plasmas to pollution control
[DE93-007515] 09 p2763 N93-25385
The acute inhalation toxicity of pyrolysis products of halon 1301
[AD-A260874] 09 p2795 N93-25629
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005
Development of novel models for describing multiple toxicity effects
[AD-A264439] 11 p3496 N93-30422

TOXICITY AND SAFETY HAZARD
Toxic substances registry system: Index of material safety data sheets
[NASA-TM-108582] 07 p2024 N93-20998
Some constitutive modifiers of the kinetic and dynamic behavior of non-essential metals
[PB92-227347] 07 p1856 N93-21497
Monitoring human tissues for toxic substances
[PB92-223239] 07 p2024 N93-21498
Variations in time-to-incapacitation and blood cynanide values for rats exposed to two hydrogen cyanide gas concentrations
[DOT/FAA/AM-93/8] 10 p3083 N93-27158
Data banks of chemical substances and their toxicity
[DE93-006170] 10 p3167 N93-28005

TOXICOLOGY
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
JPRS report: Science and technology. Central Eurasia: Life sciences
[JPRS-ULS-92-024] 03 p0672 N93-13033
Enhancement of drug detection and identification by use of various derivatizing reagents on GC-FTIR analysis
[AD-A255582] 05 p1224 N93-16041
Toxicological investigations of flight accidetns: Findings and methods 06 p1428 N93-19695
27 years armed forces aerospace pathology and toxicology in the Federal Republic of Germany: Development, current status, trends and challenges 06 p1429 N93-19696
Significance of histological postmortem findings in pilots killed in military and civil aircraft accidents in Germany (West): A 25-year-review 06 p1429 N93-19697

TOXINS AND ANTITOXINS
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
A core facility for the study of neurotoxins of biological origin
[AD-A254359] 03 p0674 N93-12945
Immunoconjugates: Magic bullets for cancer therapy? 09 p2796 N93-25567
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989
The AFOSR Workshop on the Future of EEG and MEG
[AD-A264338] 11 p3495 N93-30160

TQM (QUALITY CONTROL)
U TOTAL QUALITY MANAGEMENT

TRACE CONTAMINANTS
Guidelines for developing spacecraft maximum allowable concentrations for Space Station contaminants
[NASA-CR-190748] 01 p0013 N93-10737
Modeling the dispersion of tracer plumes in the Colorado front range boundary layer during night- and day-time conditions
[DE92-019384] 02 p0354 N93-11676
Geographical distribution and seasonal variation of surface emissions and deposition velocities of atmospheric trace gases
[AERONOMICA-ACTA-A-361-1991] 04 p0911 N93-15480
Biochemically active layers for selective material detection sensors
[MBB-Z-0440-92-PUB] 07 p2021 N93-20959
Earth observation in the TIGER programme of the UK Natural Environment Research Council 07 p1953 N93-21572
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Heterogeneous photocatalytic oxidation of atmospheric trace contaminants
[NASA-CR-192937] 09 p2767 N93-26427
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Computerized atmospheric trace contaminant control simulation for manned spacecraft
[NASA-TM-108409] 11 p3505 N93-28977
Case study of Frontal Boundary Study Mission 03
[DE93-007176] 11 p3473 N93-30183

TRACE ELEMENTS
The Deposition and Fate of Trace Metals in our Environment: Symposium proceedings
[PB92-189216] 01 p0104 N93-10289
Computer simulation and experimental investigation of the absorption cell for the rocketborne diode-laser experiment MASERATI
[BONN-IR-91-62] 02 p0357 N93-11083
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Future chlorine-bromine loading and ozone depletion 02 p0352 N93-11095
International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 1
[DE92-013652] 02 p0353 N93-11232

International Conference on the Role of the Polar Regions in Global Change: Proceedings, volume 2
[DE92-013653] 02 p0353 N93-11233
Resonance ionization mass spectrometry in biochemical analysis
[DE92-017407] 03 p0538 N93-13341
Effects of coal-derived trace species on performance of molten carbonate fuel cells
[DE93-000203] 03 p0639 N93-13427
Radiative transfer in the middle atmosphere
03 p0652 N93-13482
The voltammetric determination of trace metal concentrations and organic complexation in seawater
[AD-A257565] 06 p1588 N93-17984
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Redistribution of trace chemical species by a small convective cloud
[PB93-156164] 09 p2765 N93-25873
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Emission inventories: A global modeling perspective
[DE93-005817] 11 p3469 N93-28965
Global warming potential for SF6
[DE93-007394] 11 p3469 N93-28972
Instrumental neutron activation analysis developed for silicon integrated circuit technology
[ETN-93-93581] 11 p3408 N93-29271
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle
[AD-A262753] 11 p3477 N93-29405
Effects of hydrogen and electron diffusion on trace species diffusion in the solar atmosphere
12 p3878 N93-31413
Source apportionment of air pollution in China: Extending the usefulness of receptor modeling by combining multivariate and chemical mass balance models
[PB93-185726] 12 p3756 N93-32188

TRACERS
Radon as a tracer for lunar volatiles
05 p1388 N93-17248

TRACKED VEHICLES
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1
[AD-A254619] 03 p0611 N93-12906
The use of finite elements to model soil/track interactions in coupled multi-body dynamic simulations: Is real time simulation feasible?
[DE92-016184] 03 p0612 N93-13236

TRACKING (POSITION)
NT CCD STAR TRACKER
NT INFRARED TRACKING
NT MISSILE TRACKING
NT MULTIPLE TARGET TRACKING
NT OPTICAL TRACKING
NT POLYSTATION DOPPLER TRACKING SYSTEM
NT PURSUIT TRACKING
NT RADAR TRACKING
NT RADIO TRACKING
NT RANGE AND RANGE RATE TRACKING
NT SATELLITE TRACKING
NT SPACECRAFT TRACKING
NT STAR TRACKERS
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Radio pill antenna range test
[DE92-019903] 02 p0282 N93-11661
Fuzzy logic control for camera tracking system
02 p0314 N93-11935
Model-based vision for space applications
02 p0398 N93-11955
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
Automation of the targeting and reflective alignment concept
[NASA-CR-190964] 03 p0709 N93-12985
Use of kinematic constraint in tracking constant speed maneuvering targets
[AD-A255988] 04 p0858 N93-14415
Intelligent path prediction for vehicular travel
04 p0961 N93-14445
Two-stage target tracking system and method
[AD-D015412] 04 p0982 N93-14880
New methods for nonlinear tracking and nonlinear chaotic signal processing
[AD-A256421] 04 p0862 N93-15334
Diffraction analysis and evaluation of several focus- and track-error detection schemes for magneto-optical disk systems
04 p0984 N93-15506
Spaceborne centrifugal relays for spacecraft propulsion
[NASA-CR-191773] 05 p1075 N93-16654
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Aircraft trajectory tracking and prediction
[AD-A259039] 06 p1441 N93-18999
Inertial-space disturbance rejection for robotic manipulators
[NASA-CR-191867] 06 p1641 N93-19361
Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414
Feed-forward control upgrade of the deep space network antennas 06 p1514 N93-19434
Robust motion tracking control of robotic arms based on the generalized energy accumulation principle
06 p1552 N93-19463
RASSP final technical report
[AD-A258562] 07 p1882 N93-20371
HELITRAK: A helicopter-tracking receiver system for television outside broadcast links
[BBC-RD-1992/5] 07 p1883 N93-20573
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
Advances in automatic electro-optical tracking systems 08 p2254 N93-22020
Multi-window registration algorithm for automatic detection and tracking of moving targets
08 p2255 N93-22022
Image based tracking approaches to AR/C at the Johnson Space Center 08 p2140 N93-22256
Automated rendezvous and docking with video imagery 08 p2148 N93-22298
Near-earth object interception workshop summary
[DE93-003793] 08 p2546 N93-22403
Method and apparatus for determining target elevation angle, altitude and range, and the like in a monopulse radar system with reduced multipath errors
[AD-D015622] 08 p2272 N93-24232
Optimizing the fine lock performance of the Hubble Space Telescope fine guidance sensors
09 p2604 N93-24723
Observation of radiation from lightning discharges by LPATS 09 p2779 N93-24886
Guidance law synthesis and evaluation for a strapdown seeker application 10 p2925 N93-27207
A corner matching and tracking strategy applied to videophony
[OUEL-1933/92] 11 p3380 N93-28896
An autonomous vision-based mobile robot
11 p3443 N93-29082
Interferometric tracking system for the tracking and data relay satellite
[NASA-CR-193274] 11 p3382 N93-29217
A framework for spatio-temporal control in the tracking of visual contours
[OUEL-1961/92] 12 p3785 N93-31055
Experimental evaluation of an arrival time difference lightning positioning system
[KNMI-WR-92-01] 12 p3767 N93-31600
Parametric and combinatorial problems in constrained optimization
[AD-A265595] 12 p3792 N93-32096

TRACKING AND DATA RELAY SATELLITES
U TDR SATELLITES

TRACKING ANTENNAS
U DIRECTIONAL ANTENNAS

TRACKING FILTERS
Fixed-gain, two-stage estimators for tracking maneuvering targets
[AD-A255832] 03 p0697 N93-14081
Multivariable frequency response methods for optimal Kalman-Bucy filters with applications to radar tracking systems 08 p2255 N93-22024
Tracking filters for precision Electronic Support Measures (ESM) systems
[AD-A264089] 12 p3719 N93-31085
Towards a new approach to autonomous navigation for a vehicle: A link between probability data association filtering and the evidence theory
[ONERA-NT-1990-11] 12 p3798 N93-31427

TRACKING NETWORKS
NT DEEP SPACE NETWORK
NT GLOBAL TRACKING NETWORK
NT POLYSTATION DOPPLER TRACKING SYSTEM
NT RADAR NETWORKS
Test range tracking network processors
[AD-A253511] 01 p0140 N93-10219
Studies in beamforming tracking neural networks mathematics
[AD-A255574] 05 p1258 N93-16039
Demonstration of a joint US-Russian very long baseline interferometry tracking capability
06 p1458 N93-18911
Research on data relay and tracking satellite systems
07 p1790 N93-20418

TRACKING PROBLEM
Optimal and robust control of robot manipulators
04 p0890 N93-14665
Passivity/Lyapunov based controller design for trajectory tracking of flexible joint manipulators
[NASA-CR-191852] 05 p1261 N93-16708
A fuzzy logic optimal control law solution to the CMMCA tracking problem
[AD-A262555] 11 p3542 N93-29420
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3279 N93-29989
Synchronization of the LAPTV adative filter with input statistics 11 p3358 N93-30242
Control of nonlinear systems with applications to constrained robots and spacecraft attitude stabilization
11 p3544 N93-30893
Estimation and control in discrete-time nonlinear systems 12 p3797 N93-31071

TRACKING RADAR
Automated technologies needed to prevent radioactive materials from reentering the atmosphere
07 p1818 N93-21447
Tracking radar advanced signal processing and computing for Kwajalein Atoll (KA) application
[AD-A259066] 07 p1886 N93-21756
Rendezvous radar for the orbital maneuvering vehicle
08 p2145 N93-22283

TRACKING STATIONS
NT GLOBAL TRACKING NETWORK
NT POLYSTATION DOPPLER TRACKING SYSTEM
Terrestrial reference systems related to the TOPEX/Poseidon project 04 p0906 N93-14967
Present-day plate motions: Retrieval from the TOPEX/Poseidon orbitography network (DORIS system)
04 p0918 N93-14993
Demonstration of a joint US-Russian very long baseline interferometry tracking capability
06 p1458 N93-18911
Investigation of Mars rotational dynamics using Earth-based radio tracking of Mars landers
11 p3642 N93-28777
High-power Ka-band amplifier
11 p3385 N93-29590

TRACKING STUDIES
U TRACKING (POSITION)

TRACKS
Sensor systems for monitoring Maglev guideway structures
[PB93-154821] 11 p3444 N93-29205
Maglev guideway route alignment and right-of-way requirements
[PB93-154854] 12 p3735 N93-31592

TRACTION
A boundary element and mathematical programming approach for unilateral contact problems
01 p0062 N93-10558
Thermal non-Newtonian elastohydrodynamic lubrication of line contacts under sliding-rolling and simple sliding conditions 02 p0324 N93-11263
Proceedings of the Fifth European International Society for Terrain-Vehicle Systems, volume 1
[AD-A254619] 03 p0611 N93-12906
Damage and rupture of ceramic composites
[ETN-92-92722] 04 p0851 N93-15127

TRACTORS
NT TRACKED VEHICLES
Bogie-gripping transfer device
[CA-PATENT-APPL-SN-024586] 08 p2135 N93-24643
Wheeled transfer device for moving an aircraft
[INT-PATENT-CLASS-B64F-1/10] 08 p2135 N93-24644
Transmission system for a transfer device gripping a double wheel
[CA-PATENT-APPL-SN-2024585] 09 p2597 N93-25178

TRACTS
U SITES

TRADEOFFS
Tradeoff and scale models of large deployable mesh reflectors for mobile communications satellite
05 p1078 N93-15731
Reusable Reentry Satellite (RRS): Launch tradeoff study
[NASA-CR-186395] 05 p1086 N93-15803
Tradeoffs in the utility of learned knowledge
[NASA-TM-108111] 05 p1242 N93-16750
Space Biology Initiative. Trade Studies, volume 1
[NASA-CR-190989] 08 p2417 N93-23068
Space biology initiative program definition review. Trade study 5: Modification of existing hardware (COTS) versus new hardware build cost analysis
08 p2417 N93-23069

Space Biology Initiative. Trade Studies, volume 2
[NASA-CR-190990] 08 p2418 N93-23079
Cycle O (CY 1991) NLS trade studies and analyses, book 2. Part 1: Avionics and systems
[NASA-CR-184472-BK-2-PT-1] 08 p2258 N93-23176
Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874

TRADESCANTIA
Using terrestrial plants in biomonitoring
[PB93-158780] 09 p2766 N93-26316

TRAFFIC
NT AIR TRAFFIC
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
Multi-agent planning and scheduling, execution monitoring and incremental rescheduling: Application to motorway traffic 06 p1637 N93-18682
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636
Distributed traffic signal control using fuzzy logic 11 p3513 N93-29543
Ethernet performance of the Motorola Altair WIN system
[AD-A263877] 11 p3387 N93-29890
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828

TRAFFIC CONTROL
NT AIR TRAFFIC CONTROL
NT AUTOMATED EN ROUTE ATC
NT RADAR APPROACH CONTROL
A new test of scanning and monitoring ability: Methods and initial results
[AD-A249123] 01 p0132 N93-10321
Future FAA telecommunications plan
[AD-A249133] 02 p0283 N93-11760
Fuzzy logic control for camera tracking system 02 p0314 N93-11935
Distributed traffic signal control using fuzzy logic 11 p3513 N93-29543

TRAILERS
Generic Propellant Transfer Unit 01 p0011 N93-10046

TRAILING EDGE FLAPS
Drag due to gaps round undeflected trailing-edge controls and flaps at subsonic speeds
[ESDU-92039] 05 p1055 N93-16634
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252

TRAILING EDGES
NT BLUNT TRAILING EDGES
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008] 04 p0780 N93-14516
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
SIMS chemical analysis of extended impacts on the leading and trailing edges of LDEF experiment AO187-2 11 p3318 N93-29367
Projectile compositions and modal frequencies on the chemistry of micrometeoroids LDEF experiment 11 p3638 N93-29370
Long-term microparticle flux variability indicated by comparison of Interplanetary Dust Experiment (IDE) timed impacts for LDEF's first year in orbit with impact data for the entire 5.77-year orbital lifetime 11 p3638 N93-29379
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375

TRAILS
U TRACKS

TRAINEES
U STUDENTS

TRAINERS
U TRAINING DEVICES

TRAINING
U EDUCATION

TRAINING AIRCRAFT
NT T-38 AIRCRAFT
Carrier landing parameters from survey 45, fleet and training command aircraft landing aboard USS ENTERPRISE CVN-65, main text and appendix A
[AD-A258873] 06 p1433 N93-19078
Combat and training aircraft class A mishaps in the Belgian Air Force 1970-1990 06 p1425 N93-19677
Simulators for corporate pilot training and evaluation 11 p3236 N93-30678

TRAINING ANALYSIS
Questioning mechanisms during complex learning
[AD-A247382] 02 p0386 N93-11415
F/FB-111 avionics test station and component specialist/technician. Automatic test stations manual and electronic warfare test stations. Training requirements analysis (451X6), volume 2
[AD-A252121] 04 p0793 N93-14110
Space support forum 08 p2153 N93-23160
Investigation of advanced technology for airway facilities maintenance training
[DOT/FAA/CT-TN92/24] 12 p3678 N93-32336

TRAINING DEVICES
Seamless simulation literature survey
[AD-A254950] 03 p0688 N93-12549
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
The SWOOPE experience: Precollege students mapping the environment
[DE92-040390] 05 p1198 N93-15663
Ventures in science
[DE93-003044] 05 p1331 N93-16521
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
Possibility expectation and its decision making algorithm 06 p1618 N93-18226
Membership generation using multilayer neural network 06 p1618 N93-18227
DROLS workbook
[AD-A259033] 06 p1687 N93-19017
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687
MB-339: The role of flight testing in the evolution phase of a proven aircraft 06 p1443 N93-19907
Measurement of modulation transfer functions of simulator displays
[AD-A259401] 07 p1788 N93-21268
Occurrence Reporting and Processing System (ORPS) lessons learned: Tools to improve workplace performance
[DE93-005241] 08 p2522 N93-22498
The European astronauts training programme 08 p2156 N93-24346
Training facilities at the Crew Training Complex 08 p2156 N93-24347
Design and implementation of a pilot orientation program for new NASA engineering employees
[NASA-TM-105907] 09 p2872 N93-26205
Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874
Development of a concept formulation process aid for analyzing training requirements and developing training devices
[AD-A263579] 11 p3261 N93-29972
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362
Virtual reality flight control display with six-degree-of-freedom controller and spherical orientation overlay
[NASA-CASE-NPO-18733-1-CU] 11 p3251 N93-30416

TRAINING EVALUATION
An evaluation of crew coordination and performance during a simulated UH-60 helicopter mission
[AD-A254984] 02 p0390 N93-12509
Training evaluation final report 06 p1682 N93-19405
Training high performance skills using above real-time training
[NASA-CR-192616] 08 p2425 N93-24192
Contribution of personality to the prediction of success in initial air traffic control specialist training
[DOT/FAA/AM-93/4] 09 p2797 N93-26138
The air traffic controller's mental model and it's implications for equipment design and trainee selection 11 p3372 N93-30322
Helicopter training simulators: Key market factors 11 p3237 N93-30683
Training effectiveness assessment: Methodological problems and issues 11 p3237 N93-30684
Determining the transferability of flight simulator data 11 p3237 N93-30685
Progress through precedent: Going where no helicopter simulator has gone before 11 p3237 N93-30686
Transfer of training and simulator qualification or myth and folklore in helicopter simulation 11 p3237 N93-30687

TRAINING SIMULATORS
NT COCKPIT SIMULATORS
NT FLIGHT SIMULATORS
Possibilities and limitations of flying training in the German Air Force 01 p0011 N93-10668
Audio detection algorithms
[AD-A256076] 04 p0973 N93-14234
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Research and development project summaries
[AD-A257518] 06 p1747 N93-18175
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Columbus program: Ground staff training simulation
[ETN-93-93694] 08 p2194 N93-23415
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
Radar beam effects for a flight simulator using signal processor based hardware 11 p3373 N93-30328
NASA/FAA helicopter simulator workshop
[NASA-CP-3156] 11 p3236 N93-30673
Part 1: Executive summary 11 p3236 N93-30674
Helicopter simulator standards 11 p3236 N93-30675
Simulators for corporate pilot training and evaluation 11 p3236 N93-30678
Graphics simulation and training aids for advanced teleoperation 12 p3793 N93-32119

TRAJECTORIES
NT ABORT TRAJECTORIES
NT ASCENT TRAJECTORIES
NT BALLISTIC TRAJECTORIES
NT DESCENT TRAJECTORIES
NT EARTH-MARS TRAJECTORIES
NT EARTH-MOON TRAJECTORIES
NT EARTH-VENUS TRAJECTORIES
NT ELECTRON TRAJECTORIES
NT HYPERBOLIC TRAJECTORIES
NT INTERORBITAL TRAJECTORIES
NT INTERPLANETARY TRAJECTORIES
NT LUNAR TRAJECTORIES
NT MIDCOURSE TRAJECTORIES
NT MISSILE TRAJECTORIES
NT PARTICLE TRAJECTORIES
NT RENDEZVOUS TRAJECTORIES
NT SPACECRAFT TRAJECTORIES
Lightweight Exoatmospheric Projectile (LEAP) test program. Supplemental environmental assessment
[AD-A252286] 02 p0231 N93-10998
Hybrid guidance for maneuvering flight vehicles
[AD-A254110] 02 p0225 N93-11798
Second quantization in bit-string physics
[DE92-019645] 03 p0727 N93-12826
Experimental verification of modified command shaping using a flexible manipulator 03 p0612 N93-12955
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 3: Programmer's manual
[NASA-CR-189653-VOL-3-REV] 04 p0815 N93-14730
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems 05 p1074 N93-17290
Parallelizing the track-target model for the MIMD machine
[DE92-041100] 05 p1278 N93-17355
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177
Workshop on Trajectory Optimization Methods and Applications: Presentations from the 1992 AIAA Atmospheric Flight Mechanics Conference
[AD-A259761] 08 p2126 N93-23482
Modified point mass trajectory simulation for base-burn projectiles
[BRL-TR-3321] 09 p2609 N93-25985
Second quantization in bit-string physics 10 p3146 N93-27357

New approaches to linear and nonlinear programming
[DE93-010134] 10 p3103 N93-28214
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
An artificial neural network model for periodic trajectory generation 11 p3356 N93-30225
The effect of sensory input on trajectories generated by recurrent neural networks
[AD-A264501] 12 p3799 N93-32036

TRAJECTORY ANALYSIS
Anelastic modelling of explosive cyclogenesis 01 p0126 N93-10377
Computer algebra and the elliptic restricted problem of three bodies 01 p0011 N93-10499
Optimal robot trajectory planning 01 p0065 N93-10570
Research on the asymmetrical aerodynamic forces of reentry vehicles
[AD-A254307] 01 p0004 N93-10707
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
Interplanetary program to optimize simulated trajectories (IPOST). Volume 4: Sample cases
[NASA-CR-189653-VOL-4] 04 p0815 N93-14768
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
The trajectory analysis of bevel planetary gear trains
[DE92-040898] 04 p0893 N93-15380
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
Gross-fragmentation of meteoroids and bulk density of Geminids from photographic fireball records 06 p1703 N93-19137
Some observations of chaotic motion of satellites with damping in an elliptic orbit 07 p1826 N93-20726
A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536
Tsien's method for generating non-Keplerian trajectories. Part 2: The question of thrust to orbit a sphere and the restricted three-body problem 09 p2603 N93-24718
An approach for finding long period elliptical orbits for precursor SEI missions 09 p2604 N93-24720
Orbit determination error analysis and comparison of station-keeping costs for Lissajous and halo-type libration point orbits and sensitivity analysis using experimental design techniques 09 p2604 N93-24721
Symmetries and motions in manifolds
[NIKHEF-H/92-08] 10 p3128 N93-27510
SOYUZ escape trajectory analysis from Space Station Freedom
[NASA-CR-4508] 10 p2954 N93-27609
Detonation shock dynamics of composite energetic materials 11 p3350 N93-30096

TRAJECTORY CONTROL
NT TRAJECTORY OPTIMIZATION
Optimal robot trajectory planning 01 p0065 N93-10570
Terminal slider control of nonlinear robotic systems
[NASA-CASE-NPO-18584-1-CU] 02 p0324 N93-11177
Air-breathing hypersonic vehicle guidance and control studies: An integrated trajectory/control analysis methodology, phase 2
[NASA-CR-189703] 02 p0216 N93-12413
A surface integral approach to the motion planning of nonholonomic systems
[AD-A254844] 02 p0329 N93-12434
An inverse dynamics approach to trajectory optimization for an aerospace plane
[NASA-CR-191277] 03 p0500 N93-13305
Tether deployment monitoring system, phase 2
[NASA-CR-184098] 03 p0522 N93-13425
A guidance methodology for the cislunar transfer of low-thrust spacecraft 03 p0517 N93-13766
Control algorithms for aerobraking in the Martian atmosphere 03 p0524 N93-14046
Theory and applications of hyper-redundant robotic manipulators 04 p0892 N93-15104
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Motion planning for rigid body robots
[AD-A257557] 06 p1544 N93-17980
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Modelling robot trajectory errors using time series 07 p1942 N93-20716
Distance estimation and collision prediction for on-line robotic motion planning
[NASA-CR-192737] 07 p2049 N93-21390
Trajectory control sensor engineering model detailed test objective 07 p1813 N93-21414
A berthing and fastening strategy for orbital replacement units 08 p2151 N93-22317
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension 08 p2318 N93-24184
A ground track control algorithm for the Topographic Mapping Laser Altimeter (TMLA) 09 p2602 N93-24707
Optimal cooperative power-limited rendezvous 09 p2607 N93-24904
Two neural network algorithms for designing optimal terminal controllers with open final time
[NASA-CR-177599] 09 p2817 N93-25137
Nonholonomic geometry, mechanics and control 09 p2724 N93-25270
Control and optimization of aircraft trajectories 09 p2596 N93-25543
A surface integral algorithm for the motion planning of nonholonomic mechanical systems
[AD-A261746] 09 p2720 N93-26249
Dynamics and control of a free flying two armed robot in space 10 p2923 N93-27196
Minimum effort interception of multiple targets 10 p2925 N93-27205
Symbology for head up and head down applications for highly agile fighter aircraft: To improve spatial awareness, trajectory control, and unusual attitude recovery, part 1 11 p3502 N93-28857
Exact trajectory determinator for ERS-1 11 p3457 N93-28918
A portable modular architecture for robotic manipulator control
[DE93-010819] 11 p3444 N93-29254

TRAJECTORY MEASUREMENT
Aircraft trajectory tracking and prediction
[AD-A259039] 06 p1441 N93-18999
Testing of a GPS receiver GLOBUS AN 2000 of SEL: A study of selective availability
[DLR-MITT-92-07] 08 p2123 N93-24138
Time and frequency reference for a trajectory measurement system 09 p2837 N93-25023
Onboard signal processing: Wave of the future for planetary radio science? 11 p3646 N93-28801
An LDEF 2 dust instrument for discrimination between orbital debris and natural particles in near-Earth space 11 p3286 N93-29707
Ground- and satellite-derived flight-path measurements as demonstrated in the AFES Avionics Flight Evaluation System (AFES) 12 p3677 N93-31281
On-board derived flight-path measurement as demonstrated by an ILS measurement system 12 p3677 N93-31282

TRAJECTORY OPTIMIZATION
Computing optimum routes across terrain using DAP
[RSRE-MEMO-4299] 02 p0412 N93-11712
A simplified numerical procedure to compute the optimal trajectory of an aircraft 02 p0207 N93-11719
Closed form low-thrust trajectories for Mars missions
[DE92-017431] 02 p0232 N93-11766
An inverse dynamics approach to trajectory optimization for an aerospace plane
[NASA-CR-191277] 03 p0500 N93-13305
Sequential quadratic programming solutions to related aircraft trajectory optimization problems 03 p0505 N93-13926
Optimal and robust control of robot manipulators 04 p0890 N93-14685
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide
[NASA-CR-189653-VOL-1-REV] 04 p0815 N93-14794
Optimal impulsive trajectories for orbital rendezvous between elliptic orbits 04 p0813 N93-15103
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Time-optimization of point-to-point robotic motions
[F-3-6] 04 p0950 N93-15306
Aspects of parking orbit selection in a manned Mars mission
[NASA-TP-3256] 04 p0813 N93-15367
Terminal area traffic management
[LR-684] 05 p1058 N93-16213
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428
Robust approximate optimal guidance strategies for aeroassisted orbital transfer missions 05 p1074 N93-16518
A real-time near-optimal guidance approach for launch vehicles 05 p1074 N93-16540
Combining direct and indirect methods in optimal control: Range maximization of a hang glider
[REPT-313] 05 p1068 N93-16618
Potential missile flight performance gains from improvements to the propulsion system 05 p1092 N93-17609
Neighboring extremal guidance for systems with piecewise linear control using multiple optimization
[AD-A258191] 06 p1631 N93-17860
Analytical solutions to constrained hypersonic flight trajectories
[NASA-CR-191987] 06 p1407 N93-18602
Improved methods for reusable aeroclassified orbital transfer vehicle optimization
[DLR-FB-91-41] 06 p1454 N93-18785
Controls and guidance research 06 p1451 N93-19454
Operator-assisted planning and execution of proximity operations subject to operational constraints 07 p1817 N93-21436
Advanced launch system trajectory optimization using suboptimal control 08 p2171 N93-22010
Trajectory optimization based on differential inclusion
[NASA-CR-4501] 08 p2181 N93-22459
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Workshop on Trajectory Optimization Methods and Applications: Presentations from the 1992 AIAA Atmospheric Flight Mechanics Conference
[AD-A259761] 08 p2126 N93-23482
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
Optimal finite-thrust time-bounded direct-ascent interception 09 p2607 N93-25272
Optimal thrust magnitude on a singular arc in atmospheric flight 09 p2819 N93-25410
Control and optimization of aircraft trajectories 09 p2596 N93-25543
Trajectory optimization for the National aerospace plane
[NASA-CR-192954] 09 p2589 N93-25670
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684
Optimal transfers between libration-point orbits in the elliptic restricted three-body problem 09 p2608 N93-25758
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204
Minimum effort interception of multiple targets 10 p2925 N93-27205
Minimum Hamiltonian Ascent Trajectory Evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of Shuttle and Shuttle derived vehicles) engineering manual
[NASA-CR-192557] 10 p2957 N93-27592
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
Optimal trajectories for aircraft terrain following and terrain avoidance: A literature review update
[AD-A264075] 11 p3260 N93-30604
Real-time trajectory optimization on parallel processors
[NASA-CR-193303] 12 p3795 N93-31640
Variational Trajectory Optimization Tool Set: Technical description and user's manual
[NASA-TM-4442] 12 p3690 N93-32381

TRAJECTORY PLANNING
Optimal robot trajectory planning 01 p0065 N93-10570
Path planning on a ring of processors 02 p0410 N93-11480
A simplified numerical procedure to compute the optimal trajectory of an aircraft 02 p0207 N93-11719
Integration of task level planning and diagnosis for an intelligent robot 02 p0393 N93-11929
Fuzzy logic control of telerobot manipulators 02 p0399 N93-11959
A neuro-collision avoidance strategy for robot manipulators 02 p0400 N93-11962
A surface integral approach to the motion planning of nonholonomic systems
[AD-A254844] 02 p0329 N93-12434
Robust rendezvous maneuver point conditions
[NASA-CR-190996] 03 p0517 N93-12690

A unified approach to the analysis and design of manipulator systems with environmental contact
03 p0573 N93-13805
Dynamic modeling and optimal joint torque coordination of advanced robotic systems 03 p0617 N93-13936
A collision avoidance algorithm for the mobile robot and the robot manipulator in multi-robot system
03 p0618 N93-14094
Decision-making for intelligent control of dual-arm robotic operations 04 p0960 N93-14201
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment
04 p0888 N93-14202
A concurrent real-time autonomous mobile robot programming system 04 p0960 N93-14281
Global optimum path planning for a redundant space robot
[AD-A255316] 04 p0889 N93-14545
Dynamics and control of a rigid/flexible manipulator
04 p0890 N93-14684
Methodology for robot capability and performance characterization: The basis for robot task planningg
[F-2-3] 04 p0949 N93-15300
Planning of continuous path robotic motions by discrete time optimization
[F-3-5] 04 p0950 N93-15305
Adaptive control of a manipulator in cartesian space
[F-4-2] 04 p0950 N93-15308
A plan for spacecraft automated rendezvous
[NASA-TM-108385] 04 p0813 N93-15392
Genetic algorithms for the development of real-time multi-heuristic search strategies
[AD-A257454] 05 p1258 N93-15876
Project proposal active vision
[AD-A256490] 05 p1258 N93-15934
Path planning for assembly of strut-based structures
[NASA-CR-191874] 05 p1260 N93-16622
Efficient distance calculation using the spherically-extended polytope (s-tope) model
[NASA-CR-191858] 05 p1267 N93-16677
An inverse dynamic trajectory planning for the end-point tracking control of a flexible manipulator
[DE93-000428] 05 p1179 N93-17192
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
Design and control of a space based two link manipulator with Lyapunov based control laws
[AD-A257568] 06 p1543 N93-17938
Motion planning for rigid body robots
[AD-A257557] 06 p1544 N93-17980
Debris about asteroids: Where and how much?
06 p1703 N93-19136
Modelling robot trajectory errors using time series
07 p1942 N93-20716
A 3D world model builder with a mobile robot
[INRIA-RR-1546] 07 p2047 N93-20871
Avoiding space robot collisions utilizing the NASA/GSFC tri-mode skin sensor
[NASA-CR-192292] 07 p2049 N93-21812
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle
08 p2451 N93-22217
A fuzzy logic controller for an autonomous mobile robot 08 p2452 N93-22220
An automated system for spacecraft proximity operations 08 p2136 N93-22230
The real-time operations of the Space Shuttle Orbiter during rendezvous and proximity operations
08 p2139 N93-22249
A synthetic environment for visualization and planning of orbital maneuvers 08 p2140 N93-22251
Use of automated rendezvous trajectory planning to improve spacecraft operations efficiency
08 p2146 N93-22292
Spacecraft rendezvous operational considerations affecting vehicle systems design and configuration
08 p2147 N93-22296
Path planning for manipulators
[DE93-004050] 08 p2457 N93-22756
Time optimal paths for high speed maneuvering
[DE93-006251] 08 p2458 N93-23338
Trajectory control of an articulated robot with a parallel drive arm based on splines under tension
08 p2318 N93-24184
A global path planning approach for redundant manipulators
[NASA-CR-193017] 08 p2320 N93-24656
Interactive method for planning constrained fuel optimal proximity operations 10 p2925 N93-27204
Implicit point location in arrangements of line segments, with an application to motion planning
[RUU-CS-92-15] 10 p3116 N93-27505
Efficient grid based techniques for solving the Weighted Region Least Cost Path problem on multicomputers
[AD-A262153] 10 p3107 N93-27548
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980
The complexity of the free space for motion planning amidst fat obstacles
[RUU-CS-92-31] 10 p3102 N93-28106
A random approach to motion planning
[RUU-CS-92-32] 10 p3110 N93-28107
An ultrasonic sensor controller for mapping and servo control in robotic systems
[DE93-009605] 10 p3046 N93-28160
Digital parallel processor array for optimum path planning
[NASA-CASE-NPO-18727-1-CU]
10 p3108 N93-28427
Adaptive path planning for incrementally-changing environments
[DE93-008411] 10 p3105 N93-28460
An autonomous vision-based mobile robot
11 p3443 N93-29082
Planning collision free paths for two cooperating robots using a divide-and-conquer C-space traversal heuristic
[NASA-CR-193252] 11 p3542 N93-29771
Trajectory generation for dual-arm robots using artificial impedance approach 11 p3370 N93-30310
Double swingby at Earth-Moon for increase of excess velocity
[ETN-93-94177] 11 p3270 N93-30582
A theory of planar grasp
[OUEL-1958/92] 12 p3785 N93-31126
Path planning control 12 p3685 N93-31451
Flight evaluation of a computer aided low-altitude helicopter flight guidance system
[NASA-TM-103998] 12 p3678 N93-32225

TRANSALL C-160 AIRCRAFT
U C-160 AIRCRAFT

TRANSATMOSPHERIC VEHICLES
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745
Information requirements analyses for transatmospheric vehicles
[AD-A261189] 09 p2590 N93-25949

TRANSCEIVERS
U TRANSMITTER RECEIVERS

TRANSCENDENTAL FUNCTIONS
NT EXPONENTIAL FUNCTIONS
NT LOGARITHMS
NT PERIODIC FUNCTIONS
NT TRIGONOMETRIC FUNCTIONS
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
The generic arithmetic of SISYPHE
[INRIA-RT-0136] 11 p3524 N93-28755

TRANSCONDUCTANCE
A semi-custom dual channel peak hold circuit for spaceborne instrumentation
[DE93-003801] 07 p1828 N93-21777
High-frequency BiCMOS transconductance integrators
[ISBN-0-315-60484-0] 08 p2286 N93-24612
Pseudomorphic narrow gap materials for high performance devices
[AD-A263069] 10 p3152 N93-27926
DLTS and dynamic transconductance analysis of deep-submicron fully-depleted SOI MOSFETs
[AD-A264888] 12 p3721 N93-31984

TRANSCONTINENTAL SYSTEMS
Prospects of two-way international time scale comparisons 09 p2832 N93-24988

TRANSDUCERS
NT DIGITAL TRANSDUCERS
NT ELECTROACOUSTIC TRANSDUCERS
NT ELECTRONIC TRANSDUCERS
NT HYDROPHONES
NT IMAGE TRANSDUCERS
NT INTERDIGITAL TRANSDUCERS
NT LOUDSPEAKERS
NT MAGNETIC TRANSDUCERS
NT MICROPHONES
NT PIEZOELECTRIC GAGES
NT PIEZOELECTRIC TRANSDUCERS
NT PIEZORESISTIVE TRANSDUCERS
NT PRESSURE SENSORS
NT SOUND TRANSDUCERS
NT THERMOPILES
NT TORQUERS
NT ULTRASONIC WAVE TRANSDUCERS
Instrumented propellant block test and stress analysis comparison 01 p0015 N93-10002
Transducer workshop no. 16
[AD-A248047] 01 p0012 N93-10236
Piezoelectric and electrostrictive materials for transducers applications, volume 1
[AD-A250889] 01 p0071 N93-10273
Piezoelectric and electrostrictive materials for transducers applications, volume 2
[AD-A250890] 01 p0071 N93-10276
Piezoelectric and electrostrictive materials for transducers applications, volume 3
[AD-A250891] 01 p0072 N93-10280
Piezoelectric and electrostrictive materials for transducers applications, volume 4
[AD-A250892] 01 p0072 N93-10282
Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Development of a tactile perceived attitude transducer
[AD-A253724] 02 p0385 N93-11081
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
Preamplifier with adjustable input resistance
[AD-D015377] 03 p0572 N93-13473
Effects of stinger axial dynamics and mass compensation methods on experimental modal analysis
03 p0699 N93-13907
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Control system and method for prosthetic devices
[NASA-CASE-MSC-21941-1] 05 p1228 N93-17087
Force override rate controller for remote actuation
[AD-A257631] 05 p1180 N93-17718
Communications and control for electric power systems
[NASA-CR-192794] 08 p2261 N93-22477
The sensitivity in eddy current testing of austenitic material
[VTT-JULK-758] 08 p2231 N93-23368
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
A microseismometer for terrestrial and extraterrestrial applications 11 p3434 N93-28765
Dynamic response of a transducer mounted at one end of an acoustical cavity
[DE93-012837] 12 p3816 N93-32301

TRANSFER
U TRANSFERRING

TRANSFER FUNCTIONS
NT MODULATION TRANSFER FUNCTION
NT OPTICAL TRANSFER FUNCTION
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
Deterministic transfer function for transionospheric propagation
[DE92-040327] 04 p0862 N93-15427
A contribution to the dynamic feedforward open loop control of multivariable systems and to the optimal design of command functions
[DLR-FB-92-05] 05 p1260 N93-16515
Analysing the transfer functions of nonlinear systems in the frequency domain
[RR-445] 05 p1266 N93-16606
Wavelet-based multiresolution analyses of signals
[AD-A257496] 06 p1500 N93-17904
ETANN hardware implementation for radar emitter identification
[AD-A259077] 06 p1508 N93-18958
Improvements to LQGI/LTR methodology for plants with lightly damped or low frequency poles
[AD-A258841] 06 p1648 N93-19112
Feed-forward control upgrade of the deep space network antennas 06 p1514 N93-19434
An object-oriented computer aided design program for modern control systems analysis
[AD-A259139] 07 p2033 N93-20559
Multivariable frequency response methods for optimal Kalman-Bucy filters with applications to radar tracking systems 08 p2255 N93-22024
ERS-1 scatterometer calibration and validation activities at ECMWF. A: The quality and characteristics of the radar backscatter measurements 08 p2359 N93-23763
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
SAXON-FPN NAWC/ERIM P-3 SAR data distribution and analysis
[AD-A259944] 08 p2273 N93-24243
The 32nd CDC: System identification using interval dynamic models
[NASA-CR-192895] 09 p2818 N93-25155

The 32nd CDC: Robust stabilizer synthesis for interval plants using Nevanlina-pick theory
[NASA-CR-192894] 09 p2818 N93-25156
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
Active impedance matching of complex structural systems 10 p3060 N93-28169
Advances in the identification of electrochemical transfer function models using Prony analysis
[DE93-009424] 11 p3550 N93-30041
Control system design and multiparameter variations 11 p3355 N93-30217
Realization of high speed adaptive FIR digital filters 11 p3355 N93-30222

TRANSFER OF TRAINING
Representation of research paradigms as a function of familiarity with research domains
[AD-A256553] 05 p1263 N93-16266
Simulator motion
[AD-A257683] 05 p1072 N93-17687
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
Centres for space science and technology education: A United Nations initiative 08 p2369 N93-23826
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396
Transfer of training and simulator qualification or myth and folklore in helicopter simulation 11 p3237 N93-30687

TRANSFER ORBITS
Nutational stability and passive control of symmetric spinning bodies with axial forcing and internal mass motion 03 p0504 N93-13820
Theory and computation of optimal low- and medium-thrust transfers
[NASA-CR-191651] 05 p1090 N93-16428
Optimal Trajectories For Orbital Transfers Using Low And Medium Thrust Propulsion Systems 05 p1074 N93-17290
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Mars transfer vehicle studies 08 p2173 N93-22088
Space transfer concepts and analysis for exploration missions. Implementation plan and element description document (draft final). Volume 6: Lunar systems
[NASA-CR-192494] 08 p2179 N93-23007
Practical aspects of transfer from GTO to lunar orbit 09 p2604 N93-24719
Minimum-fuel power-limited transfers between coplanar elliptic orbits 09 p2608 N93-25684
Optimal transfers between libration-point orbits in the elliptic restricted three-body problem 09 p2608 N93-25758
Space transfer concepts and analyses for exploration missions. Technical directive 12: Beamed power systems study
[NASA-CR-192532] 09 p2599 N93-26146
Detail design of Mars transfer orbit 10 p2953 N93-28046
Transfer Orbit Plasma Interaction Experiment (TROPIX) 11 p3267 N93-28734

TRANSFERRING
Progress on polymer degradation by photoelectron transfer
[AD-A246276] 02 p0268 N93-11862

TRANSFORM INTEGRALS
U INTEGRAL TRANSFORMATIONS

TRANSFORMATION TENSORS
U TENSORS

TRANSFORMATIONS (MATHEMATICS)
NT COORDINATE TRANSFORMATIONS
NT FAST FOURIER TRANSFORMATIONS
NT FOURIER TRANSFORMATION
NT HILBERT TRANSFORMATION
NT INTEGRAL TRANSFORMATIONS
NT LAPLACE TRANSFORMATION
NT LINEAR TRANSFORMATIONS
The development of optical techniques for component inspection in the aerospace industry 01 p0093 N93-10307
Discontinuous initial value problem of nonlinear elasticity by similarity approach 01 p0064 N93-10569
Design of laser optical systems
[AD-A254247] 01 p0089 N93-10703
Equivalence transformations of rational matrices
[MATHS-REPT-A-163] 02 p0423 N93-11121
Constrained KP hierarchy and bi-Hamiltonian structures
[MATHS-REPT-A-168] 02 p0424 N93-11123
Equivalence transformations of rational matrices and applications
[MATHS-REPT-A-169] 02 p0424 N93-11124
On a certain McMillan degree condition appearing in control
[MATHS-REPT-A-170] 02 p0424 N93-11125
Darboux theorems and Wronskian formulas for integrable systems. 1: Constrained KP flows
[MATHS-REPT-A-172] 02 p0424 N93-11126
Differential equation-based seismic data filtering
[DE92-016282] 02 p0363 N93-11791
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
From data structure to process structure
[MEMC-INF-91-38] 04 p0946 N93-15077
Compactness and Loewenheim-Skolem properties in pre-institution categories
[MEMO-INF-92-27] 04 p0968 N93-15094
Graph rewriting using a single pushout; a comparison
[MEMO-INF-92-28] 04 p0968 N93-15121
Performing in-place affine transformations in constant space 04 p0954 N93-15546
Proceedings of the Conference on Moments and Signal
[AD-A257227] 05 p1136 N93-15819
Interaction in polysilazane/SiC powder systems
[DE92-041178] 05 p1119 N93-15957
Projection with a minimal system of inequalities
[AD-A257237] 05 p1263 N93-15961
Quantum groups and Lie-admissable time evolution
[SSCL-PREPRINT-793] 05 p1264 N93-16349
Datatype laws without signatures
[CWI-CS-R9133] 05 p1268 N93-16851
Automatic analysis and transformation of FORTRAN programs using a typed functional language
[INRIA-RR-1518] 06 p1615 N93-17838
Aharonov-Casher effect and geometrical phases
[PREPRINT-783] 06 p1644 N93-18186
Yang phase for non-Hermitian systems and biunitary transformations
[PREPRINT-782] 06 p1645 N93-18197
Optical Haar wavelet transforms using computer generated holography
[AD-A259079] 06 p1538 N93-18960
Data compression by wavelet transforms 06 p1513 N93-19426
Incipient failure detection using wavelets
[AD-A259423] 07 p1913 N93-20004
Wavelet features for failure detection and identification in vibration systems
[AD-A259427] 07 p1914 N93-20007
Calibration of the imaging conditions for the retransformation of digitized images obtained from laser light sheets
[DLR-MITT-92-04] 07 p1910 N93-20745
C-integrable nonlinear PDE's. 1
[PREPRINT-787] 07 p2051 N93-20805
C-integrable nonlinear PDE's. 2
[PREPRINT-788] 07 p2053 N93-20874
A preliminary study of the Gribov ambiguity in lattice SU(3) Coulomb gauge
[PREPRINT-816] 07 p2055 N93-21179
Convergence rates of approximation by translates
[AD-A260100] 08 p2470 N93-24055
Projective structure from two uncalibrated images: Structure from motion and recognition
[AD-A260102] 08 p2470 N93-24056
Transformations of gaussian random fields and a test for independence of a survival time from a covariate
[AD-A260442] 08 p2472 N93-24114
Image coding by way of wavelets 09 p2671 N93-24665
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Combining spectral information with crop rotation knowledge for crop classifications 09 p2752 N93-24861
NSWC library of mathematics subroutines
[AD-A261511] 09 p2884 N93-26575
A globally gated polling system with server interruptions, and applications to the repairman problem
[CWI-BS-R9208] 10 p3127 N93-27309
Virtual data structures
[RUU-CS-92-16] 10 p3097 N93-27506
On the fermionic Heisenberg group and its Q-representations
[NIKHEF-H/92-11] 10 p3117 N93-27542
Mathematical morphology as a tool for shape description
[CWI-BS-R9216] 10 p3119 N93-27991
Migration of seismic data in the double Radon transformed domain
[ETN-93-93596] 10 p3073 N93-28094
On the Bogdanov-Takens bifurcation for planar diffeomorphisms
[W-9202] 10 p3121 N93-28124
Inhomogeneous Toda lattice: Its hierarchy and Darhoux-Backlund transformations
[SSCL-PREPRINT-762] 10 p3121 N93-28146
On Radon-Nikodym derivatives of finitely additive measures induced by nonlinear transformations on Hilbert space
[MEMO-1063] 10 p3129 N93-28147
Large deviations theory and stochastic gauge fixing
[SSCL-PREPRINT-739] 10 p3126 N93-28193
Commutative diagrams and tensor calculus in Riemann spaces
[SSCL-PREPRINT-741] 10 p3122 N93-28195
The space of spheres, a geometric tool to unify duality results in Voronoi diagrams
[INRIA-RR-1620] 11 p3547 N93-28512
Polygonal approximation overviews and perspectives
[INRIA-RR-1621] 11 p3547 N93-28513
Comparison between the performance of two classes of fuzzy controllers 11 p3517 N93-29566
On probability-possibility transformations 11 p3519 N93-29582
Zero-crossing rate of some non-Gaussian processes 11 p3360 N93-30254
Integration and implementation of the automated natural deduction in demonstrators using resolution
[ETN-93-94239] 12 p3803 N93-31208

TRANSFORMERS
Prototype superconducting planar transformers using high-Tc thin and thick films
[AD-A254230] 01 p0077 N93-10897
Extended surface heat sinks for electronic components: A computer optimization
[AD-A256134] 04 p0865 N93-14254
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Monolithic, series connected GaAs photovoltaic power converters for optoelectronic component applications
[DE93-004385] 08 p2380 N93-23293
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
A planar quasi-optical SIS receiver for array applications 10 p3014 N93-27746
Charge to frequency converter for ionization chambers belonging to the radiation protection system of AmPS/MEA
[DIGEL-1991-6] 11 p3577 N93-30837

TRANSFORMS
U TRANSFORMATIONS (MATHEMATICS)

TRANSGRANULAR CORROSION
Environment-induced embrittlement: Stress corrosion cracking and metal-induced embrittlement; environmental embrittlement of iron aluminide alloys
[DE92-018714] 02 p0256 N93-11524

TRANSIENT HEATING
NT SHOCK HEATING
Advances in TMG 04 p0811 N93-14956
Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071

TRANSIENT LOADS
NT BLAST LOADS
NT GUST LOADS
NT IMPACT LOADS
NT LANDING LOADS
NT SHOCK LOADS
Integral transform approach to an inertial viscoelastic problem involving moving singularities 01 p0049 N93-10490
Transient behavior of heat pipe with thermal energy storage under pulse heat loads 03 p0588 N93-13743
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779

TRANSIENT PRESSURES
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391

TRANSIENT RESPONSE
Feasibility assessment of a transient sound sensor based on the silicon retina architecture
[AD-A252288] 02 p0432 N93-10999
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
Broadband EMP transient measurement preemphasis filter
[AD-A254414] 02 p0284 N93-12160
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344

A domain decomposition method for parallel transient response calculations 03 p0504 N93-13827
Transient response of a viscous liquid bridge of finite length and anchored edges
[LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
Measurand transient signal suppressor
[NASA-CASE-MSC-22027-1] 05 p1261 N93-17056
Structural simulation coupling for transient analysis
[AD-A258192] 06 p1643 N93-17861
Shock and impact dynamics 06 p1558 N93-18760
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 1: Implementing exact mode superposition
[NASA-TM-106063] 08 p2329 N93-23739
Solving modal equations of motion with initial conditions using MSC/NASTRAN DMAP. Part 2: Coupled versus uncoupled integration
[NASA-TM-106064] 08 p2330 N93-23740
Applications of stress envelope concepts to aircraft EMP and lightning survivability 09 p2584 N93-24898
Neural self-tuning adaptive control of non-minimum phase system
[NASA-CR-193109] 10 p3109 N93-27109
Investigation of starting transients in the thermally choked ram accelerator 10 p2985 N93-27136
Influence of transverse-shear and large-deformation effects on the low-speed impact response of laminated composite plates
[NASA-TM-107753] 10 p2990 N93-27141
Passive damping augmentation of flexible beam-like lattice trusses for large space structures 10 p2923 N93-27192
Exact methods for modal transient response analysis including feedback control
[NASA-TP-3317] 10 p3057 N93-27585
Transient response of embedded thermocouples
[DE93-009889] 11 p3431 N93-29325
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
Pulse mitigation and heat transfer enhancement techniques. Volume 4: Transient behavior of heat pipe with thermal energy storage under pulse heat loads
[AD-A263497] 11 p3423 N93-29339
Transient field computations within or proximity of complex structures: FD-TD approach 11 p3366 N93-30292
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
Transient analysis for ground fault distance estimation in electrical distribution networks
[VTT-PUBS-115] 12 p3720 N93-31536

TRANSIENTS (SURGES)
U SURGES

TRANSISTOR AMPLIFIERS
Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
HF MOSFET power amplifiers
[AD-A258384] 06 p1519 N93-18258
JFET monolithic preamplifier with outstanding noise behaviour and radiation hardness characteristics
[DE93-006679] 08 p2278 N93-22577
Noise-optimal control of HEMT LNA's for compensation of temperature deviations 09 p2678 N93-26115
RF vacuum microelectronics
[AD-A261784] 09 p2692 N93-26565

TRANSISTOR CIRCUITS
VLSI design for reliability
[AD-A253207] 02 p0292 N93-11781
Dedicated oscillator for immersed crystal sensor 09 p2837 N93-25020

TRANSISTOR-TRANSISTOR-LOGIC INTEG CIRCUITS
U TTL INTEGRATED CIRCUITS

TRANSISTORS
NT BIPOLAR TRANSISTORS
NT FIELD EFFECT TRANSISTORS
NT HIGH ELECTRON MOBILITY TRANSISTORS
NT JFET
NT JUNCTION TRANSISTORS
NT MODFETS
NT PHOTOTRANSISTORS
NT SILICON TRANSISTORS
NT SOS (SEMICONDUCTORS)

Development of 6H-SiC CMOS transistors for insertion into a 350 C operational amplifier
[AD-A253760] 01 p0070 N93-10233
A four channel 250 MHz visual counter
[DE92-016320] 01 p0086 N93-10444
The fourth OSA Topical Meeting Proceedings on Picosecond Electronics and Optoelectronics, volume 9
[AD-A253472] 02 p0447 N93-11099
Natural convection heat transfer studies of simulated and actual electronic components using dielectric liquids for immersion cooling
[AD-A255173] 02 p0341 N93-12376
An acoustic charge transport imager for high definition television applications
[NASA-CR-191295] 03 p0572 N93-13448
Effect of oxide thickness on interface-trap buildup rates
[DE92-040981] 05 p1315 N93-15928
Three-terminal devices of high-T(sub c) superconductors: A status report and future challenges
[DE93-000654] 05 p1319 N93-16358
Discrepancies between charge-pumping, dual-transistor, and midgap measurements of D(sub it)
[DE92-040977] 05 p1322 N93-16975
Development of transistors (equivalent to 2SC3321) 07 p1797 N93-20460
Structural equilibration in intrinsic, single-doped, and compensated TFT's: Experiments and calculations
[MBB-Z-0377-91-PUB] 07 p1891 N93-20841
GaAs-based optoelectronic neurons
[NASA-CASE-NPO-18497-1-CU] 08 p2464 N93-24599
RF vacuum microelectronics
[AD-A261784] 09 p2692 N93-26565
Active CPW-fed slot antennas for power combining applications 10 p3011 N93-27729
Wide range H2 sensor using catalytic alloys
[DE93-007591] 10 p3046 N93-28009
RF vacuum microelectronics
[AD-A264526] 11 p3412 N93-30409
Effects of device scaling and geometry on MOS radiation hardness assurance
[DE93-009832] 11 p3413 N93-30516
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033

TRANSIT TIME
On some practical consideration of the electron beam breakup transit time oscillator
[DE92-017406] 02 p0445 N93-11919
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
The third-order permittivity of quartz obtained by different methods 09 p2840 N93-25046
NEP processing, operations, and disposal 10 p2982 N93-26975

TRANSITION FLIGHT
Development and testing of the digital control system for the Archytas unmanned air vehicle
[AD-A261656] 09 p2597 N93-26196

TRANSITION FLOW
Flow over a leading edge with distributed roughness 01 p0006 N93-10549
Numerical simulation of the acoustic instability in the spatially developing, confined, supersonic mixing layer 03 p0494 N93-13521
Modeling of turbulence and transition 05 p1153 N93-15795
Hypersonic rarefied wake characterization
[NASA-TP-3327] 06 p1529 N93-18604
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Numerical prediction of transition of the F-16 wing at supersonic speeds
[NASA-CR-192706] 08 p2111 N93-23392
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Dynamics of turbulent slugging in transitional pipe flow 09 p2702 N93-25548
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
A new direction in hydrodynamic stability: Beyond eigenvalues
[NASA-CR-191411] 10 p3040 N93-27688
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions 11 p3253 N93-29934
Heat transfer measurements using infra-red thermography in rarefied flows
[RAE-TM-W-1] 12 p3724 N93-31336
Multiple flows in the solar transition region 12 p3857 N93-31704
Reynolds number influences in aeronautics
[NASA-TM-107730] 12 p3673 N93-31732
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855
Turbulence and transition modeling for high-speed flows
[NASA-CR-191473] 12 p3727 N93-32329

TRANSITION METALS
NT CADMIUM
NT CHROMIUM
NT CHROMIUM ISOTOPES
NT COBALT
NT COBALT 60
NT COPPER
NT GOLD
NT GOLD ISOTOPES
NT HAFNIUM ISOTOPES
NT IRIDIUM
NT IRON
NT IRON ISOTOPES
NT MANGANESE
NT MERCURY (METAL)
NT MOLYBDENUM
NT NICKEL
NT NICKEL ISOTOPES
NT NIOBIUM
NT PALLADIUM
NT PLATINUM
NT RHENIUM
NT RHODIUM
NT RUTHENIUM
NT SCANDIUM ISOTOPES
NT SILVER
NT TANTALUM
NT TITANIUM
NT TUNGSTEN
NT VANADIUM
NT YTTRIUM
NT ZINC
NT ZIRCONIUM
Transition metal activation and functionalization of carbon-hydrogen bonds
[DE92-014809] 01 p0030 N93-10400
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Electronic structure and reactivities of transition metal clusters
[DE92-016623] 02 p0258 N93-11762
Calculation of binary phase diagrams between the actinide elements, rare earth elements, and transition metal elements
[DE92-019119] 02 p0249 N93-11801
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Thermochemistry of transition metal clusters
[DE92-018713] 02 p0262 N93-12480
Electronically active cyclocarborane-metal-arene assemblies
[AD-A256288] 04 p0865 N93-14457
Chemical probes of metal cluster structure: Fe, Co, Ni, and Cu
[DE92-041109] 05 p1108 N93-15674
Multi-body forces and the energetics of transition metals, alloys, and semiconductors
[DE93-002230] 05 p1115 N93-17184
Transition metal mediated transformations of small molecules
[DE93-001725] 05 p1117 N93-17623
The energetics of ordered intermetallic alloys (of the transition metals)
[DE93-001968] 05 p1117 N93-17753

Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-001682] 06 p1488 N93-18589
Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491
New developments in the 'ab initio' determination of transition metal alloy phase diagrams
[DE93-002540] 07 p1856 N93-21488
Chemical and catalytic activation of methane by metal oxide surfaces
[PB93-121994] 07 p1851 N93-21803
Metalloradical and electrophilic activation of methane
[PB93-123693] 07 p1851 N93-21813
Stable clusters in the condensed state and some possibilities for gas phase clusters
[DE93-004446] 07 p2064 N93-21846
Atomic beam studies of the interaction of hydrogen with transition metal surfaces
[DE93-006500] 08 p2228 N93-22710
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
The study of polyether solvation mechanisms using UV/visible spectroscopy
[AD-A260355] 08 p2241 N93-24170
Study of the model of hole superconductivity in multiple band cases and its application to transition metals
08 p2511 N93-24195
Compositional superlattices based on PtCl/PtBr MX materials
[DE93-003700] 08 p2513 N93-24496
Reclamation with recovery of radionuclides and toxic metals from contaminated materials, soils, and wastes
09 p2769 N93-25571
Transition metal chelate-fulleride compounds: Electrocrystallization of semiconducting (Ru(bpy)s)(C60)2
[AD-A261549] 09 p2869 N93-26577
Band electronic structures and crystal packing forces
[DE93-009763] 10 p3151 N93-26667
Study of intermediates from transition metal excited-state electron-transfer reactions
[DE93-010904] 10 p3137 N93-28359
Catalytic synthesis of silicon carbide preceramic polymers: Polycarbosilanes
[DE93-008634] 11 p3329 N93-28541
Supported organometallic complexes, surface chemistry, spectroscopy, and catalysis
[DE93-011930] 11 p3309 N93-28688
Theoretical hyperfine structure constants for transition metal atoms and ions
[DE93-012325] 11 p3566 N93-29183
Applications of transition metal compounds in the preparation of useful silicon-containing ceramics
[AD-A264028] 11 p3335 N93-30028
Organometallic compounds and polymers with second and third order nonlinear optical properties
[AD-A264774] 11 p3338 N93-30610
Fundamental studies of new high-energy permanent magnet materials
[DE93-014707] 12 p3815 N93-32291

TRANSITION POINTS

Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616
Materials characterization of cermet anodes tested in a pilot cell
[DE93-008924] 11 p3323 N93-29101

TRANSITION PROBABILITIES

Electron transfer, ionization, and excitation in atomic collisions
[DE92-017300] 01 p0154 N93-10435
Absorption spectroscopy of L(alpha, beta) transitions in a laser germanium plasma 02 p0320 N93-12041
Transition probabilities up to l = 36(+)in Yb-160
[DE92-017191] 03 p0703 N93-13114
Geometric ergodicity, quasi-stationary and ratio limits for random walks
[MEMO-1033] 05 p1266 N93-16593
Calculation of quantum corrections to the rate of sphaleron transitions by means of the zeta-function
[PREPRINT-882] 05 p1289 N93-17018
Semiempirical studies of atomic structure
[DE93-005117] 07 p2063 N93-21707
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276

TRANSITION TEMPERATURE

A mutual inductance technique for contact-free T(sub c) measurement of high temperature superconductors
[NPL-DES-116] 02 p0289 N93-11393
Relationship of bainitic microstructure to impact toughness in Cr-Mo and Cr-W steels
[DE92-017828] 02 p0258 N93-11773
Theoretical studies of high-temperature superconductors and highly compressed hydrogen
02 p0292 N93-11833
Tempering effects for lower bainite, martensite, and mixed microstructures on impact, fracture, and related mechanical properties of ASTM A723 steel
[AD-A254617] 03 p0541 N93-12616
Isotope effect in (13)C-substituted (central C=C) kappa-phase organic superconductors
[DE92-040748] 05 p1314 N93-15834
Centimeter wave absorption in molecular crystals
[AD-A257453] 05 p1315 N93-15875
Summary of phase separation, structure and superconductivity in super-oxygenated La2CuO(4+delta)
[DE93-000855] 05 p1315 N93-15905
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218
Matrix-dominated mechanical properties of a fiber composite lamina
[DE93-001320] 05 p1098 N93-17030
Enhanced superconducting properties in Bi2Sr2Ca1Cu2O(y) by thermal and mechanical processing
[DE93-000609] 05 p1325 N93-17227
Phase equilibria, superconductivity, and flux creep in Nd(1+x)Ba(2-x)Cu3O(7+delta) superconductors
[DE93-001223] 05 p1325 N93-17350
Spin density waves in dilute CuMn alloys
[DE93-001628] 05 p1117 N93-17578
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
High-temperature superconducting electronics
06 p1523 N93-18464
The effects of heavy-ion irradiation of superconductivity in YBa2Cu3O7 epitaxial films
[DE93-002325] 06 p1677 N93-19742
Development of elements of a high T(sub c) superconducting cable
[AD-A259415] 07 p1888 N93-20130
Oxygen configurations and their effect on charge transfer in YBa2Cu3O(z)
[DE93-002543] 07 p2081 N93-21489
The application of quality criteria for the prediction of porosity in the design of casting processes
[DE93-001719] 07 p1857 N93-21773
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Growth and characterization of laser-deposited superconducting Bi-Sr-Ca-Cu-O thin films
[DE93-003792] 08 p2504 N93-22808
A theoretical analysis of the effect of uniaxial elastic strain on the critical temperature of cuprate superconductors
[DE93-005710] 08 p2507 N93-23329
High temperature superconductivity
[AD-A259692] 08 p2283 N93-24023
Monolithic integration of semiconductor and superconductor components
[AD-A260589] 09 p2690 N93-25906
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transition temperature
[NASA-CR-191121] 09 p2652 N93-26235
The Road to Room Temperature Superconductivity Workshop
[AD-A264633] 11 p3561 N93-30519
High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190

TRANSLATING

NT MACHINE TRANSLATION

Assembling polyhedra with single translations
[AD-A254623] 02 p0419 N93-12239
Modelling flexible link manipulators in the three-dimensional space 03 p0574 N93-14093
A guide to EDI translation software
[AD-A255739] 04 p1007 N93-15051
Counterexamples to completeness results for basic narrowing
[CWI-CS-R9154] 05 p1242 N93-16741
A rewrite approach to polynomial ideal theory
[CWI-CS-R9160] 05 p1271 N93-17536
A simplified proof of Toyama's theorem
[CWI-CS-R9156] 06 p1642 N93-17839
A hardware implementation of pure ESTEREL
[INRIA-RR-1479] 06 p1622 N93-18649
An empirical comparison of generalized LR tables
07 p2031 N93-20228
The origins of lambda-calculus and term rewriting systems
[INRIA-RR-1543] 07 p2053 N93-20870
Towards autonomous motion vision
[AD-A259339] 07 p2068 N93-21263
Proximity operations considerations affecting spacecraft design 07 p1815 N93-21428
A digital hardware test system analysis with test vector translation
[AD-A260849] 09 p2810 N93-25786
Termination of term writing by interpretation
[RUU-CS-92-14] 10 p3114 N93-27381
Transforming AdaPT to Ada9x
[NASA-CR-193117] 11 p3526 N93-29026

TRANSLATIONAL MOTION

NT SECONDARY FLOW
NT THREE DIMENSIONAL FLOW
NT THREE DIMENSIONAL MOTION

Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184465] 02 p0328 N93-12196
Vibration of a multi-guided rotating string
07 p1934 N93-20672
Comparison of the efficiency of the various methods for rigid-body displacement analyses
07 p1941 N93-20709
Load carrying capacity for a two-link planar flexible arm 07 p1918 N93-20715
Motion and structure estimation of manoeuvring objects in multiple-camera image sequences
[AD-A259371] 07 p1907 N93-21265
GN/C translation and rotation control parameters for AR/C (category 2) 08 p2142 N93-22263
Development and implementation of the MotoMir experiment on the Mir Space Station
08 p2159 N93-24363
A demonstration of motion base design alternatives for the National Advanced Driving Simulator
[NASA-TM-103881] 08 p2428 N93-24490
Implicit point location in arrangements of line segments, with an application to motion planning
[RUU-CS-92-15] 10 p3116 N93-27505
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485

TRANSLUNAR SPACE

U INTERPLANETARY SPACE

TRANSMISSION

NT ACOUSTIC PROPAGATION
NT AERODYNAMIC HEAT TRANSFER
NT ALOHA SYSTEM
NT BIOTELEMETRY
NT CODE DIVISION MULTIPLE ACCESS
NT CONDUCTIVE HEAT TRANSFER
NT CONVECTIVE HEAT TRANSFER
NT DATA TRANSMISSION
NT DEMULTIPLEXING
NT ELECTRIC POWER TRANSMISSION
NT ELECTROMAGNETIC WAVE TRANSMISSION
NT FREQUENCY DIVISION MULTIPLE ACCESS
NT GROUND WAVE PROPAGATION
NT HALOS
NT HEAT TRANSFER
NT HEAT TRANSMISSION
NT HYPERSONIC HEAT TRANSFER
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT LAMINAR HEAT TRANSFER
NT LIGHT SCATTERING
NT LIGHT TRANSMISSION
NT MICROWAVE ATTENUATION
NT MICROWAVE TRANSMISSION
NT MULTIPATH TRANSMISSION
NT MULTIPLE ACCESS
NT MULTIPLEXING
NT PACKET TRANSMISSION
NT PCM TELEMETRY
NT RADAR TRANSMISSION
NT RADIATIVE HEAT TRANSFER
NT RADIO TELEMETRY
NT RADIO TRANSMISSION
NT SATELLITE TRANSMISSION
NT SCATTER PROPAGATION
NT SELF PROPAGATION
NT SHOCK WAVE PROPAGATION
NT SHORT WAVE RADIO TRANSMISSION
NT SIGNAL TRANSMISSION
NT SINGLE CHANNEL PER CARRIER TRANSMISSION
NT SINGLE SIDEBAND TRANSMISSION
NT SOUND TRANSMISSION

NT SPREAD SPECTRUM TRANSMISSION
NT STRESS PROPAGATION
NT SUPERSONIC HEAT TRANSFER
NT TELEMETRY
NT TELEPHONY
NT TELEVISION TRANSMISSION
NT TIME DIVISION MULTIPLE ACCESS
NT TIME DIVISION MULTIPLEXING
NT TURBULENT HEAT TRANSFER
NT WAVE PROPAGATION
NT WAVELENGTH DIVISION MULTIPLEXING
Network problem threshold 06 p1516 N93-19397
The design and evaluation of transmit and receive antennas for an ionospheric communications probe system. B: Sloping-vee beams
[AD-A261866] 09 p2682 N93-26388

TRANSMISSION EFFICIENCY
Modelling workload for multi-service LAN's
[MEMO-INF-92-31] 05 p1275 N93-16335
The PNL high-transmission three-stage mass spectrometer
[DE93-006143] 08 p2486 N93-22506
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734

TRANSMISSION ELECTRON MICROSCOPY
Optical and TEM study of shock metamorphism from the Sedan test site 01 p0111 N93-10142
Atomic resolution imaging and analysis with the STEM
[DE92-041304] 05 p1166 N93-16150
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
HRTEM observations of modulated structures in Ti-Pd-Cr beta(2) alloys
[DE93-001507] 06 p1487 N93-18532
Applications of TEM to interface in materials
[DE93-004776] 08 p2501 N93-22492
Transmission electron microscopy investigation of ion implantation damage in GaAs and other semiconductors 09 p2865 N93-25715
Using coherent illumination to extend HRTEM resolution: Why we need a FEG-TEM for HREM
[DE93-007724] 10 p3030 N93-26612
Hierarchical textures in ferroelectric crystals
[DE93-608938] 12 p3827 N93-31175
HREM study of crystallography of titanium and titanium hydride thin films
[DE93-609038] 12 p3828 N93-31176
Electron-microscopic investigations of irradiated and naturally aged aluminum alloy
[DE93-606752] 12 p3706 N93-31660

TRANSMISSION LINES
NT COAXIAL CABLES
NT COMMUNICATION CABLES
NT FLUID TRANSMISSION LINES
NT MICROSTRIP TRANSMISSION LINES
NT POWER LINES
NT STRIP TRANSMISSION LINES
Acoustic modes in fluid networks 03 p0586 N93-13398
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407
Development of an expendable particle sensor
[AD-A255702] 04 p0881 N93-14653
Layered parallel interface for an active antenna array
[AD-D015411] 04 p0860 N93-14879
Joint HVAC transmission EMF environmental study
[DE92-017863] 04 p0933 N93-15211
Measurements of electric and magnetic fields in the Waianae, Hawaii area
[DE92-019891] 04 p0861 N93-15220
Research for electric energy systems
[DE92-040076] 04 p0870 N93-15412
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Nonlinear characteristics of superconducting transmission lines
[AD-A256388] 05 p1143 N93-15901
Armored fiber optic cables statement of government interest
[AD-D015459] 05 p1302 N93-16437
Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1662 N93-18335
A method for modeling discontinuities in a microwave coaxial transmission line 06 p1513 N93-19423
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation
[AD-A259372] 06 p1522 N93-19853
Detection of incipient defects in cables by partial discharge signal analysis
[PB92-222744] 07 p1919 N93-21199
Radio frequency cable to optical fiber cable
[AD-D015620] 08 p2284 N93-24230
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588
Broadband millimeter-wave GaAs transmitters and receivers using planar bow-tie antennas 10 p3011 N93-27728
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Radiation, scattering, and guidance of electromagnetic fields by arbitrarily shaped structures embedded in layered media
[AD-A262816] 10 p3028 N93-28224
Potential transmission and transients during corrosion: Applications to corrosion monitoring
[DE93-010863] 11 p3323 N93-29256
Planar active antennas and quasi-optical power combining arrays using FET's and slots
[AD-A263759] 11 p3387 N93-29875
Determination of the electrostatic Green's function for stratified media
[REPT-92-067] 12 p3716 N93-31607
Numerical analysis of the spectral domain of transmission lines in dielectric layers
[REPT-92-068] 12 p3716 N93-31608
Implementation of interconnect simulation tools in spice
[NASA-CR-193619] 12 p3792 N93-32239

TRANSMISSION LOSS
Software for prediction and analysis of ground wave propagation loss
[AD-A253474] 01 p0067 N93-10199
Optical fibers for long-haul transmission in severe-bending applications
[AD-A255964] 04 p0981 N93-14407
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Energy loss analysis of an integrated space power distribution system
[NASA-TM-105772] 04 p0854 N93-14834

TRANSMISSIONS (MACHINE ELEMENTS)
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Split torque transmission load sharing
[NASA-TM-105884] 03 p0610 N93-12736
The trajectory analysis of bevel planetary gear trains
[DE92-040898] 04 p0893 N93-15380
Conditioned based machinery maintenance (helicopter fault detection)
[AD-A255796] 05 p1061 N93-16396
Research on HOPE actuator power unit 07 p1792 N93-20430
Parallel axes gear set optimization in two-parameter space 07 p1917 N93-20637
Higher frequency transmission properties of motor car-chassis systems
[ETN-93-92563] 07 p1915 N93-20877
Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191057] 08 p2311 N93-22466
Evaluation of an oil-debris monitoring device for use in helicopter transmissions
[NASA-TM-105830] 08 p2312 N93-22826
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Planetary gear train ring gear and support structure investigation 08 p2314 N93-23188
Pattern classifier for health monitoring of helicopter gearboxes
[NASA-TM-106099] 08 p2316 N93-23741
Understanding and modeling the behavior of a harmonic drive gear transmission
[AD-A259610] 08 p2317 N93-24152
Global dynamic modeling of a transmission system
[NASA-CR-191117] 09 p2716 N93-24751
Transmission system for a transfer device gripping a double wheel
[CA-PATENT-APPL-SN-2024585] 09 p2597 N93-25178
Computational gearing mechanics
[NASA-CR-191127] 09 p2719 N93-25884
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
Face-gear drives: Design, analysis, and testing for helicopter transmission applications
[NASA-TM-106101] 10 p3050 N93-27133
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
Design considerations for ultra-precision magnetic bearing supported slides 10 p2960 N93-27562

TRANSMISSOMETERS
Analysis of solar transmission data from SABLE 89
[AD-A258602] 07 p2001 N93-19984

TRANSMITTANCE
UV spectrum splitting mirror
[DE92-018057] 01 p0159 N93-10818
Erosion rates for polymers measured on LDEF 02 p0270 N93-11994
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
Characterization of semi-insulating gallium arsenide
[AD-A257295] 05 p1316 N93-16081
Vertical molecular absorption coefficient profiles and associated meteorological data at the High Energy Laser Systems Test Facility for 20 August 1991
[AD-A257353] 05 p1206 N93-16143
Adaptive optics for laser power beaming 05 p1305 N93-17307
Forward model and CO retrieval algorithm
[NASA-CR-191306] 06 p1620 N93-18414
High-spatial-resolution passive microwave sounding systems
[NASA-CR-192228] 06 p1577 N93-18704
A new software tool for computing Earth's atmospheric transmission of near- and far-infrared radiation
[NASA-TM-103957] 07 p1996 N93-20066
Transmittance coefficients generation for fast radiative transfer models: Application to new satellite sounding systems 07 p1960 N93-21612
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875

TRANSMITTER RECEIVERS
Software for prediction and analysis of ground wave propagation loss
[AD-A253474] 01 p0067 N93-10199
Instrumentation for millimeter-wave polarimetric measurements of inhomogeneous media
[AD-A257255] 05 p1136 N93-15835
High-altitude electromagnetic pulse survivability assessment of the Harris RF-3200 transceiver
[AD-A258347] 06 p1502 N93-18207
A 32-GHz phased array transmit feed for spacecraft telecommunications 06 p1508 N93-18923
Forward-scatter radiant mapping 06 p1697 N93-19178
Low-voltage-swing CMOS transceivers
[DE93-006607] 08 p2277 N93-22511
Step stress testing of receiver/transmitter units, part 1
[AD-A260182] 08 p2273 N93-24318
The next generation of Palapa satellite (Palapa-C) 10 p3024 N93-26659
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
Hybrid data link
[AD-D015714] 11 p3383 N93-29280
High-speed, CMOS dual modulus frequency divider for RF frequency synthesis 11 p3359 N93-30245
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741

TRANSMITTERS
NT IONOSONDES
NT RADAR TRANSMITTERS
NT RADIO BEACONS
NT RADIO TRANSMITTERS
NT RADIOSONDES
NT RADIOTELEPHONES
NT RAWINSONDES
NT SONOBUOYS
NT TRANSMITTER RECEIVERS
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A256340] 04 p0936 N93-15198
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
Automatic pulse shaping with the AN/FPN-42 and AN/FPN-44A Loran-C transmitters
[AD-A257860] 06 p1432 N93-18309
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924

Development of a 100 mJ, 5 Hz, flashlamp-pumped, Cr,Tm:YAG coherent lidar transmitter
07 p1912 N93-20100
An overview of Sandia National Laboratories' plasma switched, gigawatt, ultra-wideband impulse transmitter program
[DE93-003249] 07 p1886 N93-21960
Multi-beam range imager for autonomous operations
08 p2310 N93-22160
A three channel telemetry system
08 p2180 N93-22162
Global Earth observation using modern communications satellite techniques 08 p2276 N93-23527
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Remotely piloted vehicle control and interface system
[AD-D015618] 08 p2132 N93-24228
Method of emitting on a specific wavelength fraunhofer line using a neodymium doped laser transmitter
[AD-D015710] 11 p3437 N93-29276
High-power Ka-band amplifier
11 p3385 N93-29590
Biophysical and biochemical mechanisms in synaptic transmitter release
[AD-A264829] 11 p3496 N93-30613
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734
A long wave TE/TM noise prediction model
11 p3397 N93-30742
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993

TRANSOCEANIC COMMUNICATION
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133

TRANSOCEANIC SYSTEMS
NT TRANSOCEANIC COMMUNICATION

TRANSONIC AIRCRAFT
U SUPERSONIC AIRCRAFT

TRANSONIC COMPRESSORS
Characterization of stall inception in high-speed single-stage compressors
[AD-A258973] 06 p1449 N93-19093

TRANSONIC FLIGHT
Pressure distribution for the wing of the YAV-8B airplane; with and without pylons
[NASA-TM-4429] 04 p0779 N93-14451

TRANSONIC FLOW
Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349
A field panel method for transonic flows
01 p0006 N93-10547
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer
01 p0005 N93-10889
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Pressure drag and lift contributions for blunted forebodies of fineness ratio 2.0 in transonic flow (M infinity less than or equal to 1.4)
[ESDU-89033] 04 p0779 N93-14515
Direct prediction of a separation boundary for aerofoils using a viscous-coupled calculation method
[ESDU-92008] 04 p0780 N93-14516
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809
Numerical investigation of swirl-airfoil interactions in transonic area
[MPIS-8/1991] 06 p1407 N93-18627
Transonic flow calculation around NACA-0012
06 p1413 N93-19301
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
Computation of transonic flow over a porous surface projectile 09 p2577 N93-25409
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Parallel computing strategies for block multigrid implicit solution of the Euler equation 10 p2922 N93-27190
Three-dimensional compressible stability-transition calculations using the spatial theory
10 p2931 N93-27431
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method
10 p2935 N93-27455
Transonic flows on an oscillating airfoil and their effect on the flutter-boundary
[DLR-FB-92-08] 11 p3238 N93-29006
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades
11 p3258 N93-29962
Computational fluid dynamics research on dynamically adaptive mesh methods for transonic flows
[AD-A264833] 11 p3428 N93-30630
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171
Development of a method to predict transonic limit cycle oscillation characteristics of fighter aircraft
[NLR-TP-91359-U] 12 p3679 N93-32338
NLR inviscid transonic unsteady loads prediction methods in aeroelasticity
[NLR-TP-91410-U] 12 p3674 N93-32358

TRANSONIC FLUTTER
Transonic flows on an oscillating airfoil and their effect on the flutter-boundary
[DLR-FB-92-08] 11 p3238 N93-29006

TRANSONIC INLETS
U SUPERSONIC INLETS

TRANSONIC NOZZLES
Direct solutions of the Navier-Stokes equations with application to static aeroelasticity
09 p2697 N93-25259

TRANSONIC SPEED
Computation of H2/air reacting flowfields in drag-reduction external combustion
[NASA-CR-191071] 07 p1846 N93-20237
Application of the Euler method EUFLEX to a fighter-type airplane configuration at transonic speed
[MBB-FE-211-S-PUB-0489-A] 07 p1762 N93-21059
Experimental investigations on wing-body combinations and their components at high angles of attack in the subsonic and transonic speed range
[DLR-FB-91-43] 07 p1783 N93-21762
Aerodynamic sensitivity analysis in the transonic regime 08 p2109 N93-22667
An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Shock tube application to the study of compressible turbulent boundary layer with mass injection
09 p2697 N93-25252
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF)
09 p2598 N93-26006

TRANSONIC TURBINES
U SUPERSONIC TURBINES

TRANSONIC WIND TUNNELS
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
The design and commissioning of an acoustic liner for propeller noise testing in the ARA transonic wind tunnel
[PNR-90880] 02 p0433 N93-11204
Modeling and control study of the NASA 0.3-meter transonic cryogenic tunnel for use with sulfur hexafluoride medium
[NASA-CR-189737] 05 p1157 N93-16379
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324
Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111
NASA Lewis 8- by 6-foot supersonic wind tunnel user manual
[NASA-TM-105771] 09 p2597 N93-25080
A feasibility study of using Langley 0.3-m transonic cryogenic tunnel sidewall boundary-layer removal system for heavy gas testing
[NASA-CR-191438] 09 p2695 N93-25087
Performance characteristics of two multiaxis thrust-vectoring nozzles at Mach numbers up to 1.28
[NASA-TP-3313] 11 p3239 N93-29160
A break-down of sting interference effects
[NLR-TP-91220-U] 12 p3684 N93-31042
A PC-based simulation of the National Transonic Facitity's safety microprocessor
[NASA-TM-109003] 12 p3796 N93-32224

TRANSONICS
U TRANSONIC FLOW

TRANSPARENCE
Optical properties of composite membranes containing arrays of nanoscopic gold cylinders
[AD-A253659] 02 p0238 N93-11281
Determination of stresses on laminated aircraft transparencies by the strain gage-hole drilling and sectioning method
[AD-A255548] 04 p0791 N93-14571
New electronic materials
[AD-A255612] 04 p0868 N93-15010
New nonlinear optical film processing
[AD-A256011] 04 p0983 N93-15255
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866

TRANSPARENT MATERIALS
U TRANSPARENCE

TRANSPIRATION COOLING
U SWEAT COOLING

TRANSPLANTATION
Incorporation of varying types of temporal data in a neural network 11 p3518 N93-29575
Control and circadian behavior by transplanted suprachiasmatic nuclei
[AD-A264553] 11 p3496 N93-30382

TRANSPONDERS
SITE project. Phase 1: Continuous data bit-error-rate testing
[NASA-TP-3279] 02 p0224 N93-11001
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Research on space communication equipment technology: Study on relay system
07 p1790 N93-20420
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
The next generation of Palapa satellite (Palapa-C)
10 p3024 N93-26659
Acoustic charge transport technology investigation for advanced development transponder
11 p3386 N93-29602

Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
TRANSPORT AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 747 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT C-130 AIRCRAFT
NT C-135 AIRCRAFT
NT C-160 AIRCRAFT
NT CARGO AIRCRAFT
NT CH-47 HELICOPTER
NT CL-84 AIRCRAFT
NT CONCORDE AIRCRAFT
NT EUROPEAN AIRBUS
NT H-53 HELICOPTER
NT SHORT HAUL AIRCRAFT
NT TANKER AIRCRAFT
NT UH-60A HELICOPTER
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
Comparison of all-electric secondary power systems for civil subsonic transports
[NASA-TM-105852] 01 p0009 N93-10456
Aeronautical technologies for the twenty-first century
[NASA-CR-190918] 01 p0001 N93-10647
Relating flying hours to aircrew performance: Evidence for attack and transport missions
[AD-A253988] 01 p0133 N93-10719
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft
[NASA-TM-103872] 01 p0011 N93-10741
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
Future regional transport aircraft market, constraints, and technology stimuli
[NASA-TM-107669] 03 p0491 N93-13025
Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203
Euler analysis of turbofan/supertan integration for a transport aircraft 03 p0578 N93-13206
Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208
Ice accretion prediction for a typical commercial transport aircraft
[NASA-TM-105976] 04 p0768 N93-15522
Technology benefits and ground test facilities for high-speed civil transport development
[NASA-TM-107670] 05 p1069 N93-15790
Definition of the 2005 flight deck environment
[NASA-CR-4479] 05 p1065 N93-16693
The design of a long range megatransport aircraft
[NASA-CR-192077] 05 p1064 N93-17711
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
Flight simulation evaluation of the flyability of curved MLS approaches with wide-body aircraft
[NLR-TP-90238-U] 06 p1452 N93-17875
Design of the advanced regional aircraft, the DART-75
[NASA-CR-192044] 06 p1435 N93-17972
Eagle RTS: A design for a regional transport aircraft
[NASA-CR-192032] 06 p1435 N93-18017
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000
[NASA-CR-192023] 06 p1436 N93-18049
A study of illness related lost time in transport aircraft crewmembers
[AD-A258193] 06 p1602 N93-18298
Flight tests of the transport aircraft viewed from the industrial standpoint 06 p1442 N93-19903
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
A simulator study into low speed longitudinal handling qualities of ACT transport aircraft
[NLR-TP-89387-U] 07 p1787 N93-20743
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex 08 p2107 N93-22575
Review of aeronautical fatigue investigation activities developed in Aeritalia-GAT during the period May 1987 - April 1989
[ETN-93-93702] 08 p2126 N93-23401
An approach to configuration design synthesis of subsonic transport aircraft using artificial intelligence techniques 09 p2589 N93-25692
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Design, analysis, and control of large transport aircraft utilizing engine thrust as a backup system for the primary flight controls
[NASA-CR-192938] 10 p2946 N93-27308
World jet airplane inventory at year-end 1992
[PB93-174324] 10 p2928 N93-27405
High-lift aerodynamics: Prospects and plans 10 p2933 N93-27442
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Flow prediction over a transport multi-element high-lift system and comparison with flight measurements 10 p2934 N93-27448
The development of a parachute system for aerial delivery from high speed cargo aircraft
[DE93-008339] 11 p3239 N93-29035
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388
Composites technology for transport primary structure 11 p3300 N93-30431
Advanced technology commercial fuselage structure 11 p3300 N93-30432
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433
Mechanical and analytical screening of braided composites for transport fuselage applications 11 p3305 N93-30855
Optimization of composite sandwich cover panels subjected to compressive loadings 11 p3306 N93-30862
Advanced fiber placement of composite fuselage structures 11 p3306 N93-30864
Longitudinal acceleration test of overhead luggage bins in a transport airframe section
[DOT/FAA/CT-92/9] 12 p3674 N93-31652
Engine exhaust characteristics evaluation in support of aircraft acoustic testing
[NASA-TM-104263] 12 p3682 N93-32220
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351
UK airmisses involving commercial air transport, September - December 1991
[ETN-93-93930] 12 p3674 N93-32409
TRANSPORT COEFFICIENTS
U TRANSPORT PROPERTIES
TRANSPORT PROPERTIES
NT CARRIER MOBILITY
NT DIFFUSION COEFFICIENT
NT EDDY VISCOSITY
NT ELECTRICAL RESISTIVITY
NT ELECTRON MOBILITY
NT GAS VISCOSITY
NT GASEOUS DIFFUSION
NT HOLE MOBILITY
NT IONIC MOBILITY
NT IONOSPHERIC CONDUCTIVITY
NT KONDO EFFECT
NT MAGNETORESISTIVITY
NT PHOTOCONDUCTIVITY
NT SORET COEFFICIENT
NT SUPERCONDUCTIVITY
NT THERMAL CONDUCTIVITY
NT THERMAL DIFFUSIVITY
NT VISCOSITY
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Helium transport in enhanced confinement regimes on the TEXTOR and D3-D tokamaks
[DE92-016247] 01 p0160 N93-10293
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Materials compatibility and lubricants research on CFC-refrigerant substitutes: Thermophysical properties
[DE92-015116] 01 p0043 N93-10397
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Electronic transport and lasing in microstructures
[DE92-018725] 02 p0441 N93-12115
The structure and transport of the Brazil current between 27 deg and 36 deg south
[AD-A247635] 02 p0374 N93-12247
Helium transport studies on D3-D
[DE92-016251] 02 p0455 N93-12307
Anomalous ion thermal transport in hot ion plasmas by the ion temperature gradient mode
[DE92-016686] 02 p0456 N93-12493
Mesoscopic effects in electronic microstructures
[AD-A254889] 02 p0295 N93-12502
High temperature oxidation and electrochemical studies related to hot corrosion
[AD-A254435] 03 p0540 N93-12595
Proton transport on modified sulfonated polyaniline electrodes
[AD-A254917] 03 p0570 N93-12650
Tokamak equilibria and transport based on Grad's thirteen moment description
[DE92-019960] 03 p0715 N93-13038
On the bootstrap current calculations based on values of the radial electron transport
[IPPCZ-317] 03 p0715 N93-13091
Transport on fractal networks
[AD-A253797] 03 p0725 N93-13881
Characterization of magneto-optical recording media 04 p0979 N93-14140
Electronic, vibrational, and transport properties of conducting polymers 04 p0847 N93-14170
Macroscopic properties of random and quasiperiodic media
[AD-A255984] 04 p0990 N93-14413
Electron-phonon interaction, transport and ultrafast processes in semiconductor microstructures
[AD-A255723] 04 p0976 N93-14433
A quasi-equilibrium kinetic model of HF air breakdown
[AD-A256240] 04 p0859 N93-14453
Numerical modelling of intense electron beam transport in the spiral line induction accelerator
[AD-A255545] 04 p0978 N93-14570
Current neutralization in ballistic transport of light ion beams
[AD-A256070] 04 p0976 N93-14662
Thermodynamics and transport in Ce3Bi4Pt3 and related compounds
[DE92-040377] 04 p0998 N93-14905
Solid-polymer-electrolyte fuel cells
[DE92-041204] 05 p1193 N93-15919
Aspects of electron transport in semiconductor nanostructures
[ETN-92-92787] 05 p1321 N93-16486
Aerosol transport and global models
[DE93-001618] 05 p1209 N93-16969
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Application of RADTRAN to estimation of doses to persons in enclosed spaces
[DE93-000758] 05 p1226 N93-17230
Asymptotic profiles with finite mass in one-dimensional contaminant transport through porous media: The fast reaction case
[REPT-92-30] 05 p1164 N93-17736
Solid-state dynamics and quantum transport in novel semiconductor nanostructures
[AD-A258482] 06 p1672 N93-18314
Influence of the physical modelling of viscous terms on hypersonic flow computations
[INRIA-RR-1493] 06 p1408 N93-18652
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
Process modelling for materials preparation experiments
[NASA-CR-192319] 07 p2078 N93-20236
Thermally driven turbulence and transport in a sheared system
[DE93-006125] 08 p2491 N93-22053
Thermophysical properties
[DE93-006427] 08 p2216 N93-22056
Synthesis and analysis of novel polymers with high permselectivity and permeability in gas separation applications
[DE93-005883] 08 p2235 N93-22422
Hypersonic three-dimensional nonequilibrium boundary-layer equations in generalized curvilinear coordinates
[NASA-CR-185677] 08 p2109 N93-22802
Electronic and ionic transport in processable conducting polymers
[AD-A260223] 08 p2238 N93-22918
Transport in amorphous semiconductors 08 p2506 N93-23101
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
Measurement of the radiative transport properties of reticulated alumina foams
[DE93-000047] 08 p2231 N93-23672
Effect of a poloidal electric field on neoclassical transport in a multispecies tokamak plasma
[PB93-146215] 08 p2499 N93-24606

Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Quantum conductance fluctuations in self-aligned, pinch-narrowed MOSFETs 09 p2863 N93-25265
Leonardian fluid mechanics in the manuscript F
[PB93-178853] 10 p3040 N93-27411
Ion motion effects on charged radiators
[DE93-009257] 11 p3565 N93-29099
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
High-current negative-ion beam transport
[DE93-010732] 11 p3575 N93-29809
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054
Effect of planar magnetic field on electron transport properties of n-AlGaAs/GaAs heterojunction and photoluminescence measures in GaAs samples
[DE93-608739] 11 p3601 N93-30776
Quantum transport
[AD-A264935] 12 p3832 N93-32072

TRANSPORT THEORY
NT MIXING LENGTH FLOW THEORY
Multidimensional deterministic electron transport calculations
[AD-A254021] 01 p0154 N93-10362
A formula for efficiency of fast wave current drive in fusion devices
[DE92-016152] 01 p0160 N93-10390
Theory of transport for interacting many-body systems
[AD-A253789] 01 p0169 N93-10871
Overview of property formulations for helium, nitrogen, lithium, and lithium-lead in ATHENA/MOD1 with comparison of calculated properties to measured properties
[DE92-017995] 02 p0471 N93-12058
Transport mechanisms acting in toroidal devices: A theoretician's view
[DE92-018738] 02 p0456 N93-12501
A stochastic/deterministic method for transient, three-dimensional neutron transport
[DE92-016690] 03 p0704 N93-13319
The theory and numerical simulation of non-local mixing-length convection 04 p1015 N93-14147
PDF transport modelling 04 p0840 N93-14623
Plasma confinement theory and transport simulation
[DE92-040523] 04 p0988 N93-15327
Theoretical and numerical studies in magnetic fusion
[DE92-040674] 04 p0988 N93-15349
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-000600] 05 p1306 N93-15697
Electromagnetic scattering in clouds
05 p1142 N93-17327
Methods development for electron transport
[AD-A257986] 05 p1295 N93-17698
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
Classical and quantum dynamics of the impulsively driven hydrogen atom
[DE93-002430] 06 p1656 N93-19477
A fundamental study of contribution transport theory and channel theory applications
[DE93-004315] 06 p1656 N93-19501
L-mode confinement model based on transport-MHD theory in tokamaks
[NIFS-192] 07 p2074 N93-21192
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields
07 p1955 N93-21580
Variational nodal solution algorithms for multigroup criticality problems
[DE93-003462] 07 p2042 N93-21964
Salient issues of edge physics pertaining to loss of confinement: A resistive MHD analysis
[DE93-006123] 08 p2491 N93-22052
Advanced computational methods for nodal diffusion, Monte Carlo, and S(sub N) problems
[DE93-006816] 08 p2480 N93-22714
Anomalous transport modelling of tokamak plasmas
[DE93-006160] 08 p2493 N93-22764
A local exponential transform method for global variance reduction in Monte Carlo transport problems
[DE92-018992] 08 p2468 N93-22926
Alpha effects on TAE modes and alpha transport
[DE93-004160] 08 p2494 N93-22940
A transmission/escape probabilities model for neutral particle transport in the outer regions of a diverted tokamak
[DE93-006550] 08 p2497 N93-24045
Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504
Diabaticity of nuclear motion: Problems and perspectives
[DE93-007252] 09 p2847 N93-25148
Asymptotic derivation of the simplified P(sub N) equations
[DE93-007342] 09 p2828 N93-25151
Plasma confinement theory and transport simulation
[DE93-009755] 10 p3149 N93-26617
Fluctuations in quantum transport theories of nuclear matter
[KVI-930] 10 p3155 N93-27395
Curvilinear geometry transport discretizations in the thick diffusion limit
[DE93-007109] 10 p3117 N93-27615
Simulation of electron transport in quantum well devices 10 p3019 N93-27773
Nonlinear dynamics and plasma transport
[DE93-012238] 11 p3585 N93-28749
The investigation of nonlinear effects on quasiparticle transport in condensed matter systems
[DE93-009582] 11 p3565 N93-28914
Moment approach to fast ion neoclassical transport and viscous forces
[DE93-753305] 11 p3585 N93-28979
Modern Monte Carlo particle transport simulation for safety and radiation protection applications in accelerometer technology and in space science
[JUEL-2609] 11 p3574 N93-29062
Collective transport of alpha particles due to Alfven wave instability
[DE93-009578] 11 p3587 N93-29148
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Relativistic transport theory
[KVI-952] 12 p3830 N93-31121
Experiences with different parallel programming paradigms for Monte Carlo particle transport leads to a portable toolkit for parallel Monte Carlo
[DE93-009061] 12 p3796 N93-31986
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014

TRANSPORT VEHICLES
Integration of turbo-ramjet engines for hypersonic aircraft 03 p0503 N93-13230
Lunar transfer vehicle studies
08 p2173 N93-22087

TRANSPORTATION
NT ADVANCED LAUNCH SYSTEM (STS)
NT AIR TRANSPORTATION
NT MARINE TRANSPORTATION
NT RAIL TRANSPORTATION
NT RAPID TRANSIT SYSTEMS
NT SPACE TRANSPORTATION
NT SPACE TRANSPORTATION SYSTEM
NT URBAN TRANSPORTATION
Generic Propellant Transfer Unit
01 p0011 N93-10046
An investigation of ground access mode choice for departing passengers
[TT-9201] 02 p0217 N93-11224
Interfacial microchemical characterization needs in surface processing
[DE92-018269] 02 p0277 N93-11672
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
A guide to EDI translation software
[AD-A255739] 04 p1007 N93-15051
Transportation alternatives 92: Alternative fueled vehicles, volume 2
[DE93-001500] 06 p1548 N93-18531
Temporal planning for transportation planning and scheduling 06 p1634 N93-18661
Electric and hybrid vehicle technology: TOPTEC
[DE93-002810] 06 p1551 N93-19837
Energy utilization and greenhouse gas emissions: Transportation sector
[PB93-110161] 07 p1991 N93-21384
Role of advanced technology in the security of surface transportation 07 p1764 N93-21857
The ANL electric vehicle battery R/D program for DOE-EHP
[DE93-005689] 08 p2278 N93-22688
The ANL Electrochemical Program for DOE on electric vehicle R/D
[DE93-005690] 08 p2279 N93-22689
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Emissions from ethanol and LPG fueled vehicles
[DE93-006410] 09 p2660 N93-25192
Workshop on Diamond and Diamond-Like-Carbon Films for the Transportation Industry
[DE93-007491] 09 p2658 N93-26506
Airport landside planning and operations
[PB93-167880] 10 p2947 N93-26636
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419
Power generation and transportation systems research department
[PB93-178309] 11 p3352 N93-30663

TRANSPORTATION NETWORKS
Land use/land cover classification using digitally merged spot panchromatic and Landsat thematic mapper imagery
[PB92-188416] 02 p0343 N93-11701
Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419

TRANSPORTER
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
Leaky coaxial cable signal transmission for remote facilities
[DE93-007916] 11 p3383 N93-29348

TRANSPUTERS
A process monitor for the transputer
[RSRE-MEMO-4554] 02 p0408 N93-11389
Z-buffer on a transputer-based machine
02 p0410 N93-11483
Transputer implementation of the TRACE model of speech recognition
[AD-A254747] 03 p0689 N93-12846
A deadlock-free communication system for a transputer network
[AD-A256473] 04 p0959 N93-15319
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
A contribution to the study of OR-parallel in PROLOG over distributed memory machines
[ETN-93-92681] 07 p2044 N93-20886
AR/D image processing system
08 p2152 N93-22321
An integrated car navigation system using a single processor for GPS signal processing, positioning, map display, and reporting 09 p2124 N93-23533
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Study on the concurrent calculation with a multitransputer network
[DE93-753191] 11 p3524 N93-28531
Transputers, parallel processing in embedded systems for image compression in space applications
[NLR-TP-89242-U] 11 p3522 N93-30840

TRANSURANIUM ELEMENTS
NT AMERICIUM 241
NT CALIFORNIUM ISOTOPES
NT FERMIUM
NT NEPTUNIUM ISOTOPES
NT PLUTONIUM
NT PLUTONIUM 239
Summaries of FY 1991 research in the chemical sciences
[DE92-011920] 02 p0251 N93-12135
Approximating the r-process on earth with thermonuclear explosions
[DE92-017409] 03 p0749 N93-12587
Studies of heavy-ion reactions and transuranic nuclei
[DE92-040457] 04 p0977 N93-15326

TRANSVERSE ACCELERATION
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere
08 p2394 N93-23388
Recent acceleration of Thwaites Glacier
12 p3761 N93-31893

TRANSVERSE LOADS
Delamination growth behavior in cross-ply laminated composites due to transverse concentrated loading
[AD-A255974] 04 p0830 N93-14493
Impact response of laminated plates subjected to transverse loading
[NIAR-92-5] 06 p1560 N93-19360
Damage mechanics of cross-ply laminates resulting from transverse concentrated loads
[AD-A259271] 06 p1481 N93-19839

TRANSVERSE OSCILLATION
A solution scheme for the deflection equations of flexible arms with time-dependent boundary conditions
01 p0066 N93-10575

Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669
Space time neural networks for tether operations in space 08 p2456 N93-22370
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330

TRANSVERSE VIBRATION
U TRANSVERSE OSCILLATION

TRANSVERSE WAVES
Transverse wave motion in constrained mechanical systems 03 p0628 N93-13634
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Optimal AR-coating for optical waveguide devices
[MBB-Z-0348-90-PUB] 05 p1127 N93-17643
Surface Transverse Wave (STW) quartz resonators in the GHz range 09 p2836 N93-25012

TRANSVERSELY EXCITED ATMOSPHERIC LASERS
U TEA LASERS

TRAPATT DIODES
U AVALANCHE DIODES

TRAPEZOIDS
A study of heat flux induced dryout in capillary grooves
[AD-A259175] 07 p1899 N93-20270
Dynamic location in an arrangement of line segments in the plane
[INRIA-RR-1558] 07 p2037 N93-20872

TRAPPED MAGNETIC FIELDS
Review of stellarator research: In search of the magic magnetic bottle
[DE92-019045] 03 p0718 N93-13651
Aerospace devices for magnetic replicas
[NASA-CR-192958] 09 p2865 N93-25667

TRAPPED PARTICLES
NT INNER RADIATION BELT
NT MAGNETICALLY TRAPPED PARTICLES
NT OUTER RADIATION BELT
NT RADIATION BELTS
Positron dynamics in solids
[ACTA-POLYTEC-SCAND-PH-176] 05 p1294 N93-17600
Dimensionless scaling of confinement in ATF
[DE93-001705] 07 p2069 N93-20030
Ion trapping in dusty plasmas
[MPE-PREPRINT-219] 07 p2075 N93-21405
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects
[DE93-004524] 08 p2494 N93-22942
Distribution of trapped electrons at interface states in ACTFEL devices
[AD-A260396] 08 p2484 N93-24427
A simple and compact source of cold atoms for cesium fountains and microgravity clocks 09 p2831 N93-24981
Plasma heating in toroidal systems
[NIFS-208] 09 p2858 N93-25092
On the second harmonic electron cyclotron resonance heating and current drive experiments on T-10 and D3-D
[DE93-008987] 10 p3149 N93-28348
The Interstellar Gas Experiment: Analysis in progress 11 p3639 N93-29380
LDEF: Dosimetric measurement results (AO 138-7 experiment) 11 p3573 N93-29635
Electron trapping optical data storage system and applications 12 p3730 N93-31975
Investigation of trap emission kinetics MOS capacitors using a pump-probe charge integrating technique
[AD-A265198] 12 p3721 N93-31994

TRAPPED VORTICES
Interaction of an eddy with a continental slope
[AD-A261550] 09 p2791 N93-26578

TRAPPING
Laser cooling and trapping of neutral atoms
[AD-A253730] 01 p0155 N93-10885
Implanted He retention and release from boronized layers
[DE92-013983] 02 p0464 N93-11842
Beam trapping in a modified betatron with a localized bipolar electric field pulse
[AD-A255414] 04 p0866 N93-14504
Energy distribution of trapped holes in irradiated SiO2
[DE92-040979] 04 p0997 N93-15649
Evaluation of a diffusion/trapping model for hydrogen ingress in high-strength alloys
[AD-A257385] 05 p1109 N93-15859
Single parameter analysis of hysteretic magnetic flux trapping in high T(sub c) superconductor ribbon
[DE93-001924] 06 p1674 N93-18619
Charge trapping centers in ferroelectric ceramics
[DE93-005359] 08 p2238 N93-22954
Ion trap frequency standard research at PTB 09 p2841 N93-25050
Controlling an optical frequency by a single ion 09 p2841 N93-25051
Collective dynamics in dense fluid mixtures 10 p3041 N93-28069
Electron trapping optical data storage system and applications 12 p3730 N93-31975

TRAPS
NT COLD TRAPS
NT ION TRAPS (INSTRUMENTATION)
Optical metrology of magnetically trapped hydrogen
[AD-A253229] 01 p0031 N93-10712

TRAVEL
Lewis online travel system: Preparer's/traveler's manual, release 1.0
[NASA-CR-190776] 05 p1254 N93-15789

TRAVELING IONOSPHERIC DISTURBANCES
Geostationary-satellite beacon-receiver array for studies of ionospheric irregularities
[DE92-018979] 02 p0362 N93-11535
Supercritical fluid chromatography for the analysis of nitroaromatics, nitramines, and nitrate esters
[AD-A256297] 05 p1101 N93-15842
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521

TRAVELING SALESMAN PROBLEM
An investigation of new search techniques for the traveling salesman problem 03 p0696 N93-12625
Location and distribution of local optima
[AD-A257791] 06 p1645 N93-18237
An algorithm for the solution of a traveling salesman problem to minimize the average time to demand satisfaction
[AD-A258301] 06 p1645 N93-18302
Comparison of artificial neural networks with a conventional heuristic technique for optimization problems
[AD-A259207] 07 p2046 N93-20552
Linear-programming tools in integer programming: The traveling salesman
[AD-A261398] 09 p2812 N93-26290

TRAVELING WAVE AMPLIFIERS
An experimental investigation of a tandem relativistic backward wave oscillator-travelling wave tube amplifier system for generating high-power microwaves 06 p1521 N93-19058
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435

TRAVELING WAVE MASERS
Helium compressors for closed-cycle, 4.5-Kelvin refrigerators 06 p1500 N93-18918
Availability analysis of the traveling-wave maser amplifiers in the deep space network. Part 1: The 70-meter antennas 06 p1514 N93-19435

TRAVELING WAVE MODULATION
North-south anisotropy during the quasi-stationary modulation of galactic cosmic rays
[NOTA-INTERNA-975] 05 p1400 N93-17647

TRAVELING WAVE TUBES
NT BACKWARD WAVE TUBES
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
User's guide for a large signal computer model of the helical traveling wave tube
[NASA-TP-3251] 04 p0871 N93-15531
Interim report on the analysis of the microwave power module
[NASA-TM-106012] 05 p1148 N93-16713
An experimental investigation of a tandem relativistic backward wave oscillator-travelling wave tube amplifier system for generating high-power microwaves 06 p1521 N93-19058
Simulation of TunneLadder traveling-wave tube cold-test characteristics: Implementation of the three-dimensional, electromagnetic circuit analysis code micro-SOS
[NASA-TP-3294] 08 p2281 N93-23394
Dynamic behavior of helix interaction circuits
[AD-A261362] 09 p2692 N93-26334
Novel methods of acceleration
[AD-A264828] 11 p3590 N93-30600

TRAVELING WAVES
NT SOLITARY WAVES
Alternating-phase focusing: A model to study nonlinear dynamics
[DE92-019027] 02 p0431 N93-11511
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves
[AD-A253274] 02 p0363 N93-11788
Direct optical to microwave conversion
[RL-TR-91-375] 04 p0859 N93-14728
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Transverse instabilities in a relativistic klystron two-beam accelerator
[DE93-007110] 09 p2852 N93-25375
Vibrational power transmission in curved beams. Part 1: Theory
[ISVR-TR-208] 12 p3742 N93-32340

TRAYS
Analysis of impactor residues in tray clamps from the Long Duration Exposure Facility. Part 1: Clamps from Bay A of the satellite
[NASA-TM-104759] 07 p1852 N93-22006
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps 11 p3283 N93-29369
Elemental analyses of hypervelocity microparticle impact sites on Interplanetary Dust Experiment sensor surfaces 11 p3638 N93-29378

TREADMILLS
Two techniques for measuring locomotion impact forces during zero G
[NASA-TP-3305] 08 p2421 N93-23410

TREES
Entropy reduction via simplified image contourization 09 p2804 N93-25924

TREES (MATHEMATICS)
NT FAULT TREES
The complexity of some multicriteria arborescence problems
[REPT-92-016] 02 p0424 N93-11182
Introduction to IND and recursive partitioning, version 1.0
[NASA-CR-191220] 03 p0685 N93-13063
Interactive solid geometry via partitioning trees 04 p0952 N93-15535
Partitioning tree image representation and generation from 3D geometric models 04 p0955 N93-15557
A distributed data-balanced dictionary based on the b-link tree
[AD-A256841] 04 p1009 N93-15639
An algorithm for the construction of dependency trees
[MEMO-INF-92-39] 05 p1240 N93-16668
The state operator in real time process algebra
[CWI-CS-R9140] 05 p1269 N93-16852
An improved classification tree analysis of high cost modules based upon an axiomatic definition of complexity 05 p1244 N93-17167
Parallel contraction of binary dags
[REPT-92-36] 06 p1616 N93-17848
Testing superperfection of k-trees
[RUU-CS-92-09] 06 p1645 N93-18196
Study and implementation of a set of primitives for constraint satisfaction in finite domains
[INRIA-RR-1389] 06 p1646 N93-18436
Large-scale induction of ripple-down-rules: Some preliminary considerations 06 p1689 N93-19716
Use of the microcomputer to solve large p-median problems
[INPE-5336-PRE/1735] 06 p1628 N93-19786
Hierarchical Poly Tree configurations for the solution of dynamically refined finte element models
[NASA-CR-191054] 07 p1921 N93-20232
Optimal broadcasting algorithms on torus
[RR-872-I] 07 p2043 N93-20789
Two strikes against perfect phylogeny
[RUU-CS-92-08] 07 p2021 N93-20848
Resolution in modal propositional logic
[REPT-91-59] 07 p2052 N93-20853
A canonical calculus of residuals
[INRIA-RR-1542] 07 p2052 N93-20861
An O(n squared) maximal planarization algorithm based on PQ-trees
[RUU-CS-92-03] 07 p2038 N93-21035
Conformal length of graphs
[ETN-93-93419] 07 p2054 N93-21068
Relationships between bankruptcy games and minimum cost spanning tree games
[MEMO-1058] 08 p2469 N93-23356
A self growing binary tree neural network for the identification of multiclass systems
[RR-451] 08 p2459 N93-23362
On the treewidth and pathwidth of permutation graphs
[RUU-CS-92-13] 10 p3113 N93-27305
Using cached functions and constructors for incremental attribute evaluation
[RUU-CS-92-11] 10 p3094 N93-27369
A tourist guide through treewidth
[RUU-CS-92-12] 10 p3114 N93-27370
Speeding up parallelism detection for attribute grammars
[RUU-CS-92-18] 10 p3107 N93-27909
A resolution method for some systems of modal logic
[ISBN-90-9005125-2] 10 p3119 N93-27940

On parallel data structuring: A parallel priority queue
[RUU-CS-92-19] 10 p3108 N93-28061
A linear time algorithm for finding tree-decompositions of small treewidth
[RUU-CS-92-27] 10 p3102 N93-28103
Treewidth of chordal bipartite graphs
[RUU-CS-92-28] 10 p3102 N93-28104
Approximating treewidth and pathwidth of some classes of perfect graphs
[RUU-CS-92-29] 10 p3102 N93-28105
Drawing planar graphs using the lmc-ordering
[RUU-CS-92-33] 10 p3102 N93-28108
Robust and efficient implementation of the Delaunay tree
[INRIA-RR-1619] 11 p3547 N93-28511
Packing of Steiner trees: Polyhedric studies and application
[ETN-93-93796] 11 p3547 N93-28527
Generalized octrees for constrained object modeling
11 p3369 N93-30304
A robust model for finding optimal evolutionary trees
[DE93-010682] 11 p3491 N93-30483
Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616
A soft-competitive splitting rule for adaptive tree-structured neural networks
[AD-A264936] 12 p3799 N93-32073

TREES (PLANTS)
NT CONIFERS
NT DECIDUOUS TREES
Millimeter wave measurement and modeling of terrain scattering
[AD-A253525] 01 p0067 N93-10223
Statistical relationships between tree growth and climate in western North America 03 p0648 N93-14096
Quantitative registration of tree vitality and physiological changes with colour-infrared and multispectral photography
[BCRS-91-44] 07 p1968 N93-20740
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan
07 p1956 N93-21585
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Anomalous bioelectric potentials of silk trees in Naples zoo (Italy) prior to an earthquake in May, 1991
09 p2753 N93-24873
Predicting the response of a temperate forest ecosystem to atmospheric CO2 increase
[DE93-010081] 11 p3467 N93-28543

TRELLIS CODING
Error control techniques for satellite and space communications
[NASA-CR-191229] 03 p0565 N93-13411
On the performance of Trellis coded modulation with octal phase shift keying over the TDRSS channel
[NASA-CR-191366] 04 p0857 N93-14155
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
On the theory of coded modulation systems for high output digital transmission
[TELECOM-PARIS-92-E-001] 04 p0861 N93-15098
Telemetering and telecommunications research
[NASA-CR-191903] 06 p1457 N93-18777
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
Modulation and coding for throughput-efficient optical free-space links
[NASA-CR-193079] 10 p3141 N93-27073
An error control protocol based on trellis coded modulations 11 p3358 N93-30237
Signal processor based MSAT trellis coded M-DPSK with adaptive Doppler phasor correction
11 p3373 N93-30332
Two-stage Doppler phasor corrected TCM/DMPSK for shadowed mobile satellite channels
11 p3373 N93-30333
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060

TREMORS
The effect of microgravity on tremor (microvibration)
08 p2160 N93-24368

TREND ANALYSIS
Statistical analysis of stratospheric temperature and ozone profile data for trends and model comparison
[NASA-CR-191248] 03 p0650 N93-12877
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500
Principles and application tendency of remote sensing: Its principle, function, and utilization
07 p1978 N93-21540
Present status and tendency of satellite Earth observing systems 07 p1978 N93-21541
Monitoring of vibrating machinery using artificial neural networks
[DE93-003566] 07 p2050 N93-21848
Aerospace monitoring for ecological hazard and disaster mitigation 09 p2744 N93-24812
Overview of the DOE Atmospheric Chemistry Program's Ozone Project
[DE93-007416] 11 p3471 N93-29770
SeaWiFS technical report series. Volume 10: Modeling of the SeaWiFS solar and lunar observations
[NASA-TM-104566-VOL-10] 12 p3770 N93-31859

TRENDS
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Ozone and temperature trends
02 p0350 N93-11089
Stratospheric processes: Observations and interpretation 02 p0351 N93-11091
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Trends in middle-atmosphere ozone
06 p1575 N93-18500
Aircraft Accidents: Trends in Aerospace Medical Investigation Techniques
[AGARD-CP-532] 06 p1422 N93-19653
Summary of the 1992 ACP Winter Conference on Future Trends in Low Temperature Physics
[AD-A259809] 08 p2508 N93-23643
Applicability of trends in nuclear safety analysis to space nuclear power systems
[DE93-003169] 08 p2205 N93-24497
Current trends in satellite data supply for environmental monitoring 09 p2754 N93-24874
Assessing patterns of change in anthropometric dimensions: Secular trends of US Army females, 1946-1988
[AD-A260869] 09 p2800 N93-25628
Current trends and prospects of telecommunications service demand by satellite in the Asia-Pacific region
10 p3022 N93-26641
Evaluation of environmental marketing terms in the United States
[PB93-175784] 11 p3474 N93-30660

TRESCA FLOW
Theoretical analysis of plastic moment capacity of an inclined yield line under axial force
[PB93-118784] 07 p1951 N93-21689

TRIAMINOTRINITROBENZENE
U TATB

TRIANGLES
Evaluation of the triangular plate element of Zienkiewcz and Lefebvre 01 p0063 N93-10562
Cuttings and applications
[RUU-CS-92-26] 10 p3122 N93-28166

TRIANGULAR WINGS
U DELTA WINGS

TRIANGULATION
QR decomposition based algorithms and architectures for least-squares adaptive filtering
[RSRE-MEMO-4562] 02 p0408 N93-11390
An advancing front Delaunay triangulation algorithm designed for robustness
[NASA-CR-189719] 02 p0416 N93-12400
An implementation of multivariate B-spline surfaces over arbitrary triangulations 04 p0952 N93-15534
Output sensitive construction of the 3D Delaunay triangulation of constrained sets of points
[INRIA-RR-1415] 06 p1646 N93-18456
Triangulating planar graphs while minimizing the maximum degree
[RUU-CS-92-07] 07 p2054 N93-20950
History of geodesy 07 p1975 N93-20997
Block triangulation of SPOT data with particular reference to the OEEPE tests 08 p2349 N93-23542
The creation of a DEM from SPOT data
08 p2355 N93-23582
The promise of raster data processing in digital terrain modelling 08 p2356 N93-23585
Procedures for determining the location of an HF radio transmitter 08 p2267 N93-23610
Detection of active emitters using triangulation and trilateration techniques: Theory and practice
08 p2267 N93-23612
Some aspects of a 3-dimensional reference system for surveying in the Netherlands: Quality analysis of GPS phase observations
[REPT-92-1] 10 p3063 N93-27368
Robust and efficient implementation of the Delaunay tree
[INRIA-RR-1619] 11 p3547 N93-28511
Three dimensional reconstruction of complex shapes based on the Delaunay triangulation
[INRIA-RR-1697] 11 p3547 N93-28616
Development of a new technique for image reconstruction, enhancement, and visualization
[AD-A263145] 11 p3528 N93-29483
Multiple image multipoint matching for automatic aerotriangulation 11 p3461 N93-29615
European Road Database: Activities within the ATKIS
12 p3744 N93-31257

TRIATOMIC MOLECULES
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
NO2 unimolecular decomposition: Step-like variation of k(sub uni)(E) 11 p3318 N93-30068
The three-body problem in the ground-state representation
[DE93-608164] 12 p3803 N93-31289

TRIBOLOGY
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Tribology of magnetic storage systems
04 p1002 N93-14772
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
Structural and tribological studies of MoS2 solid lubricant films having tailored metal-multilayer nanostructures
[AD-A257218] 05 p1120 N93-16005
Cryotribology: Development of cryotribological theories and application to cryogenic devices
[DE93-000404] 05 p1176 N93-16238
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Ion beam modification of ceramics: Mechanical properties and structure
[AD-A260504] 08 p2242 N93-24419
Properties of extruded PS-212 type self-lubricating materials 09 p2659 N93-25565
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Elastohydrodynamic lubrication of multilayered elastic solids 10 p3053 N93-28413
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903
Polarization modulated ellipsometry
[NASA-CR-4012] 11 p3580 N93-30372

Fundamental studies of friction, lubrication, and wear by atomic force microscopy
| AD-A264647 | 11 p3446 N93-30524
Tribology: Friction, lubrication, and wear technology
11 p3292 N93-30965
Walkway friction: Experiment and analysis
11 p3293 N93-30966
Fast Fourier Transform analysis of computer-acquired friction data
| DE93-010337 | 12 p3736 N93-32179
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
| NASA-TM-106257 | 12 p3711 N93-32352

TRICHLORIDES
U CHLORIDES

TRIENES
Thermal conductivity of liquid aliphatic hydrocarbons. Part 2: Alkenes, dienes and trienes
| ESDU-92025 | 04 p0839 N93-14542

TRIGGER CIRCUITS
Cosmic ray test of SDC prototype muon drift tubes
| DE93-001680 | 05 p1400 N93-17182
Charm physics at Fermilab E791
| DE93-006020 | 08 p2480 N93-22543
Improving the jitter of the 150 kJ experiments solid dielectric switches
| DE93-009459 | 11 p3405 N93-28597
High-voltage pulse generator capable of 2000 J at 10 kV
| AD-A262034 | 11 p3407 N93-28999

TRIGGERS
U ACTUATORS

TRIGONOMETRIC FUNCTIONS
Vertex operator representation of some quantum tori Lie algebras
| PREPRINT-834 | 05 p1269 N93-16956
Study on the concurrent calculation with a multitransputer network
| DE93-753191 | 11 p3524 N93-28531

TRIM (BALANCE)
U AERODYNAMIC BALANCE

TRIMERS
Concerted hydrogen atom exchange between three HF molecules 02 p0439 N93-11855
Gallium and indium compounds containing three different substituents. Crystal and molecular structure of ((Me3 CCH2)ClGaPPh2)3
| AD-A257049 | 04 p0996 N93-15443

TRIMETHYL COMPOUNDS
Triisopropylindium: Decomposition study and use for low temperature growth
| AD-A250666 | 02 p0464 N93-11869
Thermal stability of trimethyl indium on Si(100)-2 x 1 as studied with HREELS, UPS, and XPS: A comparison with the results from Si(111)-7 x 7 and Si(110) studies
| AD-A255242 | 04 p0992 N93-14670
Laser-assisted chemical vapor deposition of InN on Si(100)
| AD-A264266 | 12 p3731 N93-31095
Improved gallium nitride and aluminum nitride electronic materials
| AD-A264570 | 12 p3710 N93-32010

TRINITRO COMPOUNDS
Detonation reactions frozen by free expansion and analyzed by mass spectrometry
| DE92-018605 | 02 p0274 N93-11566

TRINITROTOLUENE
Interfacial melting in cracked explosives
11 p3349 N93-30089

TRINITROTRIAZOCYCLOHEXANE
U RDX

TRIODES
RF vacuum microelectronics
| AD-A253910 | 02 p0290 N93-11491
RF vacuum microelectronics
| AD-A257684 | 05 p1151 N93-17682
RF vacuum microelectronics
| AD-A261784 | 09 p2692 N93-26565
Upgrading the LAMPF 201 MHz RF generators
| DE93-010715 | 11 p3406 N93-28830

TRIPLE AXIS SPECTROMETERS
U NEUTRON SPECTROMETERS

TRIPLET EXCITATION
U ATOMIC ENERGY LEVELS

TRIPLET STATE
U ATOMIC ENERGY LEVELS

TRIPROPELLANTS
U LIQUID ROCKET PROPELLANTS

TRITIUM
Use of the program ANISN to calculate response functions for a Bonner sphere set with a He-3 detector
| NPL-RSA(EXT)-31 | 02 p0316 N93-11411
Tritium pellet injector for the tokamak fusion test reactor
| DE93-001205 | 05 p1307 N93-16044
Application of RADTRAN to estimation of doses to persons in enclosed spaces
| DE93-000758 | 05 p1226 N93-17230
Direct searches for neutrino mass
| DE93-003867 | 08 p2479 N93-22068
Tritium permeation model for plasma facing components
| DE93-007044 | 08 p2499 N93-24465
Exotic atoms
| DE93-010242 | 11 p3564 N93-28611

TRITON
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres
03 p0768 N93-14072
Complete analytical theory for the satellites of Neptune 04 p1046 N93-14833

TROCHOIDS
U PIVOTS

TROMBE WALLS
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551

TROPICAL METEOROLOGY
Atlas of albedo and absorbed solar radiation derived from Nimbus 7 earth radiation budget data set, November 1985 to October 1987
| NASA-RP-1281 | 02 p0367 N93-11168
Hurricane Research Division fiscal year 1991 programs: Fiscal year 1992 projections
| PB92-138320 | 02 p0367 N93-11242
Diagnostic report of the National Hurricane Center: October and November 1990, volume 3, number 3
| PB91-242297 | 02 p0370 N93-11888
The vertical distribution of heating in the tropical atmosphere
| AD-A254982 | 02 p0372 N93-12507
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
Simulations of the Amazon Basin circulation using the Pennsylvania State University/National Center for Atmospheric Research mesoscale model
04 p0919 N93-14197
The preferred latitudes of the Intertropical Convergence Zone: Observations and theory
04 p0920 N93-14213
Low-frequency oscillations in radiative-convective models
| DE92-018779 | 04 p0922 N93-14901
The kinematic structure of a prefrontal convective rainband revealed by TAMEX Doppler radar data
| AD-A258081 | 05 p1218 N93-17679
A procedure to reduce northward drift of tropical storms in a numerical model
| PB92-226406 | 07 p2013 N93-21290
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
| NASA-CR-192720 | 07 p2014 N93-21492
Climatological use of long time series of data from the water vapour channel of Meteosat
07 p1958 N93-21601
Ground-based microwave radiometric remote sensing of the tropical atmosphere 08 p2343 N93-23352
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
| AD-A259922 | 08 p2407 N93-23710
Equatorial atmospheric weather regimes: Their structure and role 08 p2411 N93-24580
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
Climate data bases of the People's Republic of China, 1841-1988
| DE93-007907 | 09 p2764 N93-25517
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
Tropical cyclogenesis in the western North Pacific
09 p2783 N93-25714
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations
09 p2784 N93-25741
Ocean aerosol measurements and models in the straits of Florida (The KEY-90 experiment)
| AD-A264777 | 11 p3487 N93-29659
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
| AD-A265216 | 12 p3768 N93-32005

TROPICAL REGIONS
NT AMAZON REGION (SOUTH AMERICA)
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing
01 p0124 N93-10318
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304
Dynamics of planetary waves in the atmosphere
02 p0363 N93-11898
Interannual variabilities of the East Asian summer monsoon and tropical sea surface temperatures
02 p0372 N93-12534
Deep convection and its relation to the large-scale circulation in the tropical Pacific
03 p0654 N93-13725
Cloud-radiative feedbacks in tropical convection
04 p0919 N93-14180
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources
04 p0920 N93-14640
Low-frequency oscillations in radiative-convective models 04 p0915 N93-14874
North-Australian tropical seas circulation study
04 p0926 N93-14968
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography 04 p0928 N93-14980
Study of mass and heat transport of the tropical Atlantic Ocean using models and altimeter data
04 p0929 N93-14983
Application of TOPEX/Poseidon altimetry measurements to observational and modeling studies of the low-frequency upper ocean mass and heat circulation in the tropical Pacific 04 p0930 N93-14989
Degradation and failure modes of carbon/bismaleimide laminates subjected to a tropical exposure
| AD-A256328 | 04 p0836 N93-15193
Spatial and temporal patterns of biotic exchanges of CO2 between the atmosphere and tropical landscapes and their role in the global carbon balance
| DE92-019170 | 04 p0911 N93-15272
Carbon emissions and sequestration in forests: Case studies from seven developing countries. Volume 3: India and China
| DE93-001600 | 05 p1198 N93-15811
Meridional circulation in the tropical North Atlantic
| AD-A256906 | 05 p1219 N93-16024
Diabatic dynamic initialization
06 p1563 N93-18719
A comparison of airborne and ground-based radar observations with rain gages during the CaPE experiment 06 p1563 N93-18720
A method for estimating the phytomass of a tropical forest region through the use of orbital data
| INPE-5320-PRE/1717 | 06 p1567 N93-19645
Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071
Research on diabatic initialization
07 p2004 N93-20075
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water
07 p2005 N93-20082
Atmospheric electricity/meteorology analysis
07 p2006 N93-20086
ER-2 investigations of lightning and thunderstorms
07 p2006 N93-20088
Observational and modeling studies of heat, moisture, precipitation, and global-scale circulation patterns
07 p2007 N93-20092
Tropical Pacific moisture variability
07 p2007 N93-20093
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
| AD-A258573 | 07 p2011 N93-20360
Shipboard acoustic Doppler current profiler data collected during the Subtropical Atlantic Climate Studies (STACS) Project (1989-1990)
| PB93-116598 | 07 p2019 N93-21389
Pinatubo eruption winter climate effects: Model versus observations
| NASA-CR-191955 | 07 p1994 N93-21946
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
| MPIM-76 | 08 p2396 N93-23635
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
| AD-A259922 | 08 p2407 N93-23710
A strategy for monitoring the tropical forest with ERS-1 SAR imagery 08 p2358 N93-23758
Training courses on application of remote sensing and geographic information systems in monitoring and managing tropical rainforests and natural environment
08 p2367 N93-23812
Intraseasonal relationships between tropical heating and extratropical jets
| AD-A260212 | 08 p2408 N93-24004

Modeling of cloud/radiation processes for tropical anvils
[AD-A260203] 08 p2410 N93-24470
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
Tropical forest monitoring with high resolution satellite data 09 p2748 N93-24841
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Kelvin waves in total column ozone
[NASA-CR-192984] 09 p2764 N93-25431
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Sustainable agriculture and the environment in the humid tropics
[PB93-173920] 10 p3068 N93-27402
The role of global cloud climatologies in validating numerical models
[NASA-CR-193135] 10 p3070 N93-27536
Advanced Earth Observing Satellite (ADEOS) 11 p3279 N93-29648
Tropical forests and biological diversity: USAID report to Congress 1990-1991
[PB93-180453] 11 p3471 N93-29681
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
Hydrographic observations in the western tropical and subtropical North Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1991
[PB93-184778] 12 p3770 N93-31832
Central Africa: Global climate change and development
[PB93-179612] 12 p3768 N93-31871
Thermodynamic structure of subsidence inversions in the Atlantic subtropical anticyclone regime
[AD-A265406] 12 p3768 N93-32043

TROPICAL STORMS
NT HURRICANES
NT TYPHOONS
Diagnostic report of the National Hurricane Center: October and November 1990, volume 3, number 3
[PB91-242297] 02 p0370 N93-11888
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
Tropical cyclone motion and recurvature in TCM-90
[AD-A258258] 06 p1585 N93-18010
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
Satellite derived rainfall and the intensity of tropical cyclones and possible relationships to sea surface temperature
[AD-A258573] 07 p2011 N93-20360
A procedure to reduce northward drift of tropical storms in a numerical model
[PB92-226406] 07 p2013 N93-21290
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
Tropical Cyclone Forecasters Reference Guide 2: Tropical Climatology
[AD-A259922] 08 p2407 N93-23710
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Tropical cyclogenesis in the western North Pacific 09 p2783 N93-25714
Tropical cyclone/upper-atmospheric interaction as inferred from satellite total ozone observations 09 p2784 N93-25741
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Rhode Island hurricanes and tropical storms: A fifty-six year summary, 1936-1991
[PB93-162006] 11 p3481 N93-29198
The sensitivity of ageostrophic circulations to model resolution: A case study using NGM forecasts of ERICA IOP-4
[AD-A262011] 11 p3482 N93-29393
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

TROPICS
U TROPICAL REGIONS

TROPISM
NT GEOTROPISM
NT GRAVITROPISM
NT GYROTROPISM

TROPOPAUSE
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses 03 p0657 N93-13796
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197

TROPOSPHERE
NT TROPOPAUSE
Source gases: Concentrations, emissions, and trends 02 p0350 N93-11088
Tropospheric processes: Observations and interpretation 02 p0351 N93-11092
Predicted aircraft effects on stratospheric ozone 02 p0352 N93-11096
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
The forcing of a mid-latitude upper-tropospheric jet streak by a simulated mesoscale convective system 02 p0358 N93-11184
The use of ARM data to test an improved parameterization of upper tropospheric clouds for use in climate models
[DE92-014353] 02 p0367 N93-11237
Dynamics of planetary waves in the atmosphere 02 p0363 N93-11898
Steady state analysis of tropospheric chemistry 03 p0644 N93-13121
Measurement of tropospheric temperature and aerosol extinction using high spectral resolution lidar 03 p0653 N93-13614
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Kinetic and spectroscopic studies of peroxy radical reactions related to tropospheric photo-oxidation chemistry 03 p0654 N93-13726
Radiative constraints on the energy budget of the atmosphere 03 p0655 N93-13731
Cloud acidity and acidic deposition in the lower troposphere and ozone depletion in the Antarctic stratosphere: Modeling and data analysis regarding the role of atmospheric aerosol 03 p0647 N93-13741
An observational and numerical investigation of meso-scale coastal processes during GALE IOP 2 03 p0665 N93-13776
Numerical study of nonlinear convective-symmetric instability in a rotating baroclinic atmosphere 03 p0666 N93-13786
Gas-phase reactions of halogen species of atmospheric importance 03 p0658 N93-13889
Frontogenesis processes in the troposphere 03 p0667 N93-13890
The seasonal variations and interrelationships of ozone, peroxyacetyl nitrate and nitrogen dioxide in the troposphere 03 p0647 N93-13893
Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
The isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry 04 p0913 N93-14207
A numerical study of the middle atmosphere response to tropical and subtropical tropospheric heat sources 04 p0920 N93-14640
Direct measurements of tropospheric ozone from TOMS data
[NASA-CR-191884] 05 p1202 N93-16645
Diode injection - seeded, 940 nanometer (nm), titanium - sapphire laser for H2O DIAL (differential absorption lidar), measurements 05 p1175 N93-16781
Atmospheric pressure flow reactor: Gas phase chemical kinetics under tropospheric conditions without wall effects
[NASA-CASE-MSC-21384-2] 05 p1169 N93-17626
The Rocket Electric Field Sounding (REFS) program: Prototype design and successful first launch
[AD-A257762] 06 p1473 N93-18235
In situ detection of tropospheric OH, HO2, NO2, and NO by laser-induced fluorescence in detection chambers at reduced pressures
[NASA-CR-191916] 06 p1577 N93-18599
Investigation of passive atmospheric sounding using millimeter and submillimeter wavelength channels
[NASA-CR-192305] 06 p1582 N93-19036
Observation of meteors by MST radar 06 p1697 N93-19180
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Research of the polar middle and lower atmosphere with an MST radar on Spitsbergen (Svalbard, Arctic) 06 p1584 N93-19555
NASA/MSFC FY92 Earth Science and Applications Program Research Review
[NASA-CP-3184] 07 p2002 N93-20067
Life cycles of transient planetary waves 07 p2004 N93-20077
Aerosol chemistry in GLOBE 07 p2009 N93-20102
Simulations of satellite Doppler wind observations 07 p2010 N93-20104
Isotopes of carbon monoxide in the free troposphere and their implications to atmospheric chemistry
[PB92-218650] 07 p2001 N93-21783
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
Cloud influence on radiative cooling over the Tibetan Plateau during the summer monsoon period 08 p2405 N93-23219
Propagation effects on HF direction finding 08 p2265 N93-23602
Nonmigrating diurnal tides in the equatorial middle atmosphere 08 p2399 N93-24106
Determination of rates of reaction in the gas-phase in the troposphere. Theory and practice. 5. Rate of indirect photoreaction
[PB93-149334] 08 p2402 N93-24569
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
Propagation at microwave frequencies in the presence of tropospheric stratified layers 09 p2674 N93-25340
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
Occultation of a compact radio source by Venus 09 p2676 N93-26107
A nanoradian differential VLBI tracking demonstration 09 p2677 N93-26108
Deep-space navigation with differenced data types. Part 3: An expanded information content and sensitivity analysis 09 p2614 N93-26109
Effects of cloud-radiation interactions on tropospheric chemistry
[DE93-003465] 10 p3073 N93-28004
Distribution of C1-C2 aldehydes in the free troposphere
[JUEL-2650] 11 p3475 N93-28475
Activities report of the International Meteorological Institute, Stockholm (Sweden)
[ETN-93-93768] 11 p3480 N93-28519
Aerosol optical properties of the free troposphere
[AD-A265795] 12 p3758 N93-31803

TROPOSPHERIC SCATTERING
10 kW L-band amplifier tubes for efficient and reliable troposcatter communication transmitter systems
[AD-A253246] 02 p0290 N93-11504

TROPOSPHERIC WAVES
NT PLANETARY WAVES

TROUBLESHOOTING
U MAINTENANCE

TROUGHS
Measurements of F-region drift velocities at the dusk sector mid-latitude trough
[AD-A257766] 06 p1575 N93-17907
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985

TRUCKS
Federal Alternative Fuel Program light duty vehicle operation
[DE92-018124] 02 p0274 N93-11794
Reduction in global warming due to fuel economy improvements and emissions control of criteria pollutants: New US light-duty vehicles (1968-1991)
[DE92-016636] 02 p0356 N93-12314
Meeting future exhaust emissions standards using natural gas as a vehicle fuel: Lessons learned from the natural gas vehicle challenge 1992
[DE92-019670] 03 p0642 N93-12885
Utilization of compressed natural gas in medium- and heavy-duty engine route vehicles
[PB92-217546] 03 p0611 N93-12908
The 1992 natural gas vehicle challenge: EPA emissions and fuel economy testing
[PB92-217926] 03 p0616 N93-13761
1991 CRC octane number requirement survey
[AD-A259821] 08 p2245 N93-23667
Aircraft and refueler bonding and grounding study
[AD-A262027] 11 p3261 N93-29398

TRUNCATION (MATHEMATICS)
U APPROXIMATION

TRUNCATION ERRORS
Comparison of truncation error of finite-difference and finite-volume formulations of convection terms
[NASA-TM-105861] 02 p0426 N93-11531
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587

TRUNKS (LINES)
U TRANSMISSION LINES

TRUNNIONS
U SHAFTS (MACHINE ELEMENTS)

TRUSSES
Characterization of and active control of flexible structures, using piezoceramics as sensors and actuators 01 p0010 N93-10319
Tests of an alternate mobile transporter and extravehicular activity assembly procedure for the Space Station Freedom truss
[NASA-TP-3245] 02 p0224 N93-10970
Application of artificial neural networks in nonlinear analysis of trusses
[NASA-TM-105319] 02 p0336 N93-11403
Structural dynamics of large space structures having parametric uncertainties 02 p0225 N93-11836
A smart end-effector for assembly of space truss structures 02 p0230 N93-11982
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Design of a welded joint for robotic, on-orbit assembly of space trusses
[NASA-TM-108380] 03 p0609 N93-12682
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Damage location and model refinement for large flexible space structures using a sensitivity-based eigenstructure assignment method 04 p0816 N93-14274
Model reduction of flexible manipulators
[AD-A255251] 04 p0889 N93-14528
Structurally adaptive space crane concept for assembling space systems on orbit
[NASA-TP-3307] 04 p0818 N93-15368
CFRP integral end fitting for high stability truss structures 05 p1084 N93-15774
Design of joints for damped structures 05 p1084 N93-15776
The damper placement problem for large flexible space structures 05 p1089 N93-16776
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326
Development of magnetostrictive active members for control of space structures
[NASA-CR-190846] 06 p1460 N93-18322
Static and dynamic characteristics of a piezoceramic strut 06 p1462 N93-18827
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
Passive damping of a solar array
[AD-A258976] 06 p1559 N93-19096
Pre-integrated truss space station and method of assembly
[NASA-CASE-MSC-22015-1] 07 p1823 N93-20042
Robot-friendly connector --- space truss structures
[NASA-CASE-MSC-21864-1] 07 p1914 N93-20117
Design considerations for an astronaut monorail system for large space structures and the structural characterization of its positioning arm 07 p1823 N93-20167
Multimodal optimization of vibrating space frames 07 p1931 N93-20652
Neutral buoyancy test evaluation of hardware and extravehicular activity procedures for on-orbit assembly of a 14 meter precision reflector
[NASA-TM-107735] 07 p1824 N93-20922
A modal test of a space-truss for structural parameter identification
[DE93-004043] 08 p2323 N93-22518
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Precursor SSF utilization: The MODE experiments 08 p2188 N93-22633
Long Duration Space Materials Exposure (LDSE) 08 p2189 N93-22638
Correlation of ground tests and analyses of a dynamically scaled Space Station model configuration
[NASA-TM-107729] 08 p2327 N93-23235
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484
Reliable vision-guided grasping
[NASA-CR-193197] 08 p2464 N93-24603
Vision-guided gripping of a cylinder
[NASA-CR-193199] 08 p2465 N93-24657
The MODE family of on-orbit experiments: The Middeck Active Control Experiment (MACE) 09 p2599 N93-25835
Interaction dynamics and control for orbital assembly 09 p2669 N93-26407
Controls for orbital assembly of large space structures 09 p2620 N93-26408
Structural load control during construction 09 p2669 N93-26409
An efficient solution procedure for the thermoelastic analysis of truss space structures 10 p2923 N93-27191
Passive damping augmentation of flexible beam-like lattice trusses for large space structures 10 p2923 N93-27192
Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-28171
Description of the Joint Damping Experiment (JDX) 11 p3263 N93-28703
CSI-Star: A low-cost CSI orbital testbed 11 p3263 N93-28707

TRYPTAMINES
NT SEROTONIN

TTL INTEGRATED CIRCUITS
TF-4020A: TFL's new compact military rubidium standard 09 p2838 N93-25026

TUBE ANODES
Cosmic ray test of SDC prototype muon drift tubes
[DE93-001680] 05 p1400 N93-17182

TUBE CATHODES
NT HOT CATHODES
NT PHOTOCATHODES
NT THERMIONIC CATHODES
Cosmic ray test of SDC prototype muon drift tubes
[DE93-001680] 05 p1400 N93-17182

TUBE HEAT EXCHANGERS
Two-phase/two-phase heat exchanger simulation analysis 03 p0586 N93-13402
Enhancement of single phase forced convection heat transfer in tubes and ducts using tangential flow injection
[PB93-189975] 12 p3723 N93-31210

TUBERCULOSIS
Immunological parameters in current and former US Air Force personnel 02 p0378 N93-11295
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Rapid susceptibility testing of mycobacterium avium complex and mycobacterium tuberculosis isolated from AIDS patients
[NASA-CR-192382] 07 p2023 N93-20736

TUBES
Sample container technology 05 p1078 N93-15728
Relationship between mechanical-property and energy-absorption trends for composite tubes
[NASA-TP-3284] 05 p1098 N93-16537
Fluid separator
[NASA-CASE-MFS-28658-1] 05 p1163 N93-17039

TUBING
U PIPES (TUBES)

TUMBLING MOTION
Dynamics and control of a tumbling satellite retrieval device 03 p0522 N93-13119
MSFC Three Point Docking Mechanism design review
[NASA-CR-192462] 08 p2181 N93-22013
TALON and CRADLE: Systems for the rescue of tumbling spacecraft and astronauts 08 p2142 N93-22268
Spacecraft detumbling through energy dissipation 09 p2600 N93-24696

TUMORS
NT CANCER
NT NEOPLASMS
Measuring the metastatic potential of cancer cells 09 p2794 N93-25566
Immunoconjugates: Magic bullets for cancer therapy? 09 p2796 N93-25567

TUNABLE LASERS
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
UCSB FEL user mode adaption project
[AD-A248734] 02 p0316 N93-11418
Research on stimulated Raman scattering with applications to atmospheric lidar 02 p0322 N93-12163
Electron stimulated desorption of the metallic substrate at monolayer coverage: Sensitive detection via 193 nm laser photoionization of neutral aluminum desorbed from CH3O/Al(111)
[DE92-014858] 03 p0723 N93-13349
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Level-mixing assisted tunability of nuclear resonance linewidths for gamma ray lasers
[AD-A255791] 04 p0885 N93-14647
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Abstracts booklet
[AD-A256115] 04 p0869 N93-15188
Widely tunable gas laser for remote sensing
[NASA-CR-190869] 05 p1189 N93-15691
Radiationless transitions and excited-state absorption in tunable laser materials
[AD-A256948] 05 p1173 N93-16432
The 1.083 micron tunable CW semiconductor laser
[NASA-CR-191338] 05 p1174 N93-16689
Doppler shift compensation system for laser transmitters and receivers
[NASA-CASE-GSC-13194-1] 06 p1540 N93-18287
Advanced helium magnetometer for space applications
[NASA-CR-190880] 06 p1537 N93-18399
Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470
Tunable infrared and visible solid-state laser 06 p1543 N93-18473
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Efficient CW operation of a 2.75 micrometer Er(3+)-doped fluorozirconate fibre laser pumped at 650 and 795 nm
[MBB-Z-0384-91-PUB] 07 p1911 N93-20916
Infrared tunable difference frequency laser source
[DE93-005128] 07 p1912 N93-21709
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046
Studies of tunable, high power excimer lasers 08 p2309 N93-23597
Laser physics and laser techniques
[AD-A261595] 09 p2715 N93-26524
Development and applications of tunable, narrow band lasers and stimulated Raman scattering devices for atmospheric lidar
[NASA-CR-193160] 10 p3047 N93-27249
ND laser with co-doped ion(s) pumped by visible laser diodes
[AD-D015711] 11 p3437 N93-29277
Tunable CW diode-pumped Tm,Ho:YLiF4 laser operating at or near room temperature
[NASA-CASE-NPO-18611-1-CU] 11 p3440 N93-30415
Computer control of pulsed tunable dye lasers
[DE93-605896] 11 p3441 N93-30801
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866
Infrared multiple photon dissociation spectra of gaseous ions
[AD-A264378] 12 p3821 N93-32032

TUNERS
A low noise 410-495 heterodyne two tuner mixer, using submicron Nb/Al2O3/Nb tunneljunctions 10 p3013 N93-27743

TUNGSTEN
Effects of anode material on arcjet performance 01 p0023 N93-10044
Study of metal-ceramic interfaces of Co-Cr-Mo alloys: Role of tungsten (W) and manganese (Mn) additions
[ECL-92-01] 02 p0267 N93-11580
Determination of operable deformation mechanisms during ballistic impact in tungsten single crystals, utilizing transmission electron microscopy
[AD-A255351] 04 p0991 N93-14518

Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Kinetics and infrared spectroscopy of organometallic reactive intermediates 06 p1485 N93-18484
Surface and interface electronic structure: Three year activity report
[DE93-010209] 10 p3150 N93-26618
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
A model for predicting high-temperature fatigue failure of a W/Cu composite 12 p3696 N93-31579
Single crystal tungsten kinetic energy penetrators
[DE93-012570] 12 p3706 N93-32296

TUNGSTEN ALLOYS
Ohmic contacts to compound semiconductors 01 p0076 N93-10830
Development of strength and conductivity in deformation processed copper base alloys
[DE92-018807] 02 p0257 N93-11572
Strain-rate effects in replica scale model penetration experiments
[AD-A255426] 04 p0844 N93-14508
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Emissivity of rocket plume particulates
[AD-A257623] 05 p1095 N93-17767
Large strain compression of two tungsten alloys at various strain rates
[AD-A258789] 06 p1488 N93-18979
Bend ductility of tungsten heavy alloys
[DE93-004839] 08 p2232 N93-23971
Effects of rolling on the ductility of 80 percent tungsten heavy alloy
[DE93-004840] 08 p2232 N93-23972
High strain rate damage development and failure mechanisms in tungsten heavy alloys
[AD-A260856] 09 p2651 N93-25788
Shear band formation in a W-Ni-Fe alloy under plate impact
[AD-A260702] 09 p2651 N93-25907
Tungsten alloy technology
[AD-A262184] 10 p2999 N93-27682
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
The effect of material strength on segment penetration behavior
[AD-A263262] 11 p3453 N93-29801
Examination of formability to seamless tubes on Ni-Cr-W superalloy
[DE93-764158] 11 p3326 N93-30396
Development of Ni-Cr-W superalloys for high temperature components in high temperature gas-cooled reactors, part 2
[DE93-764469] 11 p3326 N93-30399
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

TUNGSTEN CARBIDES
Mechanisms of mechanical fatigue in ceramics
[DE93-001726] 05 p1121 N93-16133
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Method of bonding metal carbides in non-magnetic alloy matrix
[AD-D015591] 07 p1833 N93-20801

TUNGSTEN COMPOUNDS
NT TUNGSTEN CARBIDES
NT TUNGSTEN OXIDES
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986

TUNGSTEN INERT GAS WELDING
U GAS TUNGSTEN ARC WELDING

TUNGSTEN OXIDES
New pathways to tungsten and molybdenum oxides, nitrides, and azides
[DE93-003051] 07 p1857 N93-21986

TUNING
Self-tuning PI-PID regulators for stable systems with varying delay
[REPT-92-023] 02 p0421 N93-11593
A PID auto-tuning algorithm based on relay feedback
[REPT-92-019] 02 p0421 N93-11667
Transducer circuit
[AD-D015376] 03 p0572 N93-13472
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
Cluster-molecule systems: Analysis and tuning of the interaction potential
[DE93-000601] 05 p1291 N93-17175
Automatic tuning for a teleoperated arm controller
[DE93-001647] 05 p1179 N93-17481
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
A high-speed auto-tuning PID regulator based on programmable logic devices
[REPT-92-042] 07 p2047 N93-21186
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046
Application of genetic algorithms to tuning fuzzy control systems 08 p2450 N93-22209
Permissive planning: A machine-learning approach to planning in complex real-world domains
[AD-A260019] 08 p2521 N93-24303
Investigations of the frequency instability of CH1-75 hydrogen masers 09 p2716 N93-25049
Synthetic-perturbation tuning of MIMD programs
[PB93-161339] 09 p2812 N93-26321
A transfer matrix approach to vibration localization in mistuned blade assemblies
[NASA-TM-106112] 10 p3056 N93-27088
Evaluation of integrated tuning elements with SIS devices 10 p3018 N93-27770
A composite self tuning strategy for fuzzy control of dynamic systems 11 p3511 N93-29530
Design issues of a reinforcement-based self-learning fuzzy controller for petrochemical process control 11 p3512 N93-29533
Tuning a fuzzy controller using quadratic response surfaces 11 p3515 N93-29553
A genetic algorithms approach for altering the membership functions in fuzzy logic controllers 11 p3518 N93-29573
Widebanding techniques for VHF antennas 2
[AD-A263998] 11 p3387 N93-29882
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586

TUNNEL DIODES
Optimization of resonant interband tunnel devices
[AD-A252401] 01 p0168 N93-10637
A quasioptical resonant-tunneling-diode oscillator operating above 200 GHz 10 p3017 N93-27764
Transit-time devices as local oscillators for frequencies above 100 GHz 10 p3017 N93-27765
Negative Differential Resistance (NDR) frequency conversion with gain 10 p3017 N93-27766
Recent advances in superconducting-mixer simulations 10 p3018 N93-27768
Submillimeter wave detection with superconducting tunnel diodes 10 p3018 N93-27769
Resonant tunneling diodes as sources for millimeter and submillimeter wavelengths 10 p3018 N93-27772
Simulation of electron transport in quantum well devices 10 p3019 N93-27773

TUNNEL RESISTORS
U ELECTRON TUNNELING
U RESISTORS

TUNNELING
Quantum tunneling and the change in the signature of the spacetime metric
[DE92-634877] 01 p0165 N93-10225

TUNNELS
Gradiometer antennas for tunnel detection
[PB92-205400] 01 p0069 N93-10440
Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911

TURBIDITY
Feasibility of airborne laserbathymetry with respect to turbidity in Dutch coastal waters
[BCRS-91-19] 06 p1589 N93-18432
Loading and testing a light scattering cell with a binary fluid mixture near its critical composition
[NASA-CR-193147] 11 p3415 N93-28557

TURBINE BLADES
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
Present and future trends in turbine blade material and manufacture technology
[PNR-90960] 02 p0255 N93-11111
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
Effects of cooling-air injection on secondary flows and losses in a turbine cascade
[NAL-TR-1121T] 02 p0307 N93-12382
Fatigue in single crystal nickel superalloys
[AD-A254704] 03 p0541 N93-12746
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
Radial turbine cooling
[NASA-TM-105658] 03 p0492 N93-13292
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
Fatigue in single crystal nickel superalloys
[AD-A256095] 04 p0844 N93-14264
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow 04 p0790 N93-14462
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
In-service considerations affecting component life 04 p0800 N93-14898
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Bypass transition in compressible boundary layers 05 p1154 N93-15801
Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
SNECMA M88 engine development status
[ASME-90-GT-118] 06 p1448 N93-17849
Three dimensional inviscid compressible calculations around axial flow turbine blades
[DS-2159] 06 p1524 N93-17881
Fatigue of turboengine discs
[DS-2136] 06 p1448 N93-18149
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
Integrated Blade Inspection System (IBIS) upgrade study
[AD-A258912] 06 p1449 N93-19356
Three-dimensional Navier-Stokes heat transfer predictions for turbine blade rows
[NASA-TM-105800] 07 p1897 N93-19969
Fatigue in single crystal nickel superalloys
[AD-A259191] 07 p1856 N93-20275
Computational fluid flow and heat transfer. An engineering tool 07 p1905 N93-20617
Advanced turbine design for coal-fueled engines
[DE93-000224] 07 p1915 N93-21254
Field evaluation of six protective coatings applied to T-56 turbine blades after 2000 hours of engine use
[AD-A261112] 07 p1786 N93-21316
Fatigue of fiberglass wind turbine blade materials
[DE93-005381] 07 p1951 N93-21711
Stress calculation for the Sandia 34-meter wind turbine using the local circulation method and turbulent wind
[DE93-004480] 08 p2375 N93-22045
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion data sets
[AD-A260211] 08 p2129 N93-22735
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Measurement and prediction of tip-clearance effects in a linear turbine cascade
[ISBN-0-315-68826-2] 08 p2130 N93-24176
Heat transfer in rotating serpentine passages with selected model orientation for smooth or skewed trip walls
[NASA-TM-106126] 09 p2667 N93-25177
Turbine turbobrake systems 09 p2717 N93-25268
Three-dimensional flow in radial turbomachinery and its impact on design
[NASA-CR-192957] 09 p2593 N93-25668
Flow control of low heat load turbine airfoils
[AD-A260941] 09 p2595 N93-26219

The blade curving effects in a turbine stator cascade with low aspect ratio
[AD-A261063] 09 p2595 N93-26239
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
The influence of non-uniform spanwise inlet temperature on turbine rotor heat transfer 11 p3253 N93-29932
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
The effect of orthogonal-mode rotation on forced convection in a circular-sectioned tube fitted with full circumferential transverse ribs 11 p3254 N93-29937
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
Prediction of jet impingement cooling scheme characteristics (airfoil leading edge application) 11 p3255 N93-29941
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels 11 p3255 N93-29942
Impingement/effusion cooling 11 p3257 N93-29954
The aerodynamic effect of coolant ejection in the leading edge region of a film-cooled turbine blade 11 p3258 N93-29958
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
Coupling of 3D-Navier-Stokes external flow calculations and internal 3D-heat conduction calculations for cooled turbine blades 11 p3258 N93-29961
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades 11 p3258 N93-29962
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows 11 p3259 N93-29963
Optical blade vibration measurement
[ETN-93-93454] 11 p3259 N93-29999
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
Measurements and computational analysis of heat transfer and flow in a simulated turbine blade internal cooling passage
[NASA-TM-106189] 12 p3725 N93-31647

TURBINE ENGINES
NT DUCTED FAN ENGINES
NT GAS TURBINE ENGINES
NT J-52 ENGINE
NT JET ENGINES
NT PULSEJET ENGINES
NT RAMJET ENGINES
NT SUPERSONIC COMBUSTION RAMJET ENGINES
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOJET ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES

Deformation mechanisms of NiAl cyclicly deformed near the brittle-to-ductile transformation temperature
[NASA-CR-191649] 05 p1109 N93-15830
Turbomachinery and potential computations
[DS-2026] 05 p1067 N93-17740
Turbine engine combustor design at SNECMA
[DS-2129] 06 p1448 N93-17851
The technological evolution of high thrust turbine engines
[DS-1881] 06 p1448 N93-17882
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Multi-heat addition turbine engine
[NASA-CASE-LEW-15094-1] 08 p2129 N93-22034
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Measurements and computations of external heat transfer and film cooking in turbines
[RAE-TM-P-1223] 09 p2592 N93-25455
Design and performance of nozzle-less volute casings for inward flow radial turbines 09 p2593 N93-25471
Effect of a metal deactivator fuel additive on fuel deposition in fuel atomizers at high temperature
[AD-A260915] 09 p2661 N93-25914
Experimental investigation of turbine disk cavity aerodynamics and heat transfer
[NASA-CR-193831] 10 p2943 N93-27115
Navier-Stokes analysis of radial turbine rotor performance
[NASA-CR-191153] 11 p3251 N93-28609
Aero-thermal design of a cooled transonic NGV and comparison with experimental results 11 p3257 N93-29957

TURBINE PUMPS
Uprated OMS engine status: Altitude testing results 01 p0022 N93-10036
A survey of instabilities within centrifugal pumps and concepts for improving the flow range of pumps in rocket engines 01 p0023 N93-10039
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Tensile properties of cast titanium alloys: Titanium-6Al-4V ELI and Titanium-5Al-2.5Sn ELI
[NASA-TP-3288] 01 p0033 N93-10072
Improve SSME power balance model
[NASA-CR-184464] 01 p0026 N93-10756
A comparison of high cycle fatigue methodologies
[NASA-TM-103601] 02 p0233 N93-12148
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
Sealing characteristics of a carbon segmented circumferential seal for a liquid oxygen turbopump
[NAL-TR-1130] 02 p0329 N93-12364
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
Simulation of cryogenic turbopump annular seals 05 p1181 N93-17318
Use of real fluid three dimensional flow computation codes for the design of rocket engine advanced turbine pumps
[DS-2139] 05 p1095 N93-17743
Residual contact stresses in cryotechnical environments
[ETN-93-93020] 06 p1555 N93-18080
Experimental investigations of radial loads induced by partial cavitation with the LH2 Vulcain inducer
[ETN-93-93023] 06 p1525 N93-18094
HM7 turbopump CMC stator trials
[ETN-93-93021] 06 p1472 N93-18146
Computation of incompressible viscous flows through turbopump components
[NASA-CR-192296] 07 p1901 N93-20753
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
OTV bearing deflection investigation
[NASA-TM-106085] 08 p2303 N93-22994
Assessment of crack growth in a space shuttle main engine first-stage, high-pressure fuel turbopump blade
[NASA-CR-190782] 08 p2327 N93-23125
Development of code evaluation criteria for assessing predictive capability and performance
[NASA-CR-192552] 08 p2442 N93-24473
On-line implementation of nonlinear parameter estimation for the Space Shuttle main engine
[NASA-TM-106097] 09 p2632 N93-26211
Experimental investigation of turbine disk cavity aerodynamics and heat transfer
[NASA-CR-193831] 10 p2943 N93-27115
Simulation of preburner sprays, volumes 1 and 2
[NASA-CR-193031] 10 p2994 N93-27223
Hybrid bearings for turbopumps and the like
[NASA-CASE-MFS-28491-1] 10 p3052 N93-28326
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
Orbital transfer vehicle oxygen turbopump technology. Volume 3: Hot oxygen testing
[NASA-CR-191036] 11 p3448 N93-31039
Structural Integrity and Durability of Reusable Space Propulsion Systems
[NASA-CP-10064] 12 p3692 N93-31552
Progress in the measurement of SSME turbine heat flux with plug-type sensors 12 p3692 N93-31553
Thin film heat flux sensor for Space Shuttle Main Engine turbine environment 12 p3693 N93-31554
Thin film thermocouples for high temperature turbine application 12 p3693 N93-31555
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine 12 p3697 N93-31584
Three-dimensional flow calculations inside SSME GGGT first stage blade rows 12 p3697 N93-31585
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
Heat transfer and pressure measurements for the SSME fuel turbine 12 p3698 N93-31587

TURBINE WHEELS
Structural analysis: Fatigue life assessment 01 p0078 N93-10062
Propulsion and Energetics Panel Working Group 20 on Test Cases for Engine Life Assessment Technology
[AGARD-AR-308] 04 p0798 N93-14890
Introduction to test cases for engine life assessment technology 04 p0799 N93-14891
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
RB211-524B disc and drive cones hot cyclic spinning test 04 p0799 N93-14895
F100 second stage fan disk bolthole crack propagation ferris wheel test 04 p0800 N93-14897
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451

TURBINES
NT AXIAL FLOW TURBINES
NT GAS TURBINES
NT STEAM TURBINES
NT SUPERSONIC TURBINES
NT TWO STAGE TURBINES
NT WIND TURBINES

Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Introduction to radial turbine technology 01 p0077 N93-10051
Performance parameters and assessment 01 p0077 N93-10052
Non-dimensional conceptual design of radial inflow turbines. Part A: Application of fundamental fluid mechanics 01 p0077 N93-10053
Non-dimensional conceptual design of radial inflow turbines. Part B: Application of empirical correlations 01 p0077 N93-10054
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Aerodynamic investigation of radial turbines using computational methods 01 p0078 N93-10056
An inverse design method for radial turbomachines 01 p0078 N93-10057
The integration of geometric modeling into an inverse design method and application of a PC-based inverse design method and comparison with test results 01 p0078 N93-10058
Partial admission and unsteady flow in radial turbines 01 p0078 N93-10059
Testing techniques 01 p0078 N93-10060
Radial turbine cooling 01 p0078 N93-10061
LDV Measurements of unsteady flow fields in radial turbine
[AD-A253592] 01 p0004 N93-10648
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
Experimental heat transfer results in turbine stators and rotors and a comparison with theory
[PNR-90945] 02 p0210 N93-11055
The use of simultaneous engineering for the design and manufacture of the low pressure turbine for the Rolls-Royce Trent engine
[PNR-90887] 02 p0212 N93-11206
Increase of energy use on cooled high temperature turbine, phase 3
[MTUM-B91EW-0029-PHASE-3] 02 p0213 N93-11339
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
Radial turbine cooling
[NASA-TM-105658] 03 p0492 N93-13292
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Field demonstration of aviation turbine fuel MIL-T-83133C, grade JP-8 (NATO code F-34), at Fort Bliss, TX
[AD-A256945] 05 p1129 N93-16431
Segregation of defects in wrought alloy 718: Management of industrial safeguards
[DS-2038] 06 p1486 N93-18150
Test of a CMC liquid propulsion rocket engine turbine stator
[ETN-93-93017] 06 p1473 N93-18330

Use of the boundary element method in the resolution of the quasi-elliptic Navier-Stokes equations: Application to the calculation of a turbine flow
[ECL-91-13] 07 p1902 N93-20893
Three-dimensional laser window formation for industrial application 08 p2310 N93-22197
Turbine turbobrake systems 09 p2717 N93-25268
Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Development of a method to determine the autoxidation of turbine fuels
[AD-A260578] 09 p2661 N93-25902
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Experimental evaluation of a cooled radial-inflow turbine
[NASA-TM-106230] 11 p3251 N93-28697
Aerothermic calculations of flows in interdisc cavities of turbines 11 p3256 N93-29947

TURBOCHARGERS
U SUPERCHARGERS
U TURBOCOMPRESSORS

TURBOCOMPRESSORS
Alternative systems for fuel gas boosters for small gas turbine engines
[PB92-223049] 03 p0612 N93-12977
Overview on test cases for computation of internal flows in turbomachines 03 p0579 N93-13209
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405
Fatigue of turboengine discs
[DS-2136] 06 p1448 N93-18149
Axial Flow Compressors, volume 1
[VKI-LS-1992-02-VOL-1] 06 p1530 N93-18721
The effect of aircraft inlets on the behaviour of aero engine axial flow compressors 06 p1530 N93-18722
Stall in axial flow aero engine compressors 06 p1530 N93-18723
Stall and surge in axial flow compressors 06 p1530 N93-18724
Active control of stall and surge 06 p1530 N93-18725
Experimental investigation of rotating stall in a mismatched three stage axial flow compressor 06 p1531 N93-18727
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
A study of stall in a low hub/tip ratio fan 06 p1531 N93-18729
Endwall flows and blading design for axial flow compressors 06 p1531 N93-18730
Axial Flow Compressors, volume 2
[VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field 06 p1531 N93-18732
Determination of the zone of the stall cell by means of the baroclinic wave theory 06 p1531 N93-18733
Characterization of stall inception in high-speed single-stage compressors
[AD-A258973] 06 p1449 N93-19093
Engine driven chiller and thermal storage integration (Large tonnage engine driven chiller development)
[PB92-227891] 07 p1878 N93-21465
The effects of reaction on axial compressor performance 09 p2594 N93-25882
Radial inflow turbine study
[AD-A260767] 09 p2594 N93-25917
Active stabilization of aeromechanical systems
[AD-A261366] 09 p2595 N93-26335
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3296 N93-29451

TURBOCONVERTERS
U TURBOGENERATORS

TURBOELECTRIC CONVERSION
U TURBOGENERATORS

TURBOFAN AIRCRAFT
NT A-7 AIRCRAFT
NT BOEING 720 AIRCRAFT
NT BOEING 757 AIRCRAFT
NT BOEING 767 AIRCRAFT
NT CONCORDE AIRCRAFT
In-flight near- and far-field acoustic data measured on the Propfan Test Assessment (PTA) testbed and with an adjacent aircraft
[NASA-TM-103719] 10 p3129 N93-27058
Design of a turbofan powered regional transport aircraft 11 p3228 N93-29721

TURBOFAN ENGINES
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
From RB211 to Trent: An ongoing development strategy
[PNR-90938] 02 p0210 N93-11038
Subsonic flight test evaluation of a propulsion system parameter estimation process for the F100 engine
[NASA-TM-4426] 03 p0502 N93-13155
Tests of models equipped with TPS in low speed ONERA F1 pressurized wind tunnel 03 p0577 N93-13201
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests 03 p0503 N93-13218
Investigation of the flowfield around an isolated bypass engine with fan and core jet 03 p0582 N93-13227
An investigation of jet engine test cell aerodynamics by means of scale model test studies with comparisons to full-scale test results 03 p0507 N93-14060
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
SNECMA M88 engine development status
[ASME-90-GT-116] 06 p1448 N93-17849
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis computer program user's manual
[NASA-CR-187127] 06 p1449 N93-18702
Applications of active adaptive noise control to jet engines
[NASA-CR-192277] 07 p1785 N93-21210
Supersonic transport: Which material for the engine
[DS-2023] 07 p1786 N93-21459
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Transient performance of fan engine with water ingestion
[NASA-CR-190778] 09 p2573 N93-25134
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Cooling predictions in turbofan engine components 11 p3259 N93-29964

TURBOFANS
Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 2: Tests with the closed circuit
[NASA-CR-191672] 04 p0780 N93-14738
Acoustic mode measurements in the inlet of a model turbofan using a continuously rotating rake: Data collection/analysis techniques
[NASA-TM-105936] 04 p0801 N93-15403
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
A study of stall in a low hub/tip ratio fan 06 p1531 N93-18729
A computational method for the analysis of acoustic radiation from turbofan inlets 09 p2845 N93-25717
Propulsion technology challenges for turn-of-the-century commercial aircraft
[NASA-TM-106192] 12 p3682 N93-32351

TURBOGENERATORS
SSTAC/ARTS review of the draft Integrated Technology Plan (ITP). Volume 3: Space power and thermal management
[NASA-TM-108652] 08 p2519 N93-23109
Lunar base thermal management/power system analysis and design 10 p3089 N93-27985

TURBOJET AIRCRAFT
U JET AIRCRAFT

TURBOJET ENGINES
NT DUCTED FAN ENGINES
NT J-52 ENGINE
NT T-56 ENGINE
NT TURBOFAN ENGINES
NT TURBOPROP ENGINES
NT TURBORAMJET ENGINES
A preliminary investigation into the feasibility of using a small turbojet to propel an expendable hovering decoy: Propulsion technical memorandum
[AD-A256320] 05 p1066 N93-16405
Simple and powerful turbojet with four stage axial compressor and axial flow turbine for the propulsion of subsonic missiles 05 p1067 N93-17620
Smaller expendable turbojets 05 p1067 N93-17621
Advanced tactical fighter engine design: Front fan
[ETN-93-92998] 06 p1448 N93-18127
A preliminary sizing method for unmanned aircraft using multi-variate optimisation 09 p2587 N93-25408
Thrust augmentation system for low-cost-expendable turbojet engine
[AD-A263727] 11 p3259 N93-30877

TURBOMACHINE BLADES
NT COMPRESSOR BLADES
NT ROTOR BLADES (TURBOMACHINERY)
NT STATOR BLADES
NT TURBINE BLADES
Time-dependent predictions and analysis of turbine cascade data in the transonic flow region
[PNR-90957] 04 p0782 N93-15489
A recent boundary integral procedure on determining shear centers, warping constant and other cross sectional properties of a turbine blade 07 p1918 N93-20703
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
Three-dimensional flow in radial turbomachinery and its impact on design
[NASA-CR-192957] 09 p2593 N93-25668

TURBOMACHINERY
NT AXIAL FLOW TURBINES
NT CENTRIFUGAL COMPRESSORS
NT CENTRIFUGAL PUMPS
NT GAS TURBINES
NT STEAM TURBINES
NT SUPERSONIC TURBINES
NT TURBINE PUMPS
NT TURBINES
NT TURBOCOMPRESSORS
NT TURBOFANS
NT TURBOGENERATORS
NT TWO STAGE TURBINES
NT WIND TURBINES
Structural analysis: Fatigue life assessment 01 p0078 N93-10062
Compound cycle engine for helicopter application
[NASA-CR-180824] 01 p0009 N93-10348
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
Turbulence measurements of high shear flow fields in a turbomachine seal configuration 01 p0093 N93-10893
The role of turbomachinery testing for stability in distorted flow
[PNR-90943] 02 p0210 N93-11040
Resolution of the pressure equation by the boundary element method. Application to multistage turbomachines
[ECL-91-16] 02 p0301 N93-11575
Active control of aeroacoustic couplings by means of adaptive systems
[ECL-91-18] 02 p0214 N93-11576
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery 02 p0327 N93-11887
Erosion predictions and measurements of high-temperature coatings and superalloys used in turbomachines 02 p0272 N93-12189
Stochastic sensitivity measure for mistuned high-performance turbines
[NASA-TM-105821] 02 p0341 N93-12277
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
Turbomachinery CFD on parallel computers
[NASA-TM-105932] 03 p0689 N93-13154
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow 03 p0593 N93-14025
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX-80
[NASA-CR-189212] 04 p0901 N93-14799
User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426

Performance of controlled diffusion blades
06 p1532 N93-18735
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Nonintrusive temperature measurements on advanced turbomachinery components
[DE93-005478] 08 p2302 N93-22326
Study of the capacitance technique for measuring high-temperature blade tip clearance on ceramic rotors
[NASA-TM-105978] 08 p2130 N93-23013
Three-dimensional flow in radial turbomachinery and its impact on design
[NASA-CR-192957] 09 p2593 N93-25668
Numerical modelling of viscous turbomachinery flows with a pressure correction method
09 p2594 N93-25702
Fibre optic sensors for heat transfer studies
09 p2853 N93-25748
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
MSFC nuclear thermal propulsion technology program
10 p2979 N93-26932
Computational modeling of nuclear thermal rockets
10 p2980 N93-26956
Magnetic bearing turbomachinery case histories and applications for space related equipment
10 p2959 N93-27557
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
Modelling thermal behaviour of turbomachinery discs and casings 11 p3256 N93-29949
Some implications of a differential turbomachinery equation with viscous correction
[AD-A264693] 11 p3427 N93-30571
An incompressible axisymmetric through-flow calculation procedure for design and off-design analysis of turbomachinery
[AD-A264933] 12 p3726 N93-32071

TURBOPROP AIRCRAFT
NT C-130 AIRCRAFT
NT C-160 AIRCRAFT
NT CL-84 AIRCRAFT
NT E-2 AIRCRAFT
Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715
Eagle RTS: A design for a regional transport aircraft
[NASA-CR-192032] 06 p1435 N93-18017
User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148

TURBOPROP ENGINES
NT T-56 ENGINE
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis
[NASA-CR-187128] 03 p0502 N93-12695
Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 5: Unsteady counterrotation ducted propfan analysis
[NASA-CR-187126] 07 p1785 N93-20773
Structural Tailoring of Advanced Turboprops (STAT). Theoretical manual
[NASA-CR-191017] 07 p1953 N93-22005

TURBOPUMPS
U TURBINE PUMPS

TURBORAMJET ENGINES
Integration of turbo-ramjet engines for hypersonic aircraft 03 p0503 N93-13230

TURBOROTORS
U TURBINE WHEELS

TURBOSHAFTS
Advanced three-shaft engines: Configured for reliability, efficiency, and growth
[PNR-90986] 02 p0211 N93-11068
Determination of loose spline coupling coefficients of rotor bearing systems in turbomachinery
02 p0327 N93-11887
Experimental analysis of steady-state and dynamic monitoring of power shaft turbines
04 p0796 N93-15176
Analysis of consolidation of intermediate level maintenance for Atlantic Fleet T700-GE-401 engines
[AD-A257754] 05 p1067 N93-17695

TURBULENCE
NT ATMOSPHERIC TURBULENCE
NT CLEAR AIR TURBULENCE
NT GUSTS
NT HOMOGENEOUS TURBULENCE
NT ISOTROPIC TURBULENCE
NT LOW LEVEL TURBULENCE
NT LOW TURBULENCE
NT MAGNETOHYDRODYNAMIC TURBULENCE
NT PLASMA TURBULENCE
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Navier-Stokes turbine heat transfer predictions using two-equation turbulence
[NASA-TM-105817] 01 p0082 N93-10735
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Effects of reacting flows with turbulence and shock waves on efficiency of scramjet combustors
02 p0235 N93-11133
Structure of the nocturnal boundary layer over a complex terrain
[DE92-018141] 02 p0362 N93-11669
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer
02 p0302 N93-11698
Freely propagating open premixed turbulent flames stabilized by swirl
[DE92-017116] 02 p0251 N93-12112
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
Natural convection between a vertical cylinder and a surrounding array
[DE92-019763] 03 p0728 N93-12857
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Motion errors and compensation possibilities
03 p0563 N93-13052
Studies on turbulent mixing in stratified turbulent patches 03 p0587 N93-13532
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence
03 p0590 N93-13900
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
Experiments on the statistical nature of stably stratified turbulence 03 p0594 N93-14069
Turbulence and chaos in classical and quantum systems 04 p0972 N93-14144
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122
On a symmetry of turbulence
[AD-A256647] 05 p1155 N93-15910
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
Laminar turbulent transition of a boundary layer by disturbances in the main stream
05 p1161 N93-16816
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Numerical analysis of the flow in a turbulated rectangular duct simulating the cooling passages in a turbine blade
[AD-A257855] 06 p1527 N93-18305
Drop/gas interactions in dense sprays
[AD-A257848] 06 p1527 N93-18347
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
Vortical and turbulent structure of planar and lobed mixer free-shear layers 06 p1533 N93-19055
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
Estimation of the direct acoustic radiation from turbulent spots. Using boundary layer velocity measurements
[AD-A258981] 06 p1534 N93-19097
Three-dimensional measurement of turbulent shear flows using digital image processing
06 p1415 N93-19319
Approximation of attractors and applications
[DE93-002420] 06 p1535 N93-19475
Turbulence scattering layers in the middle-mesosphere observed by the EISCAT 224 MHz radar
06 p1732 N93-19582
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Profile characteristics of H-mode bifurcation models and turbulence simulations with Gyro-Landau fluid models in slab and toroidal geometry
[DE93-002676] 06 p1669 N93-19896
A finite-difference multigrid algorithm for the direct numerical simulation of transition and turbulence in incompressible flow 07 p1898 N93-20168
The effects of gravity on wrinkled laminar flames
07 p1853 N93-20200
Observations of turbulence, internal waves, and background flows: An inquiry into the relationships between scales of motion
[AD-A259361] 07 p2019 N93-21244
A k-omega-multivariate beta PDF for supersonic combustion
[NASA-CR-191930] 07 p1851 N93-21749
La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Characteristics of vertical and lateral tunnel turbulence measured in air in the Langley Transonic Dynamics Tunnel
[NASA-TM-107734] 08 p2133 N93-22675
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734
Dissipative trapped electron mode turbulence with ion Landau damping and FLR effects
[DE93-004524] 08 p2494 N93-22942
Transient radiation properties of strongly radiating turbulent flames 08 p2221 N93-23181
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence
[NASA-TM-103926] 08 p2294 N93-23417
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Nonlinear optics and turbulence
[AD-A259950] 08 p2489 N93-24244
Collaborative testing of turbulence models
[AD-A260277] 08 p2298 N93-24259
The 12th Symposium on Turbulence
[AD-A260353] 08 p2298 N93-24274
Flow visualizations of perpendicular blade vortex interactions
[NASA-CR-192725] 09 p2696 N93-25208
Studies in air/air supersonic mixing layers
09 p2582 N93-26007
Turbulence interacting with chemical kinetics in airbreathing combustion of ducted rockets
09 p2625 N93-26012
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Chaos metrics for testing lagrangian particle models
[AD-A261429] 09 p2776 N93-26454
Remarks on turbulent constitutive relations
[NASA-TM-106116] 10 p3038 N93-27010
Increased heat transfer to elliptical leading edges due to spanwise variations in the freestream momentum: Numerical and experimental results
[NASA-TM-106150] 10 p3038 N93-27020
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
Simulation of boundary-layer transition: Receptivity to spike stage
[NASA-CR-191413] 10 p3040 N93-27588
Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610

A new direction in hydrodynamic stability: Beyond eigenvalues
[NASA-CR-191411] 10 p3040 N93-27688
The onset of vortex turbulence
10 p2938 N93-28251
Observations of turbulence in the surf zone
[AD-A262718] 10 p3081 N93-28397
Studies of complexity in fluid systems
[DE93-010776] 11 p3418 N93-28878
Nonconservative and reverse spectral transfer in Hasegawa-Mima turbulence
[DE93-010132] 11 p3585 N93-28913
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Chaos in mechanical systems with especial reference to rotorcraft and missiles
[AD-A263703] 11 p3604 N93-29384
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Measurement of turbulent spots and intermittency modelling at gas-turbine conditions
11 p3253 N93-29934
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Heat transfer with moderate free stream turbulence
11 p3254 N93-29936
Cooling geometry optimization using liquid crystal technique 11 p3254 N93-29939
An L2F-measurement device with image rotator prism for flow velocity analysis in rotating coolant channels
11 p3255 N93-29942
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Study of ISM turbulence using radiointerferometers (new method) 12 p3847 N93-31767

TURBULENCE EFFECTS

Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
3-D turbulent particle dispersion submodel development
[DE92-018212] 02 p0301 N93-11670
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
Leading edge film cooking heat transfer including the effect of mainstream turbulence
02 p0199 N93-11886
Examination of various turbulence models for application in liquid rocket thrust chambers
[NASA-CR-184406] 02 p0233 N93-12009
A general introduction to aeroacoustics and atmospheric sound
[NASA-CR-189717] 02 p0435 N93-12021
Cascade processes and fully developed turbulence
03 p0591 N93-13901
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Turbulent fluid motion IV-averages, Reynolds decomposition, and the closure problem
[NASA-TM-105822] 04 p0880 N93-15585
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows
05 p1152 N93-15793
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Bypass transition in compressible boundary layers
05 p1154 N93-15801
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4] 06 p1527 N93-18191
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 06 p2202 N93-22382
Numerical modelling of viscous turbomachinery flows with a pressure correction method
09 p2594 N93-25702
Flame-turbulence interactions
[AD-A260957] 09 p2645 N93-26220
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
Large eddy simulations of shockwave passage through turbulence
[DE92-019503] 11 p3419 N93-29050
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157

TURBULENCE MODELS

NT K-EPSILON TURBULENCE MODEL
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields
01 p0016 N93-10010
Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087
Unstructured mesh algorithms for aerodynamic calculations
[NASA-CR-189685] 01 p0002 N93-10097
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Turbulent mixing in compressible free shear layers
01 p0083 N93-10846
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
The prediction of convective heat transfer in rotating square ducts
[PNR-90929] 02 p0296 N93-11025
The prediction of convective heat transfer in rotating square ducts
[PNR-90985] 02 p0296 N93-11067
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Turbulence modeling in shock wave/turbulent boundary layer interactions
[NASA-CR-190933] 02 p0301 N93-11606
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
Calculation of nozzle/afbody flowfield interactions
02 p0302 N93-11722
A theory for the analysis of rotorcraft operating in atmospheric turbulence 02 p0207 N93-11725
Mode interaction models in near-wall turbulence
02 p0303 N93-11856
Examination of various turbulence models for application in liquid rocket thrust chambers
[NASA-CR-184406] 02 p0233 N93-12009
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
Three-dimensional turbopump flowfield analysis
[NASA-CR-192418] 02 p0308 N93-12539
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
The modelling of turbulence and downbursts for flight simulators 03 p0507 N93-13542
Numerical calculation of turbomachinery cascade flows 03 p0589 N93-13767
Coherent structures in compressible convection
03 p0592 N93-13964
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer
03 p0593 N93-14057
An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102
Wall layers
[AD-A256152] 04 p0872 N93-14257
Modeling of Combustion and Turbulence
[VKI-LS-1992-03] 04 p0839 N93-14617
Turbulence modeling for combustion flows
04 p0840 N93-14620
Applications of PDF turbulent combustion models to real non premixed flame calculations
04 p0841 N93-14624
Calculation of chemical reaction rates in turbulent combustion 04 p0841 N93-14625
Wave drag in the atmospheric boundary layer
04 p0915 N93-14873
On explicit algebraic stress models for complex turbulent flows
[NASA-CR-189725] 04 p0879 N93-15481
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model
[AD-A256831] 04 p0880 N93-15635
Center for Modeling of Turbulence and Transition (CMOTT): Research Briefs, 1992
[NASA-TM-105834] 05 p1152 N93-15792
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows
05 p1152 N93-15793
PDF turbulence modeling and DNS
05 p1153 N93-15794
Modeling of turbulence and transition
05 p1153 N93-15795
Turbulence modeling and experiments
05 p1153 N93-15796
Modeling of turbulent shear flows
05 p1153 N93-15797
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Two equation modeling and the pseudo compressibility technique 05 p1153 N93-15799
Renormalization group methods for the Reynolds stress transport equations 05 p1154 N93-15800
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
Tokamak turbulence in self-regulated differentially rotating flow and L-H transition dynamics
[DE93-000443] 05 p1310 N93-16451
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Renormalization group in different fields of theoretical physics
[DE92-556707] 05 p1329 N93-16648
Critical assessment of Reynolds stress turbulence models using homogeneous flows
[NASA-TM-105954] 05 p1159 N93-16703
Using a second-order turbulence radiative-convective model to study the cloud/radiation interaction with the FIRE data
[DE93-000678] 05 p1216 N93-17054
Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
Parabolized Navier-Stokes methods for hypersonic flows 06 p1529 N93-18565
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111
Numerical simulation of unsteady large scale separated flow around oscillating airfoil 06 p1410 N93-19285
The role of computational fluid dynamics in aeronautical engineering. 9: Analysis of hypersonic equilibrium air flow 06 p1412 N93-19294
Transonic flow calculation around NACA-0012
06 p1413 N93-19301
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe
06 p1413 N93-19306
Numerical study on transverse hydrogen injection into a supersonic flowfield 06 p1414 N93-19311
Numerical calculation of flow field in supersonic combustion chamber 06 p1415 N93-19317
Computational fluid dynamics research
06 p1536 N93-19455
Projectile base bleed technology. Part 2: User's guide CMINT computer code, version 5.04-BRL
[AD-A258630] 07 p1897 N93-19999
Assessment of higher order turbulence models for complex two- and three-dimensional flowfields
[NASA-TM-103944] 07 p1897 N93-20035
Turbulence modeling for hypersonic flight
[NASA-CR-192288] 07 p1760 N93-20235

The structures and the sensitivity of an incompressible turbulent boundary layer in the vicinity of the separation
[ETN-93-92557] 07 p1902 N93-20892
A k-omega-multivariate beta PDF for supersonic combustion
[NASA-CR-191930] 07 p1851 N93-21749
Thermally driven turbulence and transport in a sheared system
[DE93-006125] 08 p2491 N93-22053
Reaction and diffusion in turbulent combustion
[DE93-006185] 08 p2216 N93-22055
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Navier-Stokes analysis of airfoils with leading edge ice accretions
[NASA-CR-191008] 08 p2109 N93-22822
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
The effect of large-scale unsteady motion on a turbulent reattaching shear layer: Application to the supersonic compression ramp 08 p2114 N93-24215
Collaborative testing of turbulence models
[AD-A260277] 08 p2298 N93-24259
Assessment of closure coefficients for compressible-flow turbulence models
[NASA-TM-103882] 09 p2697 N93-25247
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
Proceedings of the NUWC Division Newport Seminar Series on Turbulence and its Control
[NUWC-NPT-TM-922089] 09 p2707 N93-26328
Remarks on turbulent constitutive relations
[NASA-TM-106116] 10 p3038 N93-27010
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432
A compressible near-wall turbulence model for boundary layer calculations 10 p2931 N93-27433
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
Unstructured mesh algorithms for aerodynamic calculations 10 p2933 N93-27444
Towards industrial-strength Navier-Stokes codes 10 p2938 N93-27468
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
Sensitivity study of cloud/radiation interaction using a second order turbulence radiative-convective model
[DE93-007365] 11 p3477 N93-29346
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353
A Navier-Stokes solver with different turbulence models applied to film-cooled turbine cascades 11 p3258 N93-29962
Navier-Stokes analysis of three-dimensional flow and heat transfer inside turbine blade rows 11 p3259 N93-29963
Overview of aerothermodynamic loads definition study 12 p3697 N93-31583
Turbulence and transition modeling for high-speed flows
[NASA-CR-191473] 12 p3727 N93-32329

TURBULENT BOUNDARY LAYER

The structure and development of streamwise vortex arrays embedded in a turbulent boundary layer 01 p0081 N93-10371
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Dynamical effects of suction/heating on turbulent boundary layers
[AD-A248459] 02 p0299 N93-11416
Progress in developing a transition model for high-speed flows 02 p0301 N93-11615
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
Mode interaction models in near-wall turbulence 02 p0303 N93-11856
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers 02 p0304 N93-12003
Laminar boundary-layer breakdown
[AD-A254489] 02 p0306 N93-12162
Carbon/carbon composition ablation effects on ionized boundary layers
[AD-A254465] 02 p0242 N93-12235
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Features of vorticity in fully turbulent flows 03 p0583 N93-13334
The three-dimensional turbulent boundary layer: Theory and application 03 p0588 N93-13749
A multiple-view visual study of the inner/outer region interactions of coherent motions in a turbulent boundary layer 03 p0591 N93-13937
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
Organized turbulent structures and their induced wall pressure fluctuations 03 p0592 N93-13952
Flow prediction for three-dimensional intakes and ducts using viscous-inviscid interaction methods 03 p0592 N93-13953
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer 03 p0593 N93-14057
An experimental and computational study of longitudinal vortices in turbulent boundary layers 03 p0595 N93-14097
Wall layers
[AD-A256152] 04 p0872 N93-14257
A numerical investigation of the interaction between crossing oblique shocks and a turbulent boundary layer 04 p0876 N93-14695
Supersonic boundary-layer flow turbulence modeling
[NASA-TM-105893] 04 p0877 N93-14758
Modeling variable blowing on a slender cone in hypersonic flow 04 p0781 N93-14836
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Boundary layer transition in Coriolis force field 05 p1160 N93-16815
Laminar turbulent transition of a boundary layer by disturbances in the main stream 05 p1161 N93-16816
Effects of mesoscale surface inhomogeneities on atmospheric boundary layer transfer
[DE93-001515] 05 p1210 N93-17480
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934
Contribution to the solution of moment equations at two points by the spectral integral methods
[ECL-92-19] 06 p1525 N93-18096
Experimental analysis of the aeroacoustics of cascaded airfoils
[AD-A257945] 06 p1526 N93-18121
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
An experimental investigation of the separating/reattaching flow over a backstep
[NASA-CR-192105] 06 p1408 N93-18781
Coherent structures in a simulated turbulent mixing layer
[NASA-TM-103980] 06 p1532 N93-18885
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Transonic flow calculation around NACA-0012 06 p1413 N93-19301
Study of a turbulent boundary layer modified by the insertion of a Large Eddy Break Up (LEBU) device
[ECL-92-11] 07 p1898 N93-20061
Visualization of turbulent flows with simultaneous velocity and vorticity measurements 07 p1900 N93-20290
The structures and the sensitivity of an incompressible turbulent boundary layer in the vicinity of the separation
[ETN-93-92557] 07 p1902 N93-20892
Swept wing attachment line contamination fence
[NASA-CASE-LAR-13400-1] 08 p2107 N93-22015
Diagnostic determination of boundary-layer cumulus clouds using HAPEX aircraft data
[DE93-002164] 08 p2402 N93-22337
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
Collaborative testing of turbulence models
[AD-A260277] 08 p2298 N93-24259
Turbulent microfronts
[AD-A260300] 08 p2409 N93-24265
Hypersonic shock/boundary-layer interaction database
[NASA-CR-177577] 08 p2299 N93-24526
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531
Three-dimensional turbulent boundary layer flow over a spinning cylinder
[NASA-TM-102240] 08 p2300 N93-24533
Intersecting shock-wave/turbulent boundary-layer interactions at Mach 8.3
[NASA-TM-103909] 08 p2300 N93-24537
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
Documentation of two- and three-dimensional shock-wave/turbulent-boundary-layer interaction flows at Mach 8.2
[NASA-TM-103838] 08 p2300 N93-24542
Surface and flow field measurements in a symmetric crossing shock wave/turbulent boundary-layer interaction
[NASA-TM-106086] 09 p2575 N93-24911
Shock tube application to the study of compressible turbulent boundary layer with mass injection 09 p2697 N93-25252
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct 09 p2699 N93-25342
Heat transfer measurements in swept shock wave/turbulent boundary-layer interactions 09 p2704 N93-25705
An experimental study of passive drag reduction in a turbulent boundary layer by a riblet surface 09 p2705 N93-25746
Large-eddy simulation of temporally developing boundary layers with embedded streamwise vortices 09 p2705 N93-25753
Correlations between organized turbulent structures and wall pressure fluctuations
[PB93-156479] 09 p2706 N93-25885
Uniform roughness studies
[WL-TR-92-3041] 09 p2706 N93-25951
Hybrid rocket fuel combustion study 09 p2626 N93-26019
Proceedings of the NUWC Division Newport Seminar Series on Turbulence and its Control
[NUWC-NPT-TM-922089] 09 p2707 N93-26328
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
Three-dimensional boundary layer calculation by a characteristic method 10 p2938 N93-27467
Towards industrial-strength Navier-Stokes codes 10 p2938 N93-27468
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935

Heat transfer with moderate free stream turbulence
11 p3254 N93-29936
Turbulent drag reduction: Studies of feedback control and flow over riblets 11 p3242 N93-30645
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014
Turbulence and transition modeling for high-speed flows
[NASA-CR-191473] 12 p3727 N93-32329

TURBULENT COMBUSTION

Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Simplified modelling of soot inception and growth
[ETN-92-92266] 02 p0246 N93-11361
The twenty-third International Symposium on combustion
[AD-A250377] 02 p0250 N93-11866
Chemical kinetic and aerodynamic structures of flames
[AD-A256015] 05 p1101 N93-15931
Modeling of turbulent supersonic H2-air combustion with an improved joint beta PDF
[NASA-CR-191929] 05 p1103 N93-16389
Reaction and diffusion in turbulent combustion
[DE93-006185] 08 p2216 N93-22055
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Combustion and heat transfer studies utilizing advanced diagnostics: Combustion studies
[AD-A260253] 08 p2224 N93-24333
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching
09 p2642 N93-24771
Eulerian-Eulerian treatment of turbulent dense spray combustion in a bipropellant liquid rocket engine
09 p2626 N93-26017
Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839

TURBULENT DIFFUSION

Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
Atmospheric dispersion in mountain valleys and basins
02 p0355 N93-11920
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
Diffusion and reaction layer structure and NOx reduction in turbulent gas flames
[PB93-114353] 07 p1850 N93-21456
Tests of random flight and closure models in predicting turbulent scalar transport
[DE93-004123] 08 p2288 N93-22521
Mesoscale atmospheric modeling for emergency response
[DE93-008509] 10 p3071 N93-26666
Turbulent exchange coefficients over a Douglas fir forest
[KNMI-WR-91-02] 10 p3070 N93-27649
Theory of tokamak edge turbulence: Drift-thermal instability-induced turbulence and ionization-driven drift wave turbulence 11 p3586 N93-29123
Application of Schlieren optical techniques for the measurement of gas temperature and turbulent diffusivity in a diesel engine
[AD-A263810] 11 p3580 N93-29880

TURBULENT FLOW

NT CAVITATION FLOW
A building-block approach for turbulence model validation/upgrade focussed on high-speed jet flowfields
01 p0016 N93-10010
LV software for supersonic flow analysis
[NASA-CR-190911] 01 p0002 N93-10069
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
Turbulence modeling of the flow field in combustors using the non-linear k-epsilon model
[DE92-014745] 01 p0080 N93-10330
Development of the finite analytic method for turbulent forced and free convection 01 p0080 N93-10369
Explicit Navier-Stokes computation of turbomachinery flows 01 p0081 N93-10370
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
A new energy transfer model for turbulent free shear flow
[NASA-TM-105854] 01 p0081 N93-10454
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
Air-sea interaction in regions of varying surface conditions
[AD-A253182] 01 p0128 N93-10791
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Turbulent mixing in compressible free shear layers
01 p0083 N93-10846
Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126]
01 p0083 N93-10859
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Turbulence measurements of high shear flow fields in a turbomachine seal configuration
01 p0093 N93-10893
CFD modeling of turbulent flows around the SSME main injector assembly using porosity formulation
[NASA-CR-184359] 02 p0297 N93-11171
Simulation of compressible turbulent flows by a mixed finite element/finite volume method
[ETN-92-92267] 02 p0299 N93-11362
An experimental study of droplet dispersion in turbulent flows 02 p0248 N93-11455
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Mode interaction models in near-wall turbulence
02 p0303 N93-11856
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers
02 p0304 N93-12003
Application of a two-layer near wall model to fully developed and rotating channel turbulent flows
[NASA-CR-184441] 02 p0305 N93-12082
Disruption shape effects on the performance of enhanced tubes with the separation and reattachment mechanism
[DE92-016602] 02 p0305 N93-12128
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
Particle-jet interactions in an MHD second stage combustor
[DE92-016390] 02 p0455 N93-12309
Probability density functions in turbulent channel flow
[NASA-CR-4454] 02 p0202 N93-12399
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Studies in premixed combustion
[DE92-018646] 02 p0254 N93-12478
On the prediction of turbulent secondary flows
[NASA-CR-189722] 03 p0575 N93-12717
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
Calibration of 2D unstructured grid methods on propulsive flowfields 03 p0582 N93-13225
Features of vorticity in fully turbulent flows
03 p0583 N93-13334
The program FANS-3D (finite analytic numerical simulation 3-dimensional) and its applications
03 p0586 N93-13399
A PDF closure model for compressible turbulent chemically reacting flows
[NASA-CR-191209] 03 p0587 N93-13453
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Limits on galactic dynamo theory due to magnetic fluctuations 03 p0754 N93-13636
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations
03 p0589 N93-13825
Cascade processes and fully developed turbulence
03 p0591 N93-13901
A multiple-view visual study of the inner/outer region interactions of coherent motions in a turbulent boundary layer 03 p0591 N93-13937
Organized turbulent structures and their induced wall pressure fluctuations 03 p0592 N93-13952
Instabilities and patterns in Taylor-Couette flow
03 p0593 N93-13965
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy
03 p0660 N93-14064
Turbulent drag and transport in high Reynolds number Couette-Taylor flow 04 p0872 N93-14119
Control of asymmetric jet
[AD-A255967] 04 p0873 N93-14400
Feedback control of flow separation and transition to turbulence in unsteady boundary layers
04 p0873 N93-14464
Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475
Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
Turbulence modeling for combustion flows
04 p0840 N93-14620
Direct simulation of turbulent combustion
04 p0840 N93-14622
Calculation of chemical reaction rates in turbulent combustion 04 p0841 N93-14625
Optical monitor for observing turbulent flow
[DE92-019831] 04 p0876 N93-14715
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
Dynamics systems applied to Navier-Stokes equations for the study of turbulence
[ETN-92-92553] 04 p0878 N93-15122
Spatio-temporal complexity and large-scale structures in problems of continuum mechanics
[AD-A256410] 04 p0998 N93-15333
Finite-difference solution for laminar or turbulent boundary layer flow over axisymmetric bodies with ideal gas, CF4, or equilibrium air chemistry
[NASA-TP-3271] 04 p0879 N93-15434
On explicit algebraic stress models for complex turbulent flows
[NASA-CR-189725] 04 p0879 N93-15481
Turbulent fluid motion IV-averages, Reynolds decomposition, and the closure problem
[NASA-TM-105822] 04 p0880 N93-15585
Lumley's energy cascade dissipation rate model for boundary-free turbulent shear flows
05 p1152 N93-15793
Modeling of turbulence and transition
05 p1153 N93-15795
Modeling of turbulent shear flows
05 p1153 N93-15797
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Turbulent boundary-layer fluctuations at the solid interface
[AD-A257253] 05 p1154 N93-15821
Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
A study of film cooling downstream of one and two rows of holes oriented in spanwise/normal planes
[AD-A257325] 05 p1156 N93-15985
Hydrodynamic effects on heat transfer for film-cooled turbine blades
[AD-A257291] 05 p1066 N93-16080
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Direct numerical simulation of turbulent flow in a square duct 05 p1158 N93-16513
Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16528
Investigation of upwind, multigrid, multiblock numerical schemes for three dimensional flows. Volume 1: Runge-Kutta methods for a thin layer Navier-Stokes solver
[NASA-CR-191648] 05 p1158 N93-16557
Passive scalar fluctuations in intermittent turbulence
[PREPRINT-779] 05 p1159 N93-16575
A realizable Reynolds stress algebraic equation model
[NASA-TM-105993] 05 p1055 N93-16596
Critical assessment of Reynolds stress turbulence models using homogeneous flows
[NASA-TM-105954] 05 p1159 N93-16703
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data
05 p1165 N93-16792

Consideration on boundary-layer receptivity
05 p1160 N93-16814
Direct numerical simulation of combustion in turbulent supersonic flow
[DS-2138] 05 p1108 N93-17746
Lift and drag forces on droplets and particles in wall-bounded shear flows
[DE93-002678] 05 p1165 N93-17761
Contribution to the solution of moment equations at two points by the spectral integral methods
[ECL-92-19] 06 p1525 N93-18096
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
Flow visualization and combustion diagnostic
06 p1485 N93-18480
Development of computational methods for heavy lift launch vehicles
[NASA-CR-192298] 06 p1456 N93-18872
Modeling the transition region
[NASA-CR-4492] 06 p1408 N93-19015
Drag reduction by polymer additives
[AD-A258867] 06 p1534 N93-19076
Program ELM: A tool for rapid thermal-hydraulic analysis of solid-core nuclear rocket fuel elements
[NASA-TM-105867] 06 p1474 N93-19106
Scattering of acoustical waves by a spinning atmospheric turbule
[AD-A258783] 06 p1652 N93-19111
LES turbulence modeling using DNS data base
06 p1409 N93-19274
Turbulence model calculations of the effects of body forces on turbulent flows in a pipe
06 p1413 N93-19306
Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312
Three-dimensional measurement of turbulent shear flows using digital image processing
06 p1415 N93-19319
Approximation of attractors and applications
[DE93-002420] 06 p1535 N93-19475
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows
[DE93-002794] 06 p1535 N93-19615
Self-regulated shear flow turbulence in confined plasmas: Basic concepts and potential applications to the L yields H transition
[DE93-002361] 06 p1668 N93-19743
On the theory of turbulent dynamics
[AD-A258695] 06 p1650 N93-19864
Effects of buoyancy on laminar, transitional, and turbulent gas jet diffusion flames
07 p1853 N93-20189
Injection of drag-reducing additives into turbulent water flows. Investigation of laser-induced fluorescence for concentration measurements
[AD-A259459] 07 p1898 N93-20243
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Analysis and evaluation of an integrated laminar flow control propulsion system
[NASA-CR-192162] 07 p1899 N93-20268
Visualization of turbulent flows with simultaneous velocity and vorticity measurements
07 p1900 N93-20290
Methodology for sensitivity analysis, approximate analysis, and design optimization in CFD for multidisciplinary applications
[NASA-CR-192172] 07 p1900 N93-20297
Study of multi jet burner for gases
[INPE-5416-TDI/480] 07 p1846 N93-20320
Stability and transition of hypersonic boundary layer
07 p1763 N93-20687
An experimental investigation of a round turbulent jet in a cross-flow 07 p1905 N93-20689
An assessment of laser velocimetry in hypersonic flow
[NASA-CR-190895] 07 p1762 N93-21556
Large eddy simulations and direct numerical simulations of high speed turbulent reacting flows
[NASA-CR-192654] 07 p1903 N93-21662
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
An axisymmetric, turbulent flow analysis of contaminant infiltration into a pressurized structure with a fabric endcap
[AD-A259344] 07 p1904 N93-21977
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Experimental and numerical investigation of passive scalar dispersal in bounded turbulent shear flows
[DE93-004122] 08 p2287 N93-22071
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Improved two-equation k-omega turbulence models for aerodynamic flows
[NASA-TM-103975] 08 p2289 N93-22809
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Automatic differentiation of advanced CFD codes for multidisciplinary design
[DE93-005685] 08 p2290 N93-22867
Surface acoustic wave sensors and piezoelectric actuators for investigations of transitional and turbulent flows
[AD-A260482] 08 p2290 N93-22932
Incompressible Navier-Stokes algorithm for flow and heat transfer over rough surfaces
08 p2290 N93-23110
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Numerical simulation of flow through orifice meters
[PB93-124121] 08 p2293 N93-23349
Transverse injection of liquid and gaseous fuels into subsonic/supersonic flow
[AD-A259771] 08 p2111 N93-23476
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
An investigation of particle turbulence quantities in a dense two-phase pipe flow, using laser Doppler velocimetry 08 p2295 N93-23496
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
A multiple-scale model for compressible turbulent flows
[NASA-TM-106072] 08 p2296 N93-23736
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865
Three-dimensional isothermal flow simulations of an MHD secondary combustor
[DE93-006631] 08 p2497 N93-24035
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
High resolution measurements of mixing and reaction processes in turbulent flows
[AD-A259952] 08 p2298 N93-24246
Collaborative testing of turbulence models
[AD-A260277] 08 p2298 N93-24259
The 12th Symposium on Turbulence
[AD-A260353] 08 p2298 N93-24274
Spatial development of chaos in an open flow system
08 p2515 N93-24293
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076
Propagation velocity and space-time correlation of perturbations in turbulent channel flow
[NASA-TM-103932] 09 p2695 N93-25082
Assessment of closure coefficients for compressible-flow turbulence models
[NASA-TM-103882] 09 p2697 N93-25247
Predictive modeling of particle-laden, turbulent flows
[DE93-008208] 09 p2698 N93-25309
Numerical simulation of a shock wave/turbulent boundary layer interaction in a duct
09 p2699 N93-25342
Dynamics of turbulent slugging in transitional pipe flow
09 p2702 N93-25548
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Computational modelling of 3D flow in complex ducts and passages 09 p2704 N93-25698
A basic research model of natural gas combustion in turbulent flow, phase 2
[PB93-158509] 09 p2644 N93-25819
Correlations between organized turbulent structures and wall pressure fluctuations
[PB93-156479] 09 p2706 N93-25885
Visualization of a Mach 2 reacting flow using Planar Laser-Induced Fluorescence (PLIF)
09 p2598 N93-26006
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Interaction of vorticity with a free surface
[AD-A261524] 09 p2707 N93-26360
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Remarks on turbulent constitutive relations
[NASA-TM-106116] 10 p3038 N93-27010
The generation of side force by distributed suction
[NASA-CR-193129] 10 p3039 N93-27151
Calculations of turbulent separated flows
[NASA-TM-106154] 10 p3039 N93-27161
Airfoil stability in turbulent flow
10 p2926 N93-27212
The addition of algebraic turbulence modeling to program LAURA
[NASA-TM-107758] 10 p3039 N93-27250
The remarkable ability of turbulence model equations to describe transition 10 p2931 N93-27432
The influence of bulges on boundary-layer instability
10 p2932 N93-27435
Calculation of fully three-dimensional separated flow with an unsteady viscous-inviscid interaction method
10 p2935 N93-27455
Prediction of airfoil stall using Navier-Stokes equations in streamline coordinates 10 p2936 N93-27456
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble
10 p2936 N93-27457
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Pseudospectral simulation of compressible turbulence using logarithmic variables
[NASA-TM-107707] 10 p3040 N93-27586
An assessment of inlet total-pressure distortion requirements for the Compressor Research Facility (CFR)
[AD-A262299] 10 p2945 N93-27679
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band
[AD-A263073] 10 p2938 N93-27955
Quasi-homogeneous critical swirling flows in expanding pipes
[MEMO-1069] 10 p3042 N93-28154
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Steady heat transfer in a tube with turbulent flow
[OEFZS-4642] 10 p3042 N93-28205
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
An efficient spectral integration method for the solution of the Navier-Stokes equations
[FFA-TN-1992-28] 11 p3418 N93-29009
High Reynolds number and turbulence effects on aerodynamics and heat transfer in a turbine cascade
[NASA-TM-106187] 11 p3420 N93-29157
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161
Development of an unstructured solution adaptive method for the quasi-three-dimensional Euler and Navier-Stokes equations
[NASA-CR-193241] 11 p3421 N93-29213
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Methods for reducing turbulent flow aero-optical distortion
[AD-A263698] 11 p3423 N93-29353
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Fluid flow and heat transfer in the entrance region of an annulus between independently rotating tubes with a turbulent axial flow 11 p3256 N93-29952

Calculations of reactive turbulent flows in aeronautical chambers 11 p3257 N93-29956
Modeling of a turbulent flow in the presence of discrete parietal cooling jets 11 p3258 N93-29960
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
GARTEUR 3D sheer layer experiment
[FFA-TN-1992-26] 12 p3671 N93-31052
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator
[AD-A265551] 12 p3685 N93-31916
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199
A critical comparison of several low Reynolds number k-epsilon turbulence models for flow over a backward facing step
[NASA-TM-106173] 12 p3809 N93-32200
Turbulence and transition modeling for high-speed flows
[NASA-CR-191473] 12 p3727 N93-32329
The prediction of noise from co-axial jets
[ISVR-TR-215] 12 p3817 N93-32339

TURBULENT HEAT TRANSFER
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
Leading edge film cooking heat transfer including the effect of mainstream turbulence 02 p0199 N93-11886
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Steady heat transfer in a tube with turbulent flow
[OEFZS-4642] 10 p3042 N93-28205
Turbulent flow and heat transfer in idealized blade cooling passages 11 p3254 N93-29938
Compressible turbulence in a high-speed high Reynolds number mixing layer 11 p3242 N93-30583

TURBULENT JETS
Combustion in turbulent jets and buoyant flames
[PB92-211481] 01 p0031 N93-10437
Pulsed jet plume combustion: An exothermic process under fluid mechanical control 01 p0032 N93-10553
Mechanisms of sound generation in subsonic jets 01 p0152 N93-10688
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Determination of turbulent velocities by nonlinear acoustic scattering
[AD-A257114] 05 p1282 N93-16121
Experiments on a round turbulent buoyant plume
[NASA-TM-105955] 05 p1129 N93-16384
An investigation of the near and induced flow fields of an axially symmetric jet, issuing normal to a plane surface, into a quiescent medium 06 p1533 N93-19041
Soot formation and radiation in turbulent jet diffusion flames under normal and reduced gravity conditions 07 p1853 N93-20192
Experiment and modeling of the noise reduction for a turbulent supersonic jet by means of a nozzle with a sudden enlargement
[MPIS-15/1991] 07 p2060 N93-21024
An experimental study of under-expanded jets 09 p2577 N93-25467
Liquid surface breakup of nonturbulent and turbulent liquids 09 p2700 N93-25473
Measurements of scalar power spectra in high Schmidt number turbulent jets
[AD-A261542] 09 p2707 N93-26379
Oxides of nitrogen emissions from turbulent hydrocarbon/air jet diffusion flames, phase 2
[PB93-152478] 09 p2768 N93-26533
Analysis of the effect of initial conditions on the initial development of a turbulent jet 10 p2932 N93-27434
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
A numerical study of confined turbulent jets
[NASA-TM-106197] 11 p3420 N93-29161

TURBULENT MIXING
Turbulent mixing in compressible free shear layers 01 p0083 N93-10846
Compressible mixing layers with and without particles
[AD-A254854] 02 p0308 N93-12435
Studies on turbulent mixing in stratified turbulent patches 03 p0587 N93-13532
The theory and numerical simulation of non-local mixing-length convection 04 p1015 N93-14147
Chemical reactions in turbulent mixing flows
[AD-A256004] 04 p0842 N93-15114
Computation of supersonic jet noise under imperfectly expanded conditions
[NASA-TM-105961] 04 p0975 N93-15430
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Coherent structures in a simulated turbulent mixing layer
[NASA-TM-103980] 06 p1532 N93-18885
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
Observations of turbulence, internal waves, and background flows: An inquiry into the relationships between scales of motion
[AD-A259361] 07 p2019 N93-21244
Lewis number effects on turbulent premixed flame structure
[DE93-002571] 07 p1852 N93-21976
An experimental study of under-expanded jets 09 p2577 N93-25467
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Computation of broadband mixing noise from turbomachinery
[AD-A261611] 09 p2846 N93-26165
Experiments on the physics of turbulent mixing in stably stratified ocean layers
[AD-A261312] 09 p2790 N93-26298
Turbulent mixing layers in the interstellar medium of galaxies 10 p3198 N93-26863
The parameterization of vertical turbulent mixing processes in a general circulation model of the tropical Pacific
[KNMI-WR-92-03] 12 p3758 N93-31594

TURBULENT WAKES
NT PROPELLER SLIPSTREAMS
Echo characteristic analysis of the nonequilibrium wakes of reentry vehicle
[AD-A254249] 01 p0013 N93-10705
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model
[MPIS-9/1991] 04 p0781 N93-15131
Modelling of interfacial and thermocline waves
[AERO-REPT-9211] 06 p1525 N93-18105
Numerical investigation of swirl-airfoil interactions in transonic area
[MPIS-8/1991] 06 p1407 N93-18627
Heat Transfer and Cooling in Gas Turbines
[AGARD-CP-527] 11 p3252 N93-29926
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions 11 p3253 N93-29933

TURING MACHINES
Processor controlpath microarchitecture synthesis based on the A(asterisk) algorithm
[MEMO-INF-92-10] 04 p0963 N93-15083
Automated coding and intersecting cube theory
[ETN-92-92675] 04 p0941 N93-15123
Neural-network acceptors
[MEMO-INF-92-36] 05 p1260 N93-16666
Using recurrent networks for dimensionality reduction
[AD-A259497] 08 p2459 N93-23464
Undecidability in macroeconomics
[NASA-CR-192979] 10 p3169 N93-27013
Automated reasoning with function evaluation for COCOLOG
[INRIA-RR-1713] 11 p3529 N93-29488
Tapes, queues and communicating automata in DIAC
[REPT-92-94] 12 p3789 N93-31631

TURKEY
National scene in information and documentation activities and recent developments in the Documentation Center of TUBITAK (TURDOK) 01 p0173 N93-10594

TURNING FLIGHT
Flight simulation evaluation of the flyability of curved MLS approaches with wide-body aircraft
[NLR-TP-90238-U] 06 p1452 N93-17875
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
Fuzzy logic mode switching in helicopters 08 p2455 N93-22367
The effect of a finite roll rate on the miss-distance of a bank-to-turn missile 10 p2925 N93-27208

TVC (CONTROL)
U THRUST VECTOR CONTROL

TVD SCHEMES
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer 01 p0005 N93-10889
Difference approximations for hyperbolic conservation laws and consistency with characteristics
[NAL-TR-1098T] 02 p0428 N93-12350
Eno-Osher schemes for Euler equations
[NASA-TM-105928] 04 p0969 N93-15341
Hypersonic flows including real gas effects
[AERO-REPT-9112] 05 p1054 N93-16467
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
A time-accurate high-resolution TVD scheme for solving the Navier-Stokes equations
[NASA-TM-106056] 08 p2466 N93-22664
An upwind method for the solution of the 3D Euler and Navier-Stokes equations on adaptively refined meshes
[AD-A262863] 11 p3423 N93-29472

TWILIGHT GLOW
Anomalous aspects of magnetosheath flow and of the shape and oscillations of the magnetopause during an interval of strongly northward interplanetary magnetic field
[NASA-CR-192851] 09 p2770 N93-25081
Magnetotail structures in a simulated Earth's magnetosphere
[NASA-CR-193090] 10 p3072 N93-27144
An assessment of twilight airglow inversion procedures using atmosphere explorer observations
[NASA-CR-193205] 10 p3072 N93-27483

TWINNING
NT MECHANICAL TWINNING
Plasticity of single crystalline Al3X intermetallic compounds
[AD-A254282] 01 p0040 N93-10766
Effect of substrate-twin-induced microstructure on transport properties of epitaxial Tl2Ba2CaCu2O(x) films in a magnetic field
[DE93-000605] 05 p1324 N93-17226
Twin boundaries, interfaces and modulated structures in martensites
[DE93-002136] 05 p1118 N93-17759
Quartz crystal twinning under mechanical stress: Finite element analysis 09 p2839 N93-25032

TWISTING
Vibrations of nonlinearly pretwisted asymmetrical thick turbine blades 01 p0009 N93-10537
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694

TWO BODY ORBITS
U TWO BODY PROBLEM

TWO BODY PROBLEM
Two-body nonleptonic decays of D mesons
[PREPRINT-859] 05 p1289 N93-17016
A two body relativistic equation for interacting nucleons
[NOTA-INTERNA-976] 05 p1295 N93-17630
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
Lifetime of binary asteroids versus gravitational encounters and collisions 06 p1703 N93-19138
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
The two black hole problem in 3+1 general relativity: Analytical approximations and numerical solutions of the initial data 08 p2548 N93-23212
A numerical solution of the two-center problem
[DE92-644674] 11 p3551 N93-30913
General method for reducing the two-body Dirac equation
[DE93-609833] 11 p3607 N93-30943

TWO DIMENSIONAL BODIES
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101

Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method
06 p1410 N93-19281
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Recognizing 3D objects for 2D images: An error analysis
[AD-A260150] 08 p2469 N93-23707

TWO DIMENSIONAL BOUNDARY LAYER

Evaluation and application of the Baldwin-Lomax turbulence model in two-dimensional, unsteady, compressible boundary layers with and without separation in engine inlets
[NASA-TM-105810] 01 p0079 N93-10087
On the coupling between a supersonic boundary layer and a flexible surface
[NASA-CR-189697] 01 p0082 N93-10757
Fully nonlinear development of the most unstable goertler vortex in a three dimensional boundary layer
[NASA-CR-189710] 02 p0301 N93-11633
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175

TWO DIMENSIONAL FLOW

NT COUETTE FLOW
A globally well-posed accurate and efficient finite element CFD algorithm for compressible aerodynamics
01 p0003 N93-10306
Improved numerical simulation of Euler equations
01 p0080 N93-10309
A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375
A field panel method for transonic flows
01 p0006 N93-10547
FLASH: A finite element computer code for variably saturated flow
[DE92-018038] 01 p0084 N93-10868
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
An adaptive differencing scheme for elliptic flows
02 p0297 N93-11197
Using NEKTON to solve systems of discrete Boltzmann equations
[DE92-018272] 02 p0303 N93-11799
Air ejector experiments using the two-dimensional supersonic cascade tunnel: Relationship between ejector performance and throat area ratio, part 1
[NAL-TM-642-PT-1] 02 p0202 N93-12352
The multidimensional self-adaptive grid code, SAGE
[NASA-TM-103905] 03 p0683 N93-12719
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
Mathematical problems in inviscid hypersonic flow
03 p0493 N93-13451
Variational characterizations of steady two-dimensional vortex motions 03 p0589 N93-13781
Overall effects of separation on thin aerofoils
[ISBN-0-315-67464-4] 03 p0496 N93-13930
An investigation of genuinely multidimensional schemes for the Euler equations 04 p0876 N93-14694
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Supersonic investigation of two dimensional hypersonic exhaust nozzles
[NASA-TM-105687] 04 p0800 N93-15342
Correlation theory of a two-dimensional plasma turbulence with shear flow
[DE93-000880] 05 p1309 N93-16308
Mixing and reaction in the subsonic 2-D turbulent free shear layer 05 p1054 N93-16508
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543
Instability of spatially periodic flows
05 p1160 N93-16810
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Flow visualization and combustion diagnostic
06 p1485 N93-18480
On the numerical approximation of the k-epsilon turbulence model for two dimensional compressible flows
[INRIA-RR-1526] 06 p1530 N93-18622
Exact-gradient shape optimization of a 2D Euler flow
[INRIA-RR-1540] 06 p1530 N93-18623
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Lifting-surface-method
06 p1410 N93-19281
Numerical calculations of separating flows around oscillating airfoil 06 p1410 N93-19284
Numerical simulation of flow for a scramjet nozzle
06 p1412 N93-19299
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme
06 p1414 N93-19308
A numerical investigation for supersonic inlet
06 p1415 N93-19315
A numerical simulations of inner flow of scramjet
06 p1415 N93-19318
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
Computational techniques for flows with finite-rate condensation
[NASA-CR-192093] 06 p1535 N93-19858
Assessment of higher order turbulence models for complex two- and three-dimensional flowfields
[NASA-TM-103944] 07 p1897 N93-20035
La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948
Laminar and turbulent incompressible fluid flow analysis with heat transfer by the finite element method
08 p2291 N93-23180
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
A comparison between direct and iterative methods to solve the linear systems arising from a time-dependent 2D groundwater flow model
[CWI-NM-R9205] 10 p3113 N93-27302
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587
Steady incompressible flow around objects in general coordinates with a multigrid solution method
[REPT-92-48] 10 p3041 N93-27884
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
Numerical computation of inviscid flow around nose tip of Space Shuttle with NND scheme
[AD-A264012] 11 p3421 N93-29260
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935
A theoretical and computational study on active wake control 11 p3243 N93-30892
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106

TWO DIMENSIONAL JETS

Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811

TWO DIMENSIONAL MODELS

Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Ceramic component reliability with the restructured NASA/CARES computer program
[NASA-TM-105856] 02 p0334 N93-11004
Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020
The Kalman filter for two-dimensional stable and unstable atmospheres 02 p0359 N93-11249
Mixing regimes in a spatially confined, two-dimensional, supersonic shear layer
[AD-A254302] 02 p0302 N93-11756
Effects of stratospheric aerosol surface processes on the LLNL two-dimensional zonally averaged model
[DE92-019620] 03 p0646 N93-13646
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
Finite element study of ultrasonic imaging
03 p0700 N93-13774
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions
03 p0657 N93-13793
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence
03 p0590 N93-13900
Development of two-dimensional parametric radar signal modeling and estimation techniques with application to target identification
[AD-A252602] 03 p0567 N93-13939
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Coherent structures in compressible convection
03 p0592 N93-13964
A numerical study of hypersonic flows using the full Navier-Stokes equations with different air models
03 p0594 N93-14061
The method of minimal representations in 2D Ising model calculations
[AD-A256581] 04 p0967 N93-14270
Analysis of projections of the transfer matrix in 2D Ising models
[AD-A256583] 04 p0967 N93-14271
An investigation into the role of moist, vertical drafts in the rotational development of storms
04 p0923 N93-15087
An experimental investigation of base bleed effect on the wake turbulent structure behind a two-dimensional blunt model
[MPIS-9/1991] 04 p0781 N93-15131
Progress on the development of a 2-D PIC/Monte Carlo model of glow discharges
[DE92-040226] 04 p0989 N93-15422
Nonlinear finite element analysis of metals and metal matrix composites: A local-global investigation
[AD-A256782] 04 p0838 N93-15625
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies
05 p1214 N93-16507
Autonomous environment modeling by a mobile robot
[LAAS-91381] 05 p1179 N93-17493
Image representation of l(sub 2) 2D systems with finite dimensional autonomous part
[REPT-92-24] 05 p1253 N93-17729
Applied grid generation for complex domains in 2 and 3 dimensions 06 p1528 N93-18541
Numerical simulation of the flow through non-uniform airfoil cascade 06 p1414 N93-19310
A two-dimensional particle simulation of parallel plate Radio-Frequency (RF) glow discharges
[AD-A258856] 06 p1510 N93-19349
Two-dimensional chirp mapping of deep, fluctuating radar targets 06 p1517 N93-19543
Physically transparent formulation of a free-electron laser in the linear gain regime
[DE93-002577] 06 p1542 N93-19626
Application of the MESA reactive hydrocode to space vehicle explosive ordnance devices
07 p1865 N93-20150
A numerical investigation of squall lines
[ISBN-0-315-69244-8] 07 p2011 N93-20280
Two-dimensional planar geosystems subjected to three-dimensional dynamic loads
[AD-A258723] 07 p1921 N93-20325
Quantum dynamics of shock waves in molecular crystals
[AD-A258749] 07 p2079 N93-20404
On the origin of SL(nC) current algebra in generalized two dimensional gravity
[PREPRINT-818] 07 p2055 N93-21180
Two-parameter quantum groups
[PREPRINT-820] 07 p2060 N93-21182
Interaction of externally-driven acoustic waves with compressible convection
[DE93-003800] 08 p2476 N93-22775
Advanced reinforcement systems for intermetallic applications
[NASA-CR-4488] 08 p2209 N93-22875
Recent results of multimagnetical simulations of the Ising model
[DE93-005213] 08 p2475 N93-22951
An MHD study of the interaction between the solar wind and the interstellar medium
[NASA-CR-192353] 08 p2556 N93-23067
Focused two-dimensional radar imaging using coherent time domain signals
[ESA-TT-1272] 08 p2263 N93-23331
Nonlinear gravity wave transport and its role in the general circulation of the atmosphere
[AD-A259659] 08 p2396 N93-23657
Develop an x-windows tool to compute Gaussian beam synthetic seismograms
[AD-A260034] 08 p2400 N93-24253
The rate form of equilibrium equation for problems of steady-state, elastic, viscous flows
09 p2704 N93-25708
Workshop Report: A validation study of Navier-Stokes codes for transverse injection into a Mach 2 flow
09 p2624 N93-26008

ADCIRC: An advanced three-dimensional circulation model for shelves, coasts, and estuaries. Report 1: Theory and methodology of ADCIRC-2DDI and ADCIRC-3DL
[AD-A261608] 09 p2790 N93-26164
Model fan passage flow simulation
[AD-A261613] 09 p2707 N93-26167
Merging sparse optical flow and edge connectivity between image features: A representation scheme for 2-D display of scene depth 10 p2921 N93-27179
Moving-finite-element solution of time-dependent partial differential equations in two space dimensions
[CWI-NM-R9206] 10 p3113 N93-27303
Algebraic conformal field theory
[NIKHEF-H/91-26] 10 p3128 N93-27507
Determination of flow-regime boundaries for cohesive particles
[DE93-011542] 10 p3042 N93-26236
Coarse image motion for saccade control
[OUEL-1916/92] 11 p3523 N93-28485
A study of the physical mechanisms for filament eruption and coronal mass ejection via numerical simulation
[NASA-CR-193180] 11 p3653 N93-28935
Remote vehicle survey tool
[DE93-010822] 11 p3460 N93-29255
Two-dimensional model for current and heat transport in solid-armature railguns
[AD-A262014] 11 p3271 N93-29394
Modeling the D3-D plasma boundary with the LEDGE code
[DE93-009301] 11 p3588 N93-29772
Two-parameter crack tip field associated with stable crack growth in a thin plate: A hybrid analysis
[AD-A264221] 11 p3453 N93-30147
Modal synthesis technique used in shallow doublewall
[FFA-TN-1992-29] 12 p3722 N93-31053
Modeling studies of ice-ocean dynamics and thermodynamics
[AD-A264084] 12 p3769 N93-31082
Quasi-parallel shock re-formation: Two-dimensional simulations 12 p3826 N93-31682
Relaxational dynamics and precursor domains in the non-linear shell model
[DE92-642676] 12 p3820 N93-31805

TWO FLUID MODELS

Numerical study of mixing of two fluids under low gravity
[NASA-TM-105865] 04 p0878 N93-14914
A visualization study of the diffusion process between two liquids of different densities under microgravity conditions 07 p1806 N93-21095
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Studies of fluctuation processes in nuclear collisions
[DE93-011263] 11 p3576 N93-30054

TWO PHASE FLOW

Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
A new two-phase flow and transport model with interphase mass exchange
[PB92-206564] 02 p0298 N93-11251
Measuring and modelling of particle-fluid flow in a riser reactor
[VTT-PUBS-88] 02 p0299 N93-11359
Solution of two-phase reacting flow in liquid thrust chambers 02 p0235 N93-11449
Interfacial area and two-phase flow structure development measured by a double-sensor probe
[DE92-019459] 02 p0300 N93-11538
Reactant gas flow fields in advanced PEM (Proton Exchange Membrane) fuel cell designs
[DE92-018897] 02 p0345 N93-11626
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
3-D turbulent particle dispersion submodel development
[DE92-018228] 02 p0302 N93-11671
Current Technology for Thermal Protection Systems
[NASA-CP-3157] 02 p0227 N93-12447
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247
Two-phase flow modeling with discrete particles
[DE92-017850] 03 p0583 N93-13356
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program 03 p0584 N93-13389
Development status of SINDA/FLUINT and SINAPS 03 p0585 N93-13393
Aerospace applications of SINDA/FLUINT at the Johnson Space Center 03 p0586 N93-13401
Two-phase/two-phase heat exchanger simulation analysis 03 p0586 N93-13402
Numerical investigation of non-spherical droplet dynamics in viscous convective flows 03 p0591 N93-13918
Adiabatic two-phase flow in a test section with partial flow blockages
[DE92-016360] 04 p0877 N93-14816
Development of an electrical impedance computed tomographic two-phase flows analyzer
[DE92-040527] 05 p1155 N93-15923
Present state-of-the-art of two-phase flow model calculations
[DE92-041124] 05 p1156 N93-16159
Interfacial area and interfacial transfer in two-phase flow systems
[DE93-000647] 05 p1157 N93-16378
Stability of multiphased rotating fluid systems subjected to variable gravitational forces, phase 1
[CTN-93-60610] 05 p1157 N93-16425
Gas bubble motion in liquid metals and aqueous solutions in low gravity environments
[CTN-93-60607] 05 p1162 N93-16838
Boiling heat transfer of refrigerant R-113 in a small-diameter, horizontal tube
[DE93-002351] 05 p1163 N93-17038
Numerical and physical modelling of bubbly flow phenomena
[DE93-003145] 06 p1535 N93-19500
Film condensation in a horizontal rectangular duct
[NASA-CR-191061] 07 p1898 N93-20063
Research on two phase fluid loop type heat rejection technology 07 p1791 N93-20421
Quenching of a tube and filling of a vessel under microgravity 07 p1806 N93-21096
Effect of surface active materials on bubble dynamics in two-phase flow
[AD-A259340] 07 p1902 N93-21264
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
Simulation of a particle-laden combustion flow in an MHD second stage combustor
[DE93-004244] 08 p2491 N93-22065
Theoretical and pragmatic modelling of governing equations for a two-phase flow in bubbly and annular flow regimes
[DE93-004200] 08 p2289 N93-22757
Engineering aspects of two-phase flow systems for heat transport 08 p2247 N93-22833
First results of a Freon 12 capillary pumped loop 08 p2249 N93-22846
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Thermal gravitational modelling and scaling of two-phase heat transport systems: Similarity considerations and usefui equations, predictions versus experimental results 08 p2252 N93-22866
An investigation of particle turbulence quantities in a dense two-phase pipe flow, using laser Doppler velocimetry 08 p2295 N93-23496
Determination and characteristics of the transition to two-phase slug flow in small channels
[DE93-004250] 08 p2299 N93-24434
Design manual for two-phase components of spacecraft thermal management systems
[AD-A260027] 08 p2196 N93-24439
Fuel Injector: Air swirl characterization aerothermal modeling, phase 2, volume 2
[NASA-CR-189193-VOL-2] 09 p2592 N93-25106
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Flow visualizations of perpendicular blade vortex interactions
[NASA-CR-192725] 09 p2696 N93-25208
Two-phase/two-phase heat exchanger analysis
[NASA-CR-192783] 09 p2697 N93-25221
Measurement of velocities in gas-liquid two-phase flow using laser Doppler velocimetry
[DE93-008083] 09 p2698 N93-25306
Annular flow enhanced two-phase evaporative heat exchanger for space-based systems 09 p2700 N93-25478
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Resonant mode interactions and the bifurcation of combustion-driven acoustic oscillations in resonance tubes
[DE93-009448] 10 p2995 N93-28159
An experimental study of a plunging liquid jet induced air carryunder and dispersion
[AD-A262791] 10 p3043 N93-28405
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694
In-STEP Two-Phase Flow (TPF) thermal control experiment 11 p3265 N93-28719
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Evolution of flow disturbances in cocurrent gas-liquid flows
[DE93-010083] 11 p3422 N93-29326
Use of a genetic algorithm to solve two-fluid flow problems on an NCUBE multiprocessor computer
[DE93-009630] 11 p3425 N93-30184
Towards a better hydro for dynamic mix calculations
[DE93-010702] 11 p3426 N93-30485
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Prediction of gas-liquid two-phase flow regime in microgravity
[NASA-TM-106274] 11 p3352 N93-30939

TWO PHASE SYSTEMS

U BINARY SYSTEMS (MATERIALS)

TWO PHOTON COHERENT STATES

U SQUEEZED STATES (QUANTUM THEORY)

TWO STAGE TURBINES

Estimating turbine limit load
[NASA-CR-191105] 09 p2580 N93-25883
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine 12 p3697 N93-31584

TYPHOID

Immunization of personnel traveling to a destination in tropical countries: French position 02 p0380 N93-11304
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits 02 p0381 N93-11305
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306

TYPHOONS

Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Upper-tropospheric forcing of the intensification rates of tropical cyclones Flo and Ed based on TCM-90 observations
[AD-A257659] 05 p1218 N93-17680
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Typhoon prediction (recurvature - 1990 experiment)
[AD-A260673] 09 p2786 N93-25892
Effects of Taiwan orography on the motion and structure of typhoons
[AD-A261819] 09 p2786 N93-26270
The relationship between satellite-derived cloud parameters and measured maximum wind speed in the typhoon genesis stage 10 p3075 N93-26993

U

U.S.S.R.

Geomechanical models of impact cratering: Puchezh-Katunki structure 01 p0114 N93-10151
Soviet optical processing research. FSAC Technical Assessment Report (TAR)
[PB92-195569] 01 p0172 N93-10431
JPRS report: Science and technology. Central Eurasia: Engineering and equipment
[JPRS-UEQ-92-009] 02 p0220 N93-11169
Soviet chemical propellant research and development
[PB92-195577] 02 p0275 N93-12147
Demonstration of a joint US-Russian very long baseline interferometry tracking capability 06 p1458 N93-18911
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609

Optoelectronics research in the former Soviet Union
[PB93-111516] 07 p2069 N93-21804
Soviet automated rendezvous and docking system overview 08 p2142 N93-22265
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-001] 08 p2153 N93-23103
Parallel processing research in the former Soviet Union
[PB93-134435] 08 p2447 N93-23204
Extraction of information from satellite imagery to a GIS for environmental monitoring of the mining areas in northeastern Estonia 08 p2352 N93-23560
Cesium-137 in soil texture fractions and its impact on cesium-137 soil-to-plant transfer
[OEFZS-4632] 08 p2375 N93-24456
Penetration mechanics research in the former Soviet Union
[PB93-146488] 08 p2259 N93-24495
Selected translated abstracts of Russian-language climate-change publications: 1. Surface energy budget
[DE93-003189] 09 p2760 N93-24952
Digest of Russian Space Life Sciences, issue 33
[NASA-CR-3922(39)] 09 p2792 N93-25195
JPRS report: Central Eurasia. Aviation and cosmonautics, no. 9, September 1992
[JPRS-UAC-93-003] 09 p2574 N93-26325
Science, Technology, and Industrial Policy in the Former Soviet Union
[DE93-006528] 09 p2887 N93-26499
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
The applicability and availability of Former Soviet Union (FSU) space-related capabilities and facilities to energy-related space activities of Department of Energy, Department of Defense and National Aeronautics and Space Administration
[DE93-010286] 12 p3686 N93-32178

U.S.S.R. SPACE PROGRAM

JPRS report: Science and technology. Central Eurasia: Space. Development of Soviet spacecraft for manned missions
[JPRS-USP-92-003] 02 p0224 N93-11162
National Aeronautics and Space Administration 05 p1358 N93-17090
Soviet automated rendezvous and docking system overview 07 p1818 N93-21444
Research experiences on materials science in space aboard Salyut and Mir 08 p2185 N93-22620
French Mir missions 08 p2156 N93-24348
Mir '92 project 08 p2157 N93-24350
The joint Austro-Soviet space project Austromir-91 08 p2157 N93-24353
Flight experiences on board Space Station Mir 08 p2157 N93-24355
VideoMir: Satellite video conferencing during the AustroMir spaceflight 08 p2158 N93-24356
Technical management and test procedures for AustroMir-1991 08 p2158 N93-24357
First experience with the ASN-16 GLONASS receiver 09 p2693 N93-25033
Former Soviet Republic capabilities in space and science
[DE93-007613] 09 p2598 N93-25322
JPRS report: Science and technology. Central Eurasia: Space
[JPRS-USP-93-002] 10 p2948 N93-27286

U-2 AIRCRAFT

The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168

UARS (SATELLITE)

U UPPER ATMOSPHERE RESEARCH SATELLITE (UARS)

UH-60A HELICOPTER

The relationship between environmental conditions and UH-60 cockpit temperature
[AD-A255918] 03 p0680 N93-14090
A simulation model of atmospheric turbulence for rotorcraft applications 04 p0920 N93-14588
Crash experience of the US Army Black Hawk helicopter 06 p1427 N93-19688
Variable control system limits on Black Hawk and Seahawk helicopters
[AD-A259624] 08 p2132 N93-24153
An integrated Rotorcraft Avionics/Controls Architecture to support advanced controls and low-altitude guidance flight research
[NASA-TM-103983] 08 p2134 N93-24493
Techniques for designing rotorcraft control systems
[NASA-CR-192960] 09 p2597 N93-26046
Helicopter forced response vibration analysis method RTVIB20
[AD-A261809] 09 p2597 N93-26260
Helicopter approach capability using the differential global positioning system
[NASA-CR-193183] 11 p3245 N93-28936

UHTREX (NUCLEAR REACTORS)

U HIGH TEMPERATURE NUCLEAR REACTORS

UK SPACE PROGRAM

United Kingdom Earth observation programme 08 p2373 N93-23848

ULCERS

Use of RNA hybridization in the diagnosis of a case of ulceroglandular tularemia
[FOA-B-40422-4.4] 10 p3083 N93-28212

ULLAGE

DSP propulsion system launch configuration and related testing 01 p0024 N93-10048

ULTRAHIGH FREQUENCIES

Dynamic positioning systems photogrammetric
[AD-A254250] 01 p0008 N93-10898
An uncertainty budget for VHF and UHF reflectometers
[NPL-DES-120] 02 p0281 N93-11395
Review of spaceborne and airborne SAR systems 03 p0565 N93-13060
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
IRD dropout study
[NASA-CR-192413] 05 p1139 N93-16381
High efficiency UHF oscillator for portable battery-powered applications
[DE92-040961] 05 p1150 N93-17353
Cascaded convolutional codes 06 p1458 N93-19429
Effects of wind turbines on UHF television reception: Field tests in Denmark, November 1991
[BBC-RD-1992/7] 07 p1885 N93-21365
Design of a low phase noise UHF oscillator using a partly metallized dielectric resonator 09 p2693 N93-25003
Flight termination receiver catalog
[AD-A261558] 09 p2682 N93-26460
L- and K-band LMSS propagation measurements using MARECS-B, OLYMPUS, and ACTS 09 p2683 N93-26467

ULTRAHIGH VACUUM

UHV-compatible electrostatically-driven tuning fork chopper
[AD-A256943] 05 p1280 N93-16208
Advanced UHV thin-film deposition facility for research in superconductivity and superconducting electronics
[AD-A259089] 07 p1889 N93-20395
High pressure heterogeneous catalysis in a low pressure ultrahigh vacuum environment
[DE93-005917] 08 p2479 N93-22418
Cryogenic ultrahigh vacuum scanning tunneling microscopy
[AD-A262264] 10 p2995 N93-28187
Undulator Spectromicroscopy Facility at the Advanced Light Source
[DE93-007984] 11 p3261 N93-28490
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247
Development of an O atom gun
[AD-A264753] 11 p3570 N93-30558

ULTRALIGHT AIRCRAFT

The Ultra Light Aircraft Testing
[NASA-CR-193043] 11 p3249 N93-29774
Report on the test set-up for the structural testing of the Airmass Sunburst Ultralight Aircraft 11 p3249 N93-29775
Load test set-up for the Airmass Sunburst Ultra-Light Aircraft 11 p3249 N93-29776
NASTRAN analysis for the Airmass Sunburst model 'C' Ultralight Aircraft 11 p3249 N93-29777
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model 11 p3243 N93-29778

ULTRALOW FREQUENCIES

U EXTREMELY LOW RADIO FREQUENCIES

ULTRALOW TEMPERATURE

U CRYOGENIC TEMPERATURE

ULTRASONIC CLEANING

Ultrasonic poiishing 09 p2670 N93-25580
Development of a replacement for trichloroethylene in the two-stage cleaning process
[KCP-613-4941] 09 p2669 N93-26207

ULTRASONIC FLAW DETECTION

Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
Ultrasonic flaw classification and sizing 02 p0333 N93-12533
Review of progress in quantitative NDE
[DE92-018814] 03 p0620 N93-13071
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
Nondestructive evaluation of electrodeposited chromium
[AD-A259884] 08 p2321 N93-24020
Ultrasonic inspection of filament wound graphite epoxy cylinders
[AD-A260361] 08 p2321 N93-24173
Diffusion bonding
[DE93-011480] 11 p3442 N93-28837
Ultrasonic detection and identification of fabrication defects in composites 11 p3305 N93-30856

ULTRASONIC GRINDING MACHINES

U ULTRASONIC MACHINING

ULTRASONIC MACHINING

Ultrasonic polishing 09 p2670 N93-25580

ULTRASONIC RADIATION

Instrument driver for general purpose interface bus (IEEE-488)
[AD-A253947] 01 p0138 N93-10716
Interaction of sound with sound by novel mechanisms: Ultrasonic four-wave mixing mediated by a suspension and ultrasonic three-wave mixing at a free surface
[AD-A254657] 02 p0435 N93-12097
Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816
Remote techniques for time-of-flight flaw characterisation 04 p0989 N93-14171
Geophysical investigation and characterization with USRADS
[DE93-001363] 05 p1210 N93-17460
Sonogels in the preparation of advanced glass and ceramic materials
[AD-A258184] 06 p1491 N93-17899
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Defect analysis using advanced interpretation of the reflected wave during ultrasonic scanning 07 p1843 N93-21528
Methods of determining loads and fiber orientations in anisotropic non-crystalline materials using energy flux deviation
[NASA-CASE-LAR-14399-1] 09 p2729 N93-26102
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
Constant frequency pulsed phase-locked loop measuring device
[NASA-CASE-LAR-13823-1] 11 p3431 N93-29084

ULTRASONIC SCANNERS

Damage detection by Acousto-Ultrasonic Location (AUL) 07 p1843 N93-21529
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768

ULTRASONIC TESTS

Ultrasonic characterization of highly attenuative thick composites
[AD-A253347] 01 p0027 N93-10272
Surface reconstruction of a three-dimensional ultrasonic flaw
[DE92-018029] 02 p0332 N93-11154
Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system
[DE92-017916] 02 p0333 N93-12055
A VMEbus ultrasonic sensor controller for mapping and servo control in robotic systems
[DE92-013661] 02 p0421 N93-12138
Impact test of carbon, Kevlar, and glass fibre hybrid FRP plates
[NAL-TR-1100] 02 p0243 N93-12371
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Advanced research in instrumentation and diagnostics technology
[DE92-041121] 04 p0883 N93-15411

In-suit Doppler technology assessment
[NASA-CR-185692] 06 p1537 N93-18428
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
An acousto-ultrasonic NDE technique for monitoring material anisotropy
[DE93-002994] 07 p1919 N93-21982
Zero sound experiments in superfluid He3
[ISBN-951-22-0841-5] 08 p2476 N93-23005
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry
[DE93-003741] 08 p2220 N93-23051
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
Acoustic emission of structural materials exposed to open flames
[PB93-138980] 08 p2477 N93-23951
Ultrasonic inspection of filament wound graphite epoxy cylinders
[AD-A260361] 08 p2321 N93-24173
Investigation of corrosion in aluminum/adhesive lap-splices using pulse-echo ultrasonic techniques
[DE93-008074] 09 p2721 N93-25518
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements
09 p2635 N93-25544
In-situ ultrasonic C-scanner
[AD-A261113] 09 p2638 N93-25768
Nondestructive evaluation of ferrite c-cores
[KCP-613-4677] 09 p2721 N93-25939
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Crack length determination by ultrasonic methods
[DE93-008075] 11 p3450 N93-28567
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Performance of an impact loaded sandwich plate
[VTT-JULK-767] 12 p3702 N93-32388

ULTRASONIC WAVE TRANSDUCERS
The use of ultrasonics for oleo compression measurements on a S-70B-2 (Seahawk) helicopter
[AD-A256315] 04 p0792 N93-15328
Experiment and modeling of air-coupled ultrasonic excitation of plate waves 07 p1936 N93-20679
Fluid density and concentration measurement using noninvasive in situ ultrasonic resonance interferometry
[DE93-003741] 08 p2220 N93-23051

ULTRASONIC WAVES
U ULTRASONIC RADIATION

ULTRASONIC WELDING
Performance of thermal adhesives in forced convection 11 p3293 N93-30974

ULTRASONICS
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Dynamics and response of polymer-coated acoustic devices
[DE92-014289] 02 p0433 N93-11523
Finite element study of ultrasonic imaging
03 p0700 N93-13774
Innovative techniques for studying new materials and new developments in solid state physics
[AD-A256394] 04 p0996 N93-15465
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
An analysis of temperature-induced errors for an ultrasound distance measuring system
[NASA-CR-191859] 05 p1282 N93-16676
Rapid detection and quantification of features such as damage or flaws in composite and metallic structures
[NASA-CASE-LAR-14850-1-CU]
05 p1182 N93-17048
Comparison of the measurements of temperature and sensible heat flow with an ultrasonic anemometer-thermometer and a temporal high resolution platinum wire-resistance thermometer
[GKSS-92/E/11] 07 p1907 N93-21461
Research in ultrasonic measurements at NIST: 1982-1992
[PB93-152064] 08 p2476 N93-23682
Determination of plate wave velocities and diffuse field decay rates with braod-band acousto-ultrasonic signals
[NASA-TM-106158] 10 p3055 N93-27080
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191

ULTRAVIOLET ABSORPTION
The AlCl absorption feature in solid rocket plume radiation
[AD-A256645] 05 p1089 N93-15700
Chemical characterization of some aqueous leachates from crop residues in 'CELSS' 06 p1594 N93-19399
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949

ULTRAVIOLET ASTRONOMY
Far ultraviolet spectrophotometry of hot stars and calibration standards in the far ultraviolet
02 p0482 N93-11373
Ultraviolet spectra of stars and stellar systems
04 p1011 N93-14593
Ultraviolet observations of close-binary and pulsating nuclei of planetary nebulae; Winds and shells around low-mass supergiants; The close-binary nucleus of the planetary nebula HFG-1; A search for binary nuclei of planetary nebulae; UV monitoring of irregularly variable planetary nuclei; and The pulsating nucleus of the planetary nebula Lo 4
[NASA-CR-191634] 05 p1377 N93-15829
Fluctuations at the blue edge of saturated wind lines in IUE spectra of O-type stars
[NASA-CR-191887] 06 p1696 N93-18776
Extreme Ultraviolet Explorer. Long look at the next window
[NASA-TM-108618] 06 p1700 N93-18992
ASCHOT: Astrophysical Schmidt Orbital Telescope
08 p2539 N93-23919
The ROSAT standard analysis software system
08 p2445 N93-23930
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask
10 p3173 N93-26719
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
IUE observations of cataclysmic variable
[NASA-CR-193188] 11 p3629 N93-28634
Spectral classification with the International Ultraviolet Explorer: An atlas of B-type spectra
[NASA-RP-1312] 12 p3861 N93-31737
Ultraviolet imaging interferometry
12 p3844 N93-31752
Summary of the splinter session on optical and UV science 12 p3848 N93-31773
UV interferometry of hot stars
12 p3848 N93-31774

ULTRAVIOLET DETECTORS
NT TOTAL OZONE MAPPING SPECTROMETER
NT ULTRAVIOLET SPECTROMETERS
NT ULTRAVIOLET SPECTROPHOTOMETERS
Detectors for the SIMURIS payload
01 p0014 N93-10937
Final Report, January 1991 - July 1992
[AD-A254659] 02 p0483 N93-12244
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
New technologies for UV detectors
11 p3582 N93-28786
A quality monitor and monitoring technique employing optically stimulated electron emission
[NASA-CASE-LAR-15063-1] 11 p3449 N93-30414

ULTRAVIOLET EMISSION
The role of proton precipitation in Jovian aurora: Theory and observation 02 p0487 N93-11165
Lyman alpha line shapes from electron impact H2 dissociative processes in the Jovian auroral zone
02 p0487 N93-11166
The Jovian ultraviolet aurora observed with the IUE spacecraft: Brightness and color distribution with longitude 03 p0759 N93-13625
International Ultraviolet Explorer (IUE)
[NASA-CR-191952] 05 p1359 N93-17029
Spectroscopy of highly-ionized atoms using position-sensitive detection
[DE93-002914] 08 p2482 N93-22985
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Kinetics and energy transfer in nonequilibrium fluid flows
[AD-A263612] 11 p3240 N93-29284

ULTRAVIOLET LASERS
The interaction of UV-Laser radiation with metal and semiconductor surfaces
[AD-A253510] 01 p0087 N93-10201
UV/XUV FEL storage ring and linac
[AD-A253307] 01 p0089 N93-10697
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Interpretation of experiments measuring the back face of thin aluminum strips by comparison with numerical simulations 02 p0318 N93-12029
Novel nonlinear laser diagnostic techniques
[AD-A254709] 02 p0323 N93-12335
Methods for efficient pumping of vacuum ultraviolet lasers 03 p0606 N93-13626
Development of laser-ion beam photodissociation methods
[DE92-040512] 04 p0886 N93-15058
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
Use of the CEBAF accelerator for IR and UV free electron lasers
[CEBAF-PR-92-023] 06 p1660 N93-18768
Macroscopic surface cleaning using a high repetition rate ultraviolet laser
[DE93-002545] 07 p1912 N93-21770
Excimer laser surface modification: Process and properties
[DE93-003726] 08 p2306 N93-22044
Ultraviolet waveguide lasers for phased array lidar
[AD-A261657] 09 p2715 N93-26363
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory
[DE93-007274] 10 p3048 N93-28355
Ultraviolet free electron laser facility preliminary design report
[DE93-009360] 11 p3435 N93-28594
Femtosecond laser studies of excited state dynamics
[AD-A263708] 11 p3439 N93-29918
Research studies on short wavelength by selective auger processes
[AD-A264493] 11 p3440 N93-30401
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866

ULTRAVIOLET LIGHT
U ULTRAVIOLET RADIATION

ULTRAVIOLET PHOTOGRAPHY
Obtaining high resolution XUV coronal images
01 p0014 N93-10939
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612
Study of high spatial resolution narrow spectral band ultraviolet images of the earth's atmosphere
[AD-A260035] 08 p2400 N93-24254
The Ultraviolet Plume Instrument (UVPI)
11 p3285 N93-28784

ULTRAVIOLET PHOTOMETRY
Pre-phase A: Development of a far-ultraviolet photometric- and spectroscopic-survey small-explorer experiment
[NASA-CR-192092] 06 p1696 N93-18415
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
Development of ultraviolet absorption photometer for atmospheric ozone measurements and results from mid-latitude investigations 11 p3468 N93-28949

ULTRAVIOLET RADIATION
NT EXTREME ULTRAVIOLET RADIATION
NT FAR ULTRAVIOLET RADIATION
NT LYMAN ALPHA RADIATION
NT LYMAN BETA RADIATION
NT ULTRAVIOLET EMISSION
Results from testing and analysis of solar cells flown on LDEF 01 p0039 N93-10591
Ultraviolet radiation changes
02 p0352 N93-11098
Evaluation tests for photovoltaic concentrator receiver sections and modules
[DE92-017745] 02 p0346 N93-11771
Z306 molecular contamination ad hoc committee results 03 p0546 N93-12774
Ultraviolet disinfection technology assessment
[PB92-222868] 03 p0678 N93-12983
Generation of broadly tunable, narrow bandwidth, and intense coherent vacuum ultraviolet radiation in rare gases 04 p0980 N93-14167
Ultraviolet-ozone cleaning of semiconductor surfaces, revision 1
[AD-A256158] 04 p0842 N93-14678
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
AFRRI Reports — Radiobiology
[AD-A257231] 05 p1221 N93-15965
Briefing paper for the proposed Ultraviolet Free-Electron Laser (UV-FEL) facility at Brookhaven National Laboratory
[DE92-040568] 05 p1171 N93-16025
Energy transfer and non-linear optical properties at near ultraviolet wavelengths: Rare earth 4f yields 5d transitions in crystals and glasses
[DE93-002133] 05 p1324 N93-17079
Correlated hard x ray and UV variability in NGC 5548
05 p1361 N93-17104

Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
Backscatter and transmission of aerosol at UV through middle IR wavelengths [AD-A258162] 06 p1540 N93-18008
Design and manufacture of optical system for use in UV lithography with the free electron laser [DE93-005440] 08 p2307 N93-22539
In-situ characterization of growth and interfaces in a-Si:H devices [DE93-000051] 08 p2504 N93-22928
The effect of UV light on Ir absorption in chemically vapor deposited a-SiN(x):H films [DE93-004502] 08 p2486 N93-22941
Effects of UV-B and global climate change on rice [PB93-135622] 08 p2388 N93-23874
Multiple molecular scattering and albedo action on the solar spectral irradiance in the region of the UVB (less than or equal to 320 nm): A preliminary inventory [AERONOMICA-ACTA-A-363-1991] 08 p2558 N93-24637
Far-infrared line images of dwarf galaxies 10 p3186 N93-26797
Ultraviolet resonance radiation and the structure of the heliosphere 10 p3218 N93-28079
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260
A study of the UV and VUV degradation of FEP 10 p3007 N93-28261
LDEF thermal control coatings post-flight analysis 10 p3008 N93-28278
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory [DE93-007274] 10 p3048 N93-28355
Thermal control paints on LDEF: Results of M0003 sub-experiment 18 [AD-A263252] 11 p3329 N93-28561
The Mechanisms of Solar Variability (MSV) program [AD-A262525] 11 p3652 N93-28585
New technologies for UV detectors 11 p3582 N93-28786
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1 [NASA-TM-108408] 11 p3331 N93-29193
An investigation of stereolithography as a means of prototyping from a cad database [AD-A263410] 11 p3613 N93-29210
Photobiological investigations on spores of streptomyces griseus [ESA-TT-1269] 11 p3491 N93-29274
Kinetics of nitric oxide formation behind 3 to 4 KM/S shock waves [AD-A263653] 11 p3312 N93-29389
A quality monitor and monitoring technique employing optically stimulated electron emission [NASA-CASE-LAR-15063-1] 11 p3449 N93-30414
Quiet and active solar structures as observed at the bottom of the transition region 12 p3874 N93-31382

ULTRAVIOLET SPECTRA
Intensity, velocity, and turbulence in prominences observed with the HRTS 01 p0180 N93-10911
Ultraviolet studies of Cepheids [NASA-CR-190857] 02 p0481 N93-11073
International Ultraviolet Explorer (IUE) ultraviolet spectral atlas of selected astronomical objects [NASA-RP-1285] 03 p0744 N93-13461
HARDI: A high angular resolution deployable interferometer for space 03 p0745 N93-13588
Required technologies for a lunar optical UV-IR synthesis array 03 p0747 N93-13598
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres 03 p0768 N93-14072
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV 04 p1045 N93-14397
Ultraviolet spectroscopy of Comet Austin (1989c1) using a two-dimensional diode array detector 04 p1017 N93-14444
Ultraviolet spectra of stars and stellar systems 04 p1011 N93-14593
The AlCl absorption feature in solid rocket plume radiation [AD-A256645] 05 p1089 N93-15700
Analysis of the AlCl absorption feature and the searchlight emission effect observed in solid propellant rocket plumes [AD-A256784] 05 p1089 N93-15702
Ultraviolet studies of novae in the large Magellanic cloud [DE92-040348] 05 p1359 N93-16181
International Ultraviolet Explorer (IUE) [NASA-CR-191952] 05 p1359 N93-17029
UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data 05 p1368 N93-17113
The quasar 1821+643 during the ROSAT survey 05 p1361 N93-17119
Propulsion diagnostics 06 p1475 N93-18482
Heliocentric distance dependencies of the C2 lifetime and C2 parent production rate in comet P/Brorsen-Metcalf (1989o) 06 p1711 N93-19195
IUE-ULDA access guide no. 3: International Ultraviolet Explorer-Uniform Low Dispersion Archive: Normal galaxies [ESA-SP-1152] 07 p2094 N93-20541
IUE-ULDA access guide no. 4A: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume A [ESA-SP-1153-VOL-A] 07 p2096 N93-21007
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B [ESA-SP-1153-VOL-B] 07 p2097 N93-21015
Spectra of stable sonoluminescence [AD-A260621] 09 p2844 N93-25637
Everything you ever wanted to know about the ultraviolet spectra of star-forming galaxies but were afraid to ask 10 p3173 N93-26719
The ultraviolet signature of massive stars in starburst galaxies 10 p3174 N93-26720
The Lyman alpha emission of starburst galaxies 10 p3184 N93-26784
IUEAGN: A database of ultraviolet spectra of active galactic nuclei 10 p3197 N93-26858
Low redshift star-forming galaxies: What can they teach us about primeval galaxies? 10 p3200 N93-26875
Ultraviolet Free-Electron Laser (UV FEL) Facility at Brookhaven National Laboratory [DE93-007274] 10 p3048 N93-28355
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806
Multiple flows in the solar transition region 12 p3857 N93-31704
Interferometry at the vacuum ultra-violet limit 12 p3850 N93-31785

ULTRAVIOLET SPECTROGRAPHS
U ULTRAVIOLET SPECTROMETERS

ULTRAVIOLET SPECTROMETERS
NT TOTAL OZONE MAPPING SPECTROMETER
Solar maximum mission/ultraviolet spectrometer and polarimeter studies [NASA-CR-192463] 08 p2555 N93-23011
SO2 on Venus: A final cross-calibration with Pioneer Venus [NASA-CR-192273] 08 p2554 N93-23096
ORFEUS: Scientific targets and optical performance 08 p2537 N93-23905
Further analysis of ECOM-721 data [AD-A260863] 09 p2774 N93-25790
Optical technologies for UV remote sensing instruments 11 p3582 N93-28788
Ultraviolet imaging spectrometer 11 p3582 N93-28827
SUMER: Temperatures, densities, and velocities in the outer solar atmosphere 12 p3867 N93-31346
The coronal diagnostic spectrometer for the Solar and Heliospheric Observatory 12 p3868 N93-31347
UVCS: The ultraviolet coronograph spectrometer for SOHO 12 p3868 N93-31349
Observations of the solar corona with a high resolution EUV imaging spectrograph 12 p3875 N93-31390
CELIAS: Charge, Element and Isotope Analysis System for the SOHO mission 12 p3860 N93-31725
Interferometry at the vacuum ultra-violet limit 12 p3850 N93-31785

ULTRAVIOLET SPECTROPHOTOMETERS
Calibration of ORFEUS echelle spectrometer [ETN-93-94201] 12 p3691 N93-31048

ULTRAVIOLET SPECTROSCOPY
X-UV spectroscopy temporal resolution 02 p0318 N93-12028
Comparison of cometary comae using ultraviolet spectroscopy: Composition and variation 03 p0753 N93-13603
Ultraviolet spectroscopy of Comet Austin (1989c1) using a two-dimensional diode array detector 04 p1017 N93-14444
Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations 06 p1705 N93-19154
The interaction of HCN/DCN with Si(100)-2x1 [AD-A260837] 09 p2645 N93-25920
Measurement of 1s2s(sup 3)S(sub 1)-1s2p(sup 3)P(sub 2,0) intervals in helium-like neon [DE93-009243] 11 p3563 N93-28521
Design of a high resolution spatial heterodyne interferometer [AD-A262867] 11 p3285 N93-29461
Ultraviolet imaging interferometry 12 p3844 N93-31752

ULTRAVIOLET TELESCOPES
SUN: The Solar Ultraviolet Network 01 p0183 N93-10930
EUV complementary instrumentation for SIMURIS 01 p0014 N93-10938
The solar ultraviolet network: Performance and tolerance analysis 01 p0187 N93-10950
The ALEXIS experiment: Current status and performance [DE92-018601] 03 p0524 N93-13516
Inner Magnetosphere Imager (IMI) instrument heritage [NASA-CR-4498] 08 p2391 N93-22685
LUTE primary mirror materials and design study report [NASA-CR-192487] 08 p2487 N93-22961
The optical design of the spectrocoronagraph: An ultraviolet coronagraph payload for a sounding rocket platform 08 p2489 N93-24189
Wide-field direct CCD observations supporting the Astro-1 Space Shuttle mission's Ultraviolet Imaging Telescope 10 p3174 N93-26722
Results on the evolution of galaxies and their environment from the Ultraviolet Imaging Telescope on Astro-1 10 p3174 N93-26723
Ultraviolet Imaging Telescope (UIT) observations of galaxies 10 p3184 N93-26785
Shuttle PRCS plume contamination analysis for Astro-2 mission [NASA-CR-193828] 10 p2986 N93-27240
X ray, far, and extreme ultraviolet coatings for space applications 11 p3340 N93-28829
Solar corona synoptic observations from SOHO with an extreme ultraviolet imaging telescope 12 p3868 N93-31348
The SUN/SIMURIS interferometer 12 p3845 N93-31759

ULYSSES MISSION
Studies of interactive plasma processes in the polar cusp [NASA-CR-190892] 02 p0357 N93-10964
Concept of a small satellite for URM 08 p2199 N93-23922
Search for gamma ray burst sources by coordinated observations from Ulysses, GRO, and PVO 08 p2540 N93-23929
Solar wind abundances from Ulysses 12 p3878 N93-31409
Plasma wave phenomena observed at interplanetary shocks by the Ulysses URAP experiment 12 p3826 N93-31684

UMBILICAL CONNECTORS
US automated rendezvous and capture capabilities review. Remote umbilical system abstract 08 p2138 N93-22239

UMBRAS
An infrared polarimetric study of sunspots 03 p0770 N93-13627
Thermal elastic shock and its effect on spacecraft attitude control 04 p0818 N93-14837
The source of five-minute period photospheric umbral oscillations 08 p2548 N93-23214

UNCAMBERED WINGS
NT RING WINGS

UNCONSCIOUSNESS
NT BLACKOUT (PHYSIOLOGY)
Statistical analysis of the human strangulation experiments: Comparison to +Gz-induced loss of consciousness [AD-A255485] 04 p0935 N93-14789

UNDERCARRIAGES
Measurement of the dynamic undercarriage response of a Sikorsky S-70B-2 helicopter: Instrumentation and test methods: Flight mechanics technical memorandum [AD-A256319] 05 p1061 N93-16404

UNDERGROUND ACOUSTICS
Geophysical investigation and characterization with USRADS [DE93-001363] 05 p1210 N93-17460

UNDERGROUND EXPLOSIONS
Propagation of regional phases: Observations and theory [AD-A246891] 02 p0359 N93-11228
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties [AD-A254350] 02 p0366 N93-12270
Regional seismic studies in Central Asia [AD-A256677] 05 p1206 N93-16094
Effects of UGTs on the ionosphere [DE93-000793] 09 p2392 N93-22806

Fiber-optic shock position sensor
[DE93-009607] 10 p3045 N93-27625
Modeling regional seismic waves
[AD-A264002] 11 p3479 N93-30756

UNDERGROUND STORAGE
Application of passive dosimetry for detection of leaking underground storage tanks
[PB92-218270] 03 p0559 N93-13648
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

UNDERGROUND STRUCTURES
Human safety in the lunar environment
05 p1229 N93-16867
Evolving concepts of lunar architecture: The potential of subselene development 05 p1230 N93-17447
Lunar subsurface architecture enhanced by artificial biosphere concepts 05 p1230 N93-17448

UNDERWATER ACOUSTICS
SBS applications study
[AD-A253779] 01 p0102 N93-10234
A survey of European calibration facilities for underwater acoustics
[NPL-RSA(EXT)-32] 02 p0433 N93-11328
Study of sound propagation in a wedge-shaped ocean and comparison with other methods
[AD-A255165] 02 p0435 N93-12471
Visualization of scattering strength of elastic bodies in a fluid
[AD-A254535] 03 p0699 N93-12601
Adaptive array processing in uncertain inhomogeneous media
[AD-A254418] 03 p0560 N93-12608
Scattering of sound by sound: Nonlinear interaction of collinear and noncollinear sound beams
04 p0973 N93-14145
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Statistically calibrated transducer
[AD-D015408] 04 p0882 N93-14878
Experimental investigation of scattering from randomly rough plastic cylinders
[AD-A256018] 04 p0975 N93-15259
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
Method of acoustic processing for acoustic image classification
[AD-D015454] 05 p1282 N93-16460
Ray methods for acoustic scattering, optics of bubbles, diffraction catastrophes, and nonlinear acoustics
[AD-A258938] 06 p1652 N93-19082
Pressure compensated transducer system with constrained diaphragm
[AD-D015580] 07 p1906 N93-20771
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Chinese research on underwater acoustics
[PB93-134468] 08 p2476 N93-23229
Microtopography of manganese crusts
[PB93-120830] 08 p2398 N93-23996
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Proceedings of the 5th International Symposium on Long Range Sound Propagation
[AD-A260666] 09 p2845 N93-25643
A study of the higher order Lamb resonances on elastic shells: Their prediction and interpretation
[AD-A262237] 10 p3130 N93-27933
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
ARSRP signal processing software
[AD-A263543] 11 p3391 N93-29975
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172

UNDERWATER COMMUNICATION
Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817

UNDERWATER ENGINEERING
Kinematic evaluation of end effector design
[AD-A257519] 06 p1544 N93-18002

UNDERWATER EXPLOSIONS
Data to test and evaluate the performance of neural network architectures for seismic signal discrimination, volume 1
[AD-A254413] 03 p0691 N93-12607
Homogeneous gas phase kinetic model with gradient sensitivity analysis for high temperature particulate boron combustion in fluorine enriched environments
11 p3319 N93-30090

UNDERWATER RESOURCES
Benthic study of the continental slope off Cape Hatteras, North Carolina, volume 2
[PB93-186070] 12 p3771 N93-32190

UNDERWATER SOUND
U UNDERWATER ACOUSTICS

UNDERWATER STRUCTURES
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
Advanced underwater lift device
[NASA-CR-185709] 08 p2169 N93-22877
A computer simulation of a hyperbaric chamber environment
[AD-A260137] 08 p2134 N93-23705

UNDERWATER TESTS
NT NEUTRAL BUOYANCY SIMULATION
Statistically based decompression tables. 7: Selection and treatment of primary air and N2O2 data
[AD-A259090] 07 p2023 N93-20587

UNDERWATER VEHICLES
NT SUBMARINES
A multi-fluid model of turbulence for Li-SF6 submerged combustion
[AD-A253973] 01 p0031 N93-10423
Correction of inertial measurements using GPS updates for underwater navigation
[AD-A257329] 05 p1058 N93-15988
An autonomous expendable data collection device for remote environmental sensing
[DE92-019430] 05 p1190 N93-16224
Motion simulation of underwater vehicles
[VTT-PUBS-97] 06 p1623 N93-18698
Naval research reviews, volume 44, no. 1, 1992
[PB93-129682] 07 p2104 N93-21808
Perception, scene reconstruction and world modeling for unmanned underwater vehicles
[PB93-146983] 08 p2459 N93-23443
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV)
10 p2935 N93-27454
Advanced Unmanned Search System (AUSS) supervisory command, control and navigation
[AD-A263171] 11 p3245 N93-28990
Boron carbide aluminum cermets for external pressure housing applications
[AD-A262749] 11 p3333 N93-29404
The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156
Ice-ocean four dimensional structure and dynamics
[AD-A264850] 11 p3490 N93-30906
TeleOperator/telePresence System (TOPS) Concept Verification Model (CVM) development
12 p3784 N93-32112

UNIAXIAL STRAIN
U AXIAL STRAIN

UNIFIED FIELD THEORY
New singularity and existence of solutions in anisotropic, time-dependent, maximally Gauss-Bonnet extended gravity 02 p0357 N93-11183

UNIFORM FLOW
NT BLASIUS FLOW
Experiments on smooth cantilevered circular cylinders in a low-turbulence uniform flow. Part 2: Fluctuating loads on a cantilever of aspect ratio 30
[PB93-110500] 07 p1903 N93-21382
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383
La Recherche Aerospatiale Bimonthly Bulletin, no. 250, May - June
[ONERA-1989-3] 07 p2060 N93-21948
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284

UNIPHASE FLOW
U SINGLE-PHASE FLOW

UNIPOLAR TRANSISTORS
U FIELD EFFECT TRANSISTORS

UNIQUENESS
Long range percolation in stationary point processes
[REPT-91-54] 07 p2058 N93-20864
A necessary and sufficient condition for the existence of the maximum likelihood estimate in autoregressive models
[RR-866-M] 07 p2058 N93-20944
Uniqueness of limit cycles in polynomial systems with algebraic invariants
[REPT-92-72] 12 p3805 N93-31505

UNIQUENESS THEOREM
Existence and uniqueness of limit cycles for a special system of differential equations on the plane
[REPT-92-63] 12 p3806 N93-31550

UNITED KINGDOM
UK airmisses involving commercial air transport, May-August 1991
[ETN-92-92260] 02 p0203 N93-11357
UK airmisses involving commercial air transport, January-April 1991
[ETN-92-92261] 02 p0298 N93-11358
United Kingdom Infrared Telescope
03 p0743 N93-13273
An evaluation of the potential decongestive effect of high speed trains to Europe on Heathrow and Gatwick Airports (United Kingdom)
[ETN-92-92774] 05 p1359 N93-16577
Aircrew acceptance of automation in the cockpit
06 p1608 N93-19761
Review of the Year 1991 07 p1886 N93-21558
The UK perspective on aviation security
07 p1764 N93-21858
Co-ordinated data handling for the UK participants in the Cluster mission 12 p3843 N93-31713
Reportable accidents to UK registered aircraft, and to foreign registered aircraft in UK airspace, 1990
[CAP-600] 12 p3674 N93-31730

UNITED NATIONS
UNESCO remote sensing and GIS activities in the International Space Year 08 p2371 N93-23840
Space activities and environmental protection: Role of the United Nations 08 p2372 N93-23841
Satellite data protection from the point of view of a data user: Preparation for full utilization of remote sensing technology 08 p2374 N93-23854
The 1992 United Nations Workshop on Space Communication for Development: Proceedings
10 p3022 N93-26640

UNITED STATES
NT ALABAMA
NT ALASKA
NT ARIZONA
NT ARKANSAS
NT CALIFORNIA
NT COLORADO
NT FLORIDA
NT GEORGIA
NT HAWAII
NT IDAHO
NT ILLINOIS
NT INDIANA
NT IOWA
NT KANSAS
NT KENTUCKY
NT LOUISIANA
NT MARYLAND
NT MICHIGAN
NT MINNESOTA
NT MISSISSIPPI
NT MISSOURI
NT MONTANA
NT NEBRASKA
NT NEVADA
NT NEW JERSEY
NT NEW MEXICO
NT NEW YORK
NT NORTH CAROLINA
NT NORTH DAKOTA
NT OHIO
NT OKLAHOMA
NT OREGON
NT PENNSYLVANIA
NT RHODE ISLAND
NT SOUTH CAROLINA
NT SOUTH DAKOTA
NT TENNESSEE
NT TEXAS
NT UTAH
NT VIRGINIA

NT WASHINGTON
NT WISCONSIN
NT WYOMING
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Recommended agency procedures for implementing federal metric policy
[PB92-205467] 02 p0277 N93-11901
A metric America: A decision whose time has come - for real
[PB92-205459] 02 p0277 N93-11902
United States/Canada Air Quality Agreement
[PB92-228030] 02 p0356 N93-12525
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
State award summary: Fiscal Year 1991
[NSF-92-3] 03 p0775 N93-13381
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544
US Industry Access to Japanese Science and Technology: Proceedings of a conference
[PB92-167964] 03 p0741 N93-13788
The use of International Standards Organization ISO 9000 quality assurance standards in place of military standards
[AD-A256203] 04 p0894 N93-14500
Interfacing 1990 US Census TIGER map files with New S graphics software
[DE93-001518] 05 p1351 N93-15808
US maglev: Status and opportunities
[DE92-041132] 05 p1176 N93-15954
US computer research networks: Domestic and international telecommunications capacity requirements
[NASA-CR-191666] 05 p1255 N93-16388
State-of-the-art for assessing earthquake hazards in the United States. Report 28: Recommended accelerograms for earthquake ground motions
[AD-A256276] 05 p1208 N93-16510
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 25: The impact of language and culture on technical communication in Japan
[NASA-TM-108592] 05 p1356 N93-17592
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Space is a different place
[AD-A258336] 06 p1453 N93-18219
Global Change Research Program: A component of the US Global Change Research Program. 1993 research opportunities
[NSF-92-77] 06 p1572 N93-18319
Decade of achievement: Educational leadership in mathematics, science and engineering
[NSF-92-94] 06 p1679 N93-18383
Thirty years together: A chronology of U.S.-Soviet space cooperation
[NASA-CR-185707] 07 p2102 N93-19975
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 26: The relationship between technology policy and scientific and technical information within the US and Japanese aerospace industries
[NASA-TM-108679] 07 p2088 N93-20111
State air pollution control programs: A profile report
[PB93-122364] 07 p1990 N93-21216
Hurricane experience levels of coastal county populations from Texas to Maine, August 1992
[PB93-105971] 07 p2013 N93-21228
Preserving our future today: Your guide to the United States Environmental Protection Agency
[PB92-226190] 07 p1990 N93-21345
Opportunities in applied environmental research and development
[PB92-223189] 07 p1990 N93-21347
Metric transition plans and activities of Federal Government Agencies
[PB92-222249] 07 p1878 N93-21468
Current information technology resource requirements of the Federal Government, FY 1993
[PB92-233238] 07 p2092 N93-21500
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
Small business profiles, 1992
[PB93-110914] 07 p2086 N93-21548
The potential for biomass to mitigate greenhouse gas emissions in the Northeastern US
[DE93-002800] 07 p1992 N93-21666
Economics and global change: The FY 1993 research program on the economics of global change. A supplement to the US President's FY 1993 budget and a companion document to out changing planet
[PB93-101244] 07 p1993 N93-21696
Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801
Access EPA
[PB92-147438] 07 p1994 N93-21811
Insights into US domestic aviation 07 p1764 N93-21859
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
Nested Grid Model performance during cold offshore and warm onshore flow over the Gulf of Mexico
[PB93-108090] 08 p2404 N93-23090
NTIA Terrain Data Base System Documentation (Program DUMPTERS, Extract and Ternd). Version 4.0, October 1992
[PB93-108330] 08 p2343 N93-23254
Analysis of acid precipitation samples collected by state agencies
[PB93-144152] 08 p2386 N93-23276
Public libraries in the US, 1990
[PB93-127926] 08 p2525 N93-23285
Environmental quality
[PB93-139814] 08 p2387 N93-23440
The role of GPS in a future radionavigation mix: Trends in the 1992 US Federal Radionavigation Plan 08 p2124 N93-23509
US data policy for Earth observation from space 08 p2373 N93-23852
Scenario development for the northeast United States 500 millibar height field 08 p2408 N93-23968
Total quality management in the Federal Government. Implementation of TQM in federal agencies receiving the Federal Quality Institute Quality Improvement Prototype Award, 1990-1992
[PB93-154573] 08 p2521 N93-24306
In the national interest: The Federal Government and research-intensive universities
[PB93-140135] 08 p2518 N93-24583
Future of the US space industrial base: A task group report
[PB93-139954] 08 p2522 N93-24585
Achieving the promise of the bioscience revolution: The role of the Federal Government
[PB93-139970] 09 p2793 N93-25457
Description of the global petroleum supply and demand outlook updated for the 1993 edition of the GRI baseline projection of US energy supply and demand, December 1992
[PB93-165744] 10 p3008 N93-26633
Aeronautics and space report of the President: Fiscal year 1992 activities 10 p3219 N93-27041
Applied research in America
[DE93-011725] 11 p3625 N93-28646
NASA/DOD Aerospace Knowledge Diffusion Research Project. Paper 28: The technical communication practices of Russian and US aerospace engineers and scientists
[NASA-TM-108249] 11 p3612 N93-28948
Building alliances to restore coastal environments: A coastal America progress report
[PB93-169464] 11 p3470 N93-29674
The 1992 World Administrative Radio Conference: Technology and Policy Implications
[OTA-TCT-549] 11 p3392 N93-30150
Interagency Advanced Power Group (IAPG) Meeting Compendium
[DE93-006189] 11 p3670 N93-30212
US space commerce, 1991 11 p3625 N93-30695
White House/OSTP perspective 11 p3625 N93-30696
Deadliest, costliest, and most intense US hurricanes of this century (and other frequently requested hurricane facts)
[PB93-174993] 11 p3485 N93-30758
Helium resources of the United States, 1991
[PB93-189652] 12 p3743 N93-31116
Foreign participation in US Academic science and engineering: 1991
[PB93-186583] 12 p3833 N93-31328
Relationships between ozone precursor levels and response to emissions reductions: Analysis of regional oxidant model results for the northeastern United States
[PB93-186294] 12 p3756 N93-32189
Internation aircraft operator information system
[DOT/FAA/CT-93/4] 12 p3671 N93-32232

UNITS OF MEASUREMENT
NT INTERNATIONAL SYSTEM OF UNITS
A metric America: A decision whose time has come - for real
[PB92-205459] 02 p0277 N93-11902
The 77th National Conference on Weights and Measures
[PB93-130466] 08 p2258 N93-23270
Metrication: An economic wake-up call for US industry
[PB93-188969] 12 p3714 N93-31109

UNIVERSE
Publications of the Executive Office of the President, 20 January 1989 - 31 March 1992
[PB92-154913] 02 p0477 N93-11769
Preferred sets of states, predictability, classicality, and the environment-induced decoherence
[DE92-017447] 03 p0641 N93-12684
Dynamics in neutron stars and the early universe 04 p1014 N93-14112
Measuring q(sub 0) using supernovae at z approximately 0.2
[DE92-041164] 05 p1363 N93-15918
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
Numerical examination of Kelvin-Helmholtz instability with self gravitation and cosmologic expansion: A contribution to the formation of structure in the Universe
[MPE-238] 07 p2096 N93-20856
Aspects of the electroweak phase transition
[DE93-004629] 07 p2063 N93-21723
Mapping the Universe: Statistical measures of the galaxy distribution
[ETN-93-93456] 08 p2542 N93-23116
A study of properties of dark galaxy halos in a CDM universe using N-body computer simulations 08 p2546 N93-23132
Stochastic inflation and inflationary density fluctuations 08 p2473 N93-24457
Cosmic string cosmology 09 p2891 N93-24907
Tully-Fisher distances and motions in the northern sky 09 p2889 N93-25621
The spatial correlation properties of dark galaxy halos in a CDM universe 10 p3176 N93-26735
Gas dynamic simulations of galaxy formation 10 p3176 N93-26736
The hydrodynamics of galaxy formation on Kiloparsec scales 10 p3176 N93-26738
The reionization of the universe: The feedback of galaxy formation on the intergalactic medium 10 p3182 N93-26771
Dark matter: Theoretical perspectives
[DE93-008484] 11 p3633 N93-28676
Predictions of a non-Gaussian model for large scale structure
[DE93-010196] 11 p3636 N93-30528
Topics in inflationary universe medels and cosmic string theories 11 p3637 N93-30579
Fourth-rank gravity and cosmology
[DE92-644722] 11 p3637 N93-30918
Sterile neutrinos as dark matter
[DE93-012533] 12 p3822 N93-32294

UNIVERSITIES
Manitoba aerospace technology: Capability directory
[CTN-92-60572] 01 p0193 N93-10655
USAF 1990 research initiation program, volume 2
[AD-A254654] 03 p0773 N93-12663
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
Summary of awards, fiscal year 1990
[NSF-92-70] 03 p0683 N93-12693
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
Blacks in undergraduate science and engineering education
[NSF-92-305] 03 p0730 N93-13015
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Scientific and engineering research facilities at universities and colleges: 1992
[NSF-92-325] 03 p0506 N93-13407
Summary of awards. Fiscal year 1991
[NSF-92-36] 03 p0681 N93-13431
Summary of awards: Applied mathematics. Fiscal year 1991
[NSF-92-38] 03 p0681 N93-13438
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Academic science and engineering: R/D expenditures, fiscal year 1990
[NSF-92-321] 03 p0741 N93-13544

Selected data on Science and Engineering Doctorate Awards: 1991
[NSF-92-309] 03 p0731 N93-13698
Science and engineering degrees: 1966-1990
[NSF-92-326] 03 p0731 N93-13701
Fiscal Year 1991 highlights
[NSF-92-23] 03 p0731 N93-13702
Core support of the board on mathematical sciences
[AD-A255482] 04 p0968 N93-14787
International Space University
04 p0808 N93-14938
National Technology Initiative summary proceedings
[DE93-001291] 05 p1358 N93-15941
Federal funds for research and development: Fiscal years 1990, 1991, and 1992, volume 40
[NSF-92-322-VOL-40] 06 p1694 N93-17853
Reliability, Maintainability, and Supportability (RMS) education in engineering schools
[AD-A258260] 06 p1552 N93-18026
Highlights of engineering research centers technology transfer
[NSF-92-6] 06 p1694 N93-18457
Education in geodesy 07 p1975 N93-20996
Pathways to excellence: A Federal strategy for science, mathematics, engineering, and technology education
[NASA-EP-288] 07 p1819 N93-21538
College education 08 p2516 N93-23143
Pipeline issues 08 p2517 N93-23148
State and local governments
08 p2517 N93-23149
Space support forum 08 p2153 N93-23160
The tropical school for atmospheric and space sciences: An international project proposal
08 p2369 N93-23828
In the national interest: The Federal Government and research-intensive universities
[PB93-140135] 08 p2518 N93-24583
Digest of education statistics, 1992
[PB93-169522] 10 p3161 N93-27420
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
Technology Transfer and the Civil Space Program. Volume 2: Workshop proceedings
[NASA-TM-108250] 11 p3625 N93-30692
The role of the University Licensing Office in transferring intellectual property to industry
11 p3626 N93-30698
High performance computing and communications program 11 p3627 N93-30715
A research experiment on facilitation and formation of joint research and development programs between government, industry, and universities: Overview, preliminary findings, and observations
11 p3628 N93-30725
Foreign participation in US Academic science and engineering: 1991
[PB93-186583] 12 p3833 N93-31328

UNIVERSITY PROGRAM

Optoelectronics Research Center
[AD-A253132] 02 p0447 N93-11527
USAF 1990 research initiation program, volume 4
[AD-A254655] 03 p0773 N93-12664
USAF 1990 research initiation program, volume 1
[AD-A254656] 03 p0773 N93-12665
US Air Force 1989 research initiation program, volume 1
[AD-A254457] 03 p0774 N93-12764
US Air Force 1989 research initiation program, volume 4
[AD-A254458] 03 p0774 N93-12765
US Air Force 1989 research initiation program, volume 2
[AD-A254459] 03 p0774 N93-12766
US Air Force 1989 research initiation program, volume 3
[AD-A254460] 03 p0774 N93-12767
USAF 1990 research initiation program, volume 3
[AD-A254755] 03 p0775 N93-12849
Selected data on federal support to universities and colleges: Fiscal year 1990
[NSF-92-310] 03 p0740 N93-12920
Small planetary mission plan: Report to Congress
[NASA-TM-107809] 03 p0513 N93-13266
International Space University
04 p0808 N93-14938
NASA/American Society for Engineering Education (ASEE) Summer Faculty Fellowship Program 1992
[NASA-CR-189691] 05 p1332 N93-16760
The design of a long range megatransport aircraft
[NASA-CR-192077] 05 p1064 N93-17711
University of Illinois at Urbana-Champaign, Materials Research Laboratory progress report, FY 1992
[DE93-002655] 05 p1402 N93-17760
Spacecraft design project: Low Earth orbit communications satellite
[NASA-CR-192038] 06 p1458 N93-17969
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Activities of the Boom and Chassis Group
[NASA-CR-192028] 06 p1544 N93-17975
Phoenix: Preliminary design of a high speed civil transport
[NASA-CR-192024] 06 p1435 N93-17976
Tesseract: Supersonic business transport
[NASA-CR-192072] 06 p1435 N93-17977
Pressurized lunar rover
[NASA-CR-192034] 06 p1544 N93-18015
Eagle RTS: A design for a regional transport aircraft
[NASA-CR-192032] 06 p1435 N93-18017
Conceptual design of a fleet of autonomous regolith throwing devices for radiation shielding of lunar habitats
[NASA-CR-192030] 06 p1605 N93-18018
The 1992 NASA/ASEE Summer Faculty Fellowship Program
[NASA-CR-191266] 06 p1679 N93-18033
Advanced hypersonic aircraft design
[NASA-CR-192046] 06 p1436 N93-18037
LOLA: The lunar operations landing assembly
[NASA-CR-192043] 06 p1734 N93-18038
The Enabler: A reevaluation of design concepts and construction of a scaled model
[NASA-CR-192061] 06 p1545 N93-18039
Conceptual design of a Mars transportation system
[NASA-CR-192039] 06 p1545 N93-18047
Project Minerva: A low cost manned Mars mission based on indigenous propellant production
[NASA-CR-192020] 06 p1734 N93-18048
Proposal and preliminary design for a high speed civil transport aircraft. Swift: A high speed civil transport for the year 2000
[NASA-CR-192023] 06 p1436 N93-18049
Enabler operator station --- lunar surface vehicle
[NASA-CR-192067] 06 p1546 N93-18050
Mechanical Design Engineering Enabler Project wheel and wheel drives
[NASA-CR-192060] 06 p1546 N93-18051
Boom and chassis articulation joints
[NASA-CR-192059] 06 p1546 N93-18052
Microgravity ignition experiment
[NASA-CR-192057] 06 p1498 N93-18053
TBD(exp 3)
[NASA-CR-192075] 06 p1436 N93-18054
The Edge supersonic transport
[NASA-CR-192074] 06 p1436 N93-18055
Hermes CX-7: Air transport system design simulation
[NASA-CR-192082] 06 p1437 N93-18056
A second-generation high speed civil transport: Stingray
[NASA-CR-192022] 06 p1437 N93-18059
The Trojan --- supersonic transport
[NASA-CR-192013] 06 p1437 N93-18060
Preliminary design of a high speed civil transport: The Opus 0-001
[NASA-CR-192018] 06 p1437 N93-18061
Arrow 227: Air transport system design simulation
[NASA-CR-192053] 06 p1437 N93-18063
Planetary surface exploration: MESUR/autonomous lunar rover
[NASA-CR-192073] 06 p1546 N93-18102
Conceptual design of a thermal control system for an inflatable lunar habitat module
[NASA-CR-192014] 06 p1606 N93-18113
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Project APEX: Advanced Phobos Exploration. Manned mission to the Martian moon Phobos
[NASA-CR-192056] 06 p1459 N93-18116
The SIMPSONS project: An integrated Mars transportation system
[NASA-CR-192035] 06 p1547 N93-18152
SHARC: Space Habitat, Assembly and Repair Center
[NASA-CR-192031] 06 p1606 N93-18153
A methodology for selective removal of orbital debris
[NASA-CR-192052] 06 p1459 N93-18154
SR-SCARLET 1: Peregrin
[NASA-CR-192048] 06 p1438 N93-18155
Asteroid exploration and utilization: The Hawking explorer
[NASA-CR-192027] 06 p1699 N93-18164
The design of a common lunar lander
[NASA-CR-192026] 06 p1459 N93-18165
RTJ-303: Variable geometry, oblique wing supersonic aircraft
[NASA-CR-192054] 06 p1438 N93-18166
Lunar scout: A Project Artemis proposal
[NASA-CR-192076] 06 p1460 N93-18167
Project Wish: The Emerald City, phase 3
[NASA-CR-192081] 06 p1460 N93-18168
Comet nucleus and asteroid sample return missions
[NASA-CR-192055] 06 p1699 N93-18171
Project Columbiad: Mission to the Moon. Book 1: Executive Summary. Volume 1: Mission trade studies and requirements. Volume 2: Subsystem trade studies and selection
[NASA-CR-192019] 06 p1734 N93-18233
Review of recent work on MPD thrusters at MIT
06 p1666 N93-18641
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
The Center for Aerospace Research: A NASA Center of Excellence at North Carolina Agricultural and Technical State University
[NASA-CR-191362] 06 p1680 N93-19452
Aerospace engineering educational program
06 p1681 N93-19457
Harvard University high energy physics
[DE93-002091] 06 p1660 N93-19471
University research: Controlling inappropriate access to federally funded research results. Report to the Chairman, Human Resources and Intergovernmental Relations Subcommittee, Committee on Government Operations, House of Representatives
[GAO/RCED-92-104] 06 p1684 N93-19844
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
The NASA Plan: To award eight percent of prime and subcontracts to socially and economically disadvantaged businesses
[NASA-NP-136] 07 p2086 N93-21128
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191991] 07 p2099 N93-21553
NASA Space Engineering Research Center for utilization of local planetary resources
[NASA-CR-191992] 07 p2103 N93-21554
The role of university research in aviation safety and competitiveness: Testimony to the US Congress
[NIAR-92-3] 08 p2116 N93-22379
University guide to NASA, 1993
[NASA-EP-287] 08 p2152 N93-22383
Colorado State University program for developing, testing, evaluating and optimizing solar heating and cooling systems
[DE93-005795] 08 p2376 N93-22417
Joint University Program for Air Transportation Research, 1991-1992
[NASA-CP-3193] 08 p2105 N93-22561
First National Space Grant Conference report
[NASA-EP-275] 08 p2516 N93-23140
Evaluation of NASA space grant consortia programs
08 p2516 N93-23141
College education 08 p2516 N93-23143
The use of continuing adult education
08 p2516 N93-23144
Publicity and public relations
08 p2516 N93-23145
Underrepresented groups 08 p2517 N93-23146
Outreach and public service 08 p2517 N93-23147
State and local governments
08 p2517 N93-23149
University-industry interaction
08 p2517 N93-23151
Organization and management of space grant programs 08 p2517 N93-23152
Communications 08 p2517 N93-23153
Use of fellowships 08 p2517 N93-23154
Pitfalls 08 p2517 N93-23155
NASA-UVA Light Aerospace Alloy and Structures Technology Program: LA(2)ST
[NASA-CR-192354] 08 p2230 N93-23193
Research activities and highlights of the University of Maryland's Department of Aerospace Engineering
08 p2571 N93-24478
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
Viewgraph description of Penn State's Propulsion Engineering Research Center: Activity highlights and future plans
[NASA-CR-192317] 09 p2622 N93-24943
The 1993/1994 NASA Graduate Student Researchers Program
[NASA-EP-283] 09 p2872 N93-26051
Center for Advanced Propulsion Systems (fellowship)
[AD-A260571] 09 p2632 N93-26216
USRA/RIACS
[NASA-CR-193216] 10 p3092 N93-27224

Feasibility study of a synthesis procedure for array feeds to improve radiation performance of large distorted reflector antennas
[NASA-CR-193030] 10 p3026 N93-27283
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 10: Wright Laboratory
[AD-A262018] 10 p3161 N93-27596
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 11: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A262019] 10 p3161 N93-27597
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 2: Armstrong Laboratory
[AD-A261989] 10 p3162 N93-27628
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 3: Phillips Laboratory
[AD-A261990] 10 p3162 N93-27629
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 4: Rome Laboratory
[AD-A261991] 10 p3162 N93-27630
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5A: Wright Laboratory
[AD-A261992] 10 p3162 N93-27631
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 5B: Wright Laboratory
[AD-A261993] 10 p3162 N93-27632
Summer research program (1992). Summer Faculty Research Program (SFRP) reports. Volume 6: Arnold Engineering Development Center, Civil Engineering Laboratory, Frank J. Seiler Research Laboratory, Wilford Hall Medical Center
[AD-A261994] 10 p3162 N93-27633
Summer research program (1992). Graduate Student Research Program (GSRP) reports. Volume 9: Rome Laboratory
[AD-A262017] 10 p3163 N93-27634
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334
Natural environmental service support to NASA vehicle, technology, and sensor development programs
[NASA-CR-192554] 11 p3469 N93-29029
Proceedings of the Seventh Annual Summer Conference. NASA/USRA: University Advanced Design Program
[NASA-CR-192962] 11 p3227 N93-29712
High-altitude reconnaissance aircraft
11 p3227 N93-29713
Project summary 11 p3227 N93-29714
Project ARES 2: High-altitude battery-powered aircraft
11 p3227 N93-29715
Conceptual design of a two-stage-to-orbit vehicle
11 p3228 N93-29716
Preliminary design studies of an advanced general aviation aircraft 11 p3228 N93-29717
The design of two-stage-to-orbit vehicles
11 p3228 N93-29719
Design of a turbofan powered regional transport aircraft 11 p3228 N93-29721
Solar powered multipurpose remotely powered aircraft
11 p3229 N93-29722
A high-temperature furnace for applications in microgravity 11 p3229 N93-29723
Advanced design for orbital debris removal in support of solar system exploration 11 p3229 N93-29724
The 1990/1991 project summaries
11 p3229 N93-29725
Design, building, and testing of the postlanding systems for the assured crew return vehicle
11 p3229 N93-29726
Earth to lunar CELSS evolution
11 p3229 N93-29727
Design of biomass management systems and components for closed loop life support systems
11 p3230 N93-29728
Lunar lander ground support system
11 p3230 N93-29729
The 1990-1991 project summaries
11 p3230 N93-29730
The 1990-1991 project summaries
11 p3230 N93-29731
Solar energy emplacement developer
11 p3230 N93-29732
Exercise/recreation facility for a lunar or Mars analog
11 p3230 N93-29733
Automation of closed environments in space for human comfort and safety 11 p3230 N93-29734
Delta Advanced Reusable Transport (DART): An alternative manned spacecraft 11 p3231 N93-29735
Taurus Lightweight Manned Spacecraft Earth orbiting vehicle 11 p3231 N93-29736
Walking robot: A design project for undergraduate students 11 p3231 N93-29737
Project Copernicus: An Earth observing system
11 p3231 N93-29738
Project MEDSAT 11 p3231 N93-29739
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
Mars integrated transportation system multistage Mars mission 11 p3232 N93-29741
Single-stage Mars mission 11 p3232 N93-29742
Multipurpose satellite bus (MPS)
11 p3232 N93-29743
Project WISH: The Emerald City
11 p3232 N93-29744
From orbital debris capture systems through internal combustion engines on Mars 11 p3232 N93-29745
Mars sample return mission: Two alternate scenarios
11 p3233 N93-29746
Mars habitat 11 p3233 N93-29747
The lightcraft project 11 p3233 N93-29749
ASPEC: Solar power satellite
11 p3233 N93-29750
B and T: Lunar landers 11 p3234 N93-29751
Spacely's rockets: Personnel launch system/family of heavy lift launch vehicles 11 p3234 N93-29752
RS Landers: Lunar lander 11 p3234 N93-29753
SPECS: Orbital debris removal
11 p3234 N93-29754
The 1990-1991 project summaries
11 p3234 N93-29755
Mars Aquarius Mission and Titan Explorer
11 p3235 N93-29756
Thermion: Verification of a thermionic heat pipe in microgravity 11 p3235 N93-29757
Solar electric propulsion cargo spacecraft for Mars missions 11 p3235 N93-29758
Antares: A low cost modular launch vehicle for the future 11 p3235 N93-29759
GENESIS 2: Advanced lunar outpost
11 p3235 N93-29760
Rotational fluid flow experiment
11 p3235 N93-29761
Center of Excellence in Biotechnology (Research)
[AD-A263598] 11 p3491 N93-29915
Center for the Study of Intelligent Control Systems (Fellowships)
[AD-A263604] 11 p3543 N93-29917
The 1992 Langley Aerospace Research Summer Scholars (LARSS) program
[NASA-CR-193371] 12 p3833 N93-32229

UNIX (OPERATING SYSTEM)
A real-time diagnostic and performance monitor for UNIX
[NASA-CR-190975] 02 p0404 N93-11462
An interactive office accounting program written in UNIX and C
[AD-A255077] 03 p0683 N93-12740
Requirements for a network storage service
04 p1003 N93-14781
A Unix print filter for controlling an HP Laserjet printer
[DE92-041350] 04 p0946 N93-14902
CMU common lisp user's manual
[AD-A256431] 04 p0950 N93-15336
Proceedings of the REXX Symposium for Developers and Users
[DE92-041359] 04 p0951 N93-15451
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
The operating system for Numerical Wind Tunnel
06 p1411 N93-19290
Network storage service usage characteristics
[DE93-003998] 08 p2446 N93-22755
An analysis of file migration in a UNIX supercomputing environment
[NASA-CR-192908] 09 p2809 N93-25131
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
Expert system for UNIX system reliability and availability enhancement 09 p2723 N93-25588
SAVS: A Space Analysis and Visualization System
09 p2881 N93-25812
RTE: A UNIX library with on-line documentation and sample programs for microwave radiative transfer calculations
[PB93-180248] 11 p3386 N93-29680
Measurements over distributed high performance computing and storage systems
11 p3622 N93-30476
Parcels with TAGS
[PB93-181824] 11 p3535 N93-30824
Automating multilingual communication
12 p3837 N93-31219

UNLOADING
Sub-nanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials
[DE93-008702] 10 p3049 N93-28369

UNMANNED SPACECRAFT
NT GALILEO SPACECRAFT
NT GIOTTO MISSION
NT HEAO 2
NT HELIOS 1
NT HELIOS 2
NT LUNAR PROBES
NT MAGELLAN SPACECRAFT (NASA)
NT MARS OBSERVER
NT MARS PROBES
NT PIONEER VENUS SPACECRAFT
NT PIONEER VENUS 1 SPACECRAFT
NT PIONEER 10 SPACE PROBE
NT SPACE PROBES
NT VENERA SATELLITES
NT VENUS PROBES
NT VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
NT VIKING ORBITER SPACECRAFT
On-orbit supervisor for controlling spacecraft
[AD-A254342] 03 p0522 N93-12962
Summary of literature on unmanned probes to asteroids and precursor data requirements for IAM
03 p0514 N93-13551
CRRES time history data base development for the high energy electron fluxmeter, medium energy electron spectrometer, electron and proton angle spectrometer, and proton telescope
[AD-A256179] 05 p1086 N93-15872
A proposed gas release experiment on the ARGOS satellite
[AD-A256182] 05 p1206 N93-16017
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover
05 p1386 N93-17236
Research on advanced spacecraft
07 p1789 N93-20411
Concept of overall operation of H-2 Orbiting Plane (HOPE) 07 p1791 N93-20424
Fuzzy logic path planning system for collision avoidance by an autonomous rover vehicle
08 p2451 N93-22217
Manned versus unmanned rendezvous and capture
08 p2137 N93-22234
Preparation for analysis of data from the langmuir probe instrument on the CRRES satellite
[AD-A260534] 08 p2201 N93-24280
Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle
[NASA-TM-4419] 10 p2928 N93-27032
Ofeq-2 orbit, attitude, and flight evaluation
10 p2924 N93-27198
Project ARES 2: High-altitude battery-powered aircraft
11 p3227 N93-29715
Project UM-HAUL: A self-unloading reusable lunar lander 11 p3232 N93-29740
RS Landers: Lunar lander 11 p3234 N93-29753
NASA's progress in nuclear electric propulsion technology
[NASA-TM-106272] 12 p3698 N93-31858

UNSATURATION (CHEMISTRY)
Surface epoxidation of elastomers
[AD-D015457] 05 p1123 N93-16436

UNSTEADY AERODYNAMICS
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
Further noise measurements in a slotted cryogenic wind tunnel
[RAE-TM-AERO-2201] 01 p0153 N93-10805
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2
02 p0304 N93-11881
Unsteady propeller/wing aerodynamic interactions
02 p0201 N93-12190
New acceleration potential method for supersonic unsteady aerodynamics of lifting surfaces, further extension of the nonplanar supersonic doublet point method, and nonlinear, nongradient optimized rational function approximations for supersonic, transient response unsteady aerodynamics 02 p0201 N93-12344
An investigation of the dynamic response of lifting surfaces with concentrated structural nonlinearities
03 p0501 N93-13807
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions
03 p0496 N93-13929

A compilation of the mathematics leading to the doublet lattice method
[AD-A256304] 04 p0779 N93-14441
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
Multi-disciplinary optimization of aeroservoelastic systems
[NASA-CR-191255] 04 p0901 N93-14766
Estimation of unsteady lift on a pitching airfoil from wake velocity surveys
[NASA-TM-105947] 04 p0781 N93-14791
White paper on the AFOSR Supermaneuverability Workshop
[AD-A256385] 04 p0782 N93-15464
On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543
Beyond the frequency limits of time-linearized methods
[NLR-TP-91216-U] 06 p1405 N93-17929
Introduction to Flutter of Winged Aircraft, volume 1
[VKI-LS-1992-01] 06 p1450 N93-18142
The unified method of aeroelasticity 06 p1450 N93-18143
Computational Fluid Dynamics, volume 2
[VKI-LS-1992-04-VOL-2] 06 p1529 N93-18563
Algorithm development with applications to aerodynamics and aeroelasticity 06 p1529 N93-18566
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Analytic formulation of unsteady profile aerodynamics and its application to simulation of rotors
[ESA-TT-1244] 07 p1762 N93-21659
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
Algorithm and code development for unsteady three-dimensional Navier-Stokes equations
[NASA-CR-192760] 08 p2292 N93-23234
An overview of aeroelasticity studies for the National Aerospace Plane
[NASA-TM-107728] 08 p2111 N93-23422
Aerodynamic foundations for use of unsteady aerodynamic effects in flight control 09 p2576 N93-25274
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Leading edge vortices in a chordwise periodic flow 10 p2927 N93-27218
Transonic flows on an oscillating airfoil and their effect on the flutter-boundary
[DLR-FB-92-08] 11 p3238 N93-29006
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
The influence of variable flow velocity on unsteady airfoil behavior
[DLR-FB-92-22] 12 p3672 N93-31320

UNSTEADY FLOW
NT OSCILLATING FLOW
Numerical simulation of unsteady flow in a nozzle 01 p0016 N93-10008
Radial Turbines
[VKI-LS-1992-05] 01 p0077 N93-10050
Partial admission and unsteady flow in radial turbines 01 p0078 N93-10059
Testing techniques 01 p0078 N93-10060
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
Interactive grid generation program for CAP-TSD
[NASA-TM-102705] 01 p0003 N93-10349
Stream function-vorticity finite element formulations of unsteady incompressible Navier-Stokes equations 01 p0060 N93-10545
LDV Measurements of unsteady flow fields in radial turbine
[AD-A253592] 01 p0004 N93-10648
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
Effects of sweep on the physics of unsteady shock-induced turbulent separated flows
[AD-A247035] 02 p0198 N93-11742
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
An improved numerical model for wave rotor design and analysis
[NASA-TM-105915] 02 p0214 N93-12418
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
Intake and exhaust noise
[ISVR-TR-207] 03 p0699 N93-12714
Navier-Stokes simulations of unsteady transonic flow phenomena
[NASA-TM-103962] 03 p0491 N93-12721
Computation of steady and unsteady shock-induced combustion over hypervelocity blunt bodies 03 p0536 N93-12836
Mathematical problems in inviscid hypersonic flow 03 p0493 N93-13451
Numerical investigation of the flow field in the head-end, star grain section of a solid rocket motor during ignition transients 03 p0526 N93-13818
Compressible convection and pulsations on parallel computers 03 p0690 N93-13961
Simulation of unsteady inviscid flow on an adaptively refined Cartesian grid 04 p0873 N93-14273
Transonic flow calculations for a cavity with and without a store
[AD-A255954] 04 p0873 N93-14421
Feedback control of flow separation and transition to turbulence in unsteady boundary layers 04 p0873 N93-14464
Numerical simulation of steady and unsteady asymmetric vortical flow 04 p0876 N93-14691
L.D.V. measurements of unsteady flow fields in radial turbine
[AD-A255728] 04 p0878 N93-15065
Unsteady pressure loads in a generic high speed engine model
[NASA-TP-3189] 04 p0975 N93-15391
White paper on the AFOSR Supermaneuverability Workshop
[AD-A256385] 04 p0782 N93-15464
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
Runge-Kutta methods combined with compact difference schemes for the unsteady Euler equations 05 p1154 N93-15802
Preliminary efforts toward development of data handling and analysis software for unsteady flow measurements: An application for aeroelastic transonic flow configurations 05 p1057 N93-16768
Boundary-layer control on a freely falling sphere 05 p1161 N93-16819
Experimental Investigation of Nozzle/Plume Aerodynamics at Hypersonic Speeds
[NASA-CR-191368] 06 p1472 N93-18085
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
Direct simulation of external separated flow with the 3-D Navier-Stokes equations
[ONERA-NT-1992-6] 06 p1527 N93-18326
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234] 06 p1407 N93-18585
Rotating stall: Modeling-measurement techniques; unsteady loss-unsteady flow field 06 p1531 N93-18732
Development of a boundary element method program for numerical analysis of supersonic unsteady flow 06 p1410 N93-19283
Numerical solution of three-dimensional unsteady viscous flows
[AD-A259464] 07 p1899 N93-20244
Unsteady Navier-Stokes method for accelerated moving airfoils with separation
[DLR-FB-92-03] 07 p1763 N93-21763
Further development of the CANAERO computer code to include a time-stepping capability
[DREA-CR-91-478] 07 p2042 N93-21820
Spatial adaptation procedures on tetrahedral meshes for unsteady aerodynamic flow calculations
[NASA-TM-107726] 08 p2108 N93-22552
Characterization of cavity flow fields using pressure data obtained in the Langley 0.3-Meter Transonic Cryogenic Tunnel
[NASA-TM-4436] 08 p2110 N93-22876
Tip-vortex/airframe interactions 08 p2111 N93-23489
Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589
Chaotic vibrations of tubes with nonlinear supports in crossflow
[DE93-004247] 08 p2329 N93-23689
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Development of iterative techniques for the solution of unsteady compressible viscous flows
[NASA-CR-192636] 08 p2296 N93-23724
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136
An experimental study of the driving mechanism and control of the unsteady shock-induced turbulent separation in a Mach 5 compression corner flow 08 p2114 N93-24209
The effect of large-scale unsteady motion on a turbulent reattaching shear layer: Application to the supersonic compression ramp 08 p2114 N93-24215
An oscillating three-dimensional wing experiment: Compressibility, sweep, rate, waveform, and geometry effects on unsteady separation and dynamic stall
[AD-A260530] 08 p2114 N93-24224
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Prediction of unsteady flows in turbomachinery using the linearized Euler equations on deforming grids
[NASA-CR-192919] 09 p2696 N93-25109
A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
Unsteady airfoil flow solutions on moving zonal grids
[AD-A261925] 09 p2582 N93-26198
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control
[NASA-CR-191442] 10 p3037 N93-27008
An aerodynamic model for one and two degree of freedom wing rock of slender delta wings
[NASA-CR-193130] 10 p2930 N93-27150
Leading edge vortices in a chordwise periodic flow 10 p2927 N93-27218
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations 10 p2935 N93-27451
Dynamic airfoil stall investigations 10 p2935 N93-27453
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV) 10 p2935 N93-27454
Discrete-vortex simulation of pulsating flow on a turbulent leading-edge separation bubble 10 p2936 N93-27457
Prediction of vortex breakdown on a delta wing 10 p2936 N93-27459
Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers 11 p3416 N93-28612
Analysis of unsteady wave processes in a rotating channel
[NASA-CR-191154] 11 p3251 N93-28617
A grid refinement study of two-dimensional transient flow over a backward-facing step using a spectral-element method
[DE92-018262] 11 p3417 N93-28639
State vector splitting: A numerical scheme for the Euler equations 11 p3419 N93-29039
Stabilized space-time finite element formulations for unsteady incompressible flows involving fluid-body interactions 11 p3419 N93-29040
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
Flow phenomena in turbomachines
[AD-A263049] 11 p3420 N93-29141
Non-linear wave phenomena in a gas-vapour mixture with phase transition
[ETN-93-93582] 11 p3422 N93-29319
Keynote address: Unsteady, multimode transition in gas turbine engines 11 p3252 N93-29927
Determination of surface heat transfer and film cooling effectiveness in unsteady wake flow conditions 11 p3253 N93-29933
Study of flow structure in rotating cavities: Numerical predictions of laminar and turbulent, steady, and unsteady flows 11 p3256 N93-29948
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations
[AD-A264333] 11 p3425 N93-30369
Computation of a delta-wing roll-and-hold maneuver
[AD-A264704] 11 p3260 N93-30498

Computational fluid dynamics research on dynamically adaptive mesh methods for transonic flows
[AD-A264833] 11 p3428 N93-30630
A theoretical and computational study on active wake control 11 p3243 N93-30892
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations 11 p3428 N93-30902
TDLM: A Transonic Doublet Lattice Method for 3D potential unsteady transonic flow calculation
[DLR-FB-92-25] 12 p3671 N93-31171
Calculations on unsteady type 4 interaction at Mach 8
[AD-A265214] 12 p3673 N93-32004
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037
A rapid-distortion-theory turbulence model for developed unsteady wall-bounded flow
[NASA-TM-106249] 12 p3727 N93-32199
NLR inviscid transonic unsteady loads prediction methods in aeroelasticity
[NLR-TP-91410-U] 12 p3674 N93-32358

UNSTEADY STATE
Fundamental design and numerical simulation of the nonsteady behavior of a solar-dynamic power module for space applications
[DLR-FB-92-09] 08 p2382 N93-24139

UNSWEPT WINGS
NT INFINITE SPAN WINGS
NT RECTANGULAR WINGS
NT RING WINGS
Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization 12 p3739 N93-31137

UPDRAFTS
U VERTICAL AIR CURRENTS

UPGRADING
Application of programmable logic controllers to space simulation 04 p0821 N93-15608

UPLINKING
Anomalous TWTA output power spikes and their effect on a digital satellite communications system
[NASA-TM-105875] 03 p0571 N93-13286
Satellite to Submarine Laser Communications (SLC): Advanced filter technology
[AD-A257217] 05 p1136 N93-15817
Advanced Communications Technology Satellite high burst rate link evaluation terminal experiment control and monitor software maintenance manual, version 1.0
[NASA-CR-189161] 05 p1237 N93-16429
Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382
A statistical model for evaluating GOPEX uplink performance 06 p1508 N93-18924
Feasibility study of a Ka-/Ka-band dichroic plate with stepped rectangular apertures 09 p2671 N93-24660
Improvements in X-band transmitter phase stability through Klystron body temperature regulation 09 p2678 N93-26114
More rain compensation results 09 p2686 N93-26486
Experimental and modal verification of an integral equation solution for a thin-walled dichroic plate with cross-shaped holes 11 p3385 N93-29591
Adaptive jammer nulling in EHF communications satellites 11 p3365 N93-30284
Uplink laser propagation measurements through the sea surface, haze and clouds
[AD-A264687] 11 p3440 N93-30553

UPPER AIR
U UPPER ATMOSPHERE

UPPER ATMOSPHERE
NT D REGION
NT E REGION
NT EARTH IONOSPHERE
NT EXOSPHERE
NT F REGION
NT F 2 REGION
NT LOWER IONOSPHERE
NT SPORADIC E LAYER
NT THERMOSPHERE
NT UPPER IONOSPHERE
Multispectral observations of the Jovian aurora 02 p0487 N93-11167
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994
Remote measurement of upper atmospheric density: Instrument definition
[AD-A256714] 05 p1207 N93-16171
Annual report, 1990 - 1991 05 p1402 N93-16749
Visible Airglow Experiment data analysis
[NASA-CR-192119] 06 p1577 N93-18361
Atmospheric dynamics and coupling 06 p1584 N93-18495
Chemical Release and Radiation Effects Satellite (CRRES) program archiving and Puerto Rican sounding rocket campaign
[NASA-CR-184503] 06 p1579 N93-18773
The mid-latitude trough. A review
[AD-A258606] 07 p1995 N93-19985
Observation of ionospheric modification using high power oblique HF transmissions
[AD-A258706] 07 p1998 N93-20378
Pakistan Space and Upper Atmosphere Research Commission 07 p1819 N93-21285
Upper-air circulation systems 08 p2337 N93-22138
Effects of UGTs on the ionosphere
[DE93-000793] 08 p2392 N93-22806
SUMS experiment flight results on STS-35
[NASA-TM-107738] 08 p2201 N93-23407
Metallic ions and atoms in the upper atmosphere
[AD-A259741] 08 p2394 N93-23478
Source mechanisms and radio effects of ionospheric plasma
[AD-A259743] 08 p2395 N93-23480
Aspects of the design of a satellite borne infra-red radiometer 09 p2620 N93-25474
JARE data reports. No. 171 (upper atmosphere physics 9). Data, Syowa and Asuka Stations, 1989 09 p2774 N93-25889
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution
[NASA-CR-192832] 09 p2775 N93-26084
Modeled mesoscale meteorological fields with four-dimensional data assimilation in regional scale air quality models
[PB93-167229] 10 p3067 N93-26607
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Determination of design and operation parameters for upper atmospheric research instrumentation to yield optimum resolution with deconvolution, appendix 3
[NASA-CR-192835] 12 p3766 N93-32231

UPPER ATMOSPHERE RESEARCH SATELLITE (UARS)
Spectroscopy for remote sounding of the atmosphere 03 p0659 N93-14054
Preliminary results: Root cause investigation of orbital anomalies and failures in NASA standard 50 ampere-hour nickel-cadmium batteries 07 p1985 N93-20508
NASA's upper atmosphere research satellite: A program to study global ozone change 08 p2357 N93-23750
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
A multimission three-axis stabilized spacecraft flight dynamics ground support system 09 p2603 N93-24714
Upper Atmosphere Research Satellite (UARS) onboard attitude determination using a Kalman filter 09 p2606 N93-24732
Goddard Space Flight Center (GSFC) Flight Dynamics Facility (FDF) calibration of the Upper Atmosphere Research Satellite (UARS) sensors 09 p2606 N93-24733
Solar array thermal snap and the characteristics of its effect on UARS 09 p2607 N93-24734
Upper Atmosphere Research Satellite (UARS) attitude accuracy using coarse attitude sensors 09 p2607 N93-24735
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
STS-48 Space Shuttle mission report
[NASA-CR-193060] 09 p2613 N93-25990
Upper atmosphere research satellite jitter study 11 p3264 N93-28708

UPPER IONOSPHERE
NT F REGION
NT F 2 REGION
Investigation of fine-scale aurora with the Freja electric field instrument 12 p3860 N93-31719

UPPER STAGE ROCKET ENGINES
An experimental study of a small high speed LH2 rocket pump: Fundamental mechanical design
[NAL-TR-1123] 02 p0330 N93-12463
Experimental approach on the pyrotechnical shock reduction of Ariane-5 upper stage 05 p1075 N93-15764

UPPER SURFACE BLOWING
A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362
Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729

UPSTREAM
Volume 2: Explicit, multistage upwind schemes for Euler and Navier-Stokes equations
[NASA-CR-191647] 05 p1158 N93-16558
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154

UPWELLING
U UPWELLING WATER

UPWELLING WATER
Sensitivity of the Yoshida jet to the parameterization of vertical mixing: Do easterly winds imply equatorial upwelling? 04 p0922 N93-14864
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Late quaternary time series of Arabian Sea productivity: Global and regional signals 06 p1580 N93-18969
Marine productivity along the northwest coast of Africa (Mauritania): Estimation from satellite data 07 p1955 N93-21578
Model predictions of the cross-slope transport of shelf organic carbon in the northwest African upwelling zone calibrated by satellite derived pigment fields 07 p1955 N93-21580
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633

UPWIND SCHEMES (MATHEMATICS)
A numerical study of hypersonic flows using the full Navier-Stokes equations with different air models 03 p0594 N93-14061
Navier-Stokes simulations of unsteady transonic flow phenomena 09 p2578 N93-25542
Estimating uncertainty in computations of two-dimensional separated flows
[NASA-CR-189743] 10 p3040 N93-27587
Upwind finite element schemes for solving the Maxwell equations
[INRIA-RR-1601] 11 p3546 N93-28509

URANIUM
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
The nucleation and growth of uranium on the basal plane of graphite studied by scanning tunneling microscopy
[DE93-006279] 08 p2501 N93-22510
The kinetics of the hydriding of uranium metal 2
[DE93-004766] 12 p3704 N93-31184
On the quantitative interpretation of uranium series disequilibria
[VTT-TIED-1404] 12 p3821 N93-31863

URANIUM ALLOYS
Eutectic solidification of Al-U at slowly cooling rates (10 C per second)
[DE92-640082] 11 p3328 N93-30941
The development of a tungsten heavy alloy that fails by an adiabatic shear mechanism, phase 1
[AD-A265867] 12 p3707 N93-32318

URANIUM CARBIDES
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129

URANIUM COMPOUNDS
NT URANIUM CARBIDES
NT URANIUM FLUORIDES
NT URANIUM OXIDES
Chemistry of lower valent actinide halides
[DE92-017031] 02 p0251 N93-12105
Normal state resistivity and the phase diagram of U(1-x)Th(x)Be13
[DE92-040236] 04 p0995 N93-15321
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826

URANIUM FLUORIDES
Recommendations for a Kalman filter to estimate and control freeze and sublime rates of gaseous diffusion plant freezer/sublimer systems
[ORNL/TM-12183] 09 p2668 N93-25937

URANIUM OXIDES
Theoretical study of the radiative and kinetic properties of selected metal oxides and air molecules
[AD-A251090] 02 p0438 N93-11804
Nuclear fuels for very high temperature applications
[DE92-018021] 02 p0446 N93-12129
URANUS (PLANET)
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres
03 p0768 N93-14072
Magnetic field waves at Uranus
[NASA-CR-192113] 06 p1735 N93-18779
Analysis of Uranian radio emissions, Uranus Data Analysis Program (UDAP)
[NASA-CR-193524] 12 p3882 N93-32222
URANUS ATMOSPHERE
An analysis of the Voyager 2 ultraviolet spectrometer occultation data at Uranus and Triton: Inferring heat sources and model atmospheres
03 p0768 N93-14072
Revelations of a stratospheric circulation: The dynamical transport of hydrocarbons in the stratosphere of Uranus
04 p0913 N93-14211
Ethane ice haze in the upper atmosphere of Uranus
04 p1023 N93-14212
Microwave observations of Uranus
04 p1046 N93-14863
URBAN AREAS
U CITIES
URBAN DEVELOPMENT
Post-war regional planning: The French silicon valley
[RSRE-MEMO-4282] 02 p0472 N93-10976
Federal support to universities, colleges, and nonprofit institutions: Fiscal year 1990. A report to the President and Congress
[NSF-92-324] 03 p0741 N93-13543
Urban climatology in Africa. Special issue of the African urban quarterly, volume 5, numbers 1 and 2, February and May, 1990
[WCASP-19] 06 p1587 N93-18592
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Results of international meeting held in Tunis (Tunisia)
08 p2368 N93-23818
Study of the cultivated land losses around Tunis
08 p2368 N93-23819
Satellite remote sensing for environmental geology: The Bandung (West Java) experience
09 p2739 N93-24784
Monitoring and analysis of urban trends using multitemporal satellite-imagery (case-study: Greater Cairo)
09 p2740 N93-24790
The photointerpretation of the area taken over from agriculture by intense urbanization at Villabate (Palermo, Italy)
09 p2742 N93-24800
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330
URBAN PLANNING
Urban climatology in Africa. Special issue of the African urban quarterly, volume 5, numbers 1 and 2, February and May, 1990
[WCASP-19] 06 p1587 N93-18592
Use of teledetection in physiographic compartmentation to obtain multiple use geotechnic zoning in coastal regions
[INPE-5322-PRE/1720] 06 p1583 N93-19795
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
The distribution of green areas in urban areas: Cartography and comparative analysis of LANDSAT TM and HRV/SPOT data
[INPE-5262-PRE/1686] 07 p1979 N93-21560
Transportation planning, programming, land use, and applications of geographic information systems
[PB93-167815] 10 p3166 N93-27419
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330
URBAN RESEARCH
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Towards a sustainable urban environment: The Rio de Janeiro study
[PB93-187557] 12 p3751 N93-31330
URBAN TRANSPORTATION
Selective perception for robot driving
[AD-A253740] 01 p0142 N93-10749
Public transportation alternative fuels: A perspective for small transportation operations
[PB92-120120] 07 p1866 N93-21716
Public transportation alternative fuels: A perspective for small transportation operations. Executive summary
[PB92-182567] 07 p1867 N93-21717
UREAS
NT THIOUREAS
Hydrothermal organic synthesis experiments
[NASA-CR-191257] 03 p0672 N93-13457
13 C NMR spectra of allosteric effectors of hemoglobin
[AD-A262979] 10 p3084 N93-28293
URETHANES
Material selection and evaluation of new encapsulation compounds for electric cables for launch support system
06 p1496 N93-19402
URINALYSIS
Metabolite identification of halon replacement compounds
[AD-A256344] 05 p1134 N93-16265
URINE
The identification and quantitation of triamterene in blood and urine from a fatal aircraft accident
[AD-A254550] 03 p0674 N93-12612
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
UPT scenarios: Implications for system reliability
05 p1182 N93-17332
Survey of aviation medical examiners: Information and attitudes about the pre-employment and pre-appointment drug testing program
[DOT/FAA/AM-92/15] 08 p2422 N93-24088
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Applications of optical fiber to remote laser fluorescence analysis
[DE93-607553] 12 p3732 N93-31826
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Microbiological and corrosion analysis of three urine pretreatment regimes with titanium 6A1-4V
[NASA-CR-192575] 12 p3783 N93-32356
USA (UNITED STATES)
U UNITED STATES
USER MANUALS (COMPUTER PROGRAMS)
Resonance apparatus operating manual
[AD-A254040] 01 p0071 N93-10241
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
PRODIGY4.0: The manual and tutorial
[AD-A253970] 01 p0137 N93-10422
DYNA2D: A nonlinear, explicit, two-dimensional finite element code for solid mechanics: User manual
[DE92-017310] 01 p0095 N93-10646
ACIRF user's guide for the general model (Version 3.5)
[AD-A254068] 01 p0069 N93-10657
A standard file format for data interchange
[AD-A254260] 01 p0176 N93-10899
An interactive preprocessor for the NASA engine performance program
[NASA-TM-105786] 02 p0209 N93-10983
Micromechanics of metal matrix composites using the Generalized Method of Cells model (GMC) user's guide
[NASA-CR-190756] 02 p0335 N93-11175
Reserves information gathering system user's guide
[DE92-018357] 02 p0475 N93-11355
Operator's guide for VAXGAP, a gamma-ray spectrum analysis package
[DE92-019096] 02 p0407 N93-11356
Temporal scattering and response software users' manual, version 2 and 3
[DE92-040934] 02 p0282 N93-11632
ICAN/DAMP-integrated composite analyzer with damping analysis capabilities: User's manual
[NASA-TP-3292] 02 p0241 N93-12015
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
LINK user manual
[DE92-017987] 02 p0479 N93-12143
Testability design rating system. Volume 2: Analytical procedure
[AD-A254333] 02 p0413 N93-12146
Micromechanical combined stress analysis: MICSTRAN, a user manual
[NASA-CR-189694] 02 p0243 N93-12306
Space Station communications and tracking systems modeling and RF link simulation
[NASA-CR-185684] 02 p0288 N93-12519
Users manual for program NYQUIST: Liquid rocket nyquist plots developed for use on a PC computer
[NASA-CR-184451] 02 p0235 N93-12522
Stability codes for a liquid rocket implemented for use on a PC
[NASA-CR-184453] 03 p0525 N93-12659
Users manual for program SSFREQ intermediate mode stability curves: Developed for use on a PC computer
[NASA-CR-184452] 03 p0682 N93-12675
Users manual for program ADMIT: Admittance and pressure transfer function developed for use on a PC computer
[NASA-CR-184450] 03 p0682 N93-12676
An interactive office accounting program written in UNIX and C
[AD-A255077] 03 p0683 N93-12740
User's guide: Computer-Aided Structural Modeling (CASM), version 3.00
[AD-A255074] 03 p0684 N93-12851
Engineering Design Information System (EDIS) Information Services Division (ISD) index function: User's manual
[DE92-041242] 03 p0736 N93-13048
Introduction to IND and recursive partitioning, version 1.0
[NASA-CR-191220] 03 p0685 N93-13063
Test and control computer user's guide for a digital beam former test system
[NASA-CR-189208] 03 p0685 N93-13291
Providing structural modules with self-integrity monitoring software user's manual
[NASA-CR-190877] 03 p0628 N93-13707
Circuit design tool. User's manual, revision 2
[NASA-CR-191361] 03 p0687 N93-13734
Evaluation of the cost effectiveness analysis model being developed for the component improvement programs of the Air Force and the Navy
[AD-A256132] 04 p1010 N93-14249
Geographic Resources Analysis Support System (GRASS) version 4.0 user's reference manual
[AD-A255218] 04 p1001 N93-14524
Computer based satellite design
[AD-A255315] 04 p0816 N93-14536
VANTAGE: A frame-based geometric modeling system programmer/user's manual, V2.0
[AD-A255434] 04 p0944 N93-14566
Vendor Information System (VIS) systems manual
[AD-A256174] 04 p1002 N93-14650
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 3: Programmer's manual
[NASA-CR-189653-VOL-3-REV]
04 p0815 N93-14730
Interplanetary Program to Optimize Simulated Trajectories (IPOST). Volume 1: User's guide
[NASA-CR-189653-VOL-1-REV]
04 p0815 N93-14794
BLSTA: A boundary layer code for stability analysis
[NASA-CR-4481] 04 p0877 N93-14797
Automated Estimating System (AES), version 5.1. User's manual
[DE93-000380] 04 p0946 N93-15003
Advanced development active model: A users guide
[AD-A255614] 04 p0974 N93-15012
User's guide for SearchMAESTRO
[AD-A256422] 04 p1008 N93-15335
CMU common lisp user's manual
[AD-A256431] 04 p0950 N93-15336
Automated Estimated System (AES) standard value and guidelines programs user's manual
[DE92-041243] 04 p0951 N93-15450
User manual for the Software Technology for Adaptable, Reliable Systems (STARS). PCTE Browser Tool (PBT) version 0.1 SunOS implementation
[AD-A257064] 04 p0951 N93-15457
GRASS 4.0 map digitizing user's manual: V. Digit
[AD-A256859] 04 p1009 N93-15642
Computer programs to characterize alloys and predict cyclic life using the total strain version of strainrange partitioning: Tutorial and users manual, version 1.0
[NASA-TM-4425] 05 p1182 N93-15788
Lewis online travel system: Preparer's/traveler's manual, release 1.0
[NASA-CR-190776] 05 p1254 N93-15789
CAPS ReReader simulation model user's manual version 1.0
[AD-A257180] 05 p1234 N93-16000
Calculation methods for steadily loaded fixed-inclined-pad thrust bearings. (Guide to use of computer program A9234.)
[ESDU-92034] 05 p1177 N93-16523

Calculation methods for steadily loaded, off-set pivot, tilting pad thrust bearings. (Guide to use of computer program A9235.)
[ESDU-92035] 05 p1177 N93-16524

Calculation methods for externally pressurised (hydrostatic) journal bearings with capillary restrictor control. (Guide to use of computer program A9237.)
[ESDU-92037] 05 p1177 N93-16526

User's manual for Interactive Data Display System (IDDS)
[NASA-TM-105572] 05 p1240 N93-16613

LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614

Second generation integrated composite analyzer (ICAN) computer code
[NASA-TP-3290] 06 p1477 N93-18139

Advanced communications technology satellite high burst rate link evaluation terminal experiment control and monitor software user's guide, version 1.0
[NASA-CR-189160] 06 p1620 N93-18382

Investigation of advanced counterrotation blade configuration concepts for high speed turboprop systems. Task 4: Advanced fan section aerodynamic analysis computer program user's manual
[NASA-CR-187127] 06 p1449 N93-18702

Software Engineering Laboratory (SEL) database organization and user's guide, revision 2
[NASA-TM-108631] 06 p1624 N93-18860

DROLS workbook
[AD-A259033] 06 p1687 N93-19017

Software measurement guidebook, version 02.00.02
[AD-A258961] 06 p1625 N93-19083

Software users manual for the generic avionics data bus tool kit of the Ada technology insertion program
[AD-A259364] 06 p1628 N93-19852

Software programmers manual for the generic avionics data bus tool kit to the Ada technology insertion program
[AD-A259379] 06 p1628 N93-19855

PL/GPD DMSP data archiving from VAX to exabyte tapes
[AD-A258607] 07 p2002 N93-19994

Management of Automatic Data Processing (ADP) system documentation in the Department of Defense
[AD-A258507] 07 p2088 N93-20048

Radar Ocean Wave Spectrometer (ROWS) preprocessing program (PREROWS2.EXE). User's manual and program description
[NASA-TM-104579] 07 p2017 N93-20160

MAPPER: A personal computer map projection tool
[NASA-TM-4445] 07 p2034 N93-20778

User's guide to the on-line bibliographic reference system for the NIST process planning testbed
[PB92-226307] 07 p2091 N93-21012

CRAY mini manual. Revision D
[NASA-TM-107599-REV-D] 07 p2028 N93-21027

Computer Security Bulletin Board System: User's guide
[PB93-113553] 07 p2029 N93-21255

Conformance test specification for COBOL intrinsic function module
[PB92-229178] 07 p2040 N93-21351

Expanded user's documentation for SHIMS
[PB93-101905] 07 p2092 N93-21694

Physics models and user's guide for the neutral beam module of the SuperCode
[PB93-121867] 07 p2076 N93-21809

User's guide to the Penn State/NCAR Mesoscale Modeling System
[PB93-126654] 08 p2391 N93-22380

PLTPWR: A versatile tool for greyscale and power spectral display
[DREA-TC-92-306] 08 p2435 N93-22473

GROPE: A GENESIS/EXODUS database examination program
[DE93-006963] 08 p2523 N93-22514

SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704

User's manual for the ALS base heating prediction code, volume 2
[NASA-CR-192457] 08 p2203 N93-22962

VASGEN: A finite element model generation program for VAST. User's manual, version 4.0
[DREA-CR-91-447] 08 p2437 N93-23089

Advanced communications technology satellite high burst rate link evaluation terminal communication protocol software user's guide, version 1.0
[NASA-CR-189162] 08 p2437 N93-23134

Common Carrier Earth Station Application
[PB93-111722] 08 p2263 N93-23268

NTIA Microcomputer Spectrum Analysis Models (MSAM). Version 4.0, August 1992
[PB93-108348] 08 p2432 N93-23269

SPRING2: Helical compression spring geometry generator program manual
[DREA-TC-92-314] 08 p2438 N93-23345

High Temperature Composite Analyzer (HITCAN) demonstration manual, version 1.0
[NASA-TM-106003] 08 p2328 N93-23411

LARCRIM user's guide, version 1.0
[NASA-CR-191416] 08 p2439 N93-23432

Nuclear Engine System Simulation (NESS). Version 2.0: Program user's guide
[NASA-CR-191081] 08 p2204 N93-23875

Nuclear Engine System Simulation (NESS). Volume 1: Program user's guide
[NASA-CR-191080] 08 p2204 N93-23876

Soar-mode v5.0 user's manual for Soar release 5.2 and 6.0
[AD-A259914] 08 p2441 N93-23997

Blade Assessment for Ice Impact (BLASIM). User's manual, version 1.0
[NASA-CR-191075] 08 p2331 N93-24102

Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. User's guide. Volume 1. NGDC key to geophysical records documentation No. 26
[PB93-146082] 08 p2389 N93-24334

PROMISC user manual, appendix 2
[NASA-CR-192989] 08 p2332 N93-24529

PROMISS user manual, appendix 1
[NASA-CR-192990] 08 p2333 N93-24530

A trajectory generation and system characterization model for cislunar low-thrust spacecraft. Volume 1: User's manual
[NASA-CR-185171] 08 p2205 N93-24536

User's guide to Flexible Membrane Liner Advisory Expert System, Flex version 3.0
[PB93-134872] 08 p2259 N93-24559

AutoMOUSE: An improvement to the MOUSE computerized uncertainty analysis system operational manual
[PB93-100113] 08 p2443 N93-24587

A user's manual for software GPR92
[MATHS-REPT-A-175] 08 p2444 N93-24642

Global ecosystems database. Version 1.0 (on CD-ROM). EPA global climate research program. NOAA/NGDC global change database program. Documentation manual, DISC-A. Volume 1. NGDC key to geophysical records documentation No. 27
[PB93-146090] 08 p2390 N93-24645

Federal Communications Commission (FCC) Transponder Loading Data Conversion Software. User's guide and software maintenance manual, version 1.2
[NASA-CR-191067] 09 p2808 N93-24947

High temperature composite analyzer (HITCAN) user's manual, version 1.0
[NASA-TM-106002] 09 p2724 N93-25070

DSD Technology: A detonation reactive Huygens code
[LA-12235-MS] 09 p2706 N93-25987

Application of the Saha equation to high temperature (greater than or equal to) rocket exhaust
[AD-A261648] 09 p2632 N93-26174

AMPHIB: A users manual
[AD-A261769] 09 p2669 N93-26285

METal matrix composite ANalyzer (METCAN): Theoretical manual
[NASA-TM-106025] 09 p2641 N93-26552

TS software user manual for the Time Series program and utilities
[PB93-167518] 10 p3091 N93-26635

DADiSP processing guide 10 p2947 N93-26949

NEP power subsystem modeling 10 p2982 N93-26974

RENEW v3.2 user's manual, maintenance estimation simulation for Space Station Freedom Program
[NASA-TM-106006] 10 p3055 N93-27025

Opus: An integrated simulation model for transport of nonpoint-source pollutants at the field scale. Volume 2: User manual
[PB93-161628] 10 p3068 N93-27055

User's manual for UCAP: Unified Counter-Rotation Aero-Acoustics Program
[NASA-CR-191034] 10 p3129 N93-27148

Software Management Environment (SME) release 9.4 user reference material
[NASA-CR-193173] 10 p3094 N93-27257

User's guide for the algorithm testing system/version 1.1
[PB93-175990] 10 p3096 N93-27408

Dynamic System Coupler Program (DYSCO 4.1). Volume 2: User's manual
[AD-B131157L] 10 p3099 N93-27589

Dynamic System Coupler Program (DYSCO 4.1). Volume 3: User's manual supplement
[AD-B131158L] 10 p3099 N93-27590

User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852

GWB: Manual for the Grammar Work Bench, version 1.0
[TR-91-28] 10 p3100 N93-27885

WAVEPACK: Basic concepts of linear wave propagation
[MEMO-1068] 10 p3041 N93-28077

MASTRE trajectory code update to automate flight trajectory design, performance predictions, and vehicle sizing for support of shuttle and shuttle derived vehicles: Programmers manual
[NASA-CR-192558] 10 p2954 N93-28321

Analysis of dynamical plasma interactions with high-voltage spacecraft, volume 2
[AD-A262784] 10 p2974 N93-28402

Concurrent clean language manual, version 0.8
[TR-92-18] 11 p3522 N93-28482

The concurrent clean system user's manual and PABCstat user's manual, version 0.8
[TR-92-19] 11 p3523 N93-28484

JPDRAW user's manual, version 3.3
[INRIA-RT-0139] 11 p3523 N93-28504

Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558

Predicting radiation characteristics from antenna physical dimensions
[AD-A262462] 11 p3379 N93-28654

Metal Matrix Laminate Tailoring (MMLT) code: User's manual
[NASA-TM-106052] 11 p3295 N93-28681

Users manual for fault tree analysis code: CUT-TD
[DE93-753272] 11 p3525 N93-28978

Hanford Environmental Information System (HEIS) user's manual, volume 1
[DE93-007465] 11 p3470 N93-29135

The three-dimensional Multi-Block Advanced Grid Generation System (3DMAGGS)
[NASA-TM-108985] 11 p3420 N93-29155

Concept design example, Computer Aided Structural Modeling (CASM). Scheme A
[AD-A264759] 11 p3529 N93-29657

Concept design example, Computer Aided Structural Modeling (CASM). Scheme B
[AD-A264760] 11 p3529 N93-29658

Data probe user's guide
[PB93-178655] 11 p3530 N93-29678

Concept formulation process aid for trade-off determination: Operator's guide
[AD-A263756] 11 p3531 N93-29874

TRAB: A transient analysis program for BWR. Part 2: User's manual
[VTT-TIED-1232-PT-2] 11 p3575 N93-29996

XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023

AHP version 5.1 user's manual
[DE93-007050] 11 p3532 N93-30034

Simplified Linear Equation Solvers: User's manual
[DE93-011975] 11 p3550 N93-30140

The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156

Operation of the helicopter antenna radiation prediction code
[NASA-CR-193259] 12 p3715 N93-31110

COBOL Compiler Validation System (CCVS 85), user guide, version 4.2
[PB93-163178] 12 p3785 N93-31112

WBNFLOW: Multi-grid/multi-block potential solver for compressible flow. User's guide
[FFA-TN-1992-43] 12 p3723 N93-31146

Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637

Online guided tour of the Cleanup Information Bulletin Board System. (CLU-IN: Cleanup Information Bulletin Board)
[PB93-193704] 12 p3752 N93-31818

Venari/ML interfaces and examples
[AD-A265416] 12 p3841 N93-32048

Orbit Analysis Tools Software user's manual, version 1
[AD-A265012] 12 p3686 N93-32081

Variational Trajectory Optimization Tool Set: Technical description and user's manual
[NASA-TM-4442] 12 p3690 N93-32381

USER REQUIREMENTS

Guide to the user requirements definition phase
[ESA-PSS-05-02-ISSUE-1] 01 p0136 N93-10315

Guide to the software requirements definition phase
[ESA-PSS-05-03-ISSUE-1] 01 p0136 N93-10316

Quality management of finite element analysis
[PNR-90951] 02 p0331 N93-11110
Optimized software for a generalized Polak-Ribiere algorithm in unconstrained optimization
[MATHS-REPT-A-156] 02 p0406 N93-11210
Study and recommendation of available sources of scientific and technical numeric databases in the government and private sector
[AD-A247266] 02 p0475 N93-11465
The effect of task complexity on user interfaces: A comparison of command language interface and direct manipulation interface
[AD-A246061] 02 p0412 N93-11859
Formal representation of the requirements for an Advanced Subsonic Civil Transport (ASCT) flight control system
[NASA-CR-189699] 02 p0405 N93-12346
Coordinating Council. Sixth Meeting: Who Are Our Key Users?
[NASA-TM-108021] 03 p0734 N93-12672
Coordinating Council. Eighth Meeting: Using the Internet
[NASA-TM-108019] 03 p0734 N93-12673
Information resource utilisation: Accessibility based on concerns 04 p1001 N93-14216
Vision system requirements and concept for the Special Purpose Dexterous Manipulator system (SPDM) 04 p0805 N93-14924
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960
L-band antenna design for MSAT mission 04 p0812 N93-14961
The evolution of signalling from ISDN to B-ISDN
[MEMO-INF-92-30] 04 p0860 N93-15095
Crew requirements definition system user's guide
[AD-A257052] 04 p0951 N93-15445
Working together, virtually 04 p0954 N93-15547
Designing video annotation and analysis systems 04 p0955 N93-15552
An investigation of requirements traceability to support systems development
[AD-A257444] 05 p1351 N93-15868
Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373
GATOR: Requirements capturing of telephony features 05 p1247 N93-17505
Generic domain models in software engineering 05 p1250 N93-17520
A concept study for a national software engineering database
[AD-A258254] 06 p1614 N93-17823
TICAMS: Telefunken Integrated Computer-Aided Maintenance System 06 p1608 N93-19763
NASA scientific and technical program: User survey
[NASA-TM-108979] 06 p1693 N93-19937
User interface of complex interactive computer systems
[ECL-92-05] 07 p2030 N93-20059
Product development of a user interface for Geographic Information Systems (GIS) and remote sensing for training purposes
[BCRS-90-32] 07 p2091 N93-20952
Field screening for environmental pollutants: Defining user instrumentation needs
[PB93-117885] 07 p1993 N93-21791
Advanced display object selection methods for enhancing user-computer productivity 08 p2444 N93-22151
The use of remote sensing data in a statistical ground utilization information system 08 p2341 N93-22447
Assessing federal and commercial information security needs
[PB93-138956] 08 p2525 N93-23228
Action 4 from image to statistics: Operational review after two years of rapid estimates of acreages and potential yields of major annual crops throughout the European community 08 p2360 N93-23770
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
Environment Observation and Climate Modelling Through International Space Projects. Columbus Eight (COSY-8): Utilisation of Earth Orbiting Laboratories
[ESA-ISY-4] 08 p2154 N93-24336
User support for the Spacelab mission D-2 08 p2155 N93-24340
Columbus precursor Spacelab missions 08 p2155 N93-24341
Systems engineering and the user: Incorporation of user requirements into the SE process 09 p2666 N93-24687
Factors associated with perceptions of productivity and usage of information technology in a service organization 09 p2875 N93-25421
A framework for the design of usable electronic text 09 p2877 N93-25754
Minimum Hamiltonian ascent trajectory evaluation (MASTRE) program (update to automatic flight trajectory design, performance prediction, and vehicle sizing for support of shuttle and shuttle derived vehicles) users manual
[NASA-CR-192556] 11 p3269 N93-28558
Information system for co-registration of CAESAR sea-images based on two dimensional image matching techniques (SCORE). Part 1: Introduction, user requirements, and feasibility tests
[BCRS-90-40A-PT-1] 11 p3460 N93-29307
Satellite calibration requirements
[AD-A264279] 11 p3281 N93-30817
Distributed data systems in space physics 12 p3859 N93-31715
The computer integrated documentation project: A merge of hypermedia and AI techniques 12 p3801 N93-32148
Information for the user in design of intelligent systems 12 p3801 N93-32149
ARIES: Acquisition of Requirements and Incremental Evolution of Specifications 12 p3794 N93-32157
Blocking probabilities in a loss system with arrivals in geometrically distributed batches and heterogeneous service requirements
[MEMO-1074] 12 p3812 N93-32392

USER-COMPUTER INTERFACE
U MAN-COMPUTER INTERFACE

UTAH
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
Final report --- Mesozoic tectonic history of the northeastern Great Basin (Nevada)
[NASA-CR-192091] 06 p1564 N93-17927
Assessment of regional earthquake hazards and risk along the Wasatch Front, Utah
[PB93-115657] 08 p2400 N93-24214
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557

UTILITIES
Energy analysis program
[DE93-001570] 05 p1199 N93-16045
Expected benefits of federally-funded thermal energy storage research
[DE93-003139] 05 p1197 N93-17187
Future directions: Integrated resource planning
[DE92-040867] 05 p1197 N93-17208
Status report on renewable energy in the States
[DE93-000032] 08 p2381 N93-23671
Electric and hybrid vehicle program; Site Operator Program
[DE93-005239] 08 p2319 N93-24444
Published assessments bearing on the future use of ceramic superconductors by the electric power sector
[DE93-007737] 09 p2658 N93-26588

UTILITY AIRCRAFT
NT BO-105 HELICOPTER
NT U-2 AIRCRAFT
NT UH-60A HELICOPTER

UTILIZATION
NT COAL UTILIZATION
NT GEOTHERMAL ENERGY UTILIZATION
NT LASER APPLICATIONS
NT LASER CUTTING
NT LASER DEPOSITION
NT LASER FUSION
NT PULSED LASER DEPOSITION
NT SOFTWARE REUSE
NT WASTE ENERGY UTILIZATION
NT WASTE UTILIZATION
NT WINDPOWER UTILIZATION
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Industrial applications and markets for ceramic matrix composites
[PNR-90884] 02 p0266 N93-11205
Utilization of databases to manage resources
[DE92-019598] 03 p0735 N93-12808
S/EV 92 (Solar and Electric Vehicles): Proceedings, volume 1
[DE93-001501] 05 p1180 N93-17577
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621

UTRICLE
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800

UV CETI STARS
U FLARE STARS

UV LASERS
U ULTRAVIOLET LASERS

V

V BAND
U EXTREMELY HIGH FREQUENCIES

V GROOVES
NT RIBLETS
Double-V block fingers with cruciform recess
[NASA-CASE-GSC-13356-2] 05 p1180 N93-17625
Texturing of InP surfaces for device applications
[NASA-TM-106061] 11 p3321 N93-28618

V-22 AIRCRAFT
The V-22 Osprey: A case analysis
[AD-A256445] 04 p0791 N93-14601
Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop
[DOT/FAA/RD-91/23] 04 p0974 N93-14912
Bureaucracies at war: The V-22 osprey program
[AD-A262451] 10 p3164 N93-27828
Fabrication of the V-22 composite AFT fuselage using automated fiber placement 11 p3302 N93-30443

V/STOL AIRCRAFT
NT AH-64 HELICOPTER
NT BO-105 HELICOPTER
NT CH-47 HELICOPTER
NT CL-84 AIRCRAFT
NT FLYING PLATFORMS
NT H-53 HELICOPTER
NT H-60 HELICOPTER
NT HELICOPTERS
NT MILITARY HELICOPTERS
NT OH-58 HELICOPTER
NT ROTARY WING AIRCRAFT
NT SHORT TAKEOFF AIRCRAFT
NT TILT ROTOR AIRCRAFT
NT UH-60A HELICOPTER
NT V-22 AIRCRAFT
NT VERTICAL TAKEOFF AIRCRAFT
NT XV-15 AIRCRAFT
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft
[NASA-TM-103872] 01 p0011 N93-10741
ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213
A full-scale STOVL ejector experiment
[NASA-TM-106019] 08 p2129 N93-22480
Experimental performance of a ventral nozzle with pitch and yaw vectoring capability for SSTOVL aircraft
[NASA-TM-106054] 09 p2592 N93-25129
ASTOVL combat aircraft design synthesis and optimization 09 p2589 N93-25704
Jet-induced ground effects on a parametric flat-plate model in hover
[NASA-TM-104001] 09 p2581 N93-26099
Performance characteristics of a variable-area vane nozzle for vectoring an ASTOVL exhaust jet up to 45 deg
[NASA-TM-106114] 10 p2944 N93-27131
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065

VACANCIES (CRYSTAL DEFECTS)
NT FRENKEL DEFECTS
Atomic bonding at ceramic interfaces using scanning tunneling microscopy
[DE92-018706] 02 p0273 N93-12479
Oxygen diffusion in high-T(c) superconductors
[DE92-019597] 03 p0720 N93-12807
A study of the vacancy loop formation probability in Ni-Cu and Ag-Pd alloys
[DE92-019584] 03 p0541 N93-12879
Influence of dilute impurities on the evolution of defect cascades in nickel
[DE92-019585] 03 p0542 N93-12973
Fundamental studies of passivity and passivity breakdown
[DE93-002747] 05 p1108 N93-17762
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
Fundamental aspects in the design of passive alloys
[DE93-009028] 11 p3320 N93-28545
Role of oxygen vacancies in anodic TiO2 thin films
[DE92-642137] 11 p3602 N93-31027
The thermodynamic and structural contributions to the vacancy formation energies in hot rare gas solids
[DE93-604742] 12 p3827 N93-31086
Numerical evidence for two types of localized states in a two-dimensional disordered lattice
[DE92-642677] 12 p3827 N93-31159

VACCINES
Allergic, Immunological and Infectious Disease Problems in Aerospace Medicine
[AGARD-CP-518] 02 p0376 N93-11283
Vaccination against Hepatitis B: The Italian strategy 02 p0377 N93-11289
HIV variability and perspectives of a vaccine 02 p0378 N93-11294
Communicable diseases: A major burden of morbidity and mortality 02 p0380 N93-11300
Susceptibility in USAF recruits to vaccine preventable diseases 02 p0380 N93-11301
Absence of protective immunity against diphtheria in a large proportion of young adults 02 p0380 N93-11302
Dramatic reduction of meningococcal meningitis among military recruits in Italy after introduction of specific vaccination 02 p0380 N93-11303
Immunization of personnel traveling to a destination in tropical countries: French position 02 p0380 N93-11304
Clinical and immunological response to vaccination with parenteral or oral vaccines in two groups of 30 recruits 02 p0381 N93-11305
Studies of safety, infectivity, and immunogenicity of a new Temperature Sensitive (TS) 51-1 strain of S. typhi as a new live oral typhoid fever vaccine candidate 02 p0381 N93-11306
Use of novel adjuvants and delivery systems to improve the humoral and cellular immune response to malaria vaccine candidate antigens 02 p0381 N93-11308
Cytokines as vaccine adjuvants: Interleukin 1 and its synthetic peptide 163-171 02 p0382 N93-11309
Future approaches to vaccine development single-dose vaccines using controlled-release delivery systems 02 p0382 N93-11310

VACILLATION
Basic studies of baroclinic flows 07 p2003 N93-20073

VACUUM
NT HIGH VACUUM
NT ULTRAHIGH VACUUM
Field-emitter arrays for RF vacuum microelectronics
[AD-A253396] 01 p0073 N93-10405
Remarks on the Robinson-Trautman solutions
[MATHS-REPT-A-167] 02 p0423 N93-11122
Slow crack growth in vacuum 02 p0338 N93-11909
Space Station Freedom seal leakage rate analysis and testing summary: Air leaks in ambient versus vacuum exit conditions
[NASA-TM-103604] 02 p0328 N93-12149
The possibility of concrete production on the Moon 03 p0554 N93-13988
Quasars, galaxies, and pseudo-vacuum droplets
[NIKHEF-H/91-20] 04 p1020 N93-14686
LARZAC HP turbine disk crack initiation and propagation spin pit test 04 p0799 N93-14892
Interferometric measurement with squeezed light
[AD-A257065] 04 p0984 N93-15458
Electrostatic-field effects on adsorbate bonding and structure at metal surfaces: Parallels between electrochemical and vacuum systems
[AD-A256659] 05 p1110 N93-15912
RF vacuum microelectronics
[AD-A257320] 05 p1144 N93-15984
RF vacuum microelectronics
[AD-A257208] 05 p1145 N93-16004
Preliminary investigation into the development of hardening devices using vacuum microelectronic technology
[AD-A258009] 05 p1152 N93-17750
Modification of primordial ices by cosmic rays as simulated by cyclotron irradiation 06 p1709 N93-19183
Sample positioning in microgravity
[NASA-CASE-NPO-18448-1-CU] 08 p2253 N93-24600
RF vacuum microelectronics
[AD-A261343] 09 p2691 N93-26311
Metallurgy and properties of plasma spray formed materials
[NASA-TM-108269] 10 p3003 N93-27125
Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor
[DE93-008726] 10 p3158 N93-28462
Report on the sintering and properties of MgO and MgO-5 percent TiC
[DE93-008676] 11 p3323 N93-29092
Photobiological investigations on spores of streptomyces griseus
[ESA-TT-1269] 11 p3491 N93-29274
Phase structure of three- and four-dimensional phi(exp 4) field theory
[DE93-606069] 11 p3605 N93-30782
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
R and D status report: RF vacuum microelectronics
[AD-A264381] 12 p3721 N93-32033
Progress toward atomic layer epitaxy of diamond using radical chemistry
[AD-A265409] 12 p3829 N93-32045

VACUUM APPARATUS
NT KNUDSEN GAGES
NT VACUUM CHAMBERS
NT VACUUM GAGES
NT VACUUM PUMPS
High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
The Wakeshield Facility: Free flyer and commercial experiment transporter programs 07 p1807 N93-21105
Vacuum powder injector and method of impregnating fiber with powder
[NASA-CASE-LAR-14179-1] 09 p2668 N93-26101
Advanced coordinate measuring machine at Sandia National Laboratories
[DE93-010618] 11 p3432 N93-29842
Turntable mechanism
[NASA-CASE-MFS-28522-1] 12 p3734 N93-31313

VACUUM CHAMBERS
Vacuum chamber translation/positioning mechanism and welding power supply controller
[NASA-CR-184485] 02 p0328 N93-12196
High temperature superconductor materials and applications
[NASA-CR-184437] 03 p0719 N93-12691
A new thermal vacuum facility at the Martin Marietta Waterton plant 04 p0814 N93-15607
The evolution of space simulation 04 p0814 N93-15610
Cleaning of a thermal vacuum chamber with shrouds in place 04 p0814 N93-15612
INTESPACE's new thermal-vacuum test facility: SIMMER 04 p0814 N93-15613
A new approach for performing contamination control bakeouts in JPL thermal vacuum test chambers 04 p0823 N93-15618
Mass spectrometer use in a large chamber 04 p0823 N93-15619
Suggestions for the magnetic diagnostic fixing system in the inside of tokamak TBR-E
[INPE-5277-NTC/298] 06 p1668 N93-19836
Nickel-hydrogen CPV battery update 07 p1986 N93-20518
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell
[DE93-004519] 08 p2317 N93-24049
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090
A study of thermal hydraulic and kinetic phenomena in HYLIFE-2: An inertial confinement fusion reactor
[DE93-008372] 10 p3150 N93-28421
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216
Optically powered photomultiplier tube
[AD-D015735] 12 p3722 N93-32207

VACUUM DEPOSITION
Ion-beam-assisted deposition of MoS2 and other low-friction films
[AD-A255222] 03 p0554 N93-13862
Modeling of the vacuum plasma spray process
[DE93-000718] 05 p1126 N93-17229
Vacuum deposition of copper on Type 304L stainless steel
[DE93-002704] 06 p1489 N93-19614
Metallization and sputtering of textiles: Preconditions for the substrate, properties and applications 07 p1838 N93-21158
X ray reflectivity measurements of vacuum deposited thin films
[DE93-007579] 10 p3004 N93-28007
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Extremely high rate deposition of polymer multilayer optical thin film materials
[DE93-009127] 10 p3053 N93-28433

VACUUM EFFECTS
Lunar concrete for construction 03 p0555 N93-13990
Simulation of the synergistic low Earth orbit effects of vacuum thermal cycling, vacuum UV radiation, and atomic oxygen 04 p0819 N93-15595
Experimental determination of in situ utilization of lunar regolith for thermal energy storage
[NASA-CR-191050] 05 p1196 N93-16617
Lubricants for high-vacuum applications
[AD-A263026] 10 p3004 N93-27914
Effects of vacuum exposure on stress and spectral shift of high reflective coatings
[DE93-009318] 11 p3437 N93-29207
New results from FRECOPA analysis 11 p3448 N93-29688

VACUUM GAGES
NT KNUDSEN GAGES
Vacuum structure of pure gauge theories on the lattice
[DE93-001920] 07 p2081 N93-21701

VACUUM PUMPS
The evolution of space simulation 04 p0814 N93-15610
From diffusion pumps to cryopumps: The conversion of GSFC's space environment simulator 04 p0814 N93-15611

VACUUM SYSTEMS
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods
[DE92-019032] 02 p0445 N93-11831
Cleaning of a thermal vacuum chamber with shrouds in place 04 p0814 N93-15612
RF vacuum microelectronics
[AD-A257684] 05 p1151 N93-17682
A manipulator kinematic design for high-vacuum operation
[DE93-010264] 11 p3444 N93-29247

VACUUM TESTS
NT THERMAL VACUUM TESTS
A multipurpose vacuum-ultraviolet test facility 01 p0011 N93-10953
Development of stable metallization systems
[AD-A253569] 02 p0264 N93-11079

VACUUM TUBES
NT BACKWARD WAVE TUBES
NT CATHODE RAY TUBES
NT CYCLOTRON RESONANCE DEVICES
NT KLYSTRONS
NT MAGNETRONS
NT MICROWAVE TUBES
NT PICTURE TUBES
NT TRAVELING WAVE TUBES
Field-emitter arrays for RF vacuum microelectronics
[AD-A262677] 11 p3404 N93-28483

VACUUM ULTRAVIOLET RADIATION
U FAR ULTRAVIOLET RADIATION

VALENCE
NT OCTETS
The Ba-related partial density of states in thermionic dispenser cathodes revealed by resonant photoemission spectroscopy
[AD-A255710] 05 p1102 N93-15963
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The synthesis and structural characterization of novel transition metal fluorides
[DE93-002551] 06 p1673 N93-18412
Synchrotron studies of narrow band materials
[DE93-006981] 08 p2502 N93-22526
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Accurate determination of Auger line shape binding energies
[AD-A261803] 09 p2868 N93-26258
Atomic supersymmetry 10 p3146 N93-27353
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095

VALIDATION
U PROVING

VALIDITY
Verification and validation of simulation models
[FEW-542] 05 p1277 N93-17405
The WAM model and ERS-1 07 p1960 N93-21609
How real-time data assimilation benefits weather and climate studies through the validation, quality control and synthesis of remotely sensed data 07 p1960 N93-21610
Phases of the project development and examination methodologies 12 p3775 N93-31231

VALLEYS
NT SAN JOAQUIN VALLEY (CA)
NT TENNESSEE VALLEY (AL-KY-TN)
Atmospheric dispersion in mountain valleys and basins 02 p0355 N93-11920
Tributary and gap nighttime air flow comparisons
[DE92-018875] 03 p0662 N93-13075
Venusian sinuous rilles 04 p1033 N93-14337
A search for intact lava tubes on the Moon: Possible lunar base habitats
[PGD-PUBL-541] 05 p1396 N93-17438
The Taurus-Littrow dark mantle, light mantle, crater cluster, and scarp 06 p1737 N93-18801

Apollo 17: One giant step toward understanding the tectonic evolution of the Moon 06 p1739 N93-18811
Mavale project: Sensor techniques applied to macrozoning of the Paraiba Valley and littoral north of the State of Sao Paulo
[INPE-5332-PRE/1731] 06 p1583 N93-19856
Multispectral and multitemporal aerial photography as an aid for the evaluation of land in regions of the Limagne Rift Valley (France)
[BCRS-91-29] 07 p1968 N93-20953
Use of remote sensing and GIS for the environmental planning proposal of the Sarno River Valley (Campania, southern Italy) 09 p2741 N93-24797
Land subsidence and problems affecting land use at Edwards Air Force Base and vicinity, California, 1990
[PB93-182236] 12 p3765 N93-32191

VALUE
NT Q VALUES

VALUE ENGINEERING
On the basis of experience: Built in product reliability
[PNR-90932] 02 p0331 N93-11034
Research and development strategies for human centered and group support technologies
[AD-A254366] 02 p0472 N93-12273

VALVES
NT CONTROL VALVES
NT FUEL VALVES
NT GAS VALVES
NT PRESSURE REGULATORS
NT RELIEF VALVES
Demand thrust pumped propulsion with automatic warm gas valving
[DE92-017435] 03 p0525 N93-12840
Thruster sealing system and apparatus
[NASA-CASE-MSC-21898-1] 04 p0890 N93-14702
Self-actuating slide valve system
[AD-D015456] 05 p1177 N93-16435
Development and verification of methods for predicting flow rates through leaks in valves and couplings
[NASA-CR-192270] 06 p1533 N93-19013
Tube diode
[INPE-5438-NTC/304] 06 p1551 N93-19832
Damped vibration of engine valve train by recent transfer matrix and matrix procedures 07 p1933 N93-20665
Analysis of failure and maintenance experiences of motor operated valves in a Finnish nuclear power plant
[VTT-TIED-1322] 07 p1916 N93-21658
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve
[NASA-TP-3190] 09 p2652 N93-26201
Preliminary design of an intermittent smoke flow visualization system
[NASA-CR-186027] 11 p3248 N93-28693
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Liquid-crystal heat valve controlled with multiple electrode pairs
[AD-D015739] 12 p3830 N93-32211

VAN ALLEN RADIATION BELTS
U RADIATION BELTS

VAN DE GRAAFF ACCELERATORS
Radiation physics, biophysics, and radiation biology
[DE92-013673] 02 p0375 N93-12266
Models of high velocity impact phenomena
[DE92-017452] 05 p1183 N93-15881
Ultra-high velocity impacts: Cratering studies of microscopic impacts from 3 km/s to 30 km/s
[DE93-003846] 08 p2327 N93-23291

VAN DER WAALS FORCES
A global potential energy surface for ArH2
04 p0843 N93-15358
Quantum dynamics of X2BC van der Waals clusters
[DE93-006416] 11 p3565 N93-28892

VANADIUM
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676

VANADIUM ALLOYS
Internal friction peaks due to oxygen, nitrogen, and hydrogen in V-Nb alloys
[DE92-012155] 02 p0254 N93-10995
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Dislocation cores structure and antiphase energies in DO22 intermetallics alloys versus temperature
[ONERA-NT-1992-5] 06 p1486 N93-18192
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365

VANADIUM COMPOUNDS
NT VANADIUM OXIDES

VANADIUM OXIDES
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Multifunctional nanocomposite materials
[DE93-002767] 05 p1099 N93-17082
Solid state, surface and catalytic studies of oxides
[DE93-004640] 06 p1483 N93-18424
Reversible potassium vanadium bronze cathodes (K(x)V6O(13+y)) with various potassium to vanadium ratios
[CTN-93-60709] 08 p2285 N93-24291
Research and development of lithium secondary batteries for load conditioner use, volume 2
[DE93-781329] 11 p3410 N93-29673
Thermal stability of lithiated vanadium oxide (LVO), gamma-lithium vanadium bronze (gamma-LiV2O5) and vanadium dioxide (VO2) thermal battery cathode materials
[RAE-TR-92047] 12 p3722 N93-32422

VANES
NT GUIDE VANES
NT JET VANES
The VTRE Program: An overview
03 p0512 N93-13182
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Three-dimensional flow in radial turbomachinery and its impact on design
[NASA-CR-192957] 09 p2593 N93-25668
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588

VANS
U TRUCKS

VAPOR DEPOSITION
NT METALORGANIC CHEMICAL VAPOR DEPOSITION
NT VACUUM DEPOSITION
Long wavelength multiple quantum well lasers for high-speed modulation applications
[AD-A253348] 01 p0087 N93-10211
Moire-fringe images of twin boundaries in chemical vapor deposited diamond
[AD-A253729] 01 p0035 N93-10231
Intense ion beam research at Los Alamos
[DE92-015240] 01 p0155 N93-10333
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
Boronization in D3-D
[DE92-016249] 01 p0163 N93-10759
Growth defects in diamond films
[AD-A253618] 01 p0040 N93-10778
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Preparation of silicon oxynitride thin films by plasma chemical vapor deposition for chemical implantation. Application to a pH ISFET
[ECL-91-12] 02 p0291 N93-11574
Polyethylene-terephthalate/aluminum adhesion
[ECL-91-33] 02 p0257 N93-11578
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
The chemistry of Si3N4 and Si deposition studied using molecular beam techniques
[DE92-018268] 02 p0463 N93-11797
Silicon on insulator structures in selective epitaxial growth
[DE92-017118] 02 p0465 N93-11915
Workshop on Characterizing Diamond Films
[PB92-205426] 02 p0271 N93-12086
The deposition characteristics of copper(I) compounds for CVD by FT-IR spectroscopy
[DE92-010778] 02 p0467 N93-12134
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Alternate electrode materials for the SP100 reactor
[DE92-019570] 03 p0706 N93-12970
Novel thin-film CuInSe2 fabrication
[DE92-016440] 03 p0723 N93-13526
Twin quintuplets in CVD diamond
[AD-A255862] 04 p0989 N93-14133
Organization of workshop on emerging technologies for in-situ processing
[AD-A255977] 04 p0865 N93-14410
Design and hardware implementation of neural systems
[AD-A256040] 04 p0866 N93-14577
A simple controller for repetitive cycles in atomic layer epitaxy
[AD-A255497] 04 p0992 N93-14643
High temperature stability, interface bonding, and mechanical behavior in (beta)-NiAl and Ni3Al matrix composites with reinforcements modified by ion beam enhanced deposition
[DE92-014399] 04 p0992 N93-14812
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255763] 04 p0993 N93-15055
Jet vapor deposition of thin films for solid oxide and other fuel cell applications
[DE92-019980] 04 p0851 N93-15222
Growth, characterization and device development in monocrystalline diamond films
[AD-A256283] 04 p0994 N93-15244
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE92-041373] 04 p0852 N93-15437
Numerical modeling tools for chemical vapor deposition
[NASA-CR-4480] 04 p0880 N93-15643
Growth studies of CVD-MBE by in-situ diagnostics
[AD-A257216] 05 p1314 N93-15816
Corrosion-resistant coatings for high-temperature high-sulfur-activity applications
[DE93-001527] 05 p1120 N93-16032
Temperature dependence of species concentrations near the substrate during CVD diamond growth
[AD-A256762] 05 p1316 N93-16071
Heteroepitaxial diamond growth
[AD-A257356] 05 p1317 N93-16175
Growth on the reconstructed diamond (100) surface
[AD-A256954] 05 p1319 N93-16301
Nonlinear optical composites of metal cluster laden polymers
[AD-D015396] 05 p1123 N93-16398
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
A theoretical study of the thermochemistry of molecules in the Si-C-Cl-H system
[DE93-002598] 05 p1288 N93-16919
Thermal plasma processing of materials
[DE93-003118] 05 p1311 N93-16925
Modeling of forced flow/thermal gradient chemical vapor infiltration
[DE93-001615] 05 p1125 N93-17032
High heat flux experiment on B4C-overlaid C/C composites for plasma facing materials of JT-60U
[DE93-715315] 05 p1127 N93-17472
Feasibility of silicon nitride films by vapor deposition at low temperature: Comparison of dichlorsilane-ammonia and disilane gaseous systems
[LAAS-92249] 06 p1490 N93-17812
A comparison study of diamond films grown on tungsten carbide cobalt tools inserts with CH4 and CF4 gas sources
[AD-A257552] 06 p1492 N93-17967
Pseudomorphic stabilization of diamond on non-diamond substrates, part 1. Diamond grown on single crystal beryllium oxide, Part 2. Anomalous band gap behavior and phase stability of c-BN/Diamond alloys
[AD-A257845] 06 p1493 N93-18345
Novel interconnect deposition technology
06 p1523 N93-18465
Research on polycrystalline thin-film CuGaInSe2 solar cells
[DE92-016439] 06 p1571 N93-18656
Friction and wear of plasma-deposited diamond films
[NASA-TM-105926] 06 p1495 N93-19035
A new measurement of thermal conductivity of amorphous ice and its implications for the thermal evolution of comets 06 p1710 N93-19191
Multiple layer dielectrics, hot film sensors, and methods of producing same
[NASA-CASE-LAR-14591-1] 06 p1539 N93-19493
Optical/thermal analysis methodology for a space-qualifiable RTP furnace
[NASA-CR-192254] 06 p1539 N93-19889
Low-pressure diamond growth using a secondary radical source
[AD-A258539] 07 p2077 N93-20055
Controlled nucleation and growth of semiconducting diamond
[AD-A258541] 07 p2078 N93-20056
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114

High temperature substrate mount for chemical vapor deposition of diamond
[AD-D015563] 07 p1858 N93-20122
Cluster formation and evolution on semiconductor surface
[AD-A259190] 07 p2078 N93-20274
Low temperature deposition and characterization of N- and P-type silicon carbide thin films and associated Ohmic and Schottky contacts
[AD-A259247] 07 p2080 N93-20581
New compounds obtained by LPCVD in the B-C-N chemical system
[REPT-921-430-111] 07 p1849 N93-20933
Low-temperature emitter-passivation for silicon solar cells
[DE93-002483] 07 p1987 N93-21487
Magnetically insulated ion diodes for synthesis of advanced materials
[DE93-003747] 07 p2076 N93-21776
Advanced ceramic component development for high temperature indirect gas-fired heating systems
[PB93-127033] 07 p1862 N93-21817
A nonequilibrium model for a moderate pressure hydrogen microwave discharge plasma
[NASA-TM-104765] 08 p2492 N93-22475
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
Tests of Hercules/Ultramet CVD coatings in hot hydrogen
[DE93-005533] 08 p2237 N93-22909
In-situ characterization of growth and interfaces in a-Si:H devices
[DE93-000051] 08 p2504 N93-22928
Substrate surface structure effects on microstructure of epitaxial films
[DE93-005562] 08 p2504 N93-22944
Diamond homoepitaxy by chemical vapor deposition
[AD-A260551] 08 p2512 N93-24281
Fundamental studies of defect generation in amorphous silicon alloys grown by remote plasma-enhanced chemical-vapor deposition (Remote PECVD)
[DE92-010560] 09 p2862 N93-24953
Mechanistic studies of the CVD of silicon nitride from SiF4 and NH3
[DE93-004500] 09 p2644 N93-25312
Novel approaches to the construction of miniaturized analytical instrumentation
[NASA-CR-191988] 09 p2709 N93-25345
Diagnostics of diamond film deposition plasmas
[AD-A260866] 09 p2860 N93-25626
Thermal coatings for titanium-aluminum alloys
[NASA-TM-107760] 09 p2651 N93-26048
Control of crystallite size in diamond film chemical vapor deposition
[AD-D015660] 09 p2867 N93-26090
Adhesion and corrosion behavior of Al-Zn and TiN/Ti/TiN coatings on a DU-0.75 wt. percent Ti alloy
[MTL-TR-92-56] 09 p2658 N93-26433
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Deposition and modification of tantalum carbide coatings on graphite by laser interactions
[DE93-008055] 10 p3003 N93-27052
Providing adherent coatings on tungsten and tungsten alloys
[DE93-007505] 10 p3004 N93-28006
Pseudomorphic stabilization of diamond on non-diamond substrates: Heteroepitaxially grown diamond on a c-BN(111) surface
[AD-A262106] 10 p3154 N93-28180
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Ion beam assisted deposition of tribological coatings
[DE93-011520] 10 p3006 N93-28366
Fabrication of commercial-scale fiber-reinforced hot-gas filters by chemical vapor deposition
[DE93-010762] 10 p2992 N93-28457
Diamond: A new high thermal conductivity substrate for multichip modules and hybrid circuits
[DE93-008337] 10 p3033 N93-28458
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903
Electrochemical behavior and surface chemistry of aluminum alloys: Solute-rich interphase model
[AD-A262061] 11 p3322 N93-29002
Flame or plasma synthesis of diamond under turbulent and transition flow conditions
[AD-D015689] 11 p3333 N93-29456
Development of adherent ceramic coatings to reduce contact stress damage of ceramics
[DE93-012518] 11 p3336 N93-30182
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574
Study on diamond semiconductor
[DE92-531076] 11 p3413 N93-30622
Visible light emitting materials and injection devices
[AD-A263499] 11 p3601 N93-30811
Laser-assisted chemical vapor deposition of InN on Si(100)
[AD-A264266] 12 p3731 N93-31095
Carbon diffusion in uncoated and titanium nitride coated iron substrates during microwave plasma assisted chemical vapor deposition of diamond
[DE93-608934] 12 p3708 N93-31174
Thermodynamic analysis of processes proceeding on (111) faces of diamond during chemical vapour deposition
[DE93-609039] 12 p3708 N93-31177
SiC fiber-reinforced Celsian glass-ceramic matrix composite
[NASA-CASE-LEW-15264-1] 12 p3700 N93-31293
Method of producing a ceramic fiber-reinforced glass-ceramic matrix composite
[NASA-CASE-LEW-15264-2] 12 p3700 N93-31299
A study on the development of high T(sub c) superconducting materials
[DE93-606394] 12 p3720 N93-31825
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Investigation of diamond homoepitaxy by in situ Fizeau interferometry: The role of oxygen
[AD-A265544] 12 p3829 N93-31921
An electron cyclotron resonance plasma process for InP passivation
[AD-A265036] 12 p3826 N93-31998
Large-area, triple-junction a-Si alloy production scale-up
[DE93-010007] 12 p3750 N93-32177
Investigation of PACVD protective coating processes using advanced diagnostics techniques
[DE93-013978] 12 p3711 N93-32307

VAPOR GENERATORS
U VAPORIZERS

VAPOR PHASE EPITAXY
Basic principles of organometallic vapor phase epitaxy
[AD-A250665] 02 p0464 N93-11868
Triisopropylindium: Decomposition study and use for low temperature growth
[AD-A250666] 02 p0464 N93-11869
Epitaxial growth of silicon and germanium for solar cells
[ITN-92-85168] 03 p0722 N93-13268
Si atomic layer epitaxy based on Si2H6 and remote He plasma bombardment
[AD-A255569] 05 p1316 N93-16136
High resistivity GaAs epilayers by oxygen doping
[AD-A257931] 06 p1670 N93-18005
Integration and use of Microgravity Research Facility: Lessons learned by the crystals by vapor transport experiment and Space Experiments Facility programs 08 p2193 N93-22652
An inverted AlGaAs/GaAs patterned-Ge tunnel junction cascade concentrator solar cell
[DE93-000073] 09 p2759 N93-25102
Innovative optoelectronic materials and structures using OMVPE
[AD-A262202] 10 p3152 N93-27683
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514

VAPOR PHASES
Heterogeneous processes: Laboratory, field, and modeling studies 02 p0350 N93-11090
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Remote fiber optic sensor for gaseous and liquid environments, phase 2
[AD-A256224] 04 p0983 N93-15241
Molecular capacitance: Sequential electron-transfer energetics for solution-phase metallic clusters in relation to gas-phase clusters and analogous interfaces
[AD-A257057] 04 p0977 N93-15448
LSENS, a general chemical kinetics and sensitivity analysis code for gas-phase reactions: User's guide
[NASA-TM-105851] 05 p1104 N93-16614
Vapor phase pyrolysis 05 p1108 N93-16891
A condensed phase test cell assembly for the System for Thermal Diagnostic Studies (STDS)
[AD-A258463] 06 p1497 N93-18242
Chemical activation of molecules by metals: Experimental studies of electron distributions and bonding
[DE93-002366] 06 p1654 N93-18398
A study of gas phase chemistry of solid propellant ingredients using a CO2 laser
[AD-A259277] 06 p1497 N93-19840
Principles of gas phase processing of ceramics during combustion 07 p1862 N93-20188
A numerical simulation of two-phase jet spreading using an Euler-Lagrangian technique
[AD-A259326] 07 p1902 N93-21258
Stable clusters in the condensed state and some possibilities for gas phase clusters
[DE93-004446] 07 p2064 N93-21846
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Application of high-resolution laser spectroscopy to the monitoring of vapor-phase metals
[DE93-004432] 08 p2228 N93-22724
In-situ characterization of growth and interfaces in a-Si:H devices
[DE93-000051] 08 p2504 N93-22928
The influence of carbon dioxide on the catalytic oxidative coupling of methane over A-La2O3 and 2-La2O2CO3
[DE93-004800] 08 p2220 N93-22989
Determination of rates of reaction in the gas-phase in the troposphere. Theory and practice. 5. Rate of indirect photoreaction
[PB93-149334] 08 p2402 N93-24569
Spectroscopic study of different phases of the VPO system in relation to their catalytic properties: In situ catalyzer measurement by Raman spectroscopy
[ECL-91-21] 08 p2225 N93-24623
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
An experimental study of particle-laden jet interactions with cocurrent flows 09 p2701 N93-25534
Kinetic studies in gas-phase reaction mechanisms important to the combustion process of high energy density materials: The H2/NO2 reaction 09 p2628 N93-26027
Mechanisms of decomposition and oxidation of borane compounds
[AD-A261137] 09 p2645 N93-26045
A kinetic and equilibrium analysis of silicon carbide chemical vapor deposition on monofilaments
[NASA-TM-106137] 10 p2988 N93-27003
Partial oxidation of ethane and ethylene in the presence and absence of C-13 labeled methane on reducible and non-reducible oxide catalysts
[DE93-008252] 10 p2994 N93-27485
Novel gas phase ion molecule reactions of C60(++) with O2
[AD-A262821] 10 p3136 N93-28225
Thermodynamic properties for polycyclic systems by non-calorimetric methods
[DE93-011373] 11 p3603 N93-28747
The thermochemistry and reaction pathways of the decomposition and combustion of energetic materials 11 p3343 N93-30063
Thermal decomposition chemistry and shock sensitivity of thermally aged explosives 11 p3344 N93-30069
Kinetic studies on gas-phase reaction mechanisms important to the combustion of energetic materials: The CO/N2O reaction 11 p3347 N93-30084
Micromachined chemical sensor with integrated microelectronics
[DE93-013761] 12 p3730 N93-32306

VAPOR PRESSURE
Vapor pressure data analysis methodology, statistics, and applications
[AD-A255090] 03 p0536 N93-12743
Experimental and numerical optimization of the U-Zr-C ternary phase diagram
[DE92-015242] 05 p1115 N93-17204
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653
Explosive vapor emission 07 p1772 N93-21905
A thermodynamic study of the vapor pressures of C-4 and pure RDX 07 p1772 N93-21906
Complex-compound heat pump: Topical report on phase 1 results
[PB93-185460] 11 p3466 N93-30814

VAPOR TRAILS
U CONTRAILS

VAPORIZATION HEAT
U HEAT OF VAPORIZATION

VAPORIZERS
NT EVAPORATORS
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694

Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194
Study on laser atomic spectroscopy
[DE93-606193] 12 p3703 N93-31824

VAPORIZING
NT BOILING
NT EVAPORATION
NT EVAPOTRANSPIRATION
NT FILM BOILING
NT NUCLEATE BOILING
NT SUBLIMATION
Geochemical aspect of impact cratering: Studies in Vernadsky Institute 01 p0123 N93-10196
Laser-ablation processes
[DE92-011226] 02 p0322 N93-12250
Effect of vaporization on cryogenic spray dropsize measurement
[NASA-TM-105909] 03 p0597 N93-13410
Threshold photodetachment spectroscopy
[AD-A255278] 04 p0842 N93-14671
Status of the CNRS-LCSR program on high pressure droplet vaporization and burning 07 p1854 N93-20215
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
The combustion of droplets within gas turbine combustors: Some recent observations on combustion efficiency
[PERD-JO-194] 08 p2221 N93-23117
Atomizing-gas temperature effect on cryogenic spray dropsize
[NASA-TM-106106] 09 p2709 N93-25191
Fundamental studies of droplet interactions in dense sprays
[AD-A261165] 09 p2661 N93-25948

VAPORS
NT METAL VAPORS
NT SODIUM VAPOR
NT WATER VAPOR
Occupational safety considerations with hydrazine fuels 02 p0276 N93-11951
Correlation for non-linear infrared calibration curves
[AD-A255098] 03 p0596 N93-12653
Vapor to liquid ratio test as an indicator of volatility
[DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
The influence of mixture preparation in the intake port on the performance of a spark-ignited four-stroke engine 03 p0613 N93-13331
Simulation of vapor compression heat pumps with solution circuits 04 p0872 N93-14200
Long-term variations in abundance and distribution of sulfuric acid vapor in the Venus atmosphere inferred from Pioneer Venus and Magellan radio occultation studies 04 p1030 N93-14328
Absorption of propellant vapors into polymer films
[AD-A255274] 04 p0849 N93-14531
Physical vapor transport of mercurous chloride under a nonlinear thermal profile
[NASA-TM-105920] 05 p1159 N93-16612
Application of laser Doppler velocimeter to chemical vapor laser system
[NASA-TM-4409] 06 p1540 N93-18068
Role of advanced technology within a broad security approach 07 p1765 N93-21860
Dichotomous key approach for high confidence level identification of selected explosive vapors 07 p1771 N93-21904
Explosive vapor emission 07 p1772 N93-21905
A thermodynamic study of the vapor pressures of C-4 and pure RDX 07 p1772 N93-21906
Extraction, transportation and processing of explosives vapor in detection systems 07 p1772 N93-21907
Vapor sampling using controlled heating 07 p1772 N93-21908
Efficient collection of explosive vapors, particles and aerosols 07 p1772 N93-21909
Calibration methods for explosives detectors 07 p1773 N93-21911
Vapor detection using SAW sensors 07 p1773 N93-21912
Fourier-transform infrared spectroscopy applied to explosive vapor detection 07 p1773 N93-21913
Atmospheric pressure ionization time-of-flight mass spectrometer for real-time explosives vapor detection 07 p1773 N93-21914
Real-time explosives/narcotics vapor enhancement and collection systems for use with the atmospheric pressure ionization time-of-flight mass spectrometer 07 p1773 N93-21915
Tandem mass spectrometry for explosives vapor detection 07 p1774 N93-21917
Program to tag military plastic/sheet explosives 07 p1775 N93-21926
An improved vapor taggant detector 07 p1775 N93-21927
Active Hydrazine Vapor Sampler (AHVS) 08 p2225 N93-22165
A new method for infrared imaging of air currents in and around critical hazard fume hoods
[DE93-003009] 09 p2761 N93-24956
Temperature dependent sensor response caused by polymer-solvent interactions
[DE93-005368] 09 p2655 N93-25444
Tank issues: Design and placement of vapor monitoring wells
[PB93-161131] 09 p2768 N93-26536
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Methods for preparation of mixtures of gases in air at the parts-per-billion to parts-per-million concentration range for calibration of monitors
[DE92-642433] 11 p3317 N93-30982

VARACTOR DIODES
Submillimeter sources for radiometry using high power Indium Phosphide Gunn diode oscillators
[NASA-CR-190885] 06 p1518 N93-18057
Planar monolithic Schottky varactor diode millimeter-wave frequency multipliers
[AD-A258616] 07 p1887 N93-19995
Performance results of a 300-degree linear phase modulator for spaceborne communications applications 09 p2672 N93-24670
Varactor diodes for millimeter and submillimeter wavelengths 10 p3012 N93-27733
A Schottky/2-DEG varactor diode for millimeter and submillimeter wave multiplier applications 10 p3012 N93-27734
Thermionic emission current in a single barrier varactor 10 p3012 N93-27735
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
Effect of cooling on the efficiency of Schottky varactor frequency multipliers at millimeter waves 10 p3012 N93-27737
Superlattice barrier varactors 10 p3012 N93-27738
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
A 200 GHz tripler using single barrier varactor 10 p3013 N93-27740
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741
Monolithic millimeter-wave diode grid frequency multiplier arrays 10 p3019 N93-27775

VARACTORS
U VARACTOR DIODES

VARIABILITY
Analysis of reception variability due to terrain multipath on microwave common carrier links
[NTIA-92-283] 01 p0069 N93-10430
A meteorology-based approach to detecting response source-receptor relationships 03 p0664 N93-13736
Intraseasonal variability of infrared cooling rates during the Asian summer monsoon and their influence on intraseasonal waves 03 p0665 N93-13760
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096
SAR-related stress variability in the Marine Atmospheric Boundry Layer (MABL) (high resolution ARI)
[AD-A258317] 06 p1585 N93-17987
BBXRT and Ginga observations of the Seyfert 1 galaxy MRK 335 06 p1561 N93-18710
The broad-band x ray spectral variability of Mkn 841 06 p1561 N93-18711
The x ray variability of NGC6814: Power spectra 06 p1562 N93-18712
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
Planetary circulations in the presence of transient and self-induced heating 07 p2003 N93-20071
Nonlinear dynamics of global atmospheric and Earth system processes 07 p2001 N93-20076
Tropical Pacific moisture variability 07 p2007 N93-20093
Geometry and photometry in 3D visual recognition
[AD-A259443] 07 p2066 N93-20126
Determination of methane stability in the upper mantle and lower crust
[PB93-100931] 07 p2001 N93-21785
Temporal sampling requirements for low frequency temperature variability in the eastern equatorial Pacific Ocean
[PB93-136422] 08 p2413 N93-22893
X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898
Propagation of radiation in astrophysical media: Gravitational lenses and astrophysical masers 09 p2892 N93-24949
SAR-related stress variability in the marine atmospheric boundary layer
[AD-A261129] 09 p2775 N93-25946
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
The Mechanisms of Solar Variability (MSV) program
[AD-A262525] 11 p3652 N93-28585
Variability of the electric field strength in the earth-ionosphere waveguide due to variations in the electron density profile
[AD-A264808] 11 p3394 N93-30595
Use of titanium castings without a casting factor
[AD-A264414] 12 p3705 N93-31192
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591
Statistics of mass production
[AD-A264365] 12 p3715 N93-31867
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

VARIABLE
The role of under-determined approximations in engineering and science application 05 p1274 N93-16763
Undecidability of modal and intermediate first-order logics with two individual variables
[ML-92-06] 12 p3804 N93-31480

VARIABLE AREA WINGS
U TRAILING EDGE FLAPS

VARIABLE CYCLE ENGINES
MM-122: High speed civil transport
[NASA-CR-192011] 06 p1435 N93-17974
Conceptual design study of a variable cycle engine for a supersonic business jet
[ETN-93-93486] 08 p2130 N93-23371
New approaches for a second generation supersonic transport propulsion system
[DS-1934] 08 p2130 N93-23391

VARIABLE LIFT
U LIFT

VARIABLE MASS SYSTEMS
Dynamic analysis of a variable-mass multibody system 07 p1934 N93-20671

VARIABLE STARS
NT CATACLYSMIC VARIABLES
NT CEPHEID VARIABLES
NT DWARF NOVAE
NT FLARE STARS
NT HERCULES NOVA
NT MIRA VARIABLES
NT NOVAE
NT SUPERNOVA 1987A
NT SUPERNOVAE
NT T TAURI STARS
Ultraviolet studies of Cepheids
[NASA-CR-190857] 02 p0481 N93-11073
Radial and nonradial periods and growth rates of an Al Velorum model
[DE92-011369] 03 p0743 N93-13339
Element diffusion in pulsating variables
[DE93-000795] 05 p1364 N93-16232
Recent progress on astrophysical opacity
[DE93-002892] 06 p1722 N93-19513
P Cyg envelope and prospects of interferometric observations 12 p3848 N93-31777

VARIABLE THRUST
Studies on the combustion efficiency of liquid fuel rockets with variable thrust
[AD-A254232] 01 p0026 N93-10721
Performance and control of ascending trajectories to minimize heat load for transatmospheric aero-space planes 03 p0495 N93-13745

VARIANCE (STATISTICS)
NT ANALYSIS OF VARIANCE
NT BIVARIATE ANALYSIS
NT COVARIANCE
NT MULTIVARIATE STATISTICAL ANALYSIS
NT REGRESSION ANALYSIS
On Watson's ANOVA for directions
[AD-A253576] 01 p0146 N93-10700
Bayesian analysis of linear and nonlinear population models using the Gibbs sampler
[AD-A254769] 03 p0697 N93-12702
A proposal to apply Taguchi-inspired methods to the reduction of machining variance
[AD-A256129] 04 p0856 N93-15234
Interactive graphics system for the study of variance/covariance structures of bivariate and multivariate normal populations
[AD-A259449] 07 p2030 N93-20058

The development of the Navy's multivariate optimum interpolation analysis system
[AD-A258569] 07 p2058 N93-20358
Considerations of the error variances of time-averaged estimators for correlated processes
[AD-A261796] 09 p2830 N93-26255
The best variety or an almost best one? A comparison of subset selection procedures
[MEMO-COSOR-92-22] 10 p3123 N93-27237
Some statistical inference problems in linear models and variance components models and their applications
[AD-A264062] 11 p3555 N93-29923
Variability of temperature and salinity in the Middle Atlantic Bight and Gulf of Maine
[PB93-174019] 12 p3769 N93-31591

VARIATION METHOD
U CALCULUS OF VARIATIONS

VARIATIONAL PRINCIPLES
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
Variational characterizations of steady two-dimensional vortex motions 03 p0589 N93-13781
Fitting microphysical observations to a numerical model through an optimal control theory technique 04 p0924 N93-15100
The sine-Gordon model and the small (kappa)(sup +) region of light-cone perturbation theory
[DE92-040506] 04 p0969 N93-15379
The Lagrangian approach to stochastic variational principles on curved manifolds
[PREPRINT-825] 05 p1277 N93-17221
A first-principles study of the phase stability of fcc-based Ti-Al alloys
[DE93-002549] 06 p1487 N93-18390
Modeling of composite beams and plates for static and dynamic analysis
[NASA-CR-192222] 06 p1556 N93-18609
A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014
Variational nodal transport methods for hexagonal and three-dimensional geometries
[DE93-002131] 06 p1648 N93-19472
The overall response of composite materials undergoing large deformations
[AD-A259278] 07 p1832 N93-20606
A high performance spectral code for nonlinear MHD stability
[DE93-004541] 08 p2494 N93-22984
Variational theory of deformations of curved, twisted, and extensible elastic rods
[AD-A260331] 08 p2332 N93-24266
Electronic structure theory of alloy phase stability
[DE93-009547] 10 p3000 N93-28232
Filtering, statistical signal processing and variational problems
[AD-A262276] 10 p3028 N93-28238
Finite element analysis of time-independent superconductivity
[NASA-CR-191140] 11 p3450 N93-28556
Complex Kohn variational principle for the solution of Lippmann-Schwinger equations
[DE93-609885] 12 p3814 N93-31910

VARIATIONS
NT ANNUAL VARIATIONS
NT DIURNAL VARIATIONS
NT GEOMAGNETIC MICROPULSATIONS
NT GEOMAGNETIC PULSATIONS
NT MAGNETIC VARIATIONS
NT PERIODIC VARIATIONS
NT SECULAR VARIATIONS
NT WIND VARIATIONS
Hydrodynamic fluctuations and light scattering in hot electron gas of semiconductors
[DE92-622800] 02 p0458 N93-10992
Solitons on domain walls
[PREPRINT-876] 05 p1289 N93-16980
Fluctuations and thermodynamic variables in mean field spin glass models
[PREPRINT-883] 05 p1330 N93-17019
Control-structure-thermal interactions in analysis of lunar telescopes 05 p1347 N93-17330
Vertical structure of AGW associated ionospheric fluctuations observed with EISCAT 06 p1729 N93-19569
Global temperature variations 07 p2003 N93-20068
Life cycles of transient planetary waves 07 p2004 N93-20077
SSG 5.122: Geodynamic effects of global gravity field variations 07 p1974 N93-20993
Data management for JGOFS: Theory and design 09 p2735 N93-24935

VARISTORS
Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904

VASCULAR SYSTEM
U CARDIOVASCULAR SYSTEM

VASOCONSTRICTION
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

VASOCONSTRICTOR DRUGS
NT SEROTONIN

VASOMOTOR NERVOUS SYSTEM
U NERVOUS SYSTEM

VAX COMPUTERS
Running SINDA '85/FLUINT interactive on the VAX 03 p0584 N93-13390
Implementation of custom colors in the DECwindows environment
[AD-A261456] 09 p2757 N93-26574

VCE
U VARIABLE CYCLE ENGINES

VCO
U VOLTAGE CONTROLLED OSCILLATORS

VECTOR ANALYSIS
NT COLLINEARITY
NT COPLANARITY
NT VORTICITY
On Watson's ANOVA for directions
[AD-A253576] 01 p0146 N93-10700
Automated interpretation of topographic maps
[AD-A257040] 04 p0906 N93-15364
Plotting the magnitude and direction of waveguide surface currents in three dimensions
[AD-A258872] 06 p1509 N93-19077
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Polar decomposition for attitude determination from vector observations 09 p2602 N93-24711
Rate determination from vector observations 09 p2603 N93-24713
Quaternion normalization in spacecraft attitude determination 09 p2606 N93-24730
Attitude determination using vector observations: A fast optimal matrix algorithm 09 p2606 N93-24731
Improved determination of vector lithospheric magnetic anomalies from MAGSAT data
[NASA-CR-192784] 09 p2771 N93-25201
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437

VECTOR CALCULUS
U VECTOR SPACES

VECTOR CONTROL
U DIRECTIONAL CONTROL

VECTOR CURRENTS
Modelling of 3-D electromagnetic responses using the time-wavenumber method
[DE92-017025] 01 p0070 N93-10865
Mixing of vector and axial correlators at finite volume: Implications for lattice computations
[PREPRINT-804] 05 p1287 N93-16424

VECTOR DOMINANCE MODEL
Vector superconductivity in cosmic strings
[DE92-634923] 01 p0179 N93-10296
Coherent production of pions and rho mesons in neutrino charged current interactions on neon nuclei at the Fermilab Tevatron
[DE92-015674] 01 p0154 N93-10606

VECTOR MESONS
NT RHO-MESONS
A lattice study of electromagnetic decays of vector mesons
[PREPRINT-835] 05 p1289 N93-17014
Chiral weak Lagrangian for vector mesons and K decay to 3 pi decay amplitudes
[PREPRINT-849] 05 p1290 N93-17069
First calculation of D(+) approaches (K bar)(*0)e(+)nu(sub e) in lattice QCD
[SSCL-PREPRINT-748] 10 p3135 N93-28208
Theory of photon and electron induced reactions
[DE93-005925] 10 p3137 N93-28368

VECTOR PROCESSING (COMPUTERS)
SAPNEW: Parallel finite element code for thin shell structures on the Alliant FX/80
[NASA-CR-190663] 01 p0094 N93-10372
On solving the Diophantine equation (x cubed) + (y cubed) + (z cubed) = k on a vector computer
[CWI-NM-R9121] 05 p1271 N93-17556
Numerical Wind Tunnel: Requirements and the outline 06 p1411 N93-19288
Numerical Wind Tunnel hardware 06 p1411 N93-19289
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
ATKIS: The introduction phase at IfAG 07 p1967 N93-20533
Survey of benchmarks
[NPL-DITC-192/91] 08 p2436 N93-22816
Implementation of a Monte Carlo algorithm for neutron transport on a massively parallel SIMD machine
[DE93-005461] 08 p2447 N93-23245
Applications of parallel and vector algorithms in nonlinear structural dynamics using the finite element method
[PB93-142438] 08 p2439 N93-23436
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Development of iterative techniques for the solution of unsteady compressible viscous flows
[NASA-CR-192636] 08 p2296 N93-23724
Using a multifrontal sparse solver in a high performance, finite element code
[NASA-CR-192718] 09 p2828 N93-25223
Installation of a new Fortran compiler and effective programming method on the vector supercomputer
[DE93-753322] 11 p3524 N93-28537
NESL: A nested data-parallel language (Version 2.6)
[AD-A263548] 11 p3530 N93-29822
Multiprocessing MCNP on an IBM RS/6000 cluster
[DE93-008712] 11 p3540 N93-30633

VECTOR QUANTIZATION
Self-supervision in multilayer adaptive networks
[RSRE-MEMO-4467] 02 p0420 N93-11343
Stability and adaptation of neural networks
[AD-A256227] 04 p0962 N93-14598
Complexity optimized vector quantization: A neural network approach
[DE93-001304] 05 p1246 N93-17477
Code vector density in topographic mappings
[AD-A258222] 06 p1492 N93-18122
Advanced vector quantization techniques 06 p1648 N93-18505
Locally adaptive vector quantization: Data compression with feature preservation 06 p1513 N93-19425
An investigative study of multispectral data compression for remotely-sensed images using vector quantization and difference-mapped shift-coding 08 p2445 N93-22157
Two generalizations of Kohonen clustering 08 p2449 N93-22207
Applications of wavelet-based compression to multidimensional Earth science data 08 p2430 N93-24547
Wavelet transform-vector quantization compression of supercomputer ocean model simulation output
[DE93-005453] 09 p2876 N93-25448
Image segmentation using fuzzy LVQ clustering networks 11 p3511 N93-29528
Code vector density in topographic mappings
[RSRE-MEMO-4669] 12 p3746 N93-31611

VECTOR SPACES
NT ADJOINTS
NT BANACH SPACE
NT CANONICAL FORMS
NT EIGENVALUES
NT EIGENVECTORS
NT HESSIAN MATRICES
NT HILBERT SPACE
NT JORDAN FORM
NT MATRICES (MATHEMATICS)
NT SOBOLEV SPACE
NT STATE VECTORS
NT STIFFNESS MATRIX
NT STOKES THEOREM (VECTOR CALCULUS)
NT VECTORS (MATHEMATICS)
NT VORTICITY
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent
[AD-A255032] 03 p0560 N93-12585
An intrinsic construction of the algebra of quaternions
[REPT-92-31] 06 p1643 N93-17845
C-integrable nonlinear PDE's. 1
[PREPRINT-787] 07 p2051 N93-20805
C-integrable nonlinear PDE's. 2
[PREPRINT-788] 07 p2053 N93-20874
An estimating function for a scalar parameter in a covariance operator
[RR-878-M] 07 p2054 N93-21050
Introduction to a behavioral approach of continuous-time systems
[MEMO-COSOR-92-05] 10 p3112 N93-27244
Introduction to a behavioral approach of continuous-time systems, part 2
[MEMO-COSOR-92-17] 10 p3112 N93-27245
Integral solution to systems Ax less than or equal to b
[CWI-BS-R9217] 10 p3119 N93-27992
Quantum group generalization of the heterotic QFT
[DE92-644727] 11 p3607 N93-30920
Normal equivariant forms of vector fields
[DE92-644845] 11 p3551 N93-30929
Normal forms of invariant vector fields under a finite group action
[DE93-604134] 12 p3813 N93-31102

Multiparametric quantum symplectic phase space
[DE93-604081] 12 p3802 N93-31162
Uniqueness of limit cycles in polynomial systems with algebraic invariants
[REPT-92-72] 12 p3805 N93-31505
On global bifurcations caused by the unfolding of a homoclinic orbit
[W-9221] 12 p3806 N93-31524

VECTORS (MATHEMATICS)
NT EIGENVECTORS
NT STATE VECTORS
NT VORTICITY
Implementation details of the coupled QMR algorithm
[NASA-CR-191213] 03 p0684 N93-12801
Fast multiresolution algorithms for matrix-vector multiplication
[NASA-CR-189721] 03 p0696 N93-12942
Application of Lanczos vectors to control design of flexible structures, part 2
[NASA-CR-191244] 03 p0685 N93-13030
Polarimetric signatures of a canopy of dielectric cylinders based on first and second order vector radiative transfer theory 03 p0569 N93-13088
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Excitation vector considerations in multiple sinusoidal testing 05 p1079 N93-15735
Minimum eigenvalue separation
[AD-A256570] 05 p1262 N93-15848
Electromagnetic potential vectors and the Lagrangian of a charged particle
[NASA-TM-107703] 05 p1280 N93-16555
Calculate categorically
[CWI-CS-R9132] 05 p1268 N93-16850
Vector approximation problems in geometric vector optimization
[REPT-92-39] 06 p1643 N93-17871
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
On the formulation of linear homogeneous velocity constraints in mechanical systems 07 p1941 N93-20712
Dynamic systems and normal forms
[RR-883-M] 07 p2051 N93-20784
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
Combined magnetic vector-scalar potential finite element computation of 3D magnetic field and performance of modified Lundell alternators in Space Station applications
[NASA-CR-192348] 08 p2263 N93-23215
The Monte Carlo/S(sub N) hybrid method with orthogonal interface basis vectors
[DE93-005462] 10 p3104 N93-28299
Direct volume visualization of three-dimensional vector fields
[DE93-009233] 11 p3524 N93-28550
Spherically symmetric line element and Killing vectors in five-dimensional space
[DE93-604132] 11 p3558 N93-30988
On a class of geometric vector optimization problems
[REPT-92-51] 12 p3804 N93-31485

VEGARD-KAPLAN BANDS
The atmospheric emission method of calculating the neutral atmosphere and charged particle densities in the upper atmosphere
[AD-A257341] 05 p1206 N93-15994

VEGETABLES
NT POTATOES
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Analysis of the lettuce data from the variable pressure growth chamber at NASA Johnson Space Center: A three-stage nested design model 09 p2794 N93-26069

VEGETATION
NT CANOPIES (VEGETATION)
Application of volumetric multiple-scattering approximations to foliage media
[AD-A253337] 01 p0068 N93-10358
Catalog of data bases and reports
[DE92-018586] 02 p0473 N93-10990
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Integration of vegetation indices and thermal measurements for ecosystem modeling 03 p0646 N93-13721
Usefulness of the CAESAR scanner for operational vegetation mapping
[BCRS-91-39] 05 p1190 N93-16289
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation
[NASA-CR-191886] 05 p1190 N93-16382
An expert system shell for inferring vegetation characteristics: Implementation of additional techniques (task E)
[NASA-CR-190999] 05 p1191 N93-16685
An expert system shell for inferring vegetation characteristics: The learning system (tasks C and D)
[NASA-CR-191000] 05 p1191 N93-16687
An expert system shell for inferring vegetation characteristics
[NASA-CR-191207] 05 p1191 N93-16691
Manipulation of Landsat spectral characteristics to classify vegetation and soil wetness in the rainforest of Bolivia
[AD-A257847] 06 p1566 N93-18346
Analysis of the relationship between AVHRR/NOAA and TM/LANDSAT data in evaluating anthropism in the forest/Savanna transition region
[INPE-5325-PRE/1723] 06 p1566 N93-18761
Evaluation of the current status of the multisensor approach to monitoring vegetation of Brazil
[INPE-5328-PRE/1724] 06 p1567 N93-19641
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646
NOAA-AVHRR data for monitoring of ground vegetation cover in the Amazon region
[INPE-5330-PRE/1728] 06 p1568 N93-19821
Comparative analysis of the indices of vegetation in urban areas obtained from the TM-Landsat and HRV-Spot data: City of Taubate
[INPE-5418-TDI/482] 06 p1575 N93-19831
Multifrequency backscatter modelling of bare soil: Attema, Kats, and Krul model applied in Agriscatt 1987 data
[BCRS-91-43] 07 p1884 N93-20739
Global models of ecosystem change 07 p1953 N93-21570
Evaluation of the international directory network for location of data sets useful in global vegetation change assessment 07 p1954 N93-21575
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan 07 p1956 N93-21585
Global Change Data Base Pilot (Diskette) Project for Africa. Dase base documentation version 1.1
[PB93-117927] 07 p2000 N93-21686
Chicago's evolving urban forest: An initial report of the Chicago Urban Forest Climate Project
[PB93-129815] 07 p1994 N93-21827
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
Vegetation mapping and a statistical approach for the reconstruction of the potential forest cover using LANDSAT-5-TM-data and DTM 08 p2354 N93-23573
Simulation of MOMS-02 stereo band radiometric capability using field spectroscopy data 08 p2365 N93-23802
On regional surface fluxes over partly forested areas
[MPIM-82] 08 p2397 N93-23858
The climate induced variation of the continental biosphere: A model simulation of the last glacial maximum
[AERONAUTICA-ACTA-A-366] 08 p2389 N93-24089
Land cover monitoring in the Netherlands applying satellite remote sensing 09 p2740 N93-24789
Detection of land use/land cover changes using remote sensing and GIS in Vietnam 09 p2740 N93-24791
Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795
Potential operational use of remote sensing from space in forestry 09 p2745 N93-24817
An expert system shell for inferring vegetation characteristics: Interface for the addition of techniques (Task H)
[NASA-CR-192897] 09 p2754 N93-25154
Integrating satellite imagery and digital elevation data for geobotanical mapping in Quetico Provincial Park, Ontario, Canada 09 p2754 N93-25430
Evaluating climate-vegetation interactions at climate model sub-grid scales 09 p2764 N93-25476
An expert system shell for inferring vegetation characteristics: Changes to the historical cover type database (Task F)
[NASA-CR-193067] 10 p3063 N93-27072
Chicago's evolving urban forest: Initial report of the Chicago urban forest climate project, 1993
[PB93-174050] 10 p3069 N93-27515
Energy balance components of irrigated crops in north-central Oregon
[DE93-003704] 10 p3078 N93-27611
A hierarchical framework for coupling surface fluxes to atmospheric general circulation models: The homogeneity test
[DE93-004804] 10 p3072 N93-27612
Terrestrial biogeochemical cycling and vegetation response to climate in an Earth system model
[DE93-003464] 10 p3070 N93-28057
Modeling the bidirectional reflectance and spectra
[AD-A263570] 11 p3462 N93-29830
Environmental Monitoring and Assessment Program. EMAP: Arid Colorado plateau pilot study
[PB93-181618] 11 p3474 N93-30823
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213

VEGETATION GROWTH
NT CROP GROWTH
Engineering verification of the biomass production chamber 03 p0680 N93-13996
Statistical relationships between tree growth and climate in western North America 03 p0648 N93-14096
The production and use of aeroponically grown inocula of VAM fungi in the native plant nursery
[PB92-204973] 04 p0933 N93-15208
Comparison of the prevalence index and average wetland values for identification of wetland vegetation
[DE92-016701] 04 p0910 N93-15209
Rangeland: Plant responses to elevated CO2
[DE93-000883] 05 p1203 N93-17178
Slow-release fertilizer
[NASA-CASE-MSC-21953-1-NP] 05 p1179 N93-17271
Characterization of the water soluble component of inedible residue from candidate CELSS crops
[NASA-TM-107557] 06 p1605 N93-18111
Active synthetic soil
[NASA-CASE-MSC-21954-1-NP] 06 p1593 N93-19054
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Monitoring of growth environment of forest 08 p2336 N93-22135
The implications of concurrent increases in temperature and CO2 concentration for terrestrial C3 photosynthesis
[DE93-005590] 08 p2385 N93-23035
CO2 exchange, environmental productivity indices, and productivity of opuntia ficus-indica under current and elevated CO2 concentrations
[DE93-006091] 08 p2386 N93-23301
Evaluation of geosystem dynamics and their spatial structure benchmark for Priroda 08 p2361 N93-23772
Contribution of remote sensing and GIS for rangeland management in the region of Ouarzazate (Morocco) 08 p2367 N93-23814
North-central Mexico blue grama rangeland biomass assessment at the end of the rainy season using NOAA-AVHRR-LAC 09 p2750 N93-24854
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216
Vegetation mapping for environment management and monitoring
[ETN-93-93466] 12 p3747 N93-32342

VEGETATIVE INDEX
Estimation of photosynthetic capacity using MODIS polarization: 1988 proposal to NASA Headquarters
[NASA-TM-103945] 02 p0344 N93-12351
Comparison of the prevalence index and average wetland values for identification of wetland vegetation
[DE92-016701] 04 p0910 N93-15209
Navigation of AVHRR/NOAA images: Operational procedure for SUN workstation
[INPE-5354-RPQ/654] 06 p1686 N93-18231
Analysis of vegetation indices obtained from LANDSAT/TM and SPOT/XS data
[INPE-5327-PRE/1725] 06 p1567 N93-19646
Analysis of LANDSAT/TM and SPOT/XS data through vegetation indices, phase 2
[INPE-5450-RPQ/663] 06 p1569 N93-19857
Remote sensing data application on forests in Okinawa Islands focusing on mangrove forests 07 p1978 N93-21543
The distribution of green areas in urban areas: Cartography and comparative analysis of LANDSAT TM and HRV/SPOT data
[INPE-5262-PRE/1686] 07 p1979 N93-21560
The 8 years monthly vegetation index of central Europe 07 p1954 N93-21574

Influence of terrain elevation on vegetation indices derived from NOAA AVHRR and EOS MODIS data
07 p1954 N93-21576
Vegetation cover mapping over France using NOAA-11/AVHRR 07 p1955 N93-21582
Estimation of carbon storage and organic matter in boreal forests using optical remote sensing data
07 p1955 N93-21583
Deforestation in African dry lands: Assessment of changes in woody vegetation in semi arid Sudan
07 p1956 N93-21585
Vegetation distribution of South East Asia
08 p2336 N93-22134
Monitoring of growth environment of forest
08 p2336 N93-22135
Investigation of the surface condition in Taklimakan Desert 08 p2337 N93-22136
Vegetation index for Europe 08 p2340 N93-22443
Correlation between NDVI values derived from NOAA AVHRR HRPT data and ground measurements of precipitation in the EFEDA study area (Spain)
09 p2738 N93-24780
ANOVA method to estimate vegetation indices sensitivity assessing nitrogen fertilizing influence on spectral reflectance coefficients 09 p2739 N93-24782
Agroclimatological zonation by AVHRR data for vegetation monitoring 09 p2741 N93-24795
Assessment and forecasting of crop yield in Niger through NOAA NDVI data 09 p2750 N93-24851
Global drought monitoring from NOAA polar orbiting satellites 09 p2750 N93-24852
Crop agroecological diagnostics by remote sensing technique 09 p2751 N93-24860
Study of atmospheric and bidirectional effects on surface reflectance and vegetation index time series: Application to NOAA AVHRR and preparation for future space missions
[NASA-CR-193158] 10 p3064 N93-28417
Monitoring vegetation greenness with satellite data
[PB93-190882] 12 p3744 N93-31213
Vegetation mapping for environment management and monitoring
[ETN-93-93466] 12 p3747 N93-32342

VEHICLE WHEELS
NT NOSE WHEELS
Mechanical Design Engineering Enabler Project wheel and wheel drives
[NASA-CR-192060] 06 p1546 N93-18051

VEHICLES
Intelligent path prediction for vehicular travel
04 p0961 N93-14445
Apparatus and methods for determining balance of a cylindrical vehicle
[AD-D015637] 09 p2717 N93-25228

VELOCITY
NT ACOUSTIC VELOCITY
NT AIRSPEED
NT ANGULAR VELOCITY
NT ESCAPE VELOCITY
NT EXHAUST VELOCITY
NT FLOW VELOCITY
NT GROUND SPEED
NT GROUP VELOCITY
NT HIGH SPEED
NT HYPERSONIC SPEED
NT LANDING SPEED
NT LOW SPEED
NT PHASE VELOCITY
NT PROPAGATION VELOCITY
NT RADIAL VELOCITY
NT RELATIVISTIC VELOCITY
NT ROTOR SPEED
NT SOLAR WIND VELOCITY
NT SUBSONIC SPEED
NT SUPERSONIC SPEED
NT TIP SPEED
NT TRANSONIC SPEED
NT WIND VELOCITY
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering
[DE92-018934] 02 p0448 N93-11627
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
On the meaning of delta T/T
[DE93-008482] 11 p3653 N93-28962

VELOCITY COUPLING
Development of generalized pressure velocity coupling scheme for the analysis of compressible and incompressible combusting flows
[NASA-CR-191713] 05 p1163 N93-16939

VELOCITY DISTRIBUTION
The structure and development of streamwise vortex arrays embedded in a turbulent boundary layer
01 p0081 N93-10371
Experimental study of the flow field inside a whirling annular seal 01 p0092 N93-10892
Stokes parameters of the O VI 103.2 nm line as a probe of the matter velocity field vector in the solar wind acceleration region 01 p0181 N93-10914
Spatial distribution of line-of-sight velocities in a quiescent prominence 01 p0183 N93-10928
Quasigeostrophic vortices in zonal shear
02 p0358 N93-11226
The measurement of the velocity field induced by a gust generator in a closed-circuit subsonic wind-tunnel
[RAE-TM-MAT/STR-1102] 02 p0217 N93-11435
Coaxial injector spray characterization using water/air as simulants 02 p0248 N93-11452
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
Direct numerical simulation of instabilities in parallel flow with spherical roughness elements
[NASA-TM-105847] 02 p0300 N93-11529
A theory for the analysis of rotorcraft operating in atmospheric turbulence 02 p0207 N93-11725
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers
02 p0304 N93-12003
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
The electrostatic wake of a superthermal test electron in a magnetized plasma
[DE92-019394] 03 p0713 N93-12873
Evolution of galaxies in compact groups
03 p0750 N93-13148
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests
03 p0503 N93-13218
Fundamentals of enhanced scalar transport in strongly oscillating and/or resonant flow fields as created by pulse combustion
[DE92-012147] 03 p0582 N93-13247
Electron impact polarization expected in solar EUV lines from flaring chromospheres/transition regions
[SSL-PREPRINT-90-124] 03 p0770 N93-13478
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Wall functions for the kappa-epsilon turbulence model in generalized nonorthogonal curvilinear coordinates
03 p0587 N93-13517
Velocity and temperature measurements in a non-premixed reacting flow behind a backward facing step 03 p0494 N93-13632
Aspects of atmospheric transport and dispersion within an air basin 03 p0656 N93-13782
An experimental investigation of the three-dimensional boundary layer on a rotating disk
03 p0589 N93-13806
Dynamics of vortex rings in cross-flow
03 p0496 N93-13917
A low-dimensional dynamical systems description of coherent structures in the axisymmetric jet mixing layer
03 p0593 N93-14057
Lineshape analysis of laser light scattered by an argon thermal plasma jet 04 p0987 N93-14137
Calibration of the CCD Tully-Fisher relation with application to the Perseus-Pisces supercluster
04 p1016 N93-14194
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography
04 p1044 N93-14395
Multi-point inverse design of isolated airfoils and airfoils in cascade in incompressible flow
04 p0790 N93-14462
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Boundary-layer measurements on a high Reynolds number three-element airfoil 05 p1057 N93-16787
Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Streamwise vortices and distortion of velocity distribution in parallel flows 05 p1161 N93-16821
Variations in the character of Goertler instability as a function of mean flow velocity distribution and curvature of the wall 05 p1162 N93-16823
The influence of density gradient on turbulent structure in the 2D shear flow 05 p1162 N93-16826
Effect of Reynolds number on the standards of a simplified anemoclinometric probe
[IMFL-91-31] 05 p1056 N93-17542
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
Large-scale velocity fields and small-scale magnetic fields during the maximum of solar cycle 22
[AD-A258172] 06 p1744 N93-17922
Lagrangian chaos: Transport, mixing, and diffusion in fluids
[NOTA-INTERNA-988] 06 p1651 N93-17939
Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4] 06 p1527 N93-18191
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
Infrared sensor technology and applications
06 p1664 N93-18474
High-resolution observations of the spatial and velocity distribution of cometary hydrogen
06 p1703 N93-19135
Doppler velocities in the ion tail of comet Levy 1990c
06 p1708 N93-19176
Velocity distribution of fragments of catastrophic impacts 06 p1719 N93-19252
Velocity distributions of H and OH produced through solar photodissociation of H2O
06 p1720 N93-19266
Monte Carlo simulation of normal shock wave. Part 1: Lennard-Jones potential 06 p1409 N93-19279
Application of the program profile for the design of low-speed, low-observable configuration airfoils
[AD-A258842] 06 p1417 N93-19364
Solar wind velocity measurements with the EISCAT UHF antenna array 06 p1725 N93-19542
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
Digital image processing of hydrogen bubble lines for instantaneous velocity profiles
[AD-A258592] 07 p1897 N93-19965
Study of a turbulent boundary layer modified by the insertion of a Large Eddy Break Up (LEBU) device
[ECL-92-11] 07 p1898 N93-20061
On a ballistic method for double layer regeneration in a Vlasov-Poisson plasma
[NIFS-153] 07 p2070 N93-20154
Neural networks for real-time sensory data processing and sensorimotor control
[AD-A259120] 07 p2046 N93-20557
On the formulation of linear homogeneous velocity constraints in mechanical systems
07 p1941 N93-20712
The structures and the sensitivity of an incompressible turbulent boundary layer in the vicinity of the separation
[ETN-93-92557] 07 p1902 N93-20892
The acquisition of velocity fields via the automatic analysis of motion, exemplarily demonstrated in a rotating fluid
[MPIS-102/1991] 07 p1902 N93-21023
Use of ERS-1 SAR data in numerical sea ice modeling
07 p1957 N93-21592
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Structure of confined laminar spray diffusion flames: Numerical investigation
[NASA-TM-106038] 08 p2288 N93-22596
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599
Marangoni convection in a spinning liquid column
[LRT-WE-9-FB-13-1991] 08 p2289 N93-22678
Electron-electron interactions in fast neutral-neutral collisions
[DE93-004841] 08 p2481 N93-22743
Physical interest of two-phase flow experiments at micro-g condition 08 p2249 N93-22848
Kinetic energy distributions of sputtered neutral aluminum clusters: Al-Al6
[DE93-004815] 08 p2230 N93-22991
Evaluation of nozzle shapes for an optical flow meter
[PB93-124147] 08 p2292 N93-23281
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Bottom generated velocity fluctuations in one-dimensional open channel flow
[MEMO-1051] 08 p2297 N93-23865

GX301-2/WRA9777 revisited: Probing the stellar wind through x ray optical data 08 p2537 N93-23911
Three-dimensional turbulent boundary layer flow over a spinning cylinder
[NASA-TM-102240] 08 p2300 N93-24533
An experimental investigation of subsonic flow in a two-dimensional U-duct
[NASA-TM-103931] 08 p2128 N93-24535
The transient development of vortices over delta wings 09 p2576 N93-25269
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
Propagation of finite amplitude sound in a waveguide with a parabolic sound velocity profile
[ARL-TR-92-11] 09 p2846 N93-26179
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
The peculiar velocities of rich clusters in the hot and cold dark matter scenarios 10 p3174 N93-26724
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
The galaxy velocity field and CDM models 10 p3176 N93-26737
Do galactic potential wells depend on their environment? 10 p3177 N93-26739
The velocity fields of elliptical galaxies: Steps toward a solution of the intrinsic shape problem 10 p3188 N93-26810
A new giant luminous arc gravitational lens associated with a z = 0.62 galaxy cluster, and the environments of distant radio galaxies 10 p3200 N93-26873
The effects of flaring in H1 on the observed velocity field of spirals 10 p3203 N93-26889
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Prediction of propellant behavior in spinning flow of a space motor 10 p2923 N93-27193
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
The use of objective prism radial velocities for kinematic studies of galactic populations 11 p3633 N93-28672
Analyses of data from fine structure and circulation studies in the Gulf of California
[AD-A262910] 11 p3486 N93-28885
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095
A four-field approach towards developing a mechanistic model for multiphase flow
[DE93-006572] 11 p3420 N93-29126
Enhanced reduction of velocity data obtained during CETA flight experiment
[NASA-TM-4460] 11 p3431 N93-29209
Continued investigation of LDEF's structural frame and thermal blankets by the Meteoroid and Debris Special Investigation Group 11 p3282 N93-29357
Hypervelocity impact facility for simulating materials exposure to impact by space debris 11 p3283 N93-29365
Asteroidal versus cometary meteoroid impacts on the Long Duration Exposure Facility (LDEF) 11 p3638 N93-29371
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156
Speeds and accelerations of coronal mass ejections 12 p3871 N93-31368
Mass motion of a heated plasma blob in a coronal loop 12 p3874 N93-31384
Underneath coronal loops: MSDP observations coordinated with SERTS 4 and NIXT flights 12 p3876 N93-31397
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890
The role of the margins in ice stream dynamics 12 p3761 N93-31896
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

VELOCITY ERRORS

Methodology issues concerning the accuracy of kinematic data collection and analysis using the ariel performance analysis system
[NASA-CR-185689] 02 p0389 N93-12211
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657

VELOCITY FIELDS

U VELOCITY DISTRIBUTION

VELOCITY MEASUREMENT

NT WIND VELOCITY MEASUREMENT

Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
A comparison of velocity profile measurements in the CDIF diffuser with flow field model calculations
[DE92-015367] 02 p0304 N93-11995
The VELOPT code for estimating performance of a Fabry-Perot velocimeter
[DE92-015566] 03 p0596 N93-12831
Quantitative analysis of three-dimensional steady flow field by using particle image velocimetry and digital image processing method 03 p0577 N93-13017
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests 03 p0503 N93-13218
On development of a three-dimensional particle motion tracking system
[DE92-015846] 03 p0704 N93-13263
Diagnostic of shock wave processes
[DE92-018059] 03 p0565 N93-13357
Planar measurement of flow field parameters in nonreacting supersonic flows with laser-induced iodine fluorescence 03 p0495 N93-13801
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
Boundary layer transition measurements by optical anemometry 04 p0874 N93-14477
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Heterodyne array for measurement of target velocity
[AD-D015402] 05 p1302 N93-16127
Wind tunnel seeding particles for laser velocimeter 05 p1057 N93-16770
Digital data acquisition and preliminary instrumentation study for the F-16 laminar flow control vehicle 05 p1057 N93-16784
Studies on spectral analysis of randomly sampled signals: Application to laser velocimetry data 05 p1165 N93-16792
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements
[AD-A257548] 06 p1476 N93-17964
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Stabilized iodine flow for long run time chemical oxygen-iodine lasers
[AD-A257760] 06 p1540 N93-18234
An experimental investigation of interacting wing-tip vortex pairs
[AD-A258471] 06 p1406 N93-18272
Electron beam probing of blow-down hypersonic flows
[ONERA-NT-1992-7] 06 p1408 N93-18701
Solar wind velocity measurements with the EISCAT UHF antenna array 06 p1725 N93-19542
Possible cause and consequence of laminated Polar Mesosphere Summer Echoes 06 p1728 N93-19561
Determination of D-region plasma velocity vector from scanning GEN-11 data 06 p1728 N93-19562
Altitude variations in amplitude and phase of tidal oscillations at high latitude 06 p1729 N93-19566
The EISCAT UHF radar as a meteor radar: Meteor radial velocities determined from a Barker coded power profile 06 p1517 N93-19579
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
2D velocity and temperature measurements in high speed flows based on spectrally resolved Rayleigh scattering
[NASA-TM-105784] 06 p1539 N93-19651
Use of a triaxial laser velocimeter for anemometric calibration on an A340 airbus 06 p1446 N93-19926
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[SAND-92-1359C] 07 p1865 N93-20148
Explosive component acceptance tester using laser interferometer technology
[SAND-92-0324C] 07 p1866 N93-20152
Robot motion vision by fixation
[AD-A259456] 07 p2046 N93-20241
Characterization of the confined ceiling jet in the presence of an upper layer in transient and steady-state conditions
[PB92-238690] 07 p1878 N93-21650
Six-Degree-of-Freedom Test Facility 08 p2136 N93-22231
Coherent Doppler lidar for automated space vehicle, rendezvous, station-keeping and capture 08 p2139 N93-22250
Autonomous reconfigurable GPS/INS navigation and pointing system for rendezvous and docking 08 p2151 N93-22316
Mathematical relationship between two sets of laser anemometer measurements for resolving the total velocity vector
[NASA-TM-105986] 08 p2129 N93-22599
Optical diagnostic for heat and mass transfer in fluids in microgravity 08 p2246 N93-22831
Acoustic determination of dewpoints in natural gas mixtures and retrograde condensates
[PB93-142917] 08 p2221 N93-23274
Development of optical three-dimensional measurement techniques for fluid dynamics 08 p2294 N93-23398
Development of a laser-induced fluorescence system for application to rocket plumes
[AD-A259760] 08 p2205 N93-24025
A thermal type probe for low velocity measurements 08 p2165 N93-24397
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528
Experimental study of the separating confluent boundary-layer. Volume 2: Experimental data. Appendices A-E: Data supplement
[NASA-CR-166018-SUPPL] 08 p2299 N93-24531
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538
Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540
Experimental study of a three-dimensional shear-driven turbulent boundary layer with streamwise adverse pressure gradient
[NASA-TM-102211] 08 p2300 N93-24541
Ultrasonic rate measurement of multiphase flow
[DE93-000112] 09 p2695 N93-24954
An investigation of laser velocimetry measurements within high speed, complex flows 09 p2697 N93-25237
The transient development of vortices over delta wings 09 p2576 N93-25269
Measurement of velocities in gas-liquid two-phase flow using laser Doppler velocimetry
[DE93-008083] 09 p2698 N93-25306
The effects of large-amplitude, low-frequency excitation on a three-dimensional jet 09 p2702 N93-25553
An investigation on planar velocimetry by spatial cross-correlation 09 p2578 N93-25664
An investigation of photothermal velocimetry for application to transient, high-speed gas flows 09 p2579 N93-25720
Direct measurement of velocity space transport in a plasma 09 p2861 N93-25831
System for calibrating a gyro navigator
[AD-D015668] 09 p2586 N93-26093

Pulsed laser Rayleigh scattering diagnostic for hydrogen/oxygen rocket exit plane flowfield velocimetry
[NASA-TM-106213] 09 p2631 N93-26149
Image correlation velocimetry
[AD-A261599] 09 p2707 N93-26163
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Basic research thermoacoustic heat transport
[AD-A261334] 09 p2759 N93-26310
Fuzzy logic particle tracking velocimetry
[NASA-TM-106194] 10 p3045 N93-27027
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Velocity and drop size measurements in a swirl-stabilized, combusting spray
[NASA-TM-106130] 10 p2944 N93-27130
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV)
10 p2935 N93-27454
Velocity measurements of low Reynolds number tube flow using fiber-optic technology
[DE93-009865] 11 p3422 N93-29335
An LDEF 2 dust instrument for discrimination between orbital debris and natural particles in near-Earth space
11 p3286 N93-29707
Modelling the dynamics of a large sea area
[DE93-778330] 11 p3488 N93-30040
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Turbulence characteristics of an axisymmetric reacting flow
[NASA-CR-4110] 11 p3242 N93-30373
Multiparticle imaging technique for two-phase fluid flows using pulsed laser speckle velocimetry
[DE93-011734] 11 p3427 N93-30489
Portable fiber optic coupled Doppler interferometer system for detonation and shock wave diagnostics
[DE93-009827] 11 p3433 N93-30510
The solar oscillations investigation: Michelson Doppler imager 12 p3867 N93-31345
Speeds and accelerations of coronal mass ejections
12 p3871 N93-31368
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477
The shot continuation operator
[REPT-92-065] 12 p3758 N93-31606
A new method for measuring the speed of the bow shock 12 p3854 N93-31687
Turbulence measurement in a reacting and non-reacting shear layer at a high subsonic Mach number
[NASA-TM-106186] 12 p3673 N93-31839
Velocities of Thwaites and Land glaciers
12 p3760 N93-31885
Condition of the Ross Ice Shelf derived from AVHRR imagery 12 p3760 N93-31886
Surface velocity fields of Ice Streams D and E derived from repeat satellite imagery 12 p3760 N93-31890
Recent acceleration of Thwaites Glacier
12 p3761 N93-31893
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

VELOCITY PROFILES
U VELOCITY DISTRIBUTION

VENERA SATELLITES
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
The geology of the Venera/Vega landing sites
04 p1024 N93-14296
The geologic mapping of Venus using C-1 format: Sheets 75N254, 60N263 04 p1041 N93-14375

VENTILATION
Low cost humidity sensor
[PB92-205772] 02 p0312 N93-11757
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Case studies of Thermal Energy Storage (TES) systems: Evaluation and verification of system performance
[DE93-001572] 05 p1193 N93-15810
Single-station integral measures of atmospheric stagnation, ventilation, and recirculation
[DE93-001554] 05 p1203 N93-17050
Ventilation loss in the NASA Space Shuttle crew protective garments: Potential for heat stress
[AD-A258552] 06 p1612 N93-19955
Optimization and sensitivity computations for the conception of internal ventilation system in the aircraft engine
[ETN-93-93375] 07 p1785 N93-20913
A model study of the aircraft cabin environment resulting from in-flight fires
[DOT/FAA/CT-90/22] 07 p1764 N93-21557
Ventilation effects on smoke and temperature in an aircraft cabin quarter-scale model
[DOT/FAA/CT-89/25] 10 p2941 N93-28055
Study of parameters affecting the performance of solar desiccant cooling systems
[DE93-000088] 11 p3465 N93-30206

VENTING
Small experiments for the maturation of orbital cryogenic transfer technologies
[NASA-TM-105849] 02 p0296 N93-10981
The VTRE Program: An overview
03 p0512 N93-13182
Analysis of a space emergency ammonia dump using the FLOW-NET two-phase flow program
03 p0584 N93-13389
Vented Tank Resupply Experiment (VTRE) for In-Space Technology Experiment Program (IN-STEP)
11 p3264 N93-28711
In-situ bioventing: Two US EPA and Air Force sponsored field studies
[PB93-194231] 12 p3754 N93-32089

VENTS
Flow through horizontal vents as related to compartment fire environments
[PB92-213388] 03 p0559 N93-13642
Space shuttle solid rocket booster main parachute damage reduction team report
[NASA-TM-4437] 06 p1455 N93-18067

VENTURI TUBES
Operating experience using venturi flow meters at liquid helium temperature
[DE92-014693] 02 p0313 N93-12140

VENUS (PLANET)
Paradigm lost: Venus crater depths and the role of gravity in crater modification 01 p0120 N93-10179
Papers presented to the International Colloquium on Venus
[NASA-CR-190676] 04 p1023 N93-14288
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions
04 p1023 N93-14289
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Surface processes on Venus
04 p1024 N93-14294
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
The geology of the Venera/Vega landing sites
04 p1024 N93-14296
Global deformation on the surface of Venus
04 p1024 N93-14297
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Monte Carlo modeling of the resurfacing of Venus
04 p1025 N93-14299
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Near-infrared oxygen airglow from the Venus nightside
04 p1026 N93-14308
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
The spin vector of Venus determined from Magellan data 04 p1027 N93-14310
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer
04 p1027 N93-14312
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism
04 p1027 N93-14313
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio
04 p1028 N93-14317
Venusian hydrology: Steady state reconsidered
04 p1028 N93-14318
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus
04 p1029 N93-14324
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
Venus internal magnetic field and its interaction with the interplanetary magnetic field
04 p1032 N93-14336
The solar wind interaction with Venus
04 p1034 N93-14341
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Chemical differentiation of a convecting planetary interior: Consequences for a one-plate planet such as Venus 04 p1038 N93-14358
Tectonic connections to interior processes on Venus
04 p1039 N93-14361
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping
04 p1040 N93-14368
Magellan project 04 p1041 N93-14373
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
The geologic mapping of Venus using C-1 format: Sheets 75N254, 60N263 04 p1041 N93-14375
Venus gravity: Summary and coming events
04 p1042 N93-14377
Different types of small volcanos on Venus
04 p1042 N93-14378
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation
04 p1042 N93-14381
The tectonics of Venus: An overview
04 p1042 N93-14382
The spatial distribution of coronae on Venus
04 p1043 N93-14383
Microwave scattering and emission properties of large impact craters on the surface of Venus
04 p1043 N93-14384
The effects of Venusian mantle convection with multiple phase transitions 04 p1043 N93-14385
Evidence for lightning on Venus
04 p1043 N93-14386
Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Structural characteristics and tectonics of northeastern Tellus Regio and Meni Tessera
04 p1044 N93-14389
Episodic plate tectonics on Venus
04 p1044 N93-14390
Low-emissivity impact craters on Venus
04 p1044 N93-14392
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
Venus: Geochemical conclusions from the Magellan data 04 p1044 N93-14394
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV
04 p1045 N93-14397
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
Interferometric observations of the J(0,1) CO line on Venus: Upper mesospheric winds and CO abundance
04 p1047 N93-14918
Venus: A search for clues to early biological possibilities 06 p1591 N93-18549

Precise tracking of the Magellan and Pioneer Venusorbiters by same-beam interferometry. Part 1: Dataaccuracy analysis 06 p1454 N93-19414
Model of Venus ionopause formation 08 p2554 N93-23354
The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics 09 p2896 N93-25285
Occultation of a compact radio source by Venus 09 p2676 N93-26107
Galileo early cruise, including Venus, First Earth, and Gaspra encounters 09 p2599 N93-26125
Revealing the face of Venus: Magellan [NASA-CR-192922] 09 p2898 N93-26517
Regional tectonic analysis of Venus equatorial highlands and comparison with Earth-based Magellan radar images [NASA-CR-192996] 10 p3210 N93-27164
Venus Interior Structure Mission (VISM): Establishing a seismic network on Venus 11 p3649 N93-28819

VENUS ATMOSPHERE
NT VENUS CLOUDS
SO2 on Venus: A final cross-calibration with Pioneer Venus [NASA-CR-191256] 03 p0758 N93-13344
Model studies of the middle atmosphere of Venus 03 p0759 N93-13831
Papers presented to the International Colloquium on Venus [NASA-CR-190676] 04 p1023 N93-14288
Local-time asymmetries in the Venus thermosphere 04 p1023 N93-14290
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
The thermosphere and ionosphere of Venus 04 p1026 N93-14307
Near-infrared oxygen airglow from the Venus nightside 04 p1026 N93-14308
Methane measurement by the Pioneer Venus large probe neutral mass spectrometer 04 p1027 N93-14312
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism 04 p1027 N93-14313
Understanding the variation in the millimeter-wave emission of Venus 04 p1028 N93-14315
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Dynamics of the Venus atmosphere 04 p1030 N93-14325
Long-term variations in abundance and distribution of sulfuric acid vapor in the Venus atmosphere inferred from Pioneer Venus and Magellan radio occultation studies 04 p1030 N93-14328
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
Pioneer Venus polarimetry and haze optical thickness 04 p1032 N93-14335
Radiation pressure: A possible cause for the superrotation of the Venusian atmosphere 04 p1033 N93-14338
Groundbased near-IR observations of the surface of Venus 04 p1035 N93-14346
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere 04 p1037 N93-14351
Computer simulations of comet- and asteroidlike bodies passing through the Venusian atmosphere: Preliminary results on atmospheric and ground shock effects 04 p1040 N93-14365
Atmospheric effects on crater growth on Venus 04 p1041 N93-14370
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Evidence for lightning on Venus 04 p1043 N93-14386
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395
Middle atmosphere of Venus and its clouds: Latitude and solar time variations 04 p1045 N93-14396
SO2 in the middle atmosphere of Venus: IR measurements from Venera 15 and comparison to UV 04 p1045 N93-14397
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
Venus: A search for clues to early biological possibilities 06 p1591 N93-18549
Dynamics of planetary atmospheres [NASA-CR-192117] 06 p1735 N93-18782
Planetary atmospheres: Microwave spectroscopic studies of planetary atmospheres [NASA-CR-192145] 07 p2099 N93-21642
SO2 on Venus: A final cross-calibration with Pioneer Venus [NASA-CR-192273] 08 p2554 N93-23096
The Venus 130-nm dayglow as a diagnostic of thermospheric structure and dynamics 09 p2896 N93-25285
Occultation of a compact radio source by Venus 09 p2676 N93-26107

VENUS CLOUDS
Papers presented to the International Colloquium on Venus [NASA-CR-190676] 04 p1023 N93-14288
Study and interpretation of the millimeter-wave spectrum of Venus 04 p1045 N93-14596
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635

VENUS PROBES
NT MAGELLAN SPACECRAFT (NASA)
NT VENERA SATELLITES
Papers presented to the International Colloquium on Venus [NASA-CR-190676] 04 p1023 N93-14288

VENUS RADAR MAPPER
U MAGELLAN SPACECRAFT (NASA)

VENUS RADAR MAPPER PROJECT
U MAGELLAN PROJECT (NASA)

VENUS SURFACE
Venusian impact basins and cratered terrains 01 p0112 N93-10145
What can we learn about impact mechanics from large craters on Venus? 01 p0118 N93-10166
Papers presented to the International Colloquium on Venus [NASA-CR-190676] 04 p1023 N93-14288
Venus radar mapping from the Venera 15 and 16 spacecrafts: Results and restrictions 04 p1023 N93-14289
Local-time asymmetries in the Venus thermosphere 04 p1023 N93-14290
Ringed impact craters on Venus: An analysis from Magellan images 04 p1024 N93-14291
Is Ishtar Terra a thickened basaltic crust? 04 p1024 N93-14292
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Surface processes on Venus 04 p1024 N93-14294
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
The geology of the Venera/Vega landing sites 04 p1024 N93-14296
Global deformation on the surface of Venus 04 p1024 N93-14297
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Mixed-valence iron minerals on Venus: Fe(2+)-Fe(3+) oxides and oxy-silicates formed by surface-atmosphere interactions 04 p1025 N93-14301
Thermal buoyancy on Venus: Preliminary results of finite element modeling 04 p1025 N93-14302
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Bright crater outflows: Possible emplacement mechanisms 04 p1026 N93-14305
Image processing and products for the Magellan mission to Venus 04 p1026 N93-14306
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Flexural analysis of uplifted rift flanks on Venus 04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Sequential deformation of plains along Tessera boundaries on Venus: Evidence from Alpha Regio 04 p1028 N93-14317
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Western Aphrodite Terra, tectonics, geology, and line-of-sight gravity 04 p1029 N93-14322
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus 04 p1029 N93-14324
Largest impact craters on Venus 04 p1030 N93-14326
Venusian extended ejecta deposits as time-stratigraphic markers 04 p1030 N93-14327
Variations in lithospheric thickness on Venus 04 p1030 N93-14329
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Venus tectonic styles and crustal differentiation 04 p1031 N93-14332
Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Mantle plumes on Venus revisited 04 p1032 N93-14334
Venusian sinuous rilles 04 p1033 N93-14337
Large-volume lava flow fields on Venus: Dimensions and morphology 04 p1033 N93-14339
Derivation of surface properties from Magellan altimetry data 04 p1033 N93-14340
Extensive lava flow fields on Venus: Preliminary investigation of source elevation and regional slope variations 04 p1034 N93-14342
Wrinkle ridges on Venusian plains: Indicators of shallow crustal stress orientations at local and regional scales 04 p1034 N93-14343
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Pancakelike domes on Venus 04 p1035 N93-14345
Groundbased near-IR observations of the surface of Venus 04 p1035 N93-14346
Magellan stereo images and Venusian geology 04 p1035 N93-14347
Flexural models of trench/outer rise topography of coronae on Venus with axisymmetric spherical shell elastic plates 04 p1036 N93-14348
Radar-anomalous, high-altitude features on Venus 04 p1036 N93-14349
The gabbro-eclogite phase transition and the elevation of mountain belts on Venus 04 p1036 N93-14350
A model for the formation of the extended paraboloidal halos around some impact craters on Venus 04 p1037 N93-14352
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
Venus: Geology of Beta Regio rift system 04 p1037 N93-14355
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356
Application of left- and right-looking SAR stereo to depth measurements of the Ammavaru outflow channel, Lada Terra, Venus 04 p1038 N93-14357
Venus steep-sided domes: Relationships between geological associations and possible petrogenetic models 04 p1038 N93-14359
Dielectric surface properties of Venus 04 p1039 N93-14360
Tectonic connections to interior processes on Venus 04 p1039 N93-14361
Problem footprints in Magellan altimetry data 04 p1039 N93-14362
Anomalous scattering behavior of selected impact parabola features: Magellan cycle-to-cycle comparisons 04 p1039 N93-14363
Cytherean crustal bending at Salme Dorsa 04 p1039 N93-14364
Evidence for retrograde lithospheric subduction on Venus 04 p1040 N93-14367
Overview of Venus geology: Preliminary description of terrain units for Venus global geological mapping 04 p1040 N93-14368
Impact craters on Venus: An overview from Magellan observations 04 p1040 N93-14369
Atmospheric effects on crater growth on Venus 04 p1041 N93-14370
Effect of impact angle on central-peak/peak-ring formation and crater collapse on Venus 04 p1041 N93-14371
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
Geoid, topography, and convection-driven crustal deformation on Venus 04 p1042 N93-14376
Constraints on crustal rheology and age of deformation from models of gravitational spreading in Ishtar Terra, Venus 04 p1042 N93-14379
Melting and differentiation in Venus with a cold start: A mechanism of the thin crust formation 04 p1042 N93-14381
The tectonics of Venus: An overview 04 p1042 N93-14382
The spatial distribution of coronae on Venus 04 p1043 N93-14383
Microwave scattering and emission properties of large impact craters on the surface of Venus 04 p1043 N93-14384
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387

Can a time-stratigraphic classification system be developed for Venus? 04 p1043 N93-14388
Episodic plate tectonics on Venus 04 p1044 N93-14390
Scattering properties of Venus' surface 04 p1044 N93-14391
Low-emissivity impact craters on Venus 04 p1044 N93-14392
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
Finite amplitude gravity waves in the Venus atmosphere generated by surface topography 04 p1044 N93-14395
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398

VERBAL COMMUNICATION
NT CONVERSATION
The intelligibility of words, sentences, and continuous discourse using the articulation index [AD-A256781] 04 p0863 N93-15624
Comparing performance on implicit memory tests [AD-A258168] 06 p1602 N93-17921
Comparison of performance on the Shipley Institute of Living Scale, Air Traffic Control Specialist Selection Test, and FAA Academy Screen [AD-A259249] 07 p1779 N93-20582
Spontaneous discovery and use of categorical structure [AD-A261658] 09 p2798 N93-26364

VERIFICATION (PROVING)
U PROVING

VERTEBRAL COLUMN
U SPINE

VERTEBRATES
NT BABOONS
NT BIRDS
NT DOGS
NT FISHES
NT FROGS
NT HUMAN BEINGS
NT MAMMALS
NT MICE
NT MONKEYS
NT PRIMATES
NT RATS
NT RODENTS
NT SHEEP
NT SWINE
Computer based analysis and synthesis of retinal function [AD-A260514] 08 p2423 N93-24420

VERTICAL AIR CURRENTS
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho 02 p0367 N93-11159
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall 03 p0663 N93-13489
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations 03 p0655 N93-13757
Coherent structures in compressible convection 03 p0592 N93-13964
Redistribution of trace chemical species by a small convective cloud [PB93-156164] 09 p2765 N93-25873

VERTICAL DISTRIBUTION
NT STAR DISTRIBUTION
The vertical distribution of heating in the tropical atmosphere [AD-A254982] 02 p0372 N93-12507
Sulfur oxides in the middle atmosphere of Venus: Observations by the International Ultraviolet Explorer and sounding rockets 04 p1046 N93-14635
Numerical experiments on consistent horizontal and vertical resolution for atmospheric models and observing systems 06 p1563 N93-18718
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
On the vertical structure of seasonal, interannual and intraseasonal flows 09 p2782 N93-25557
A new method to simulate vertical and horizontal structure in galactic disks 10 p3188 N93-26809
The vertical disk structure of the edge-on spiral galaxy NGC 3079 10 p3199 N93-26867
Shear, strain, and thermohaline vertical fine structure in the upper ocean 11 p3488 N93-30046
Wind profiling in a cloudy convective atmospheric boundary layer over land [AD-A265422] 12 p3768 N93-32051

VERTICAL FINS
U FINS

VERTICAL FLIGHT
Rotorcraft master plan 11 p3236 N93-30677

VERTICAL LANDING
Vertical landing on an asteroid 10 p2924 N93-27202
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft [NASA-TM-106149] 11 p3252 N93-29065

VERTICAL MOTION
SAC contrail formation study [AD-A254410] 03 p0499 N93-12605
Deep convection and its relation to the large-scale circulation in the tropical Pacific 03 p0654 N93-13725
Airmass modification by vertical motion: Discussion and case study [PB93-160596] 10 p3079 N93-28134

VERTICAL MOTION SIMULATORS
Initial piloted simulation study of geared flap control for tilt-wing V/STOL aircraft [NASA-TM-103872] 01 p0011 N93-10741
Ground based simulation evaluation of the effects of time delays and motion on rotorcraft handling qualities [AD-A256921] 05 p1060 N93-16186
Generation of helicopter roll axis bandwidth data through ground-based and in-flight simulation 06 p1443 N93-19909
Simulation evaluation of a low-altitude helicopter flight guidance system adapted for a helmet-mounted display [NASA-TM-103883] 08 p2122 N93-23419
A demonstration of motion base design alternatives for the National Advanced Driving Simulator [NASA-TM-103881] 08 p2428 N93-24490
Frequency-response techniques for documentation and improvement of rotorcraft simulators 11 p3237 N93-30689

VERTICAL ORIENTATION
AudiMir: Directional hearing at microgravity 08 p2159 N93-24365
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation 08 p2160 N93-24366

VERTICAL PERCEPTION
Eye movements under altered gravitoinertial forces 07 p1809 N93-21111
Optovert: An AustroMir-1991 experiment. Orientational effects from optokinetic stimulation 08 p2160 N93-24366

VERTICAL STABILIZERS
U STABILIZERS (FLUID DYNAMICS)

VERTICAL TAILS
U STABILIZERS (FLUID DYNAMICS)
U TAIL ASSEMBLIES

VERTICAL TAKEOFF
Analysis of the staging maneuver and booster glideback guidance for a two-stage, winged, fully reusable launch vehicle [NASA-TP-3335] 10 p2955 N93-27016

VERTICAL TAKEOFF AIRCRAFT
NT FLYING PLATFORMS
Critical engine system design characteristics for SSTO vehicles 01 p0017 N93-10014
Flight test progress of the STOL research aircraft ASKA [NAL-TM-643] 02 p0208 N93-12354
Open airscrew VTOL concepts [NASA-CR-177603] 06 p1403 N93-17883
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences [NASA-CR-192997] 09 p2580 N93-26049
Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle [NASA-TM-4419] 10 p2928 N93-27032
The design of a robust autopilot for the Archytas prototype via linear quadratic synthesis [AD-A262151] 10 p2946 N93-27546
Preliminary development of a VTOL unmanned air vehicle for the close-range mission [AD-A263514] 11 p3354 N93-29969

VERTICAL TAKEOFF AND LANDING
U VERTICAL LANDING
U VERTICAL TAKEOFF

VERTICES
U APEXES

VERTOL MILITARY HELICOPTERS
U BOEING AIRCRAFT

VERY HIGH FREQUENCIES
An uncertainty budget for VHF and UHF reflectometers [NPL-DES-120] 02 p0281 N93-11395
RF vacuum microelectronics [AD-A253910] 02 p0290 N93-11491
High-frequency LSI contactor [DE92-017285] 02 p0292 N93-11916
Temporal monitoring of VHF and LF atmospherics and their relation to lightning [AD-A252617] 02 p0371 N93-12180
Satellite measurement of ionospheric-induced VHF distortion [DE92-040328] 04 p0862 N93-15435
High altitude measurements with the EISCAT VHF radar and the development of Common Programme Seven 06 p1727 N93-19551
Development of a realtime DGPS system [DLR-MITT-92-06] 07 p1779 N93-20749
Widebanding techniques for VHF antennas, 1 [AD-A259301] 08 p2260 N93-22399
A hybrid voice/data modulation for the VHF aeronautical channels 08 p2106 N93-22567
Widebanding techniques for VHF antennas 2 [AD-A263998] 11 p3387 N93-29882

VERY HIGH SPEED INTEGRATED CIRCUITS
U VHSIC (CIRCUITS)

VERY LARGE ARRAY (VLA)
A high-resolution radio survey of the galactic plane 03 p0744 N93-13480
The optical very large array and its moon-based version 03 p0745 N93-13583
An optical VLA on the Moon 03 p0747 N93-13596
Report of the Working Design Group 03 p0748 N93-13601
A new look at radio/x ray correlations 05 p1362 N93-17136
Optically selected quasars with Z greater than 4 05 p1363 N93-17158
Reduction and analysis of VLA maps for 281 radio-loud quasars using the UNLV Cray Y-MP supercomputer 10 p3197 N93-26855
Characterization of lunar surface materials for use in construction 10 p3211 N93-27959
Very Large Array (VLA) observations of coronal loops 12 p3879 N93-31419

VERY LARGE SCALE INTEGRATION
Integrated vision system for a target seeker [AD-A253359] 01 p0135 N93-10103
Development of parallel architectures for sensor array processing algorithms [AD-A253680] 01 p0141 N93-10299
VLSI design for reliability - hot electron [AD-A253942] 01 p0074 N93-10715
High sensitivity probes for silicon VLSI internal node testing [AD-A253924] 01 p0169 N93-10764
Joint Services Electronics Program [AD-A253842] 01 p0076 N93-10829
Reliability of small geometry VLSI devices for microelectronics [AD-A247355] 02 p0289 N93-11414
VLSI design for reliability [AD-A253207] 02 p0292 N93-11781
Analysis of fault-tolerant neurocontrol architectures [NASA-TM-105898] 02 p0215 N93-12305
VLSI reliability research [AD-A254883] 02 p0295 N93-12360
Silicon neuron [AD-A255091] 03 p0674 N93-12756
BETA: Behavioral testability analyzer and its application to high-level test generation and synthesis for testability [NASA-CR-191282] 03 p0572 N93-13569
Design and hardware implementation of neural systems [AD-A256040] 04 p0866 N93-14577
Parametric study of diffusion-enhancement networks for spatiotemporal grouping in real-time artificial vision [AD-A256059] 04 p0937 N93-14580
Testability design rating system: Testability handbook, volume 1 [RL-TR-92-12-VOL-1] 04 p0867 N93-14699
Sensor-based driving of a car with fuzzy inferencing VLSI chips and boards [DE92-017819] 04 p0963 N93-14818
Architecture of low cost, large scale neural networks [MEMO-INF-92-16] 04 p0941 N93-15089
VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment [VH-1] 04 p0947 N93-15262
Analog Very Large Scale Integration (VLSI) implementations of artificial neural networks [AD-A256621] 04 p0966 N93-15408
A timing analysis of level-clocked circuitry [AD-A256796] 05 p1143 N93-15888
Proceedings of the MIT Student Workshop on VLSI and Parallel Systems [AD-A256795] 05 p1145 N93-16054
Structure-based design and analysis for concurrent error detection and recovery in reliable electronic systems [AD-A257790] 06 p1519 N93-18236
Electrically modifiable nonvolatile SONOS synapses for electronic neural networks [AD-A258318] 06 p1596 N93-18252
VLSI microelectronics research 06 p1523 N93-18462

A generic template extractor (GENTEX) in C for VLSI design verification
[AD-A259078] 06 p1521 N93-18959
Design and development of a high-speed Winograd fast Fourier transform processor board
[AD-A258919] 06 p1522 N93-19342
Version and transaction management in OSMagic: An object-oriented database implementation of the Magic VLSI layout design tool
[AD-A259138] 07 p2033 N93-20574
ProperCAD: A portable object-oriented parallel environment for VLSI CAD
[NASA-CR-192308] 07 p2033 N93-20603
Driving a car with custom-designed fuzzy inferencing VLSI chips and boards 08 p2451 N93-22218
The multi-scale veto model: A two-stage analog network for edge detection and image reconstruction
[AD-A259600] 08 p2462 N93-24069
A method for skew-free distribution of digital signals using matched variable delay lines
[AD-A260171] 08 p2272 N93-24133
Hyperstructures as computer architectures for high performance multiprocessor systems
[ISBN-0-315-58975-2] 08 p2433 N93-24613
VLSI architectural synthesis for DSP custom applications
[ISBN-0-315-57793-2] 08 p2433 N93-24621
Construction of a connectionist network supercomputer
[AD-A260929] 09 p2820 N93-25648
Very high-speed arithmetic processors (The Gauss Machine)
[AD-A260693] 09 p2806 N93-25650
VLSI for high-speed digital signal processing
[AD-A260754] 09 p2690 N93-25678
The design and implementation of a read prediction buffer
[AD-A260902] 09 p2806 N93-25934
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A263076] 11 p3382 N93-29131
Handshake circuits: An intermediary between communicating processes and VLSI
[ETN-93-93579] 11 p3408 N93-29269
Femtosecond carrier processes in compound semiconductors and real time signal processing
[AD-A262966] 11 p3384 N93-29514
WARP: Weight Associative Rule Processor. A dedicated VLSI fuzzy logic megacell 11 p3513 N93-29538
Intelligent fuzzy controller for event-driven real time systems 11 p3515 N93-29551
An architecture for an analog VLSI neural network for early computer vision processing
11 p3359 N93-30244
Optically powered, optoelectronic spatial light modulators
[AD-A264765] 11 p3581 N93-30609
Placement of cells: Theory and solution of a quadratic 0/1 optimization problem
[ETN-93-94182] 11 p3413 N93-30616
Analysis of fault tolerance in artificial neural networks
[REPT-92-048] 12 p3797 N93-31255

VERY LONG BASE INTERFEROMETRY

Successes of and prospects for ground-based interferometry 01 p0177 N93-10940
Report of the Lunar Interferometry Study Team (LIST) activities 01 p0178 N93-10945
GPS measurements at Vandenberg AFB
[AD-A254978] 03 p0499 N93-12557
Analysis of space geodetic measurements for studying the dynamics of the solid Earth
[NASA-CR-191215] 03 p0649 N93-12661
The Mount Wilson optical interferometer: The first automated instrument and the prospects for lunar interferometry 03 p0745 N93-13582
High resolution imaging at Palomar
03 p0745 N93-13584
Orbiting Space Interferometer (OSI): A first generation space interferometer 03 p0745 N93-13587
Appendix: Limits on the use of heterodyning and amplification in optical interferometry
03 p0747 N93-13597
A feasibility study of space VLBI for geodesy and geodynamics 04 p0904 N93-14223
The evolution of the VLBI polarization of superluminal radio source 3C345 04 p1050 N93-14229
Plate tectonics from VLBI and SLR global data
[NASA-CR-191319] 04 p0916 N93-14913
PARAS program: Phased array radio astronomy from space
[NASA-CR-192025] 06 p1695 N93-18115
Studies of regional and global tectonics and the rotation of the earth using very-long-baseline interferometry
[NASA-CR-191902] 06 p1577 N93-18591
Correlated flux densities from VLBI observations with the DSN 06 p1506 N93-18909
Demonstration of a joint US-Russian very long baseline interferometry tracking capability
06 p1458 N93-18911
The goldstone real-time connected element interferometer 06 p1512 N93-19417
Spacecraft-spacecraft very long baseline interferometry. Part 1: Error modeling and observable accuracy
06 p1512 N93-19418
Use of the VLBI delay observable for orbit determination of Earth-orbiting VLBI satellites
06 p1454 N93-19419
Commission 10: Continental networks. Subcommission for the European Reference Frame (EUREF)
07 p1969 N93-20961
Activity report of the IRIS subcommission in the period 1987-1991 07 p1970 N93-20970
Commission 7: Recent crustal movements
07 p1973 N93-20988
International Earth Rotation Service
07 p1974 N93-20990
SSG 5.99: Tidal friction and the Earth's rotation
07 p1974 N93-20992
SSG 5.123: Definition and realization of terrestrial reference systems 07 p1974 N93-20994
Analysis and synthesis of catalogues of extragalactic radio sources
[MITT-SER-A-231] 07 p2102 N93-21053
The advances in F and T technology: Their benefits of and for space science and technology
09 p2831 N93-24979
Precise Doppler tracking from the Medicina VLBI station 09 p2608 N93-24998
The development progresses of hydrogen masers at Shanghai Observatory 09 p2716 N93-25048
A determination of the radio-planetary frame tie from comparison of Earth orientation parameters
09 p2676 N93-26106
A nanoradian differential VLBI tracking demonstration
09 p2677 N93-26108
The German satellite ground station in Antarctica: Realization and first results 11 p3458 N93-28924
Interferometric tracking system for the tracking and data relay satellite
[NASA-CR-193274] 11 p3382 N93-29217
Radiointerferometric observations for estimation of pole motion by using long north-south reference axes
[SER-C-368] 12 p3746 N93-31339
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781
Process control and recovery in the Link Monitor and Control Operator Assistant 12 p3719 N93-32145

VERY LOW FREQUENCIES

Extremely low frequency/very low frequency Generator
[AD-A254347] 03 p0562 N93-12948
Long-term averages of globally-measured ELF/VLF radio noise
[AD-A255518] 03 p0566 N93-13869
Acoustic propagation loss predictions for a site on the Bermuda Rise at low and very low frequencies
[AD-A255445] 04 p0925 N93-14512
Boundary element analysis of low frequency cavity acoustical problems
[MATHS-REPT-A-158] 04 p0974 N93-15073
The ionosphere as a gamma ray burst detector
05 p1211 N93-17312
VLF/LF corona investigation
[AD-A258052] 05 p1141 N93-17709
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
A modular wideband sound absorber
[BBC-RD-1992/11] 09 p2673 N93-25171
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601
A review of the ionospheric model for the long wave prediction capability
[AD-A262283] 10 p3074 N93-28243
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field
11 p3266 N93-28725
Structural load control during construction
11 p3275 N93-29113
Introduction 11 p3395 N93-30728
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
The cone structure and focusing of the electric field of VLF and LF waves at high altitudes of the ionosphere
11 p3395 N93-30731
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733
Theoretical and experimental coverage analysis of a VLF transmitter 11 p3396 N93-30734
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735
Transient (approximately equals 10 s) VLF amplitude and phase perturbations due to lightning-induced electron precipitation into the ionosphere (the Trimpi effect)
11 p3396 N93-30736
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741
ELF/VLF radio noise measurements at high latitudes during solar particle events 11 p3397 N93-30744
ELF/VLF spectrum measurements
11 p3398 N93-30745
VLF/LF transmitting antennas
11 p3398 N93-30747
A dynamic bandwidth and phase linearity measurement technique for 4-channel MSK VLF antenna systems
11 p3398 N93-30748
Study of a VLF distributed antenna array
11 p3398 N93-30749
Antenna modeling and analysis for ELF/VLF/LF applications 11 p3398 N93-30751
Viability assessment for reliable long-wave communication links 11 p3399 N93-30754
Orbiting transmitter and antenna for spaceborne communications at ELF/VLF to submerged submarines
11 p3399 N93-30755
Near bottom data collection and data analysis
[AD-A265872] 12 p3771 N93-32172

VERY SMALL APERTURE TERMINALS

U VSAT (NETWORK)

VESTIBULAR TESTS

Medical evaluation of spatial disorientation mishaps
06 p1430 N93-19703
Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22600
Neural processing of gravity information
[NASA-CR-192766] 08 p2419 N93-23233

VESTIBULES

Micromotional studies of utricular and canal afferents
[NASA-CR-192703] 08 p2417 N93-22800

VESTS

Evaluation of two microclimate cooling air vests on a heated mannequin
[AD-A259410] 07 p2026 N93-21269
Evaluation of personal cooling systems in conjunction with explosive ordnance disposal suits
[AD-A262862] 11 p3506 N93-29471

VETERINARY MEDICINE

Fuzzy neural network methodology applied to medical diagnosis 11 p3498 N93-29546

VFR (RULES)

U VISUAL FLIGHT RULES

VHF OMNIRANGE NAVIGATION

Toward achieving global sole means radionavigation systems 08 p2121 N93-22794

VHSIC (CIRCUITS)

Design of an Ada expert system shell for the VHSIC avionic modular flight processor
02 p0397 N93-11947
Proceedings of the International Conference on CAD/CAM and AMT. Volume 4: VHDL (VHSIC Hardware Description Language) Seminar
[ITN-92-85130] 04 p0947 N93-15261
VHDL (VHSIC hardware description language): Origins, status, capabilities, and world environment
[VH-1] 04 p0947 N93-15262
VHDL (VHSIC hardware description language) use in the US defense procurement process
[VH-2] 04 p0948 N93-15263
The extended VHDL (VHSIC hardware description language) design environment: An unique integrated system and hardware design environment
[VH-3] 04 p0948 N93-15264
System design in a large corporation, using VHDL (VHSIC hardware description language)
[VH-4] 04 p0948 N93-15265
Synthesis and simulation with VHDL (VHSIC hardware description language)
[VH-5] 04 p0948 N93-15266
VHDL (VHSIC hardware description language) in the test environment
[VH-6] 04 p0948 N93-15267
Integrating VHDL (VHSIC hardware description language) with existing EDA tools
[VH-8] 04 p0948 N93-15268

Formalizing, validating, and verifying real-time system requirements with Reacto and VHDL
[AD-A259224] 07 p2033 N93-20577
A VHDL interpreter for model-based diagnoses
[AD-A259122] 07 p2046 N93-20590
Embedded multiprocessor technology for VHSIC insertion 10 p2964 N93-27713

VIABILITY
Viability assessment for reliable long-wave communication links 11 p3399 N93-30754

VIBRATION
NT BENDING VIBRATION
NT COMBUSTION VIBRATION
NT FLUTTER
NT FORCED VIBRATION
NT FREE VIBRATION
NT LATTICE VIBRATIONS
NT LINEAR VIBRATION
NT PANEL FLUTTER
NT RANDOM VIBRATION
NT RESONANT VIBRATION
NT SELF INDUCED VIBRATION
NT STRUCTURAL VIBRATION
NT TORSIONAL VIBRATION
NT TRANSONIC FLUTTER
Experimental validation of boundary element methods for noise prediction
[NASA-TM-105729] 02 p0323 N93-10966
Residual acceleration data on IML-1: Development of a data reduction and dissemination plan
[NASA-CR-190807] 02 p0223 N93-11101
Thermokinetic modelling and hypersonic flow
[DILC-EST-TN-218] 02 p0196 N93-11157
Determination of stepsize parameters for intermolecular vibrational energy transfer
[DE92-010770] 02 p0435 N93-11189
State-resolved collisional energy transfer in highly vibrationally excited polyatomic molecules
[AD-A253299] 02 p0441 N93-12323
Large-amplitude plate vibration in an elevated thermal environment
[AD-A254411] 03 p0621 N93-12606
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
The lunar environment and its effect on optical astronomy 03 p0746 N93-13594
Proceedings of the 62nd Shock and Vibration Symposium, Volume 2
[AD-A249267] 03 p0628 N93-13637
Addressing earthquake strong ground motion issues at the Idaho National Engineering Laboratory
[DE92-017841] 04 p0916 N93-15136
Modelling Directional Solidification
[NASA-CR-191301] 04 p0995 N93-15309
Solidification of InSb-GaSb alloy and InSb with vibration 04 p0995 N93-15310
Calculation of mechanical vibration frequencies of stiffened superconducting cavities
[DE92-040228] 04 p0903 N93-15423
Dynamic stability of maglev systems
[DE92-041104] 05 p1177 N93-16549
Spectroscopic investigation of the vibrational quasi-continuum arising from internal rotation of a methyl group
[DE92-040509] 05 p1104 N93-16586
Variance of temporal moment estimates of a squared time history
[DE93-000753] 05 p1277 N93-17196
Hydroelastic vibrations in a rectangular container under zero-gravity
[LRT-WE-9-FB-28-1991] 05 p1134 N93-17602
Dynamics of rotating multi-component turbomachinery systems
[NASA-TM-105997] 06 p1555 N93-18426
A dynamic analysis of piezoelectric strained elements
[AD-A259011] 06 p1651 N93-19014
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
Vibrational spectroscopic studies of adsorbates on bimetallic surfaces
[AD-A258578] 07 p1855 N93-19963
Linear algebra applied to physics determining small vibrations in conservative elastic systems
[AD-A259114] 07 p2050 N93-20589
Fluid/structure interactions. Internal flows 07 p1905 N93-20629
Vibration of a multi-guided rotating string 07 p1934 N93-20672
A Government/Industry Summary of the Design Analysis Methods for Vibrations (DAMVIBS) Program
[NASA-CP-10114] 07 p1782 N93-21310
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: A government overview 07 p1782 N93-21311
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program : Bell Helicopter Textron accomplishments 07 p1782 N93-21312
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Boeing Helicopters airframe finite element modeling 07 p1782 N93-21313
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: McDonnell-Douglas Helicopter Company achievements 07 p1782 N93-21314
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program: Sikorsky Aircraft: Advances toward interacting with the airframe design process 07 p1782 N93-21315
Solution of large, sparse systems of linear equations in massively parallel applications
[DE93-004243] 07 p2045 N93-21741
Monitoring of vibrating machinery using artificial neural networks
[DE93-003566] 07 p2050 N93-21848
A vibrational analysis of Au implanted Al2O3 single crystals: Ion and thermal annealing effects
[DE93-006216] 08 p2501 N93-22508
Hemispherical resonator gyro: Principle, design, and performance 08 p2120 N93-22784
Well-posedness of a model for structural acoustic coupling in a cavity enclosed by a thin cylindrical shell
[NASA-CR-191439] 08 p2473 N93-22878
Control and analysis of a single-link flexible beam with experimental verification
[DE93-003756] 08 p2314 N93-23289
A multiple scales approach to sound generation by vibrating bodies
[NASA-CR-191414] 08 p2294 N93-23409
Chaotic vibrations of tubes with nonlinear supports in crossflow
[DE93-004247] 08 p2329 N93-23689
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Monolithic quartz vibrating beam accelerometer 09 p2711 N93-25011
A study of vibrationally excited N2(+) ions in the daytime thermosphere 09 p2770 N93-25179
Helmeted head and neck dynamics under whole-body vibration 09 p2800 N93-25531
ASTROS-ID: Software for system identification using mathematical programming
[AD-A260867] 09 p2810 N93-25627
Evaluation of a vibration diagnostic system for the detection of spur gear pitting failures
[NASA-TM-106103] 09 p2718 N93-25672
Nonlinear vibrations, stability, and dynamics of structures and mechanisms
[AD-A260871] 09 p2728 N93-25838
Vibration and noise analysis of a gear transmission system
[NASA-TM-106162] 10 p3051 N93-27641
Energy and chemical change
[AD-A262359] 10 p3133 N93-27648
Measurement of the relative and absolute microgravity environment of space platforms, recent flight results, and determination of the spatial microgravity field 11 p3266 N93-28725
The photodissociation and reaction dynamics of vibrationally excited molecules
[DE93-010896] 11 p3565 N93-28879
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Characterizing transient vibrations using band limited temporal moments
[DE93-009639] 11 p3453 N93-30185
Improved bounds for synchronization jitter 11 p3360 N93-30251
Theoretical studies in nuclear structure
[DE93-012290] 11 p3570 N93-30505
Non-standard representations of the space-time groups and their applications to the dynamical theory of elementary particles
[DE93-608203] 12 p3818 N93-31240
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508
Development of jitter measurement procedures for digital fiber optic modules
[AD-A265550] 12 p3824 N93-31915
Vibration analysis in turbomachines 12 p3683 N93-32274

VIBRATION DAMPERS
U VIBRATION ISOLATORS

VIBRATION DAMPING
Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070
Nonstationary random variations of moderately thick plates using BEM 01 p0048 N93-10487
Dynamics of an orbiting flexible manipulator 01 p0054 N93-10519
Vibration of a damped double-beam system 01 p0056 N93-10527
Overview of the vibroimpact damping of packaged particles 01 p0056 N93-10528
Control of panel flutter at high supersonic speed 01 p0009 N93-10900
Numerical and experimental results in vibroacoustical active control of structural elements with piezoelectric materials
[DILC-EST-TN-224] 02 p0334 N93-11158
Optimal output feedback vibration control of rotor-bearing systems 02 p0324 N93-11220
Studies in control for vibration suppression of the UWAA 20-bay planar truss
[AD-A250193] 02 p0341 N93-12253
Dynamic control modification techniques in teleoperation of a flexible manipulator
[NASA-CR-190984] 03 p0610 N93-12904
The application of input shaping to a system with varying parameters 03 p0612 N93-12954
Initial experiments in end-point control of a flexible, two-link manipulator 03 p0612 N93-13018
Active flutter suppression using dipole filters
[NASA-TM-107594] 03 p0504 N93-13367
Force and motion control of a constrained flexible manipulator 03 p0613 N93-13384
Method and apparatus for minimizing multiple degree of freedom vibration transmission between two regions of a structure
[NASA-CASE-LAR-14508-1-CU] 03 p0626 N93-13420
Vibration damping response of composite materials 03 p0533 N93-13748
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Improved damping in composite structures through stress coupling, co-cured damping layers, and segmented stiffness layers 03 p0630 N93-13823
Robust control of a flexible link robot and rigid link robot: Theory, simulation, and experiment 04 p0888 N93-14202
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Online vibration control of a flexible rotor/bearing system 04 p0899 N93-14468
Technology development for non-contact measurement in modal testing of large space structures 04 p0809 N93-14942
Position and vibration control of flexible space robots 04 p0892 N93-15102
Optimal active vibration absorber: Design and experimental results
[NASA-TM-107709] 04 p0902 N93-15202
Onboard System Evaluation of Rotors Vibration, Engines (OBSERVE) monitoring system
[AD-A255366] 04 p0792 N93-15227
Design of joints for damped structures 05 p1084 N93-15776
Control of combined vibrations and multi-axis test 05 p1085 N93-15784
A modal analysis and modelling of a lightly damped large space structure
[AD-A256666] 05 p1086 N93-15847
Adaptive feedforward control of structural intensity in a beam
[AD-A256780] 05 p1183 N93-15915
Active control of foundation transmissibility using magnetostrictive actuators
[AD-A257135] 05 p1145 N93-16078
Damping
[LR-685] 05 p1184 N93-16214
The damper placement problem for large flexible space structures 05 p1089 N93-16776
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Methods for improving damping. Part 3: Damping material data
[ESDU-92001] 06 p1554 N93-17997
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
A comparison of viscoelastic damping models 06 p1464 N93-18836
Piezoelectric devices for vibration suppression: Modeling and application to a truss structure 06 p1466 N93-18846
CSI/MMC studies for improving jitter performance for large multi-payload platforms 06 p1468 N93-18937
Analysis, design, and testing of a low cost, direct force command linear proof mass actuator for structural control 06 p1469 N93-18943
CSI flight experiment projects of the Naval Research Laboratory 06 p1470 N93-18944

Robust control of smart structures
06 p1550 N93-19057
Passive damping of a solar array
[AD-A258976] 06 p1559 N93-19096
Vibration suppression in large flexible space structures using active control techniques
[AD-A258916] 06 p1470 N93-19339
Baseline experiments on Coulomb damping due to rotational slip
[AD-A258840] 06 p1560 N93-19440
Dynamic characterization, monitoring and control of rotating flexible beam-mass structures via piezo-embedded techniques 06 p1561 N93-19458
Damping characterization in large structures
[NASA-CR-192140] 06 p1560 N93-19944
Mass loaded composite rotor for vibro-acoustic application
[AD-D015604] 07 p1831 N93-20016
Structural dynamics branch research and accomplishments to FY 1992
[NASA-TM-105824] 07 p1925 N93-20368
Analytical and experimental investigation of flutter suppression by piezoelectric actuation
[NASA-TP-3241] 07 p1781 N93-20584
Elimination of resonance with a switching support
07 p1933 N93-20664
Damped vibration of engine valve train by recent transfer matrix and matrix procedures 07 p1933 N93-20665
Apparatus for reduction of vibration in liquid-injected gas compressor system
[AD-D015607] 07 p1914 N93-20772
The NASA/industry Design Analysis Methods for Vibrations (DAMVIBS) program : Bell Helicopter Textron accomplishments 07 p1782 N93-21312
A modal test of a space-truss for structural parameter identification
[DE93-004043] 08 p2323 N93-22518
System identification of the JPL micro-precision interferometer truss
[DE93-004044] 08 p2323 N93-22519
Precursor SSF utilization: The MODE experiments
08 p2188 N93-22633
Modal identification experiment
08 p2188 N93-22635
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873
Vibration control experiments on a 12-meter cantilever truss structure
[AD-A259764] 08 p2328 N93-23484
Maneuver and vibration control of flexible space structures by Lyapunov stability theory
08 p2195 N93-23956
Attitude control of the LACE satellite: A gravity gradient stabilized spacecraft 09 p2605 N93-24727
UARS in-flight jitter study for EOS
[NASA-CR-191419] 09 p2615 N93-25133
Identification and control of lightly damped, large space structures: An experimental evaluation
09 p2616 N93-25351
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
Passive vibration damping materials: Piezoelectric ceramics composites for vibration damping applications
[AD-A260792] 09 p2727 N93-25690
Using input command pre-shaping to suppress multiple mode vibration 09 p2732 N93-25834
MIT's interferometer CST testbed
09 p2609 N93-25836
Mechanics and control of multibody structural systems
[AD-A261576] 09 p2619 N93-26456
Digital filter control of remotely operated flexible robotic structures
[DE93-007587] 09 p2827 N93-26596
Dynamic characteristics of specialty composite structures with embedded damping layers
[NASA-TM-106165] 10 p2989 N93-26705
Analysis of virtual passive controllers for flexible space structures
[NASA-CR-193084] 10 p3050 N93-27145
Six degree of freedom active vibration damping for space application
[NASA-CR-193028] 10 p3056 N93-27165
Passive damping augmentation of flexible beam-like lattice trusses for large space structures
10 p2923 N93-27192
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Magnetic Actuators and Suspension for Space Vibration Control
[NASA-CR-193038] 10 p3057 N93-27594
Generation of helical gears with new surfaces, topology by application of CNC machines
[NASA-TM-106175] 10 p3051 N93-27687
Implementation of input command shaping to reduce vibration in flexible space structures
10 p3059 N93-27901
Optical interferometer testbed
10 p3060 N93-28168
Inhibiting multiple mode vibration in controlled flexible systems 10 p3061 N93-28172
Active damping control of a flexible space structure using piezoelectric sensors and actuators
[AD-A262884] 10 p2973 N93-28248
The effect of chromatic decoherence on transverse injection oscillation damping
[DE93-008876] 10 p3139 N93-28330
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
NASA instep/MDMSC jitter suppression experiment (JITTER) 11 p3263 N93-28702
Description of the Joint Damping Experiment (JDX)
11 p3263 N93-28703
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
Upper atmosphere research satellite jitter study
11 p3264 N93-28708
Results of a round robin test program: Complex modulus properties of a polymeric damping material
[AD-A263619] 11 p3332 N93-29344
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Vibration control of flexible space structures in noisy environment 11 p3285 N93-30235
Robust boundary control of flexible structures governed by hybrid dynamics 11 p3285 N93-30249
Integrated structural design, vibration control, and aeroelastic tailoring by multiobjective optimization
12 p3739 N93-31137
Active damping in a flexible manipulator
12 p3689 N93-31452
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

VIBRATION EFFECTS
The Orbiter Stability Experiment on STS-40
03 p0508 N93-13159
Post flight operation of a high peak power neodymium YAG laser abcard the G-449 payload flown on Space Shuttle Columbia mission 61-C
03 p0508 N93-13161
The effects of acceleration on precision frequency sources
[AD-A255465] 04 p0972 N93-14496
The Meta-Lax method of stress reduction in welds
[DE92-018477] 04 p0845 N93-14900
Influence due to satellite attitude jitter on estimation of Digital Elevation Model (DEM) 08 p2350 N93-23551
High-voltage failure mechanisms in liquid-filled, Fluorinert FC-40, capacitors
[DE93-006286] 08 p2282 N93-23677
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554
Transmission of vibration through the human body to the head: A summary of experimental data
[ISVR-TR-218] 12 p3774 N93-32237

VIBRATION ISOLATORS
Application of adaptive trusses to vibration isolation in flexible structures 03 p0617 N93-13809
Digital active material processing platform effort (DAMPER), SBIR phase 2
[NASA-CR-190798] 04 p0856 N93-15353
Vibration isolation technology: An executive summary of systems development and demonstration
[NASA-TM-105937] 04 p0778 N93-15573
Deployment analysis and in orbit control of large reflectors 05 p1083 N93-15769
High torque capable, self locking, vibration isolating flexible shaft coupling statement of government interest
[AD-D015501] 05 p1178 N93-16583
Design of a vibration isolation system for a cycle ergometer to be used onboard the Space Shuttle
[NASA-CR-192021] 06 p1604 N93-17970
Experimental and analytical study of a hybrid isolation system using friction controllable sliding bearings
[PB93-150282] 08 p2320 N93-24595
Six degrees of freedom vibration isolation using electromagnetic suspension 10 p2960 N93-27559
A magnetic isolation and pointing system for the astrometric telescope facility 10 p2960 N93-27563
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
Magnetic Actuators and Suspension for Space Vibration Control
[NASA-CR-193038] 10 p3057 N93-27594
Evaluation of actuators for the SDOF and MDOF active microgravity isolation systems 10 p3057 N93-27595
Control design for the SERC experimental testbeds
10 p3058 N93-27891
Vibration isolation 12 p3690 N93-31458

VIBRATION MEASUREMENT
New rotor trim and balance system for helicopter usage monitoring 04 p0797 N93-15180
Development of a laser-based measurement system for modal testing of large space structures
05 p1083 N93-15766
Development of a force measurement device
05 p1083 N93-15767
Acceleration recorder and playback module
[NASA-CASE-MSC-22008-1] 05 p1169 N93-17077
Vibration monitoring with artificial neural networks
[DE93-003543] 07 p1952 N93-21992
Vibration monitoring of EDF rotating machinery using artificial neural networks
[DE93-003557] 07 p1952 N93-21993
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Modal identification experiment
08 p2188 N93-22635
Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047
Fault detection of helicopter gearboxes using the multi-valued influence matrix method
[NASA-TM-106100] 10 p3049 N93-27069
Low-frequency vibration environment for five Shuttle missions
[NASA-TM-106059] 11 p3285 N93-28554
Control-structures interaction test of the LACE satellite
11 p3263 N93-28706
Optical blade vibration measurement
[ETN-93-93454] 11 p3259 N93-29999
Efficient fault diagnosis of helicopter gearboxes
[NASA-TM-106253] 12 p3735 N93-31846
Vibrational diagnostics of rotating machinery malfunctions 12 p3738 N93-32278

VIBRATION METERS
NT SEISMOGRAPHS
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Vibration Pattern Imager (VPI): A control and data acquisition system for scanning laser vibrometers
[NASA-TM-107721] 08 p2476 N93-22553
Proposed ground-based control of accelerometer on Space Station Freedom
[NASA-TM-105960] 08 p2201 N93-23738

VIBRATION MODE
A study upon structural optimization of elastic rotors for mechanical systems
[INPE-5376-TDI/471] 01 p0094 N93-10310
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Rigid body mode identification of the PAH-2 helicopter using the eigensystem realization algorithm
[NASA-TM-107690] 02 p0336 N93-11544
Description of the structural responses in the medium-frequency range by an energetic formulation
[ECL-92-16] 02 p0336 N93-11582
The use of high-frequency dynamic information for the evaluation of damage in fiber reinforced composite materials 02 p0241 N93-11998
Dynamic analysis of a pre-and-post ice impacted blade
[NASA-TM-105829] 02 p0276 N93-12197
Experimental validation of finite element and boundary element methods for predicting structural vibration and radiated noise 03 p0621 N93-12631
Analysis of a structure-equipment system subjected to impact loading
[AD-A255097] 03 p0622 N93-12652
Model reduction of flexible manipulators
[AD-A255251] 04 p0889 N93-14528
A modal analysis and modelling of a lightly damped large space structure
[AD-A256566] 05 p1086 N93-15847
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
Dynamics in condition monitoring, a case study
06 p1558 N93-18758
Analysis and optimal design of pressurized, imperfect, anisotropic ring-stiffened cylinders
[NASA-CR-191375] 06 p1479 N93-18774
A non-linear phenomenon in the dynamic response of metallic and composite structures
07 p1926 N93-20620
A superposition-Rayleigh Ritz method for free vibration analysis of nonuniformly stretched rectangular membranes 07 p1931 N93-20649
Transverse vibrations of an elastically restrained rod carrying a tip mass 07 p1934 N93-20669

A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
Identification of delamination by eigenfrequency degradation: An inverse problem
07 p1843 N93-21526
Modal identification experiment
08 p2188 N93-22635
SCBUCKLE user's manual: Buckling analysis program for simple supported and clamped panels
[NASA-TM-107741] 08 p2324 N93-22704
The effects of delamination on the vibrational characteristics of composite structural elements
08 p2210 N93-23202
Damage evaluation of structures using frequencies and mode shapes extracted from laser interferometry
[AD-A260119] 08 p2329 N93-23700
Vibration, buckling, and postbuckling of laminated composites with delaminations 09 p2723 N93-24765
Joint flexibility effects on the dynamic response of structures. Part 2: Stochastic analysis
[AD-A261003] 09 p2729 N93-25938
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410
Theoretical and experimental investigation of slack cable/mass system dynamics 11 p3455 N93-31028
The development of a ring model for the study of tire in-plane dynamics
[MEMT-20] 12 p3734 N93-31508
Localization of aeroelastic modes in mistuned high-energy turbines 12 p3697 N93-31586
Vibration and Rotor Dynamics
[VKI-LS-1992-06] 12 p3741 N93-32270
Structural dynamic charactertistics of bladed assemblies 12 p3683 N93-32273
One lateral mode isotropic rotor response to nonsynchronous excitation 12 p3738 N93-32276
Vibrational diagnostics of rotating machinery malfunctions 12 p3738 N93-32278
Design and application of Active Magnetic Bearings (AMB) for vibration control 12 p3738 N93-32279

VIBRATION PROTECTION
U VIBRATION ISOLATORS

VIBRATION SIMULATORS
NT VERTICAL MOTION SIMULATORS
The design concept of the 6-degree-of-freedom hydraulic shaker at ESTEC 04 p0820 N93-15600
Development of a force measurement device
05 p1083 N93-15767
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
The use of reverberant-room acoustic testing for spacecraft structures and their payloads
05 p1085 N93-15786

VIBRATION TESTING MACHINES
U VIBRATION SIMULATORS

VIBRATION TESTS
Numerical considerations for structural system identification from modal information
01 p0063 N93-10564
A contribution to fatigue failure morphologies in fiber reinforced plastics
[MBB-Z-0212-91-PUB] 02 p0263 N93-11010
Testing for integrity
[PNR-90927] 02 p0210 N93-11024
A knowledge-based blackboard system to interpret graphical data from vibration tests of gas turbines
[PNR-90993] 02 p0212 N93-11114
Dynamic test/analysis correlation using reduced analytical models
[NASA-TM-107671] 02 p0341 N93-12300
Environmental qualification testing of payload G-534, the Pool Boiling Experiment 03 p0510 N93-13169
Test plan and report for Space Shuttle launch environment testing of Bergen cable technology safety cable
[NASA-CR-4473] 03 p0559 N93-13434
Design guide for the ergonomic aspects of helicopter crew seating
[ISVR-TR-209] 03 p0678 N93-13464
Experimental and analytical investigation of the vibration characteristics of a remotely piloted helicopter
[AD-A256131] 04 p0790 N93-14248
Technology development for non-contact measurement in modal testing of large space structures
04 p0809 N93-14942
Environmental qualification testing of the prototype pool boiling experiment
[NASA-CR-190774] 04 p0895 N93-15582
Multi-axis transient vibration testing of space objects: Test philosophy, test facility, and control strategy
04 p0820 N93-15598
Vibration and acoustic testing of TOPEX/Poseidon satellite 04 p0820 N93-15599
HISPASAT DBS reflector: Mechanical analysis-environmental test correlation
05 p1081 N93-15751
Design of joints for damped structures
05 p1084 N93-15776
Recent developments in controlling a hydraulic multi-axis test facility 05 p1074 N93-15783
Control of combined vibrations and multi-axis test
05 p1085 N93-15784
The use of reverberant-room acoustic testing for spacecraft structures and their payloads
05 p1085 N93-15786
Environmental tailoring: A major perspective for mechanical testing for future space projects
05 p1086 N93-15787
Advanced small rocket chambers: Option 1, 14 lbf Ir-Re rocket
[NASA-CR-191014] 07 p1829 N93-20114
Nickel-hydrogen CPV battery update
07 p1986 N93-20518
Experimental and analytical investigation of dynamic characteristics of extension-twist-coupled composite tubular spars
[NASA-TP-3225] 07 p1925 N93-20585
Low-noise, high-strength, spiral-bevel gears for helicopter transmissions
[NASA-TM-106080] 08 p2313 N93-23019
Experimental and analytical study of a hybrid isolation system using friction controllable sliding bearings
[PB93-150282] 08 p2320 N93-24595
Magnetic Gimbal Proof-of-Concept Hardware performance results 10 p2960 N93-27564
A preliminary structural analysis of space-based inflatable tubular frame structures
10 p3086 N93-27849
Testing in combined dynamic environments
[DE93-010679] 11 p3278 N93-29250
Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410

VIBRATIONAL FREQUENCIES (MOLECULAR)
U VIBRATIONAL SPECTRA

VIBRATIONAL FREQUENCIES (STRUCTURAL)
U RESONANT FREQUENCIES

VIBRATIONAL RELAXATION
U MOLECULAR RELAXATION

VIBRATIONAL SPECTRA
Improved gallium nitride and aluminum nitride electronic materials
[AD-A253785] 01 p0076 N93-10888
Time-frequency domain analysis of vibration signals for machinery diagnostics. 3: The present power spectral density
[OUEL-1911/92] 02 p0337 N93-11707
Exploration of the ionizable metal cluster-electrode surface analogy: Infrared spectroelectrochemistry of (Pt24(CO)30)(sup n), (Pt26(CO)32)(sup n), and (Pt38(CO)44)(sup n) (n = 0 to -10), and comparisons with potential-dependent spectra of CO adlayers on platinum surfaces
[AD-A252544] 02 p0250 N93-11808
The structures, binding energies and vibrational frequencies of Ca3 and Ca4: An application of the CCSD(T) method 02 p0439 N93-11852
The vibrational spectrum of H2O3: An ab initio investigation
[NASA-CR-190968] 03 p0537 N93-12935
Studies of orbital doublet and modelling of orbital triplet Jahn-Teller systems in 3 to 5 semiconductors
03 p0725 N93-13845
Silicon nitride thin film production on Si(111)
[AD-A256036] 04 p0994 N93-15233
Free radical and overtone spectroscopy
[NASA-CR-192136] 07 p1850 N93-21555
Local vibronic and electronic excitations of doping-induced states in the copper oxides
[DE93-003844] 08 p2501 N93-22429
Coherent anti-Stokes Raman spectroscopy of highly vibrationally excited molecules
[AD-A260381] 08 p2484 N93-24275
Laser spectroscopy of chemically reactive species
[DE93-006672] 08 p2310 N93-24326
Molecular interactions and properties with many-body methods
[AD-A261688] 09 p2850 N93-26367
Spectroscopic effects of disorder and vibrational localization in mixed-halide metal-halide chain solids
[DE93-007361] 09 p2646 N93-26505
Hot bands in overtone absorption transitions: High temperature spectra
[AD-A262213] 10 p3133 N93-27685
Dynamical analysis of highly excited molecular spectra
[DE93-010771] 11 p3564 N93-28604
Spectroscopic probes of vibrationally excited molecules at chemically significant energies
[DE93-012328] 11 p3564 N93-28652
Vibrational spectroscopy of shock-compressed fluids
11 p3318 N93-30072
A novel flame thermometer based on the doppler width of ro-vibrational transitions
[AD-A264515] 11 p3315 N93-30405
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Vibrational overtone spectroscopy of cyclic amines: Pyridine and related compounds
[AD-A265524] 12 p3704 N93-31919

VIBRATIONAL STRESS
Finite element analysis of stiffened plate vibrations
06 p1557 N93-18757

VIBRATORY LOADS
Development of a force measurement device
05 p1083 N93-15767
Damped vibration of engine valve train by recent transfer matrix and matrix procedures 07 p1933 N93-20665
Vibration control of flexible space structures in noisy environment 11 p3285 N93-30235
Vibrational power transmission in curved beams. Part 1: Theory
[ISVR-TR-208] 12 p3742 N93-32340

VIBROMETERS
U VIBRATION METERS

VIDEO COMMUNICATION
Designing video annotation and analysis systems
04 p0955 N93-15552
Video coding and the application level framing protocol architecture
[NASA-CR-192002] 05 p1138 N93-16055
Night vision goggle training: Development and production of six video programs
[AD-A258529] 07 p2025 N93-20050
A robust coding scheme for packet video
07 p1881 N93-20174
Video conferencing made easy
08 p2275 N93-22173
Automated rendezvous and docking with video imagery 08 p2148 N93-22298
Newly available technologies present expanding opportunities for scientific and technical information exchange
[NASA-CR-4494] 08 p2261 N93-22470
An electronic stroll through the global village
[DE93-005962] 08 p2446 N93-22763
VideoMir: Satellite video conferencing during the AustroMir spaceflight 08 p2158 N93-24356
Video scan rate conversion method and apparatus for achieving same
[AD-D015661] 09 p2854 N93-26091
Evolving technologies for Space Station Freedom computer-based workstations 10 p2967 N93-27794
A corner matching and tracking strategy applied to videophony
[OUEL-1933/92] 11 p3380 N93-28896
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362
Newly available technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
Video conferencing made easy
[DE93-010798] 12 p3718 N93-32283

VIDEO COMPRESSION
The effects of video compression on acceptability of images for monitoring life sciences' experiments
09 p2805 N93-25930

VIDEO DATA
Digital imaging systems
[DE92-019194] 03 p0736 N93-13078
A system approach to archival storage
04 p1006 N93-15040
Designing video annotation and analysis systems
04 p0955 N93-15552
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
Data processing and control in a transputer system for remote sensing of the Earth 09 p2753 N93-24870
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
Data compression techniques for digital video recording
[ETN-93-93610] 10 p3166 N93-27881
Systematic processing of Clementine data for scientific analyses 11 p3624 N93-28803
A fuzzy measure approach to motion frame analysis for scene detection 11 p3511 N93-29525
On board image processing for telescience support
[NLR-TP-91213-U] 12 p3823 N93-31056

VIDEO DISKS
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Laser disc for Earth environment data set
08 p2338 N93-22142
Meteo Disc: Satellite cloud motion presentation by interactively controlled video disc for research, teaching, and training 08 p2371 N93-23835
VIDEO EQUIPMENT
NT PICTURE TUBES
NT VIDEO TAPE RECORDERS
Research in the optical sciences
[AD-A253188] 01 p0158 N93-10446
System for generating dynamic video imagery for human factors research
[AD-A248675] 02 p0388 N93-11743
High-speed test station for solid-state imagers
[DE92-018990] 02 p0312 N93-11822
Guide to synchronization of video systems to IRIG timing
[AD-A254626] 02 p0285 N93-12240
Remote driving with reduced bandwidth communication
[DE92-040639] 05 p1139 N93-16408
Endoscopic measurements using a panoramic annular lens
[NASA-CR-184501] 05 p1167 N93-16453
Composite video and graphics display for camera viewing systems in robotics and teleoperation
[NASA-CASE-NPO-17836-1-CU]
06 p1502 N93-18284
Video guidance sensor for autonomous capture
08 p2142 N93-22267
Concurrent-scene/alternate-pattern analysis for robust video-based docking systems 08 p2150 N93-22315
United States Army space experiment 601
[AD-A261460] 09 p2798 N93-26353
Method of encouraging attention by correlating video game difficulty with attention level
[NASA-CASE-LAR-15022-1] 10 p3085 N93-28128
A passive infrared ice detection technique for helicopter applications
[NASA-CR-193187] 11 p3244 N93-29152
The redwood project: An overview
12 p3841 N93-31979
Remote driving with reduced bandwidth communication 12 p3719 N93-32114
VIDEO SIGNALS
High-resolution contrast control on a video display: Method and calibration
[AD-A256552] 04 p0938 N93-15400
Enhancement of video imagery by modified intensity-dependent spatial summation
[AD-A255689] 05 p1139 N93-16300
Real-time transmission of digital video using variable-length coding
[NASA-TM-106092] 08 p2261 N93-22483
Video scan rate conversion method and apparatus for achieving same
[AD-D015661] 09 p2854 N93-26091
Picture data compression coder using subband/transform coding with a Lempel-Ziv-based coder
[NASA-CASE-LEW-15700-1] 10 p3168 N93-28130
VIDEO TAPE RECORDERS
Evaluation of D-1 tape and cassette characteristics: Moisture content of Sony and Ampex D-1 tapes when delivered 11 p3435 N93-30466
VIDEO TAPES
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
Corrosion of metal particle and metal evaporated tapes 04 p0883 N93-15039
A system approach to archival storage
04 p1006 N93-15040
Network accessible multi-terabyte archive
05 p1354 N93-16326
Stability of metal particle and metal particulate media
05 p1170 N93-16329
VIDICONS
High-speed FPS vidicon camera
[DE92-018989] 02 p0313 N93-12069
VIETNAM
Communication service by satellite link in Vietnam
10 p3024 N93-26657
VIEWING
NT FIELD OF VIEW
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
Annotating the real world with knowledge-based graphics on a see-through head-mounted display
04 p0954 N93-15543
The Inner Magnetospheric Imager (IMI): Instrument heritage and orbit viewing analysis
05 p1170 N93-17338
Effect of contrast on human speed perception
[NASA-TM-103898] 05 p1607 N93-19104
Methods for viewing radar cross section data in three dimensions
[AD-A258905] 06 p1626 N93-19352
HippoDraw
[DE93-004005] 06 p1627 N93-19633
Geometric aspects of visual object recognition
[AD-A259454] 07 p2046 N93-20239
A PARC system for terminal docking
08 p2141 N93-22259
A study of video frame rate on the perception of moving imagery detail 08 p2431 N93-24552
VIGNETTING
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
Viking observations of electric fields
12 p3858 N93-31712
VIKING LANDER 1
Erosional and depositional history of central Chryse Planitia
[NASA-CR-193068] 10 p3210 N93-27497
VIKING MARS PROGRAM
Mars: A reassessment of its interest to biology
06 p1591 N93-18550
Mass spectrometric measurement of Martian krypton and xenon isotopic abundance
11 p3646 N93-28798
Using the Viking biology experimental results to obtain chemical information about Martian regolith
12 p3865 N93-31955
VIKING ORBITER SPACECRAFT
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae
03 p0768 N93-14092
Comparison of Viking Ultraviolet images with low altitude particle precipitation 04 p1045 N93-14612
VIKING SPACECRAFT
NT VIKING LANDER SPACECRAFT
NT VIKING LANDER 1
NT VIKING ORBITER SPACECRAFT
VIKING 1 SPACECRAFT
NT VIKING LANDER 1
VINEYARDS
Vineyard cadastre monitoring using remote sensed data in an integrated GIS 08 p2351 N93-23556
VINYL CYANIDE
U ACRYLONITRILES
VINYL POLYMERS
Hydrogen peroxide and B-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network
[AD-A256789] 05 p1142 N93-15703
Low-density foam materials from styrene-divinylbenzene inverse emulsions
[DE93-002854] 05 p1127 N93-17486
VIOLENCE
NT ATTACKING (ASSAULTING)
VIRAL DISEASES
NT ACQUIRED IMMUNODEFICIENCY SYNDROME
NT POLIOMYELITIS
Clinical types of Hepatitis B 02 p0376 N93-11286
Viral hepatitis in the US Air Force, 1980 - 1989
02 p0377 N93-11287
Hepatitis A and Hepatitis B: Risks compared to other vaccine preventable diseases and immunization recommendations 02 p0377 N93-11288
Vaccination against Hepatitis B: The Italian strategy
02 p0377 N93-11289
VIRGINIA
State and local governments
08 p2517 N93-23149
Small business profiles, 1992. Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
[PB93-110948] 08 p2520 N93-24157
VIRGO GALACTIC CLUSTER
A comparison of the near-infrared spectral features of early-type galaxies in the Coma Cluster, the Virgo cluster and the field 10 p3173 N93-26718
A revised catalog of CfA galaxy groups in the Virgo/Great Attractor flow field 10 p3175 N93-26725
Gas-rich dwarf galaxies in dense and sparse environments 10 p3186 N93-26795
Molecular gas content of galaxies in the Hydra-Centaurus supercluster 10 p3188 N93-26807
High chemical abundances in stripped Virgo spiral galaxies 10 p3191 N93-26825
VIRGO STAR CLUSTER
U VIRGO GALACTIC CLUSTER
VIRIAL COEFFICIENTS
Acoustic determination of phase equilibria
[PB93-167120] 10 p3129 N93-26606
VIRIAL THEOREM
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
VIRTUAL MEMORY SYSTEMS
Memory access in shared virtual memory
[DE92-019594] 03 p0681 N93-12823
Transactional distributed shared memory
[AD-A256222] 04 p0941 N93-15240
A deadlock-free communication system for a transputer network
[AD-A256473] 04 p0959 N93-15319
NPSGDL: An object oriented graphics description language for virtual world application support
[AD-A257337] 05 p1234 N93-15992
Proceedings of the MIT Student Workshop on VLSI and Parallel Systems
[AD-A256795] 05 p1145 N93-16054
Solving large dense systems of linear equations on systems with virtual memory and with cache
[CWI-NM-R9123] 05 p1271 N93-17558
The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291
Consistency management for virtually indexed caches
[AD-A261952] 10 p3100 N93-27920
Distributed Virtual System (DIVIRS) Project
[NASA-CR-193234] 11 p3526 N93-29169
VIRTUAL REALITY
Advanced technology for portable personal visualization
[AD-A253808] 02 p0388 N93-11783
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Working together, virtually 04 p0954 N93-15547
Virtual reality systems 05 p1232 N93-16775
Developing virtual cockpits 06 p1608 N93-19764
Panoramic cockpit displays 06 p1608 N93-19765
Flight above a virtual world 06 p1609 N93-19766
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
A synthetic environment flight simulator: The AFIT virtual cockpit
[AD-A259220] 07 p1788 N93-20576
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Virtual reality applications to automated rendezvous and capture 08 p2141 N93-22261
Autonomic physiological data associated with simulator discomfort
[NASA-CR-177609] 09 p2794 N93-24738
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
Intelligent virtual reality in the setting of fuzzy sets
11 p3513 N93-29544
Exercise/recreation facility for a lunar or Mars analog
11 p3230 N93-29733
Virtual reality flight control display with six-degree-of-freedom controller and spherical orientation overlay
[NASA-CASE-NPO-18733-1-CU]
11 p3251 N93-30416
A preliminary empirical evaluation of virtual reality as an instructional medium for visual-spatial tasks
12 p3784 N93-32151
VIRULENCE
Intracellular targeting of the Yersinia YopE cytotoxin in mammalian cells induces actin microfilament disruption
[FOA-B-40420-4.4] 10 p3082 N93-27989
Plasmid encoded virulence of Yersinia
[FOA-B-40419-4.4] 10 p3082 N93-28199
VIRUSES
NT HUMAN IMMUNODEFICIENCY VIRUS
Immunization of personnel traveling to a destination in tropical countries: French position
02 p0380 N93-11304
Epidemiologic research in Antarctica
05 p1221 N93-16800
VISCOELASTIC DAMPING
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
A comparison of viscoelastic damping models
06 p1464 N93-18836
Graphite/epoxy composite laminates with co-cured interlaminar damping layers 09 p2642 N93-25587
VISCOELASTIC FLOW
U VISCOELASTICITY
VISCOELASTICITY
NT THERMOVISCOELASTICITY

Chronorheological characterization of elastomers
01 p0046 N93-10476
Contribution to the study of the anisotropic viscoelasticity of large strains: The case of the monocrystal
[ECL-90-29] 02 p0460 N93-11573
Creep failure in linear and nonlinear viscoelastic materials 02 p0342 N93-12536
Finite element analysis of anisotropic viscoelastic composite structures and analytical determination of optimum viscoelastic material properties
03 p0530 N93-13007
Vibration damping response of composite materials
03 p0533 N93-13748
Application of complex variables in electromagnetofluid dynamic, magnetofluid dynamic and fluid dynamic flows: Viscoelastic boundary-layer theory
[ISBN-0-315-65141-5] 03 p0594 N93-14067
Visoelastic relaxation of Venusian coronae and mountain belts: Constraints on global heat flow and tectonism
04 p1027 N93-14313
Numerical and experimental study of bubble growth in highly viscous fluids 04 p0874 N93-14465
Conservation laws for elastic systems with dissipation
[AD-A257168] 05 p1280 N93-15999
Damping
[LR-685] 05 p1184 N93-16214
Thermo-visco-inelasticity in large deformations
[DE93-002284] 06 p1560 N93-19473
The analytical representation of viscoelastic material properties using optimization techniques
[NASA-TM-108394] 07 p1920 N93-19972
Application of silicone fluid rheogoniometer measurements to despin moment studies in a spinning and coning cylinder
[AD-A259270] 07 p1901 N93-20599
Viscoelastic analysis of bonded connections
07 p1929 N93-20638
Creep damage of carbon fiber reinforced PEEK
07 p1862 N93-20639
Well-posedness and stabilizability of a viscoelastic equation in energy space
[PB93-111920] 07 p2056 N93-21474
Incremental, quasistatic, uniaxial finite element analysis in the linear viscoelasticity theory, exemplarily demonstrated by the Burger material
[ETN-93-93422] 08 p2324 N93-22680
Viscoelastic properties of 3-D braided PEEK/graphite composites 08 p2214 N93-24103
Basic research on macromolecular dynamics
[PB93-138907] 08 p2240 N93-24142
Composite passive damping struts for large precision structures
[NASA-CASE-NPO-17914-1-CU]
08 p2333 N93-24596
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Finite element methods for non-Newtonian flows
[DE93-006458] 10 p3042 N93-28149
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153
Viscoelastic characterization of thin-film polymers exposed to low Earth orbit 10 p3007 N93-28260

VISCOMETERS
Oscillating-body viscometry and its application to phase-separating liquid mixtures
08 p2293 N93-23386

VISCOMETRY
Oscillating-body viscometry and its application to phase-separating liquid mixtures
08 p2293 N93-23386

VISCOPLASTIC FLOW
U VISCOPLASTICITY

VISCOPLASTICITY
Unified viscoplastic behavior of metal matrix composites
[NASA-TM-105819] 01 p0096 N93-10777
Mechanics of composite materials for spacecraft
[AD-A254217] 01 p0028 N93-10896
Contribution to the study of the anisotropic viscoelasticity of large strains: The case of the monocrystal
[ECL-90-29] 02 p0460 N93-11573
Contribution to the monocrystal behavior study during large plastic strains
[ECL-92-13] 02 p0461 N93-11581
An investigation of the thermoviscoplastic behavior of a metal matrix composite at elevated temperatures
[NASA-CR-189706] 03 p0530 N93-12929
Analysis of large quasistatic deformations of inelastic solids by a new stress based finite element method
[NASA-CR-189235] 03 p0626 N93-13260
Thermoviscoplastic analysis of metal matrix composites 03 p0535 N93-13954
A finite element model for analysis of thermoviscoplastic behavior of hypersonic leading edge structures subject to intense aerothermal heating 04 p0780 N93-14631
A combined experimental analytical methodology for characterizing the thermoviscoplastic deformation of a metal matrix composite 06 p1479 N93-19032
La Recherche Aerospatiale Bimonthly Bulletin, no. 248, January - February
[ONERA-1989-1] 07 p1878 N93-21748
Studies in penetration mechanics
[AD-A260436] 08 p2332 N93-24304
A micromechanical viscoplastic stress-strain model with grain boundary sliding
[DE93-009109] 09 p2649 N93-25095
Thermoviscoplastic analysis of fibrous periodic composites using triangular subvolumes
[NASA-TM-106076] 11 p3297 N93-29074
Bounds on internal state variables in viscoplasticity
[NASA-TM-106215] 11 p3451 N93-29196

VISCOSITY
NT EDDY VISCOSITY
NT GAS VISCOSITY
Viscosity determinations of some frictionally generated silicate melts: Implications for slip zone rheology during impact-induced faulting 01 p0121 N93-10183
One type of automatically adjusted difference scheme with artificial viscosity to calculate ablated exterior shapes
[AD-A254108] 01 p0005 N93-10856
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Stochastic control and nonlinear estimation
[AD-A253543] 02 p0420 N93-11147
Nonlinear evolution of resistive tearing mode instability with shear flow and viscosity
[DE92-012138] 02 p0453 N93-11745
Scientific predictability of solid rocket performance: Analyses of the processing parameters
03 p0526 N93-13824
The formation of ore mineral deposits on the Moon: A feasibility study 03 p0760 N93-13974
Viscosity of liquids. Halogenated methanes
[ESDU-92028] 04 p0839 N93-14539
Thermophysical properties of nitric oxide
[ESDU-92027] 04 p0839 N93-14544
A high pressure aerosol generator for viscous fluids
[AD-A256269] 05 p1157 N93-16401
High temperature smart sensors and actuators
[AD-A256985] 05 p1158 N93-16517
Predicting viscosities of aqueous salt mixtures
[DE93-002421] 06 p1483 N93-18523
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Measurement and interpretation of crustal deformation rates associated with postglacial rebound
[NASA-CR-192245] 07 p1996 N93-20238
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
Repairing delaminations with low viscosity epoxy resins 07 p1844 N93-21532
On the nonlinear interfacial instability of rotating core-annular flow
[NASA-CR-191432] 08 p2289 N93-22811
Thermophysical properties
[DE93-007807] 08 p2220 N93-22916
Poloidal variation of viscous forces in the banana collisionality regime
[DE93-006822] 08 p2499 N93-24504
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-007809] 08 p2243 N93-24506
Tables for the thermophysical properties of ethane
[PB93-160786] 09 p2646 N93-26319
On the stability of finite plastic deformations
[AD-A261526] 09 p2730 N93-26361
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Collective dynamics in dense fluid mixtures
10 p3041 N93-28069
Macrostatistical hydrodynamics
[DE93-012289] 11 p3417 N93-28751
Interfacial viscosity measurements of adsorbed monolayers on metal surfaces
[AD-A263288] 11 p3324 N93-29803
Long discontinuous fiber composite structure: Forming and structural mechanics 11 p3301 N93-30437
Viscosities of molten slags
[NPL-DMM(A)-55] 12 p3705 N93-31321
Materials compatibility and lubricants research on CFC-refrigerant substitutes
[DE93-014770] 12 p3711 N93-32292
Solubility, viscosity and density of refrigerant/lubricant mixtures
[DE93-014771] 12 p3711 N93-32293

VISCOUS DAMPING
NT VISCOELASTIC DAMPING
An experimental and a theoretical investigation of rotor pitch damping using a model rotor
01 p0008 N93-10322
Response of a beam to transverse impulsive and high frequency loads 01 p0056 N93-10526
An active Z gravity compensation system
[AD-A255258] 04 p0889 N93-14529
Asymmetric natural damped frequencies of a rotating infinitely long viscous liquid column
[LRT-WE-9-FB-23-1991] 04 p0878 N93-15120
The direct measurement of damping coefficients using an inverse eigenvalue method
[AD-A258214] 06 p1555 N93-18204
On the effect of acoustic coupling on random and harmonic plate vibrations
[NASA-TM-107740] 09 p2844 N93-25189
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Experimental and analytical investigation of finger-follower cam systems 11 p3446 N93-30378
Basic structural dynamics 12 p3741 N93-32271

VISCOUS FLOW
NT BOUNDARY LAYER FLOW
NT BOUNDARY LAYER SEPARATION
NT COUETTE FLOW
NT REATTACHED FLOW
NT SECONDARY FLOW
NT SEPARATED FLOW
NT STOKES FLOW
Numerical methods for inviscid and viscous flow analysis 01 p0077 N93-10055
Finite difference methods for incompressible viscous flow in scientific computing
[AD-A253512] 01 p0079 N93-10220
High-speed viscous flows past blunt bodies and compression corners with flux-split methods
[AD-A253413] 01 p0081 N93-10410
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
High-resolution TVD schemes for the analysis of: 1. Inviscid supersonic and transonic flows. 2. Viscous flows with shock-induced separation and heat transfer
01 p0005 N93-10889
Fundamental solutions and boundary element formulations for convective fluid flow
02 p0298 N93-11217
Review of preconditioning methods for fluid dynamics
[NASA-CR-189712] 02 p0198 N93-11607
Numerical modeling of a vortex stabilized arcjet
02 p0232 N93-11889
Flow in curved ducts of varying cross-section
[AD-A254660] 02 p0306 N93-12245
An attempt at a status report on a fast-moving target: CFD --- computational fluid dynamics
[DE92-017432] 03 p0576 N93-12839
Boundary element methods for two-dimensional, coupled, thermoviscous flow 03 p0584 N93-13383
A compressible boundary layer algorithm for use with SINDA '85 03 p0585 N93-13395
Development and computation of continuum higher order constitutive relations for high-altitude hypersonic flow 03 p0494 N93-13578
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow
03 p0495 N93-13746
Linear stability theory of hypersonic, chemically reacting viscous flows 03 p0588 N93-13765
A time domain numerical theory for studying steady-state acoustic disturbance in flow 03 p0700 N93-13770
Structure of and dynamical processes in the Earth's magnetopause and boundary layer regions
03 p0657 N93-13793
Computer modeling of flow and transport interactions for compressible Navier-Stokes equations
03 p0589 N93-13825
Numerical investigation of non-spherical droplet dynamics in viscous convective flows
03 p0591 N93-13918
Unsteady three-dimensional thin-layer Navier-Stokes solutions for turbomachinery in transonic flow
03 p0593 N93-14025
An algebraic turbulence model for three-dimensional viscous flows
[NASA-TM-105931] 04 p0777 N93-14102

A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Numerical modeling of a vortex stabilized arcjet [NASA-CR-190797] 04 p0826 N93-14883
On the nonlinear three dimensional instability of Stokes layers and other shear layers to pairs of oblique waves [NASA-TM-105918] 04 p0880 N93-15499
Prediction of turbine cascade flows with a quasi-three-dimensional rotor viscous code and the extension of the algebraic turbulence model [AD-A256831] 04 p0880 N93-15635
Turbulent boundary-layer fluctuations at the solid interface [AD-A257253] 05 p1154 N93-15821
High temperature smart sensors and actuators [AD-A256985] 05 p1158 N93-16517
Navier-Stokes calculation of transonic flow past the NTF 65-deg delta wing 05 p1057 N93-16797
H-P adaptive methods for finite element analysis of aerothermal loads in high-speed flows [NASA-CR-189739] 06 p1525 N93-18093
A Blottner type numerical model for nonequilibrium viscous hypersonic flows in upwind finite elements [INRIA-RR-1476] 06 p1407 N93-18648
Influence of the physical modelling of viscous terms on hypersonic flow computations [INRIA-RR-1493] 06 p1408 N93-18652
Numerical investigation of performance degradation of wings and rotors due to icing [NASA-CR-192233] 06 p1440 N93-18783
The effects of viscosity on a conically derived waverider [AD-A259019] 06 p1534 N93-19101
Numerical simulations of supersonic flow by a fourth-order compact MUSCL TVD scheme 06 p1414 N93-19308
Perturbation problems in fluid dynamics [AD-A258934] 06 p1535 N93-19450
The semi-discrete Galerkin finite element modelling of compressible viscous flow past an airfoil [NASA-CR-192161] 07 p1760 N93-20018
Numerical solution of three-dimensional unsteady viscous flows [AD-A259464] 07 p1899 N93-20244
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics [NASA-CR-192282] 07 p1761 N93-20256
A comparison of computational fluid dynamics computer programs for hypersonic propulsive nozzle flowfields [AD-A259146] 07 p1900 N93-20408
Computation of incompressible viscous flows through turbopump components [NASA-CR-192296] 07 p1901 N93-20753
Calculation of hypersonic, viscous, non-equilibrium flows around reentry bodies using a coupled boundary layer/Euler method [MBB-LME-211-S-PUB-0487] 07 p1762 N93-21058
Large-scale computation of incompressible viscous flow by least-squares finite element method [NASA-TM-105904] 08 p2467 N93-22825
Development of iterative techniques for the solution of unsteady compressible viscous flows [NASA-CR-192636] 08 p2296 N93-23724
Prediction of forces and moments for hypersonic flight vehicle control effectors [NASA-CR-193033] 09 p2595 N93-24762
Computation of hypersonic viscous flowfields using the parabolized Navier-Stokes equations 09 p2694 N93-24766
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow [DE93-003362] 09 p2695 N93-24963
The steady Navier-Stokes problem for low Reynolds number viscous jets 09 p2698 N93-25264
Numerical modelling of viscous turbomachinery flows with a pressure correction method 09 p2594 N93-25702
The rate form of equilibrium equation for problems of steady-state, elastic, viscous flows 09 p2704 N93-25708
Thermocapillary flow near a cold wall [AD-A261050] 09 p2706 N93-25779
Model fan passage flow simulation [AD-A261613] 09 p2707 N93-26167
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control [NASA-CR-191442] 10 p3037 N93-27008
The generation of side force by distributed suction [NASA-CR-193129] 10 p3039 N93-27151
Efficient simulation of incompressible viscous flow over multi-element airfoils 10 p2933 N93-27443
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Adaptive multigrid domain decomposition solutions for viscous interacting flows 10 p2937 N93-27463
A robust quasi-simultaneous interaction method for a full potential flow with a boundary layer with application to wing/body configurations 10 p2937 N93-27465
Ship viscous flow: A report on the 1990 SSPA-IIHR Workshop 10 p2937 N93-27466
Navier-Stokes simulation of viscous, separated, supersonic flow over a projectile rotating band [AD-A263073] 10 p2938 N93-27955
Axisymmetric vortex sheet roll-up 10 p2938 N93-28078
Mesh adaption for compressible flows [INRIA-RR-1683] 10 p3043 N93-28443
Accelerated motion of rigid spheres in unsteady flows at low to moderate Reynolds numbers 11 p3416 N93-28612
Moment approach to fast ion neoclassical transport and viscous forces [DE93-753305] 11 p3585 N93-28979
Nonlinear stability of viscous shock waves [TRITA-NA-9205] 11 p3419 N93-29025
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
The 3-D viscous flow CFD analysis of the propeller effect on an advanced ducted propeller subsonic inlet [NASA-TM-106240] 11 p3252 N93-29162
Velocity measurements of low Reynolds number tube flow using fiber-optic technology [DE93-009865] 11 p3422 N93-29335
Geochemical and fluid dynamic investigations into the nature of chemical heterogeneity in the Earth's mantle [AD-A262753] 11 p3477 N93-29405
Simulation, characterization and control of forced unsteady viscous flows using Navier-Stokes equations [AD-A264333] 11 p3425 N93-30369
Some implications of a differential turbomachinery equation with viscous correction [AD-A264693] 11 p3427 N93-30571
Three-dimensional analysis of the Pratt and Whitney alternate design SSME fuel turbine 12 p3697 N93-31584
Reynolds number influences in aeronautics [NASA-TM-107730] 12 p3673 N93-31732
Numerical simulation of the flow in a 1:57-scale axisymmetric model of a large blast simulator [AD-A265551] 12 p3685 N93-31916
Calculations on unsteady type 4 interaction at Mach 8 [AD-A265214] 12 p3673 N93-32004

VISCOUS FLUIDS

Regular and chaotic mixing of viscous fluids in eccentric rotating cylinders 02 p0305 N93-12157
Solution of viscous flow problems by using the boundary element method 03 p0588 N93-13609
Numerical and experimental study of bubble growth in highly viscous fluids 04 p0874 N93-14465
Asymmetric natural damped frequencies of a rotating infinitely long viscous liquid column [LRT-WE-9-FB-23-1991] 04 p0878 N93-15120
Transient response of a viscous liquid bridge of finite length and anchored edges [LRT-WE-9-FB-25-1991] 04 p0878 N93-15132
A high pressure aerosol generator for viscous fluids [AD-A256269] 05 p1157 N93-16401
Response of a viscous liquid column with anchored edges to axial excitations [LRT-WE-9-FB-7-1991] 05 p1164 N93-17550
A numerical simulation of flows around a deformable gas bubble 06 p1413 N93-19300
On the instability of the flow in an oscillating tank of fluid [NASA-CR-191424] 10 p3037 N93-26896

VISIBILITY

Video camera as a visual sensor [NAL-TR-1132] 02 p0314 N93-12373
Evaluation of alternatives for increasing A-7D rearward visibility [AD-A255071] 02 p0208 N93-12488
Wintertime meteorology of the Grand Canyon region [DE93-001557] 05 p1216 N93-17179
Dust control for Enabler [NASA-CR-192065] 05 p1180 N93-17774
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Sensory sensitivities and discriminations and their roles in aviation [AD-A259742] 08 p2424 N93-23479
Development and application of procedures to evaluate air quality and visibility impacts of low-altitude flying operations [AD-A259903] 08 p2408 N93-23990
Runway Visual Range (RVR) Operational Test and Evaluation (OT&E) integration and OT&E operational test report [DOT/FAA/CT-TN92/37] 09 p2584 N93-25243
An automated observing system for passive evaluation of cloud cover and visibility [AD-A263207] 11 p3481 N93-28875
Preliminary evaluation of aviation-impact variables derived from numerical models [PB93-190197] 12 p3767 N93-31202

VISIBLE INFRARED SPIN SCAN RADIOMETER

A noise level analysis of special multiple-spin VAS data during storm-fest [NOAA-TR-NESDIS-65] 10 p3071 N93-27079

VISIBLE RADIATION

U LIGHT (VISIBLE RADIATION)

VISIBLE SPECTRUM

A study of an optically pumped free-jet molecular iodine laser operating in the visible spectrum 04 p0884 N93-14141
Equipment, more or less ready to be used in helicopters 06 p1612 N93-19785
Visible spectrum of stable sonoluminescence [AD-A262096] 10 p3032 N93-28188
Visible imaging on the Pluto fast flyby mission 11 p3646 N93-28799
Honeywell's compact, wide-angle UV-visible imaging sensor 11 p3582 N93-28806

VISION

NT BINOCULAR VISION
NT COLOR VISION
NT MONOCULAR VISION
NT NIGHT VISION
NT PERIPHERAL VISION
NT STEREOSCOPIC VISION
Eye movements and visual information processing [AD-A250198] 01 p0132 N93-10278
A new test of scanning and monitoring ability: Methods and initial results [AD-A249123] 01 p0132 N93-10321
Functional MRI studies of human vision on a clinical imager [DE92-017448] 03 p0674 N93-12566
Valency of different information categories and its importance for the effectiveness of image analysis by the visual system and automatic systems 08 p2354 N93-23577
The prevalence of artificial lens implants in the civil airman population [DOT/FAA/AM-92/14] 09 p2794 N93-25214
Receptoral and neural aliasing [AD-A261438] 09 p2799 N93-26489
Armstrong Laboratory space visual function tester program 11 p3267 N93-28739
Effect of microgravity on several visual functions during STS Shuttle missions: Visual Function Tester-Model 1 (VFT-1) 11 p3268 N93-28740
Effect of microgravity on visual contrast threshold during STS Shuttle missions: Visual Function Tester-Model 2 (VFT-2) 11 p3268 N93-28741
Effect of microgravity on the visual near point: Visual Function Tester-Model 4 (VFT-4) 11 p3268 N93-28742
Analysis of visual loss from retinal lesions [AD-A264692] 11 p3496 N93-30494
Photoreceptors regulating circadian behavior: A mouse model [AD-A264881] 11 p3497 N93-30908
The test memorization of symbols and numbers: A computer generated test for visual sensitivity 12 p3775 N93-31233

VISORS

Toward the ideal military aviation sunglass [AD-A258200] 06 p1606 N93-18200
Multi-function visor 06 p1609 N93-19770
Helmet visor support apparatus [AD-D015684] 11 p3507 N93-29606

VISUAL ACUITY

Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems [AD-A252116] 01 p0158 N93-10708
Analysis of retinal function following laser irradiation [AD-A255649] 04 p0933 N93-14163
Higher order mechanisms of color vision [AD-A256369] 04 p0938 N93-15329
Night vision manual for the flight surgeon [AD-A257059] 05 p1227 N93-15710
Realization of real time graphics in vehicles with high dynamic motion [ETN-93-92739] 06 p1622 N93-18630
Retinal information processing for minimum laser lesion detection and cumulative damage [AD-A259195] 07 p2023 N93-20563
Armstrong Laboratory space visual function tester program 11 p3267 N93-28739
Effect of microgravity on several visual functions during STS Shuttle missions: Visual Function Tester-Model 1 (VFT-1) 11 p3268 N93-28740

VISUAL AIDS

Operator vision aids for space teleoperation assembly and servicing 02 p0391 N93-11981

Performing a successful audience analysis: How to improve your proposal-writing skills
[DE92-018978] 02 p0479 N93-12068
Efficacy of multimedia instruction and an introduction to digital multimedia technology
[AD-A254509] 03 p0734 N93-12723
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
Improved visual aid for VLF MSK signals
[AD-D015576] 07 p1882 N93-20277
Production of teaching materials from Geostationary Meteorological Satellite Himawari images
07 p1978 N93-21544
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Off-shore platform identification signs
[CAA-PAPER-92006] 08 p2123 N93-24124
Review of the effectiveness of video media in instruction
[AD-A264228] 11 p3392 N93-30362

VISUAL CONTROL
Robotic Variable Polarity Plasma Arc (VPPA) welding
09 p2720 N93-25605

VISUAL DISCRIMINATION
Computer simulations of object discrimination by visual cortex
[AD-A253345] 01 p0131 N93-10271
A spurious pop-out in visual search
[AD-A256548] 04 p0936 N93-14267
Institute for the Study of Human Capabilities
[AD-A256091] 04 p0938 N93-14427
Higher order mechanisms of color vision
[AD-A256369] 04 p0938 N93-15329
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
Studies of the effect of image degradation and recombination on visual perception
[AD-A264332] 11 p3580 N93-30368

VISUAL DISPLAYS
U DISPLAY DEVICES

VISUAL FIELDS
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
Multidimensional signal coding in the visual system
[AD-A259836] 08 p2488 N93-23696
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Neuropsychological components of object identification
[AD-A261449] 09 p2797 N93-26347
Receptoral and neural aliasing
[AD-A261438] 09 p2799 N93-26489
Visual field information in nap-of-the-Earth flight by teleoperated helmet-mounted displays
10 p2920 N93-27177
Principal components of natural images: An analytical solution
[AD-A264800] 11 p3489 N93-30603

VISUAL FLIGHT
Visual autonomous automatic landing of airplanes
08 p2121 N93-22791
Visual approach data collection at St. Louis Lambert Field (STL)
[DOT/FAA/CT-TN93/2] 09 p2584 N93-24948

VISUAL FLIGHT RULES
Rotorcraft en route ATC route standards
[AD-A249129] 01 p0006 N93-10323

VISUAL OBSERVATION
A study of the luminosity produced by an electron beam-emitting rocket in the polar ionosphere: ECHO 7
03 p0657 N93-13830
Correlated optical observations with BATSE/CGRO on SCO X-1
05 p1344 N93-17313
Geology of the Apollo 17 site
06 p1738 N93-18803
Light curve and fan-shaped coma of comet P/Tempel 2 in 1988-1989
06 p1700 N93-19114
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations
06 p1705 N93-19154
Visual data of minor meteor showers limits of the method
06 p1715 N93-19229
Stratiform clouds and their interaction with atmospheric motion
[NASA-CR-192280] 07 p2002 N93-20038
Apparatus and method for computer vision measurements
[PB93-135077] 08 p2432 N93-22536
LDEF materials data analysis: Representative examples
10 p2998 N93-28285
Horizontal nucleate flow boiling heat transfer coefficient measurements and visual observations for R12, R134a, and R134a/ester lubricant mixtures
[PB93-178598] 11 p3475 N93-30887

VISUAL PERCEPTION
NT SPACE PERCEPTION
NT VISUAL DISCRIMINATION
Eye movements and visual information processing
[AD-A250198] 01 p0132 N93-10278
Perception of lightness and brightness in complex patterns
[AD-A254093] 01 p0133 N93-10658
Effects of early bright, late bright and dim illumination upon circadian neuroendocrine, electrophysiological and behavioral responses
[AD-A254129] 01 p0131 N93-10661
Coordinated action in 3-D space
[AD-A249830] 02 p0387 N93-10994
Visual psychophysics of egomotion
[AD-A248349] 02 p0386 N93-11488
Visual perception of structure from motion
[AD-A253235] 02 p0386 N93-11503
The effects of luminance boundaries on color perception
[AD-A250705] 02 p0384 N93-11841
Effects of spatially displaced feedback on remote manipulation tasks 02 p0400 N93-11966
A spurious pop-out in visual search
[AD-A256548] 04 p0936 N93-14267
Effects of spatial luminance nonuniformities on visual-task performance and subjective uniformity
[AD-A255989] 04 p0936 N93-14416
Psychophysical analyses of perceptual representations
[AD-A255432] 04 p0936 N93-14510
Geometric invariants and object recognition
[AD-A255317] 04 p0943 N93-14546
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Multisensor perception and scene interpretation
[LAAS-91305] 05 p1304 N93-17406
Automatic information processing and high performance skills: Individual differences and mechanisms of performance improvement in search-detection and complex tasks
[AD-A257711] 05 p1226 N93-17684
The forward masking effects of low-level laser glare on target location performance in a visual search task
[AD-A258022] 05 p1175 N93-17703
The detection of lateral motion by US Navy jet pilots
[AD-A258115] 06 p1595 N93-17896
Spatio-temporal masking: Hyperacuity and local adaptation
[AD-A257934] 06 p1595 N93-18006
Toward the ideal military aviation sunglass
[AD-A258200] 06 p1606 N93-18200
Computational and neural network models for the analysis of visual texture
[AD-A258166] 06 p1632 N93-18296
Validity of clinical color vision tests for air traffic control specialists
[AD-A258219] 06 p1597 N93-18301
Effect of contrast on human speed perception
[NASA-TM-103898] 06 p1607 N93-19104
Otolithic illusions on takeoff and visual information: Reflections in connection with an air accident case
06 p1426 N93-19681
Engineering the visibility of small features on electronic flight displays 06 p1607 N93-19758
Image quality measurement techniques
[INPE-5362-NTC/302] 06 p1664 N93-19794
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
A PARC system for terminal docking
08 p2141 N93-22259
A vector signal processing approach to color
[AD-A259499] 08 p2487 N93-23465
Sensory sensitivities and discriminations and their roles in aviation
[AD-A259742] 08 p2424 N93-23479
Multidimensional signal coding in the visual system
[AD-A259836] 08 p2488 N93-23696
Theory of synaptic plasticity in visual cortex
[AD-A260052] 08 p2424 N93-23960
Why do we see three-dimensional objects?
[AD-A259892] 08 p2424 N93-23986
Apparent opacity affects perception of structure from motion
[AD-A260099] 08 p2488 N93-24054
Theory of synaptic plasticity in visual cortex
[AD-A260322] 08 p2422 N93-24238
What makes a good feature?
[AD-A259962] 08 p2463 N93-24249
Eye movements and visual information processing
[AD-A259955] 08 p2425 N93-24297
Human visual limitations on suprathreshold contrast perception through ANVIS
[AD-A259970] 08 p2425 N93-24431
Visual processing of object velocity and acceleration
[AD-A261048] 09 p2800 N93-25778
Perceptual factors that influence use of computer enhanced visual displays
[NASA-CR-192961] 09 p2811 N93-26150
Visual perception of elevation
[AD-A261394] 09 p2797 N93-26307
Neural basis of motion perception
[AD-A261452] 09 p2798 N93-26349
Coordinated action in 3-D space
[AD-A261418] 09 p2799 N93-26449
Effect of microgravity on the visual near point: Visual Function Tester-Model 4 (VFT-4)
11 p3268 N93-28742
Vision-based control of holonomic robots for 3-dimensional rigid-body positioning using camera-space manipulation 11 p3578 N93-29178
Head mounted displays for virtual reality
[AD-A263498] 11 p3506 N93-29340
A tutorial on exit pupils and eye rotation with virtual image optical displays
[AD-A262399] 11 p3494 N93-29400
Quantitative analysis of properties and spatial relations of fuzzy image regions 11 p3510 N93-29523
A comparison of simulated parallax and single-station range aids to navigation
[AD-A263460] 11 p3246 N93-29818
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264056] 11 p3499 N93-30033
Representations of shape in object recognition and long-term visual memory
[AD-A264342] 11 p3499 N93-30163
Studies of the effect of image degradation and recombination on visual perception
[AD-A264332] 11 p3580 N93-30368
Conspicuity of aids to navigation. Part 1: Temporal patterns for flashing lights
[AD-A264626] 11 p3499 N93-30426
Effects of area-of-interest display characteristics of visual search performance and head movements in simulated low-level flight
[AD-A264661] 11 p3499 N93-30542
The dynamics of visual representation, attention, encoding, and retrieval processes
[AD-A264674] 11 p3500 N93-30543
Discomfort glare from high-intensity discharge headlamps: Effects of context and experience
[PB93-174720] 11 p3496 N93-30659
An algorithm for simple and complex feature detection: From retina to primary visual cortex
[AD-A264306] 11 p3497 N93-30897
Computing with neural maps: Application to perceptual and cognitive function
[AD-A264092] 12 p3743 N93-31060
The aircraft position tests: A computer generated process for acquisition of spatial orientation capability
12 p3776 N93-31236

VISUAL SIGNALS
Super auditory localization for improved human-machine interfaces
[AD-A254699] 02 p0389 N93-12229
Visual system performance for driving simulators
[MBB-FE-521-S-PUB-0497] 08 p2132 N93-22393
Theory of signal detection and its application to visual target acquisition: A review of the literature
[AD-A262920] 10 p3085 N93-28307

VISUAL STIMULI
The effects of luminance boundaries on color perception
[AD-A250705] 02 p0384 N93-11841
Perceptual dimensions of visual scenes relevant for simulating low-altitude flight
[AD-A254645] 03 p0676 N93-12662
The perception of articulated motion: Recognizing moving light displays
[AD-A256046] 04 p0937 N93-14660
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
Topography from shading and stereo
09 p2879 N93-25803

VISUAL TASKS
A spurious pop-out in visual search
[AD-A256548] 04 p0936 N93-14267
Effects of spatial luminance nonuniformities on visual-task performance and subjective uniformity
[AD-A255989] 04 p0936 N93-14416
Enhanced performance using physiological feedback
[AD-A258006] 06 p1601 N93-17816
Effects of terfenadine and diphenhydramine on brain activity and performance in a UH-60 flight simulator
[AD-A258012] 06 p1594 N93-17817

Eye movements under altered gravitoinertial forces
07 p1809 N93-21111
Visual system performance for driving simulators
[MBB-FE-521-S-PUB-0497] 08 p2132 N93-22393
Duration of alpha suppression increases with angle in a mental rotation task
[AD-A261592] 09 p2798 N93-26435
Effect of microgravity on visual contrast threshold during STS Shuttle missions: Visual Function Tester-Model 2 (VFT-2) 11 p3268 N93-28741
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Studies of the effect of image degradation and recombination on visual perception
[AD-A264332] 11 p3580 N93-30368
A preliminary empirical evaluation of virtual reality as an instructional medium for visual-spatial tasks
12 p3784 N93-32151

VISUAL TRACKING
U OPTICAL TRACKING
VISUALIZATION OF FLOW
U FLOW VISUALIZATION
VITAMIN B 6
U PYRIDOXINE
VITAMIN C
U ASCORBIC ACID
VITAMINS
NT ASCORBIC ACID
NT PYRIDOXINE
VITERBI DECODERS
High-speed architecture for the decoding of trellis-coded modulation
[NASA-CR-191374] 04 p0941 N93-14770
CMOS circuit technique for integrated Viterbi decoders
[ETN-93-92568] 07 p1892 N93-20882
A low-complexity and high performance concatenated coding scheme for high-speed satellite communications
[NASA-CR-192715] 09 p2673 N93-25198
A systolic-array structure for MTCM receivers
11 p3357 N93-30236
A single chip high-speed CMOS Viterbi decoder
11 p3358 N93-30238
Trellis coded modulation applied to orthogonal signals
[AD-A265232] 12 p3717 N93-32060
VITON RUBBER (TRADEMARK)
Effects of atomic oxygen and ultraviolet radiation on candidate elastomeric materials for long duration missions. Test series no.1
[NASA-TM-108408] 11 p3331 N93-29193
VITREOUS MATERIALS
Lightweight solar concentrator structures, phase 2
[NASA-CR-191068] 08 p2203 N93-22674
VITRIFICATION
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
VLASOV EQUATIONS
A low velocity approximation for the relativistic Vlasov-Maxwell system
[AD-A258300] 06 p1685 N93-18100
Vlasov equation in the stochastic magnetic field
[NIFS-171] 07 p2075 N93-21567
Equilibria and stability of non-adiabatic Vlasov-Maxwellian plasmas 08 p2497 N93-23998
Effect of continuous eigenvalue spectrum on plasma transport in toroidal systems
[NIFS-214] 09 p2859 N93-25215
VLBI
U VERY LONG BASE INTERFEROMETRY
VLSI
U VERY LARGE SCALE INTEGRATION
VOCODERS
A mixed excitation vocoder with fuzzy logic classifier
[AD-A256834] 04 p0864 N93-15636
Nonlinear processing of phase vocoded speech
11 p3355 N93-30219
On subband coding/embedded vector quantization for speech coding 11 p3355 N93-30220
VOICE COMMUNICATION
NT TELEPHONY
Evaluation of lightweight and low profile communications devices for Respiratory Protective system 21 (RESPO 21)
[AD-A253393] 01 p0133 N93-10217
Evaluation of an electronics system concept for Respiratory Protection system (RESPO 21)
[AD-A253394] 01 p0134 N93-10288
The development of the speaker independent ARM continuous speech recognition system
[RSRE-MEMO-4473] 02 p0280 N93-11383
Preliminary results on the use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4511] 02 p0280 N93-11384
The use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4512] 02 p0280 N93-11385
Diagnostic rhyme test statistical analysis programs
[RSRE-91026] 02 p0281 N93-11487
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
System design and development of a low data rate voice (1200 bps) rate converter
[AD-A256071] 04 p0859 N93-14663
NPR and intermodulation in mobile satellite systems
04 p0806 N93-14931
Progress toward a full scale mobile satellite system for Canada 04 p0812 N93-14960
Co-channel speaker separation
[AD-A256443] 04 p0861 N93-15317
Fast training of a high-speed voice and data modem receiver
[ACTA-POLYTEC-SCAND-EL-67]
05 p1140 N93-17632
Advances in speech processing
06 p1517 N93-19771
The use of voice processing for some aspects of the pilot-vehicle-interface in an aircraft
06 p1610 N93-19772
Principles for integrating voice I/O in a complex interface 06 p1610 N93-19774
G-load effects and efficient acoustic parameters for robust speaker recognition 06 p1610 N93-19775
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Newly available technologies present expanding opportunities for scientific and technical information exchange
[NASA-CR-4494] 08 p2261 N93-22470
A hybrid voice/data modulation for the VHF aeronautical channels 08 p2106 N93-22567
High Arctic high frequency radio communications and a seven day polar cap absorption event
[DREP-TM-91-18] 08 p2264 N93-23344
Airline applications in air-/ground communication using advanced technologies 08 p2275 N93-23514
A current assessment of single site locating technology 08 p2267 N93-23608
A low-delay backward-adaptive CELP speech coder
[ISBN-0-315-60461-1] 08 p2274 N93-24618
Speech research
[AD-A260643] 09 p2675 N93-25639
Admission control in integrated voice/data multihop radio networks
[AD-A261055] 09 p2680 N93-26227
Iridium: Covering the globe with personal communication 10 p3022 N93-26644
Satellite communication services for Tibet autonomous region by domestic satellite in China
10 p3023 N93-26650
High data rate long pulse compression waveform communication system for M-ray encoding voice messages for air traffic control systems
[AD-D015682] 10 p3026 N93-27007
Comparison of multiple access techniques for bandwidth limited land-mobile satellite communications
11 p3370 N93-30314
Constant Average Power Single Sideband (CAPSSB) modulation 11 p3373 N93-30331
An analysis of en route controller-pilot voice communications
[AD-A264784] 11 p3394 N93-30611
Newly availeble technologies present expanding opportunities for scientific and technical information exchange 12 p3837 N93-31217
The clearance test: A computer generated process for acquisition of auditive short term sensitivity
12 p3776 N93-31234

VOICE CONTROL
Ocular attention-sensing interface system
[NASA-CR-190884] 03 p0678 N93-13450
Fuzzy set approach to quality function deployment: An investigation 05 p1274 N93-16779
Voice control of a dual-arm telerobot
06 p1549 N93-19044
Fly-by voice, a technology demonstration
06 p1444 N93-19918
A simulation study of the effects of communication delay on air traffic control
[AD-A258593] 07 p1778 N93-19966
Micro-video display with ocular tracking and interactive voice control 08 p2433 N93-22172
VOICE DATA PROCESSING
NT CEPSTRAL ANALYSIS
Speech recognition systems and their military applications
[BR91882] 02 p0280 N93-11366
Preliminary results on the use of linear discriminant analysis in the ARM continuous speech recognition system
[RSRE-MEMO-4511] 02 p0280 N93-11384
High Capacity Voice Recorder (HCVR) Operational Test and Evaluation (OT/E) integration test report
[DOT/FAA/CT-TN92/30] 02 p0310 N93-11460
Diagnostic rhyme test statistical analysis programs
[RSRE-91026] 02 p0281 N93-11487
Transputer implementation of the TRACE model of speech recognition
[AD-A254747] 03 p0689 N93-12846
Perception-based and machine-oriented signal processing within speech understanding systems
03 p0692 N93-13239
MINT: The multiple error LMS algorithm, and the design of inverse filters for multi-channel sound reproduction systems
[ISVR-TR-211] 03 p0700 N93-13439
Talking to InterFIS: Adding speech input to a natural language interface
[AD-A255865] 03 p0688 N93-13942
Multi-access strategies for voice/data integration in heterogeneous mixed-media packet radio networks
[AD-A255636] 04 p0857 N93-14181
A mixed excitation vocoder with fuzzy logic classifier
[AD-A256834] 04 p0864 N93-15636
A segmental hidden Markov model for speech pattern processing
[AD-A258220] 06 p1501 N93-18023
Advances in speech processing
06 p1517 N93-19771
Efficient derivation and approximation of cepstral coefficients for speech coding
[AD-A259147] 07 p2032 N93-20409
Frequency domain speech compression using the Karhunen-Loeve Transform
[AD-A262613] 11 p3379 N93-28476
Nonlinear processing of phase vocoded speech
11 p3355 N93-30219
On subband coding/embedded vector quantization for speech coding 11 p3355 N93-30220
VOICE OF AMERICA
Direct Broadcast Satellite: Radio Program
[NASA-TM-105910] 02 p0224 N93-11430
VOID RATIO
Hyperbolic conservation laws with umbilic points, 1
[AD-A254431] 03 p0696 N93-12594
Internal structure and interfacial area in two-phase flow systems
[DE93-000921] 07 p1903 N93-21672
VOIDS
Method and apparatus for evaluating multilayer objects for imperfections
[NASA-CASE-LAR-14581-1-SB]
02 p0333 N93-12204
Ductile fracture process of discontinuous fiber reinforced composites
[DE92-016298] 03 p0531 N93-13264
Metal-coated, ordered void piezoelectric ceramic material
[AD-D015540] 07 p1859 N93-20304
Peak stresses in adhesive step lap joints with voids
07 p1932 N93-20656
Role of porosity in estimates of composite elastic constants
[DE93-002887] 07 p1845 N93-21989
Solute binding at void surfaces in silicon and germanium
[DE93-004504] 08 p2233 N93-24048
Improved composite fabrication process
[AD-D015679] 09 p2640 N93-26145
NDE of PWA 1480 single crystal turbine blade material
[NASA-TM-106140] 10 p2945 N93-27640
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Mechanisms of fracture and creep of structural alloys
[AD-A263108] 11 p3324 N93-29799
VOIGT EFFECT
The Lyman alpha forest of the high-z quasar 0000-263
10 p3203 N93-26890
VOLATILITY
Advanced heat pump for the recovery of volatile organic compounds
[DE92-011592] 02 p0303 N93-11774
Vapor to liquid ratio test as an indicator of volatility
[DOT/FAA/CT-TN92/40] 03 p0537 N93-12897
Abundance of He-3 and other solar-wind-derived volatiles in lunar soil 10 p3209 N93-26692
VOLATILIZATION
U VAPORIZING
VOLCANICS
U VOLCANOLOGY

VOLCANOES
NT MARS VOLCANOES
Simulated meteorite impacts and volcanic explosions: Ejecta analyses and planetary implications
01 p0111 N93-10143
Ar-40 to Ar-39 dating of pseudotachylites from the Witwatersrand basin, South Africa, with implications for the formation of the Vredefort Dome
01 p0122 N93-10189
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Volcanology from space: Applications of infrared remote sensing 02 p0343 N93-11213
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
The morphotectonic fabric of the East Pacific Rise: Implications for fault generation and crustal accretion
03 p0652 N93-13481
Effects of the Mt. Pinatubo eruption on the radiative and chemical processes in the troposphere and stratosphere
[DE92-019618] 03 p0646 N93-13654
Surface processes on Venus
04 p1024 N93-14294
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Coldspots or hotspots? The origin of plateau-shaped highlands on Venus 04 p1025 N93-14298
Monte Carlo modeling of the resurfacing of Venus
04 p1025 N93-14299
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Polarization properties and Earth-based radar measurements of Venus in the post-Magellan era
04 p1026 N93-14304
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Venusian hydrology: Steady state reconsidered
04 p1028 N93-14318
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Igneous and tectonic evolution of Venusian and terrestrial coronae 04 p1031 N93-14330
Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Large-volume lava flow fields on Venus: Dimensions and morphology 04 p1033 N93-14339
Estimates of elastic plate thicknesses beneath large volcanos on Venus 04 p1035 N93-14344
Venus: Preliminary geologic mapping of northern Atla Regio 04 p1037 N93-14353
Venus: Preliminary geologic mapping of southern Beta Regio-northern Phoebe Regio 04 p1037 N93-14354
The origins of radial fracture systems and associated large lava flows on Venus 04 p1038 N93-14356
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
Different types of small volcanos on Venus
04 p1042 N93-14378
Multiresolution pattern recognition of small volcanos in Magellan data 04 p1042 N93-14380
The spatial distribution of coronae on Venus
04 p1043 N93-14383
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Effects of the Mount Pinatubo eruption on the chemistry, radiative, and transport processes in the stratosphere
[DE93-001508] 05 p1203 N93-17211
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
Verification of effectiveness of MOS-1b data in disaster area 08 p2337 N93-22137
Cartography of hazards from geological instabilities: Volcanic regions in Peru 08 p2368 N93-23815
Winter warming from large volcanic eruptions
[NASA-CR-192848] 09 p2763 N93-25244
Chemical transport during formation and alteration of Martian impact and volcanic deposits
12 p3865 N93-31953

VOLCANOLOGY
Coincidences in time of the Imbrium Basin impact and Apollo 15 KREEP volcanic series: Impact-induced melting? 01 p0119 N93-10175
Geological evidence for a 2.6-Ga strewn field of impact spherules in the Hamersley Basin of Western Australia
01 p0120 N93-10181
Al Umchaimin depression, Western Iraq: An impact structure? 01 p0122 N93-10190
Floor-fractured crater models of the Sudbury structure, Canada 01 p0123 N93-10193
Variation in multiring basic structures as a function of impact angle 01 p0123 N93-10194
Volcanology from space: Applications of infrared remote sensing 02 p0343 N93-11213
Quaternary volcanism, tectonics, and sedimentation in the Idaho National Engineering Laboratory area
[DE92-017851] 02 p0362 N93-11692
Models of volcanic eruption hazards
[DE92-013432] 02 p0364 N93-12136
Volcanism in the eastern Hellas region of Mars: The geology of Hadriaca and Tyrrhena Paterae
03 p0768 N93-14092
Constraints on the thermal evolution of Venus inferred from Magellan data 04 p1024 N93-14293
Shield fields: Concentrations of small volcanic edifices on Venus 04 p1024 N93-14295
Monte Carlo modeling of the resurfacing of Venus
04 p1025 N93-14299
Debris avalanches and slumps on the margins of volcanic domes on Venus: Characteristics of deposits
04 p1025 N93-14300
Erosion versus construction: The origin of Venusian channels 04 p1025 N93-14303
Global correlation of volcanic centers on Venus with uplands and with extension: Influence of mantle convection and altitude 04 p1026 N93-14309
Monte Carlo computer simulations of Venus equilibrium and global resurfacing models 04 p1027 N93-14311
Flexural analysis of uplifted rift flanks on Venus
04 p1027 N93-14314
Radar scattering properties of pancakelike domes on Venus 04 p1028 N93-14316
Determining stress states using dike swarms: The Lauma Dorsa example 04 p1028 N93-14319
Tectonics and volcanism of Eastern Aphrodite Terra: No subduction, no spreading 04 p1029 N93-14321
Venus volcanism: A global overview from Magellan data 04 p1029 N93-14323
Chemical differentiation on one-plate planets: Predictions and geologic observations for Venus
04 p1029 N93-14324
Large shield volcanos on Venus: The effect of neutral buoyancy zone development on evolution and altitude distribution 04 p1032 N93-14333
Mantle plumes on Venus revisited
04 p1032 N93-14334
The effects of Venus' thermal structure on buoyant magma ascent 04 p1040 N93-14366
Atla Regio, Venus: Geology and origin of a major equatorial volcanic rise 04 p1041 N93-14374
Different types of small volcanos on Venus
04 p1042 N93-14378
Volcanism by melt-driven Rayleigh-Taylor instabilities and possible consequences of melting for admittance ratios on Venus 04 p1043 N93-14387
Episodic plate tectonics on Venus
04 p1044 N93-14390
Floor-fractured crater models for igneous crater modification on Venus 04 p1044 N93-14393
The target: H2O on the Moon
05 p1388 N93-17250
Workshop on Geology of the Apollo 17 Landing Site
[NASA-CR-191637] 06 p1735 N93-18786
Mare volcanism in the Taurus-Littrow region
06 p1736 N93-18790
Abundances of sodium, sulfur, and potassium in lunar volcanic glasses: Evidence for volatile loss during eruption 06 p1736 N93-18791
neoKREEP: A new lunar component at Apollo 17
06 p1737 N93-18797
Morphology and composition of condensates on Apollo 17 orange and black glass 06 p1737 N93-18802
Sulfur mass loading of the atmosphere from volcanic eruptions: Calibration of the ice core record on basis of sulfate aerosol deposition in polar regions from the 1982 El Chichon eruption
[NASA-CR-192409] 07 p1997 N93-20302
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
Aerogeophysical evidence for active volcanism beneath the West Antarctic Ice Sheet 12 p3761 N93-31895
Effect of subglacial volcanism on changes in the West Antarctic Ice Sheet 12 p3762 N93-31901
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
The application of remotely sensed data to studies of volcanism within the Galapagos Islands
12 p3747 N93-32326

VOLT-AMPERE CHARACTERISTICS
Field emission current-voltage curves as a diagnostic for scanning tunneling microscope tips
[AD-A251171] 01 p0165 N93-10245
Noise measurements of YBa2Cu3O7 thin film high-temperature superconductors
03 p0726 N93-13933
VLSI microelectronics research
06 p1523 N93-18462
A model for voltammograms of the under-potential deposition of copper on solid gold (111) in the presence of bisulfate
[AD-A260309] 08 p2234 N93-24237
Growth, characterization and device development in monocrystalline diamond films
[AD-A263204] 11 p3593 N93-28674
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133

VOLTAGE
U ELECTRIC POTENTIAL

VOLTAGE AMPLIFIERS
Cascaded transformerless DC-DC voltage amplifier with optically isolated switching devices
[NASA-CASE-NPO-17994-1-CU]
06 p1519 N93-18278
Measurement of the dielectric constant of polymeric films at high fields
[PB92-238625] 07 p1860 N93-21471
Design of low-voltage bipolar operational amplifiers
[ISBN-90-9004571-6] 08 p2280 N93-23021

VOLTAGE BREAKDOWN
U ELECTRICAL FAULTS

VOLTAGE CONTROLLED OSCILLATORS
Remotely controlled C band signal generator
[AD-D015602] 07 p1880 N93-20014
Parallel arrays of Josephson junctions for submillimeter local oscillators 10 p3019 N93-27774

VOLTAGE CONVERTERS (DC TO DC)
Optimized design of a 5 kW constant frequency series resonant converter for pulsed load space applications
04 p0807 N93-14935
DC-DC power converter research for Orbiter/Station power exchange
[NASA-CR-192939] 09 p2633 N93-26425

VOLTAGE MEASUREMENT
U ELECTRICAL MEASUREMENT

VOLTAGE REGULATORS
Battery selection for space experiments
03 p0512 N93-13184
Optimized design of a 5 kW constant frequency series resonant converter for pulsed load space applications
04 p0807 N93-14935
Technique for current step measurements on the low field Metal Oxide Varistor (MOV)
[DE93-000843] 05 p1143 N93-15904
A microcomputer compensated crystal oscillator MCXO 09 p2834 N93-25001
Protection and regulation on direct-direct chopping converters
[CNES-NT-129] 12 p3719 N93-31475

VOLTERRA EQUATIONS
Stability of parallel Volterra-Runge-Kutta methods
[CWI-NM-R9207] 10 p3106 N93-27304
Preconditioning in implicit initial value problem methods on parallel computers
[CWI-NM-R9216] 10 p3108 N93-28084

VOLUME
Orthobaric densities and molar volumes of liquids. Halogenated ethylenes
[ESDU-92018] 04 p0839 N93-14540

Direct volume visualization of three-dimensional vector fields
[DE93-009233] 11 p3524 N93-28550

VOLUMETRIC ANALYSIS
Journal of Research of the National Institute of Standards and Technology, May-June 1992, volume 97, number 3
[PB92-217637] 03 p0698 N93-12805
P-V-T surface studies for normal fluid-hydrogen bonding fluid mixtures
[PB93-102242] 07 p1850 N93-21653

VON MISES THEORY
U STRESS FUNCTIONS

VOR SYSTEMS
U VHF OMNIRANGE NAVIGATION

VORTEX ALLEVIATION
Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550
Aerodynamic surface tip vortex attenuation system
[AD-D015606] 07 p1760 N93-20017
Active control of the separation region on a two-dimensional airfoil 08 p2112 N93-23589

VORTEX AVOIDANCE
Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796
Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799

VORTEX BREAKDOWN
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
Analysis and control of asymmetric vortex flows and supersonic vortex breakdown
[NASA-CR-191264] 04 p0875 N93-14687
Shock/vortex interaction and vortex-breakdown modes
[PAPER-T.1.3] 04 p0875 N93-14689
Vortex breakdown incipience: Theoretical considerations
[NASA-CR-189734] 05 p1055 N93-16627
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
Simulation of vortex bursting 09 p2580 N93-25881
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence 10 p2927 N93-27220
Prediction of vortex breakdown on a delta wing 10 p2936 N93-27459
Contribution to the experimental and theoretical study of vortex breakdown
[ONERA-NT-1990-12] 12 p3724 N93-31477

VORTEX COLUMNS
U VORTICES

VORTEX DISTURBANCES
U VORTICES

VORTEX FILAMENTS
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Study of filamentation in subdense plasma interaction experiments 02 p0318 N93-12026

VORTEX FLOW
U VORTICES

VORTEX GENERATION
U VORTEX GENERATORS

VORTEX GENERATORS
Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Static pressure measurements of the shock-boundary layer interaction in a simulated fan passage
[AD-A256724] 05 p1066 N93-15979
An experimental investigation of S-duct flow control using arrays of low-profile vortex generators
[NASA-TM-106030] 07 p1760 N93-19968
Enhanced heat transfer in ribbed ducts using vortex generators
[PB93-114320] 07 p1902 N93-21219
Vortex shedding in oscillatory flow 09 p2700 N93-25438
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648

VORTEX RINGS
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
Dynamics of vortex rings in cross-flow 03 p0496 N93-13917
Axisymmetric vortex sheet roll-up 10 p2938 N93-28078

VORTEX SHEDDING
The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Coherent vortex structure in a two-dimensional excited jet 05 p1160 N93-16811
Experiments on smooth cantilevered circular cylinders in low-turbulence uniform flow. Part 1: Mean loading with aspect ratios in the range 4 to 30
[PB93-111763] 07 p1903 N93-21383
The transient development of vortices over delta wings 09 p2576 N93-25269
Vortex shedding in oscillatory flow 09 p2700 N93-25438
Effect of rotation rate on the forces of a rotating cylinder: Simulation and control
[NASA-CR-191442] 10 p3037 N93-27008
Spurious frequencies as a result of numerical boundary treatments 10 p2919 N93-27170
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171
Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172
Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173
A theoretical and computational study on active wake control 11 p3243 N93-30892

VORTEX SHEETS
Mathematical analysis of strong fluid mechanical effects at high Mach number in reactive and nonreactive flow
[AD-A253617] 01 p0079 N93-10094
Tip-vortex/airframe interactions 08 p2111 N93-23489
Separated flow past smooth slender bodies 08 p2298 N93-24213
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Axisymmetric vortex sheet roll-up 10 p2938 N93-28078
The development of a mixing layer under the action of weak streamwise vortices
[NASA-TM-106089] 11 p3418 N93-28947
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
The structure and dynamics of the vorticity and passive scalar fields at small scales in homogeneous isotropic turbulence 11 p3427 N93-30625
Localization and transport in random media
[AD-A264640] 12 p3726 N93-32014

VORTEX STREETS
NT KARMAN VORTEX STREET
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
Contribution to the study of the interaction between acoustic waves and coherent structures induced by a prismatic cylinder in a rectangular cavity
[ONERA-NT-1990-10] 11 p3314 N93-30203

VORTEX TRAPS
U TRAPPED VORTICES

VORTEX TUBES
U HILSCH TUBES
U VORTICES

VORTEX-BLADE INTERACTION
U BLADE-VORTEX INTERACTION

VORTICES
NT HORSESHOE VORTICES
NT TRAPPED VORTICES
NT WING TIP VORTICES
Navier-Stokes dynamics and aeroelastic computations for vortical flows, buffet and aeroelastic applications
[NASA-CR-190692] 01 p0002 N93-10098
Computational studies of vortex breakdown
[AD-A253759] 01 p0079 N93-10232
Forced unsteady separated flows on a 45 degree delta wing 01 p0080 N93-10305
The role of eddy fluxes in the response of the atmosphere to tropical thermal forcing 01 p0124 N93-10318
Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
The structure and development of streamwise vortex arrays embedded in a turbulent boundary layer 01 p0081 N93-10371
Vortices in long Josephson junctions
[AD-A253230] 01 p0167 N93-10404
Investigations into swirling flows of Newtonian and non-Newtonian fluids
[AD-A253298] 01 p0082 N93-10696
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843
The effects of streamline curvature and swirl on turbulent flows in curved ducts 01 p0084 N93-10875
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226
Dynamical effects of suction/heating on turbulent boundary layers
[AD-A248459] 02 p0299 N93-11416
The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464
Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer 02 p0302 N93-11698
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004
Examination of various turbulence models for application in liquid rocket thrust chambers
[NASA-CR-184406] 02 p0233 N93-12009
Unsteady propeller/wing aerodynamic interactions 02 p0201 N93-12190
Oscillations and concentrations in compressible and incompressible fluids
[AD-A254706] 02 p0307 N93-12333
NATO Advanced Research Workshop: Vortex Flows and Related Numerical Methods. List of participants, book of abstracts, and instructions for submission to the proceedings
[AD-A255015] 03 p0575 N93-12708
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
The influence of intake swirl distortion on the steady-state performance of a low bypass, twin-spool engine 03 p0579 N93-13211
The jet behaviour of an actual high-bypass engine as determined by LDA-measurements in ground tests 03 p0503 N93-13218
In-flight flow visualization results from the X-29A aircraft at high angles of attack
[NASA-TM-4430] 03 p0493 N93-13322
Chaotic vortical motion in the near region of a plane jet 03 p0493 N93-13493
The kinetic energy budget of tropical plumes and ENSO in NMC and ECMWF analyses 03 p0664 N93-13740
Variational characterizations of steady two-dimensional vortex motions 03 p0589 N93-13781
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
The growth of disturbances in barotropic models of the atmosphere 03 p0658 N93-13887
The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions 03 p0496 N93-13929
A multiple-view visual study of the inner/outer region interactions of coherent motions in a turbulent boundary layer 03 p0591 N93-13937
Instabilities and patterns in Taylor-Couette flow 03 p0593 N93-13965
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy 03 p0660 N93-14064

An experimental and computational study of longitudinal vortices in turbulent boundary layers
03 p0595 N93-14097
Dynamics in neutron stars and the early universe
04 p1014 N93-14112
Dynamic behavior of a dense spray diffusion flame in a potential vortex 04 p0839 N93-14463
Analysis and control of asymmetric vortex flows and supersonic vortex breakdown
[NASA-CR-191264] 04 p0875 N93-14687
Numerical simulation of steady and unsteady asymmetric vortical flow 04 p0876 N93-14691
Passive control of supersonic asymmetric vortical flows around cones 04 p0876 N93-14692
Numerical simulation of baroclinic Jovian vortices
04 p1046 N93-14865
Numerical modeling of a vortex stabilized arcjet
[NASA-CR-190797] 04 p0826 N93-14883
The influence of baroclinic processes on tropical cyclone motion 04 p0923 N93-15099
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Flowfield study of a close-coupled canard configuration
[AD-A256311] 04 p0782 N93-15245
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
Special publication of National Aerospace Laboratory
[DE93-716176] 05 p1053 N93-15946
Particle dispersion in a turbulent shear flow
[AD-A255681] 05 p1156 N93-15956
Experimental and numerical investigation of vortex flow over a 76/60-deg double-delta wing
[LR-680] 05 p1054 N93-16210
Vortex breakdown incipience: Theoretical considerations
[NASA-CR-189734] 05 p1055 N93-16627
Observables for anticipating tornadogenesis in mesocyclones
[NASA-CR-193872] 05 p1214 N93-16633
Stability of elliptical vortices
[ITN-93-85181] 05 p1159 N93-16733
Effects of sound on the artificially generated longitudinal vortex pair in boundary layer 05 p1160 N93-16813
Three dimensional boundary-layer transition on a swept cylinder 05 p1161 N93-16817
Two- and three-dimensional blade vortex interactions
[NASA-CR-177567] 05 p1056 N93-16942
Force-free time-harmonic plasmoids
[AD-A257765] 05 p1313 N93-17673
EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
Application of an Euler-equation method to a sharp-edged delta wing configuration with vortex flow
[NLR-TP-91306] 06 p1404 N93-17809
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4] 06 p1527 N93-18191
Simulation of unsteady rotational flow over propfan configuration
[NASA-CR-192234] 06 p1407 N93-18585
Experimental and numerical examinations of the influence of inlet distortion perturbations on the working behavior of turbofan compressors
[ETN-93-92733] 06 p1449 N93-18628
The stability of a trailing-line vortex in compressible flow
[NASA-CR-189738] 06 p1408 N93-18771
Vortical and turbulent structure of planar and lobed mixer free-shear layers 06 p1533 N93-19055
Proceedings of the Ninth NAL Symposium on Aircraft Computational Aerodynamics
[NAL-SP-16] 06 p1409 N93-19273
Generation of longitudinal vortices in supersonic flow
06 p1411 N93-19292
Numerical treatment of laminar flow in curved rectangular channels with inlet and outlet straight region
06 p1413 N93-19304
Three dimensional calculation of flow inside supersonic inlet 06 p1414 N93-19313
Perturbation problems in fluid dynamics
[AD-A258934] 06 p1535 N93-19450
Observational evidence for field-aligned potential drops at very low altitudes associated with travelling convection vortices 06 p1722 N93-19521
The effects of gravity on wrinkled laminar flames
[DE93-002572] 06 p1485 N93-19894
Waves and instability in the atmosphere of Mars: NASA planetary atmospheres program
[NASA-CR-192381] 07 p2099 N93-19961
A synergetic treatment of the vortices behaviour of a plasma with viscosity
[NIFS-166] 07 p2070 N93-20249
On the stability of nonlinear viscous vortices in three-dimensional boundary layers
[NASA-CR-189637] 07 p1899 N93-20254
Advanced adaptive computational methods for Navier-Stokes simulations in rotorcraft aerodynamics
[NASA-CR-192282] 07 p1761 N93-20256
Ship-of-opportunity hydrographic transect of warm-core eddy Triton: 27-29 January 1992
[PB92-218171] 07 p2018 N93-21031
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Large eddy simulations and direct numerical simulations of high speed turbulent reacting flows
[NASA-CR-192654] 07 p1903 N93-21662
La Recherche Aerospatiale Bimonthly Bulletin, no. 249, March - April
[ONERA-1989-2] 07 p1762 N93-21747
Proceedings of the Aircraft Wake Vortices conference, volume 1
[PB93-126449] 07 p1763 N93-21796
Proceedings of the Aircraft Wake Vortices conference, volume 2
[PB93-127728] 07 p2015 N93-21799
Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819
Dynamic response and control of a jet-transport aircraft encountering a single-axis vortex
08 p2107 N93-22575
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Experimental investigation of developing and fully developed flow in a curved duct of square cross section
[ISBN-0-315-70029-7] 08 p2291 N93-23177
Turbulence models for helical flow
[GKSS-92/E/12] 08 p2291 N93-23189
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence
[NASA-TM-103926] 08 p2294 N93-23417
Renormalization group estimates of transport coefficients in the advection of a passive scalar by incompressible turbulence
[NASA-CR-191421] 08 p2295 N93-23421
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
Analysis of a high speed civil transport configuration at subsonic flow conditions using a Navier-Stokes solver
[NASA-CR-4490] 08 p2127 N93-24108
Measurement and prediction of tip-clearance effects in a linear turbine cascade
[ISBN-0-315-68826-2] 08 p2130 N93-24176
Collaborative testing of turbulence models
[AD-A260277] 08 p2298 N93-24259
The effects of three-dimensional imposed disturbances on bluff body near wake flows
[AD-A259501] 08 p2298 N93-24311
A method for the analysis of complex configuration three dimensional internal vortices based on the solution of Euler equations
[ETN-93-93701] 08 p2299 N93-24487
Role of acoustics in flame/vortex interactions
[NASA-CR-191429] 08 p2299 N93-24494
Numerical modeling of fluidic flow meters
[PB93-124139] 08 p2301 N93-24577
Observations of an intrathermocline vortex
09 p2788 N93-24769
A premixed laminar flame interacting with a vortex resulting in flame stretch and quenching
09 p2642 N93-24771
Computational study of the aerodynamics and control by blowing of asymmetric vortical flows over delta wings
09 p2574 N93-24772
The modeling of complex continua: Fundamental obstacles and grand challenges
[DE93-006507] 09 p2696 N93-25193
Flow visualizations of perpendicular blade vortex interactions
[NASA-CR-192725] 09 p2696 N93-25208
Supersonic shock wave/vortex interaction
[NASA-CR-192917] 09 p2576 N93-25249
The transient development of vortices over delta wings 09 p2576 N93-25269
A dynamical theory for hurricane spiral bands
09 p2782 N93-25352
Dynamics of Gulf Stream meanders and frontal eddies in the South Atlantic Bight 09 p2788 N93-25354
The interaction of modulated vortex pairs with a free surface 09 p2701 N93-25485
Tangential fuselage blowing on an ogive cylinder
09 p2578 N93-25545
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Initial streamwise vorticity formation in a two-stream mixing layer 09 p2579 N93-25752
Large-eddy simulation of temporally developing boundary layers with embedded streamwise vortices
09 p2705 N93-25753
Simulation of vortex bursting
09 p2580 N93-25881
Method of measuring cross-flow vortices by use of an array of hot-film sensors
[NASA-CASE-LAR-14824-1-SB]
09 p2706 N93-26000
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049
Conical Euler analysis and active roll suppression for unsteady vortical flows about rolling delta wings
[NASA-TP-3259] 09 p2581 N93-26134
Trailing vortex/free-surface interaction
[AD-A261654] 09 p2581 N93-26195
Flame-turbulence interactions
[AD-A260957] 09 p2645 N93-26220
Interaction of vorticity with a free surface
[AD-A261524] 09 p2707 N93-26360
Roughness-induced generation of crossflow vortices in three-dimensional boundary layers
[NASA-CR-4505] 10 p2929 N93-27096
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
Leading edge vortices in a chordwise periodic flow
10 p2927 N93-27218
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
The transition prediction toolkit: LST, SIT, PSE, DNS, and LES 10 p2931 N93-27429
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations
10 p2935 N93-27451
Simultaneous mapping of the unsteady flow fields by Particle Displacement Velocimetry (PDV)
10 p2935 N93-27454
Prediction of vortex breakdown on a delta wing
10 p2936 N93-27459
Axisymmetric vortex sheet roll-up
10 p2938 N93-28078
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
The onset of vortex turbulence
10 p2938 N93-28251
Microstructural factors influencing critical-current densities of high-temperature superconductors
[DE93-006651] 10 p3032 N93-28329
The ground vortex flow field associated with a jet in a cross flow impinging on a ground plane for uniform and annular turbulent axisymmetric jets
[NASA-CR-4513] 10 p2939 N93-28449
The onset of vortex turbulence
[DE93-010424] 11 p3417 N93-28663
Effects of flow-path variations on internal reversing flow in a tailpipe offtake configuration for ASTOVL aircraft
[NASA-TM-106149] 11 p3252 N93-29065
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
Experimental study of instability growth patterns of a shock-accelerated, thin fluid layer
[DE93-010741] 11 p3421 N93-29253
Rotational fluid flow experiment
11 p3235 N93-29761
Unsteady vortex loop/dipole theory applied to the work and acoustics of an ideal low speed propeller
[AD-A264057] 11 p3241 N93-29891
The application of concentric vortex simulation to calculating the aerodynamic characteristics of bodies of revolution at high angles of attack
[AD-A263879] 11 p3241 N93-29919
Vortex structure and mass transfer near the base of a cylinder and a turbine blade 11 p3253 N93-29929
Three-dimensional fiber-optic LDV measurements in the endwall region of a linear cascade of controlled-diffusion stator blades
[AD-A263513] 11 p3424 N93-29968

Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151
Numerical modeling and parameterization of gravity wave processes and effects in the atmosphere
[AD-A264331] 11 p3478 N93-30367
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180255] 11 p3242 N93-30387
Vortex wake characteristics of B757-200 and B767-200 aircraft using the tower fly-by technique
[PB93-180263] 11 p3242 N93-30388
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Godunov-type methods for the equations of compressible fluid mechanics
[KFK-5058] 11 p3428 N93-31020
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
Streamwise vorticity generation and mixing enhancement in free jets by delta-tabs
[NASA-TM-106235] 12 p3672 N93-31648
An acoustic scattering code
[AD-A265863] 12 p3816 N93-32316

VORTICITY
Anelastic modelling of explosive cyclogenesis 01 p0126 N93-10377
Numerical solution of three-dimensional unsteady viscous flows
[AD-A253202] 01 p0083 N93-10793
Quasigeostrophic vortices in zonal shear 02 p0358 N93-11226
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
Mode interaction models in near-wall turbulence 02 p0303 N93-11856
Numerical investigation of three-dimensionally evolving jets 02 p0303 N93-11870
Flow visualization of supersonic flow through a combustor section 02 p0200 N93-12001
Compressible mixing layers with and without particles
[AD-A254854] 02 p0308 N93-12435
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
An analysis of the tornado-producing Raleigh thunderstorm of November 28, 1988
[AD-A254384] 03 p0661 N93-12862
Spanwise-nonuniform excitation of a plane mixing layer 03 p0577 N93-13120
Features of vorticity in fully turbulent flows 03 p0583 N93-13334
A theoretical investigation of the growth rates of ice crystals in clouds 03 p0653 N93-13485
Structures, spectra and inertial range transfer in two-dimensional and beta-plane turbulence 03 p0590 N93-13900
The Applicaiton of CFD to rotary wing flow problems
[NASA-TM-102803] 04 p0782 N93-15483
Unsteady shear disturbances within a two dimensional stratified flow
[NASA-CR-189121] 04 p0880 N93-15527
Unsteady flow distortion past blades: Sources of noise generation in rotating flows
[AD-A255496] 04 p0880 N93-15652
A dynamical theory for hurricane spiral bands
[AD-A258190] 06 p1584 N93-17859
A computational study of a supersonic mixer-ejector exhaust system
[AD-A258456] 06 p1471 N93-17993
Analytical surface singularity distributions for flow about elliptical cylinders
[AERO-REPT-9202] 06 p1526 N93-18132
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
Statistical analysis of the rate of strain tensor in compressible homogeneous turbulence
[NASA-CR-189640] 07 p1899 N93-20253
Visualization of turbulent flows with simultaneous velocity and vorticity measurements 07 p1900 N93-20290
Large-scale computation of incompressible viscous flow by least-squares finite element method
[NASA-TM-105904] 08 p2467 N93-22825
The three-dimensional evolution of a plane mixing layer. Part 2: Pairing and transition to turbulence
[NASA-TM-103926] 08 p2294 N93-23417
Studies of baroclinic flow
[AD-A259739] 08 p2414 N93-23475
Vortex simulation of turbulent combustion
[AD-A259745] 08 p2222 N93-23481
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
The transient development of vortices over delta wings 09 p2576 N93-25269
A dynamical theory for hurricane spiral bands 09 p2782 N93-25352
Numerical simulation of leading-edge receptivity to freestream vorticity 09 p2577 N93-25388
Initial streamwise vorticity formation in a two-stream mixing layer 09 p2579 N93-25752
Interaction of vorticity with a free surface
[AD-A261524] 09 p2707 N93-26360
Investigation of forced unsteady separated flows using velocity-vorticity form of Navier-Stokes equations 10 p2935 N93-27451
Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Analysis of mass transport and potential vorticity budget in a simulated tropopause folding
[PB93-156792] 11 p3476 N93-29197
Using C-vector method to derive the three-dimensional circulation pattern near the East Greenland Polar Front
[AD-A261979] 11 p3487 N93-29437
Hamiltonian dynamics of coupled potential vorticity and internal wave motion: 1. Linear modes
[AD-A263469] 11 p3424 N93-29838
Analysis and computation for vortex dynamics and rarefied gases
[AD-A264705] 11 p3427 N93-30499
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889

VORTICITY EQUATIONS
RHALE: A MMALE shock physics code for arbitrary meshes
[DE92-017051] 01 p0139 N93-10866
Boundary condition methods in the numerical solution of the Navier-Stokes equations with the application to free surface problems
[ISBN-0-315-64278-5] 02 p0298 N93-11241
Numerical simulation of baroclinic Jovian vortices 04 p1046 N93-14865
Implementation of the Turn Function Method in a three-dimensional, parallelized hydrodynamics code
[DE93-003744] 09 p2696 N93-25124

VR (VIRTUAL REALITY)
U VIRTUAL REALITY

VSAT (NETWORK)
Data communications service by VSAT network in the Philippines 10 p3024 N93-26655
Information Switching Processor (ISP) contention analysis and control
[NASA-CR-191130] 10 p2957 N93-28416
Design and construction of a prototype ACTS propagation terminal
[NASA-CR-193071] 11 p3404 N93-28539
System overview on electromagnetic compensation for reflector antenna surface distortion
[NASA-TM-106217] 11 p3273 N93-29195

VTOL
U VERTICAL LANDING
U VERTICAL TAKEOFF

VTOL AIRCRAFT
U VERTICAL TAKEOFF AIRCRAFT

VULNERABILITY
NT NUCLEAR VULNERABILITY
The estimation of electrical cable fire-induced damage limits
[DE92-040100] 03 p0572 N93-13519
Energy technology evaluation report: Energy security
[DE93-001830] 05 p1194 N93-16046
Insights into US domestic aviation 07 p1764 N93-21859
Vulnerability assessment of aircraft: A review of the Department of Defense Live Fire Test and Evaluation Program
[PB93-149946] 08 p2127 N93-23678
Minutes of the Twenty-Fifth Explosives Safety Seminar, volume 4
[AD-A261116] 09 p2660 N93-25769
User guide to FTSCORE: A replacement program for SCORE in the TANKILL suite of vulnerability assessment programs
[RTP/2180/01] 10 p3099 N93-27852
Crucial role of detailed function, task, timeline, link, and human vulnerability analyses in HRA
[DE93-001923] 11 p3505 N93-28942

W

W STARS
U WOLF-RAYET STARS

W-R STARS
U WOLF-RAYET STARS

WAFERS
Investigation of high efficiency monolithic multibandgap solar cells
[AD-A254326] 02 p0348 N93-12144
Ultra-dense magnetoresistive mass memory
[NASA-CR-190955] 02 p0405 N93-12520
Latent image exposure monitor using scatterometry
[DE92-019427] 03 p0604 N93-12915
The ROMPS robot in HitchHiker 03 p0511 N93-13179
Quantum well, beam deflecting surface emitting lasers
[NASA-CASE-NPO-18243-1-CU] 03 p0605 N93-13418
Architecture of low cost, large scale neural networks
[MEMO-INF-92-16] 04 p0941 N93-15089
Innovative techniques for the production of low cost 2D laser diode arrays
[AD-A257419] 05 p1171 N93-15864
Wafer scale union
[AD-A258001] 05 p1152 N93-17749
Planning for the semiconductor manufacturer of the future 06 p1636 N93-18672
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Silicon micromachining applied to the management of the thermal environment in wafer scale integration technology
[AD-A259123] 07 p1890 N93-20591
Two- and three-dimensional high performance, patterned overlay multi-chip module technology 09 p2694 N93-25581
MOCVD process technology for affordable, high-yield, high-performance MESFET structures. Phase 3: MIMIC
[AD-A261178] 09 p2690 N93-25820
Fundamental and applied aspects of defect engineering in GaAs
[AD-A260573] 09 p2867 N93-25899
Development of model based magnetic LP-LEC growth of large diameter GaAs
[AD-A262361] 10 p3152 N93-27690
A new fabrication technique for back-to-back varactor diodes 10 p3013 N93-27739
Infrared rugates by molecular beam epitaxy 11 p3582 N93-28808
Silicon Film(trademark) photovoltaic manufacturing technology
[DE93-010008] 11 p3466 N93-30891

WAKEFULNESS
The use of electrophysiological and cognitive variables in the assessment of degradation during periods of sustained wakefulness
[AD-A263033] 10 p3084 N93-27923

WAKES
NT AIRCRAFT WAKES
NT HELICOPTER WAKES
NT LAMINAR WAKES
NT NEAR WAKES
NT PROPELLER SLIPSTREAMS
NT TURBULENT WAKES
Contributions to the experimental investigation of rotor/body aerodynamic interactions 01 p0005 N93-10877
Stratospheric aircraft exhaust plume and wake chemistry studies
[NASA-CR-189688] 02 p0366 N93-12299
The electrostatic wake of a superthermal test electron in a magnetized plasma
[DE92-019394] 03 p0713 N93-12873
Features of vorticity in fully turbulent flows 03 p0583 N93-13334
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
Exploiting similarity in turbulent shear flows for turbulence modeling
[NASA-CR-191621] 04 p0875 N93-14481
The effect of wake dynamics on rotor eigenvalues in forward flight 04 p0780 N93-14595
Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
An experimental study of a turbulent boundary layer in the trailing edge region of a circulation-control airfoil
[NASA-CR-191262] 06 p1405 N93-17934

Projectile base bleed technology. Part 1: Analysis and results
[AD-A258459] 06 p1405 N93-17994
Numerical simulation and stability analysis of the absolutely and convectively unstable wake
[ESA-TT-1119] 06 p1529 N93-18581
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Tip-vortex/airframe interactions
08 p2111 N93-23489
Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591
Computation of rotor aerodynamic loads in forward flight using a full-span free wake analysis
[NASA-CR-177611] 08 p2113 N93-24058
Control of two- and three-dimensional wake instabilities from bluff-bodies
[AD-A260410] 08 p2299 N93-24428
Application of finite-state inflow to flap-lag-torsion damping in hover 09 p2587 N93-25486
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Numerical simulations of galactic wakes
10 p3189 N93-26818
Quantitative three-dimensional low-speed wake surveys 10 p2934 N93-27447
Some recent applications of Navier-Stokes codes to rotorcraft 10 p2935 N93-27452
The wake software suite: User's guide
[AD-A264181] 11 p3425 N93-30156
A theoretical and computational study on active wake control 11 p3243 N93-30892
The interaction of a moving spacecraft with the ionosphere: Current collection and wake structure
12 p3688 N93-31157
Penn State axial flow turbine facility: Performance and nozzle flow field 12 p3698 N93-31588

WALKING
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567
Compliant walker
[NASA-CASE-GSC-13348-2] 04 p0934 N93-14708
Walking robot: A design project for undergraduate students 11 p3231 N93-29737
Walkway friction: Experiment and analysis
11 p3293 N93-30966

WALKING MACHINES
Robotic exploration of surfaces and its application to legged locomotion 03 p0615 N93-13540
Mobile work platform for initial lunar base construction
03 p0559 N93-14009
A minimum-slip attitude control method for the erebus walking robot
[NASA-CR-191646] 04 p0890 N93-14567
Computer-oriented closed-form algorithm for constrained multibody dynamics for robotics application
07 p1940 N93-20706
Kinematics and dynamics of robotic systems with multiple closed loops 08 p2318 N93-24218
Biped control via nonlinear dynamics
09 p2718 N93-25697
Intelligent robots for planetary exploration and construction 10 p3054 N93-27980

WALL FLOW
Numerical study of wall turbulence
[ONERA-RSF-21/3419-AY-126]
01 p0083 N93-10659
Direct simulation of turbulent pulsed plane channel flows 01 p0084 N93-10860
Characteristics of separated flows including cavitation effects 01 p0084 N93-10874
Study of a viscous sublayer model in the analysis of 3-D shock/boundary layer interaction flow fields
[AD-A253731] 01 p0084 N93-10886
Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874
On the Goertler instability of boundary layers
[NAL-TR-1120T] 02 p0307 N93-12374
Application of a solution adaptive grid to flow over an embedded cavity 03 p0492 N93-13141
Skin friction measurements in high temperature high speed flows 03 p0595 N93-13670
An experimental and analytical study of TIP clearance effects in axial flow compressors
[AD-A256434] 04 p0800 N93-15337
Modeling of turbulence and transition
05 p1153 N93-15795
Modeling of near wall turbulence and modeling of bypass transition 05 p1153 N93-15798
Near-wall reconstruction of higher order moments and length scales using the POD 05 p1165 N93-16771
Development of wall turbulence structure
05 p1162 N93-16824
Drag reduction mechanism and coherent structure in near wall turbulence with riblets
05 p1162 N93-16827
Global flow characteristics on a curved channel. Goertler instability point
[DS-2141] 05 p1165 N93-17742
Contribution to the solution of moment equations at two points by the spectral integral methods
[ECL-92-19] 06 p1525 N93-18096
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Investigation of wall bounded turbulence: Coherence and chaos in a model of turbulent boundary-layer
[AD-A257794] 06 p1528 N93-18416
Numerical simulations of hypersonic rarefied transition regime flows: DSMC method and Navier-Stokes computation 06 p1409 N93-19278
Lagrangian analysis of contaminant dispersal in bounded turbulent shear flows
[DE93-002794] 06 p1535 N93-19615
Turbulence modelling of flow fields in thrust chambers
[NASA-CR-192466] 08 p2202 N93-22382
Numerical study of axial turbulent flow over long cylinders 08 p2295 N93-23592
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
Assessment of closure coefficients for compressible-flow turbulence models
[NASA-TM-103882] 09 p2697 N93-25247
Particle dynamics modeling of boundary effects in granular Couette flow 09 p2705 N93-25738
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
Turbulence: The chief outstanding difficulty of our subject 10 p2931 N93-27428
An interactive boundary-layer approach to multielement airfoils at high lift 10 p2934 N93-27445
Investigations on entropy layer along hypersonic hyperboloids using a defect boundary layer
10 p2937 N93-27462
The turbulent boundary layer: Spanwise structure, evolution of low-velocity regions and response to artificial disturbances
[ETN-93-93606] 10 p3040 N93-27878
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Numerical simulations of three-dimensional laminar flow over a backward facing step; flow near side walls
[NASA-TM-106248] 12 p3723 N93-31147

WALL JETS
The aerodynamics of curved jets and breakaway in Coanda flares, volumes 1 and 2
02 p0304 N93-11881
Analysis of film cooling in rocket nozzles
05 p1095 N93-17339
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049
The effect of high temperature on wall shear in a two dimensional wall jet
[AD-A262982] 11 p3423 N93-29426
Heat transfer in high turbulence flows: A 2-D planar wall jet 11 p3254 N93-29935

WALL PRESSURE
A study of the wall-pressure fluctuations downstream of a blade-wall junction
[ECL-91-07] 02 p0299 N93-11363
Organized turbulent structures and their induced wall pressure fluctuations 03 p0592 N93-13952
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
An experimental study of the sources of fluctuating pressure loads beneath swept shock/boundary-layer interactions
[NASA-CR-192918] 09 p2698 N93-25266
A model for the filling of cold cavities with solidifying, semi-crystalline polymers
[DE93-003817] 09 p2655 N93-25507
Correlations between organized turbulent structures and wall pressure fluctuations
[PB93-156479] 09 p2706 N93-25885
High spatial resolution measurements in a single stage ram accelerator 10 p2985 N93-27135

WALL TEMPERATURE
Thermal stratification potential in rocket engine coolant channels 01 p0018 N93-10019
Investigation of hot streak migration and film cooling effects on heat transfer in rotor/stator interacting flows, report 1
[AD-A250688] 02 p0471 N93-12490
Implicitly coupling heat conduction into a zone fire model
[PB92-222769] 03 p0558 N93-12980
Hot experimental technique: A new requirement of aerothermodynamics
[MBB-FE-202-S-PUB-480] 05 p1057 N93-17543
Analysis of film cooling in rocket nozzles
[NASA-CR-192003] 06 p1473 N93-18518
Summary of experimental heat-transfer results from the turbine hot section facility
[NASA-TP-3250] 08 p2290 N93-23059
Three-dimensional compressible stability-transition calculations using the spatial theory
10 p2931 N93-27431
A unified approach for numerical simulation of viscous compressible and incompressible flows over adiabatic and isothermal walls 10 p2936 N93-27458
Supersonic flow calculation using a Reynolds-stress and an eddy thermal diffusivity turbulence model
[NASA-CR-4515] 11 p3420 N93-29159
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184

WALLS
NT BULKHEADS
NT NOZZLE WALLS
NT POROUS WALLS
NT THICK WALLS
NT THIN WALLS
NT TROMBE WALLS
NT WIND TUNNEL WALLS
Heat transfer and pressure drop for air flow through enhanced passages
[DE92-016597] 01 p0082 N93-10612
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Nonlinear response of thin steel plate structures subjected to static, cyclic, and dynamic loads
02 p0335 N93-11200
Adaptation of multidimensional group particle tracking and particle wall-boundary condition model to the FDNS code
[SECA-TR-92-06] 03 p0575 N93-12689
The effects of pressure gradients on convective heat flux predictions in engine environments
03 p0616 N93-13772
Turbulent boundary layers with high turbulence: Experimental heat transfer and structure on flat and convex walls 03 p0591 N93-13938
Wall layers
[AD-A256152] 04 p0872 N93-14257
Second order closure modeling of turbulent buoyant wall plumes
[NASA-TM-105956] 04 p0877 N93-14829
Pressure wall patch
[NASA-CASE-MFS-28724-1] 05 p1088 N93-17061
Vertical regolith shield wall construction for lunar base applications 05 p1230 N93-17446
Heat transfer and aerodynamics of a high rim speed turbine nozzle guide vane with profiled end walls
[AD-A258346] 06 p1405 N93-17991
Analysis of upward flame spread
[DE93-752850] 08 p2257 N93-22770
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
An analysis of lift forces on aerosols in a wall bounded turbulent shear flow
[DE93-003362] 09 p2695 N93-24963
The design of a modular sound absorber for very low frequencies
[BBC-RD-1992/10] 09 p2673 N93-25170
Nonlinear evolution of the first mode supersonic oblique waves in compressible boundary layers. Part 1: Heated/cooled walls
[NASA-TM-106087] 09 p2696 N93-25175
Laminar and turbulent natural convection heat transfer in Trombe wall channels 09 p2702 N93-25551
Radial spline assembly for antifriction bearings
[NASA-CASE-MFS-28629-1] 09 p2719 N93-26001

Direct measurements of skin friction in supersonic combustion flow fields
[AD-A262878] 10 p2995 N93-28226
Direct numerical simulations of unsteady separated flows using vortex methods 11 p3419 N93-29077
The design and lifetime calculation of MHD generator walls based on subcritical crack growth in ceramics
[ISBN-90-9004009-9] 11 p3332 N93-29267
Experimental study of heat transfer close to a plane wall heated in the presence of multiple injections (subsonic flow) 11 p3253 N93-29931
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Study of wall heat transfer from a high temperature dissociated hydrogen impinging jet
[DE92-017845] 12 p3698 N93-32184
Initial results from the NASA-Lewis wave rotor experiment
[NASA-TM-106148] 12 p3683 N93-32368

WALSH FUNCTION
Walsh function generator for the Electronically Scanned Thinned Array Radiometer (ESTAR) instrument
[NASA-TM-4449] 09 p2689 N93-25618

WAR GAMES
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711

WARFARE
NT ANTISUBMARINE WARFARE
NT CHEMICAL WARFARE
NT COMBAT
NT ELECTRONIC WARFARE
NT NUCLEAR WARFARE
The effects of procedural structure and computer support upon selecting a tactical course of action
[AD-A257254] 05 p1350 N93-15806
Stealth in the storm: Sorting the facts from the fiction
[AD-A258440] 06 p1434 N93-17889
An evolving joint space campaign concept and the Army's role
[AD-A258112] 06 p1453 N93-18022
The evolving defense communications system
[AD-A258335] 06 p1502 N93-18206
The effect of combat on aircrew subjective readiness and LSO grades during Operation Desert Shield/Storm
[AD-A258156] 06 p1602 N93-18294
Subjective fatigue in A-6, F-14, and F/A-18 aircrews during operations Desert Shield and Storm
[AD-A259243] 07 p2023 N93-20580
Science, technology, and national security 09 p2886 N93-25232
A simplified dynamic game model for anti-missile defense scenarios 10 p2925 N93-27206
The environment as an operational center of gravity
[AD-A264170] 11 p3472 N93-30154

WARHEADS
NT PRECISION GUIDED PROJECTILES
A continuum code investigation of stress integration using exact and approximate material rotation
[DE93-001892] 11 p3454 N93-31013

WARMING
U HEATING

WARNING DEVICES
U WARNING SYSTEMS

WARNING SIGNALS
U WARNING SYSTEMS

WARNING SYSTEMS
NT EARLY WARNING SYSTEMS
Advanced terrain displays to transport category aircraft
[PB92-197136] 01 p0006 N93-10065
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Lightning threat warning system at the Tonopah Test Range
[DE92-040444] 02 p0221 N93-11631
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
Airborne Wind Shear Detection and Warning Systems. Fourth Combined Manufacturers' and Technologists' Conference, part 2
[NASA-CP-10105-PT-2] 04 p0783 N93-14844
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
A millimeter-wave radiometer for detecting microbursts 04 p0784 N93-14850
Experimental evaluation of candidate graphical microburst alert displays 04 p0785 N93-14853
Wind shear related research at Princeton University 04 p0785 N93-14854
In-service evaluation of wind shear systems 04 p0785 N93-14857
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
Proceedings of the 16th Symposium on Aircraft Integrated Monitoring Systems
[DLR-MITT-92-01] 04 p0793 N93-15152
Monitoring of pilot actions as part of a knowledge-based system for pilot assistance 04 p0797 N93-15184
The effect of TCAS interrogations on the Chicago O'Hare ATCRBS system
[DOT/FAA/CT-92/22] 05 p1059 N93-16498
Results of DATAS investigation of illegal mode S ID's at JFK Airport
[DOT/FAA/CT-92/26] 05 p1059 N93-16841
The 1991 LLWAS anemometer test program
[AD-A258844] 06 p1538 N93-19365
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives 06 p1418 N93-19591
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Model-based reasoning applied to cockpit warning systems 06 p1611 N93-19778
Aviation safety: Users differ in views of collision avoidance system and cite problems. Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives
[GAO/RCED-92-113] 06 p1434 N93-19843
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Emergency vehicle alert system, phase 2
[NASA-CR-192464] 08 p2260 N93-22455
Automated tools for testing computer system vulnerability
[PB93-146025] 08 p2433 N93-23273
Condition based machinery maintenance (helicopter fault detection), phase 1
[AD-A259774] 08 p2316 N93-23477
On-line health monitoring: An integrity improvement for the civil use of GPS and GLONASS 08 p2125 N93-23535
Ground proximity warning system for use with aircraft having degraded performance
[CA-PATENT-1-295-716] 08 p2118 N93-24200
Neural networks for the monitoring of rotating machinery
[DE93-003549] 08 p2464 N93-24503
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
PROAV Cable Warning System (CWS) - U.S. Army aircraft integration assessment and OCONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
Communications and tracking technology discipline 10 p2972 N93-27856
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Results of DATAS investigation of ATCRBS environment at the Los Angeles International Airport
[DOT/FAA/CT-93/6] 11 p3245 N93-28625
Proceedings of the Thunder and Lighting Seminar and the 3D Lightning Warning Workshop
[AD-A262766] 11 p3482 N93-29304
Valve malfunction detection apparatus
[NASA-CASE-MFS-29904-1] 11 p3432 N93-29503
Future directions in aviation security 11 p3244 N93-30274
Explosives detection systems for airport security gas chromatographic based devices 11 p3244 N93-30276
Stand alone lightning detection equipment used at Canadian Forces air bases 11 p3367 N93-30295
Rocket-triggered lightning studies for the protection of critical assets
[DE93-009633] 11 p3484 N93-30651
Experimental evaluation of an arrival time difference lightning positioning system
[KNMI-WR-92-01] 12 p3767 N93-31600
Intelligent security assessment for a mobile robot
[AD-A265003] 12 p3799 N93-32078
Fire protection for launch facilities using machine vision fire detection 12 p3687 N93-32113
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

WARPAGE
A recent boundary integral procedure on determining shear centers, warping constant and other cross sectional properties of a turbine blade 07 p1918 N93-20703

WASHERS (CLEANERS)
Performance of gas turbine compressor cleaners
[NLR-TP-91237-U] 12 p3681 N93-31111

WASHING
Method and apparatus for cleaning rubber deposits from airport runways and roadways
[NASA-CASE-LAR-14483-1] 08 p2256 N93-22035

WASHINGTON
High speed ground transportation study: Executive summary
[PB93-141091] 08 p2532 N93-22903
Small business profiles, 1992. Region 10: Alaska, Idaho, Oregon, and Washington
[PB93-111011] 08 p2521 N93-24305

WASHOUT (RADIOACTIVITY)
U FALLOUT

WASPALOY
Short fatigue crack growth in a nickel-base superalloy at room and elevated temperature
[PNR-90892] 02 p0255 N93-11031
Elevated temperature fatigue crack growth in a nickel base superalloy under dwell conditions
[PNR-90997] 02 p0255 N93-11115
The effect of tensile stress on hydrogen diffusion in metal alloys
[NASA-TM-108386] 05 p1114 N93-16701
Discrete statistical model of fatigue crack growth in a Ni-base superalloy, capable of life prediction 07 p1923 N93-20344

WASTE DISPOSAL
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
Trip report: Marshall Space Center computed tomography
[DE92-018139] 02 p0437 N93-11597
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Radiation-disorder and aperiodicity in irradiated ceramics
[DE92-015051] 03 p0552 N93-13350
Technology development for lunar base water recycling 03 p0680 N93-13999
Plasma reactor waste management systems 03 p0680 N93-14000
Distribution of human waste samples in relation to sizing waste processing in space 03 p0680 N93-14001
Technical data management at the Yucca Mountain Site Characterization Project
[DE92-018115] 04 p1008 N93-15229
Environmental Review Guide for Operations (ERGO)
[AD-A256922] 05 p1202 N93-16502
Thermal diffusion processes in aqueous sodium chloride solutions
[DE93-002596] 05 p1105 N93-16656

Annual report
[NASA-CR-191389] 05 p1228 N93-16840
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
Summary of activities of the Life Cycle Costing Workshop conducted by the Environmental Restoration Program of Oak Ridge National Laboratory
[DE93-000823] 08 p2531 N93-22935
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Development of a cone penetrometer for measuring spectral characteristics of soils in situ
09 p2776 N93-25570
Development of a heuristic knowledge base for the selection of applicable or relevant and appropriate environmental requirements
[AD-A261038] 09 p2765 N93-25864
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495
Onsite engineering report for solidification/stabilization treatment testing of contaminated soils
[PB93-166965] 10 p3067 N93-26605
Status and integration of the gas generation studies performed for the hydrogen safety program
[DE93-008518] 10 p2994 N93-27105
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
An architecture for robotic system integration
[DE93-010829] 11 p3444 N93-29316
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
Graphical programming: On-line robot simulation for telerobotic control
[DE93-009796] 11 p3447 N93-30654
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829
RCRA implementation plan, FY 1993
[PB93-176956] 12 p3752 N93-31877
The ecological balance of Swissair: An example of waste management 12 p3753 N93-31930

WASTE ENERGY UTILIZATION
Energy from Municipal Waste Program
[DE92-010578] 03 p0638 N93-13102
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
MHD contractors' review conference
[DE93-009863] 10 p3149 N93-28332
Study survey on a high-efficiency environment harmony type energy cascade utilization system
[DE93-768469] 12 p3748 N93-31812
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870

WASTE HEAT
Gasifiers optimized for fuel cell applications
[DE93-003486] 07 p1988 N93-21781
Study survey on a high-efficiency environment harmony type energy cascade utilization system
[DE93-768469] 12 p3748 N93-31812
Projects within the Center for Advanced Materials
[PB93-175222] 12 p3699 N93-31870

WASTE TREATMENT
NT SEWAGE TREATMENT
Ceramic transactions. Volume 21: Proceedings of the Symposium on Microwave Theory and Application in Materials Processing Annual Meeting No. 23 io on april 29-may 3 1991
[AD-A253631] 01 p0035 N93-10205
APOLLO: A computer program for the calculation of chemical equilibrium and reaction kinetics of chemical systems
[DE92-017864] 01 p0139 N93-10817
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 1
[PB92-216035] 02 p0456 N93-12526
Technology evaluation report of Retech, Inc., Plasma Centrifugal Furnace, volume 2
[PB92-216043] 02 p0457 N93-12527
ReTech, Inc., Plasma Centrifugal Furnace: Applications analysis report
[PB92-218791] 03 p0714 N93-12982
Proceedings of the Mediterranean Conference on Environmental Geotechnology
[AD-A253672] 03 p0644 N93-13098
Use of antarctic analogs to support the space exploration initiative
[NASA-TM-108000] 03 p0651 N93-13326
Plasma reactor waste management systems
03 p0680 N93-14000
Electrochemical oxidation of organic materials
[DE92-019822] 04 p0828 N93-14718
Technical data management at the Yucca Mountain Site Characterization Project
[DE92-018115] 04 p1008 N93-15229
Recycling hydrogen and sulfur by microwave chemical processing
[DE92-040744] 05 p1101 N93-15925
Industrial innovations for tomorrow: Advances in industrial energy-efficiency technologies
[DE92-001230] 05 p1195 N93-16134
Annual report
[NASA-CR-191389] 05 p1228 N93-16840
Proceedings of the Specialists' Meeting on High Energy Nuclear Data
[DE92-012299] 05 p1298 N93-16931
Environmental projects. Volume 14: Removal of contaminated soil and debris
[NASA-CR-192803] 08 p2384 N93-22803
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
Converting environmental wastes into valuable resources 09 p2759 N93-25572
Development of a pyrolysis waste recovery model with designs, test plans, and applications for space-based habitats 09 p2803 N93-26076
Human factors in environmental management: New directions from the Hanford site
[DE93-004337] 09 p2767 N93-26495
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695
Effluent treatment for nuclear thermal propulsion ground testing 10 p2955 N93-26969
Extraction chromatography of neodymium by an organophosphorous extractant supported on various polymeric resins
[DE93-009113] 10 p3003 N93-27622
Environmental control and life support system
10 p2965 N93-27718
Technologies for ECLSS evolution
10 p2965 N93-27720
JSC ECLSS R/T program overview
10 p2966 N93-27725
Applications of molten salts in reactive metals processing
[DE93-003368] 10 p3000 N93-28148
Technical bases for precipitate hydrolysis process operating parameters, revision 1
[DE93-009894] 11 p3309 N93-28553
Hydrogen and sulfur production from hydrogen sulfide wastes
[DE93-008658] 11 p3310 N93-29052
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Strategic Environmental Research and Development Program (SERDP)
[AD-A263745] 11 p3471 N93-29858
An evaluation of factors affecting the solidification/stabilization of heavy metal sludge
[AD-A264128] 11 p3473 N93-30197
Environmental characteristics of EPA, NRC, and DOE sites contaminated with radioactive substances
[PB93-185551] 11 p3475 N93-30829
Statement on the United Nations Conference on Environment and Development
[DE93-601878] 11 p3475 N93-30996
Chemical dehalogenation treatment: Base-Catalyzed Decomposition Process (BCDP)
[PB93-182939] 12 p3751 N93-31432
RCRA implementation plan, FY 1993
[PB93-176956] 12 p3752 N93-31877
Geochemical, genetic, and physiological control of pollutant biodegradation
[AD-A264106] 12 p3753 N93-32027
Applications analysis report: Silicate Technology Corporation's solidification/stabilization technology for organic and inorganic contaminants in soils
[PB93-172948] 12 p3715 N93-32408

WASTE UTILIZATION
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Plasma reactor waste management systems
03 p0680 N93-14000
Session of alcohol and biomass energy technology
[DE93-768440] 12 p3749 N93-32056

WASTE WATER
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Ultraviolet disinfection technology assessment
[PB92-222868] 03 p0678 N93-12983
Management and minimization of photographic wastes at Pantex Plant
[MHSMP-92-01] 04 p0910 N93-14739
Variable-Volume Flushing (V-VF) device for water conservation in toilets 08 p2429 N93-22167
Health and environmental chemistry: Analytical techniques, data management, and quality assurance
[DE93-002853] 09 p2760 N93-24674
Low cost dewatering of waste slurries
09 p2769 N93-25573
Environmental control and life support systems
10 p2972 N93-27858
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

WASTES
NT FECES
NT HUMAN WASTES
NT INDUSTRIAL WASTES
NT RADIOACTIVE WASTES
NT SEWAGE
NT SOLID WASTES
NT URINE
NT WASTE WATER

WATCHES
U CLOCKS

WATER
NT COASTAL WATER
NT COLD WATER
NT DEEP WATER
NT FRESH WATER
NT GROUND WATER
NT INLAND WATERS
NT POTABLE WATER
NT SEA WATER
NT SHALLOW WATER
NT SURFACE WATER
NT WASTE WATER
Vibrational relaxation of H2O by H2, HCl, and H2O at 295 K
[AD-A252800] 01 p0029 N93-10263
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
Destruction of explosives and rocket fuels by supercritical water oxidation
[DE92-018874] 02 p0274 N93-11380
The electron-beam water calorimeter project at the National Physical Laboratory
[NPL-RSA(EXT)-30] 02 p0310 N93-11410
Particle-fluid two-phase flow modeling
[DE92-017847] 02 p0301 N93-11637
Comparative effects of drag-reducing polymers. An experimental report
[AD-A254001] 02 p0268 N93-11793
Submarine Advanced Integrated Life Support system (SAILS) program
[AD-A253564] 02 p0388 N93-11812
The adsorption of C60 and the co-adsorption of C60 and H2O on (alpha)-Al2O3 (1 -1 0 2)-(2x1)
[DE92-018002] 02 p0465 N93-12093
Enhanced convective and film boiling heat transfer by surface gas injection
[DE92-016755] 02 p0306 N93-12221
Energetics solids degradation in high temperature water
[AD-A254900] 02 p0276 N93-12285
Exit plane H2O concentration measurements correlated with OH PLIF near-injector mixing measurements for scramjet flows 03 p0603 N93-13687
Infrared emission from the water outgas cloud of an orbiting vehicle induced by collisions with atmospheric gases 03 p0521 N93-13854
Water and cheese from the lunar desert: Abundances and accessibility of H, C, and N on the Moon
03 p0761 N93-13976
Lunar base CELSS: A bioregenerative approach
03 p0680 N93-13993
Technology development for lunar base water recycling 03 p0680 N93-13999
Conceptual design of a lunar base thermal control system 03 p0680 N93-14003
Physical and chemical processes of the inner coma observed in mid-ultraviolet cometary spectra
04 p1017 N93-14230
Venusian hydrology: Steady state reconsidered
04 p1026 N93-14318
Venus: The case for a wet origin and a runaway greenhouse 04 p1031 N93-14331
Martian water frost: Control of global distribution by small-scale processes 04 p1047 N93-14868

Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109808] 04 p0915 N93-14877
Technology evaluation report: The Carver-Greenfield process, Dehydro-Tech Corporation
[PB92-217462] 04 p0910 N93-15217
Characterization of polymer electrolytes for fuel cell applications
[DE92-040330] 05 p1195 N93-16249
Examination of the disintegration of liquid and slurry ligaments under microgravity conditions
[CTN-93-60615] 05 p1131 N93-16494
Beneficiation and extraction of nonterrestrial materials, part 2 05 p1381 N93-16886
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Materials surface contamination analysis
[NASA-CR-192422] 05 p1105 N93-17000
Advanced water-cooled phosphoric acid fuel cell development
[DE93-000215] 05 p1197 N93-17008
Lunar magnetic fields: Implications for resource utilization 05 p1388 N93-17251
Theoretical characterization of the reaction CH3 + OH yields CH3OH yeilds products: The (1)CH2 + H2O, H2 + HCOH, and H2 + H2CO channels 05 p1107 N93-17408
Biodegradation of Jet Fuel-4 (JP-4) in sequencing batch reactors
[AD-A258020] 06 p1496 N93-17917
Radiation properties of high-temperature flames 06 p1485 N93-18477
Botswana water and surface energy balance research program. Part 2: Large scale moisture and passive microwaves
[NASA-TM-108608] 06 p1590 N93-18525
Europa: Prospects for an ocean and exobiological implications 06 p1591 N93-18552
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
H2O(+) structures in the inner plasma tail of comet Austin 06 p1708 N93-19174
Evaluation of ultrasonic cavitation of metallic and non-metallic surfaces 06 p1652 N93-19400
A literature survey of airborne vehicles impacting with water and soil: Head injury criteria and severity index development of computer program KRASH
[DOT/FAA/CT-90/24] 06 p1421 N93-19647
Royal Naval helicopter ditching experience 06 p1426 N93-19684
Helicopter accidents over water in the national navy: Epidemiological study over the period 1980-1991 06 p1426 N93-19686
Helicopter crash survival at sea: United States Navy/Marine Corps experience 1977-1990 06 p1427 N93-19687
Water on Mars: Inventory, distribution, and possible sources of polar ice 06 p1740 N93-19805
Rheology of water-silicate mixtures at low temperatures 06 p1741 N93-19806
Global water cycle 07 p2004 N93-20078
Coordinated field study for CaPE: Analysis of energy and water budgets 07 p2005 N93-20079
Preserving our future today: Your guide to the United States Environmental Protection Agency
[PB92-226190] 07 p1990 N93-21345
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Fatigue crack propagation of titanium alloys in salt water
[GKSS-91/E/46] 07 p1856 N93-21551
Hydrophobic effects from cavity statistics
[DE93-003698] 07 p1904 N93-21734
Method and apparatus for cleaning rubber deposits from airport runways and roadways
[NASA-CASE-LAR-14483-1] 08 p2256 N93-22035
Photovoltaic evaluation study
[DE93-761330] 08 p2378 N93-22956
Solar pumping: An introduction and update on the technology, performance, costs, and economics
[WORLD-BANK-TP-168] 08 p2381 N93-23444
Water regions extraction from radar imagery using a neural network
[AD-A259517] 08 p2356 N93-23668
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Identification of specific protein markers that correlate with initiation and progression of microbially influenced corrosion
[AD-A258453] 08 p2233 N93-23982
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Narrow-body aircraft water spray optimization study
[DOT/FAA/CT-TN93/3] 09 p2582 N93-25224
Effects of moisture and other contaminants in friction composites
[AD-A261226] 09 p2640 N93-26301
Preliminary endurance tests of water vaporizers for resistojet applications
[NASA-TM-106222] 11 p3287 N93-28694
High octane ethers from synthesis gas-derived alcohols
[DE93-012470] 11 p3341 N93-28752
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128
Super critical water oxidation on energetic materials
[DE93-010704] 11 p3342 N93-29312
Fast multipole method in simulations of aqueous systems
[AD-A263422] 11 p3567 N93-29336
Electron interactions with non-linear polyatomic molecules and their radicals and ions
[AD-A262279] 11 p3568 N93-29446
Diffusion coefficients and heats of mixing in aqueous alkanolamines
[PB93-176212] 11 p3316 N93-30661
Infrared spectroscopy of hydrogen and water on diamond (100)
[AD-A265531] 12 p3704 N93-31920
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars 12 p3864 N93-31948
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

WATER BALANCE
Determination of environmental dynamics using NOAA satellite data and a water balance model for the Mediterranean landscape 09 p2741 N93-24794

WATER CIRCULATION
NT COASTAL CURRENTS
NT EL NINO
NT GULF STREAM
NT OCEAN CURRENTS
NT WATER CURRENTS
Parameters for predicting red tides of bioluminescent dinoflagellates: Meteorological events and frontal water circulation patterns
[AD-A254835] 02 p0374 N93-12431
Surface circulation in the Adriatic Sea as observed by AVHRR 07 p1964 N93-21634
Coupling an ocean wave model to an atmospheric general circulation model
[MPIM-72] 08 p2395 N93-23632
Climate variability in a coupled GCM. Part 1: The tropical pacific
[MPIM-73] 08 p2407 N93-23633
On the space-time structure of ENSO
[MPIM-74] 08 p2407 N93-23634
A hybrid coupled tropical atmosphere ocean model: Sensitivities and hindcast skill
[MPIM-76] 08 p2396 N93-23635
Application of ocean models for the interpretation of AGCM experiments on the climate of the last glacial maximum
[MPIM-80] 08 p2416 N93-24581
BETELGUEUSE '90 campaign
[PREPRINT-751] 10 p3064 N93-27942
BOOTES '90 campaign
[PREPRINT-768] 10 p3064 N93-27943
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019

WATER COLOR
Ocean optical database
[AD-A254969] 03 p0668 N93-12556
Backscatter of bottom reflected light into the downwelling light stream
[AD-A258165] 06 p1588 N93-18009
Effect of the concentration of two types of sediment on water colorimetry and reflectance
[INPE-5331-PRE/1729] 06 p1568 N93-19822
Estimating chlorophyll concentrations from Thematic Mapper data 07 p1954 N93-21577
SeaWiFS Technical Report Series. Volume 8: Proceedings of the First SeaWiFS Science Team Meeting
[NASA-TM-104566-VOL-8] 08 p2413 N93-23010
The program of oceanological experiments within the Priroda project 08 p2361 N93-23773
Ocean colour programmes for the European marine environment 08 p2366 N93-23808
Remote sensing and geographic informations systems: Implications for Global Marine Fisheries
[PB93-149409] 08 p2374 N93-24309
SeaWiFS technical report series. Volume 2: Analysis of orbit selection for SeaWiFS: Ascending versus descending node
[NASA-TM-104566-VOL-2] 11 p3486 N93-28497

WATER CONSUMPTION
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216

WATER CONTENT
U MOISTURE CONTENT

WATER COOLED REACTORS
NT BOILING WATER REACTORS
NT NRX REACTORS
NT PRESSURIZED WATER REACTORS
Austrian contributions to reactor safety research
[OEFZS-4622] 10 p3139 N93-28203
TRAB: A transient analysis program for BWR. Part 2: User's manual
[VTT-TIED-1232-PT-2] 11 p3575 N93-29996

WATER COOLING
U LIQUID COOLING

WATER CURRENTS
NT COASTAL CURRENTS
NT EL NINO
NT GULF STREAM
NT OCEAN CURRENTS
Acoustic tracking of neutrally buoyant float
[AD-A255086] 03 p0669 N93-12742

WATER CYCLE (HYDROLOGY)
U HYDROLOGICAL CYCLE

WATER DEPTH
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
Thermohaline circulations and global climate change
[DE93-004601] 06 p1574 N93-19505
Evaluation of the Bathyscan sweep survey system
[AD-A260162] 08 p2415 N93-23708
Preliminary studies leading toward the development of a LIDAR bathymetry mapping instrument 09 p2711 N93-25614
Organic geochemistry of continental margin and deep ocean sediments
[DE93-011045] 10 p3080 N93-28336

WATER EROSION
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396

WATER FLOW
Turbulence structure and polymer drag reduction in adverse pressure gradient boundary layers 02 p0304 N93-12003
Bubble dissolving in turbulent pipe flow
[AD-A252927] 02 p0308 N93-12462
Turbulent natural convection between a perforated vertical cylinder and a surrounding array
[DE92-019766] 03 p0576 N93-12996
Measurement and interpretation for the turbulent flow wall pressure field of a dilute polymer solution within a rectangular channel containing smooth walls
[AD-A260149] 08 p2297 N93-24132
Preferential flow effects on chemical transport and retardation in soils
[PB93-190668] 12 p3723 N93-31204
Basal hydraulic conditions of Ice Stream B 12 p3762 N93-31898
Modeling and inference for transient tracers on oceanic flow
[AD-A265428] 12 p3770 N93-32037

WATER HEATING
Solar water heating system for a lunar base 03 p0641 N93-14005
The 1991 Solar World Congress: Proceedings of the Biennial Congress of the International Solar Energy Society, volume 2, part 1
[PB93-174787] 12 p3748 N93-31070

WATER IMMERSION
Mechanical behavior of open cell ceramics
[PB92-212984] 01 p0037 N93-10439
Effect of water immersion on fiber/matrix adhesion
[AD-A260704] 09 p2636 N93-25652
Effect of water immersion on fiber/matrix adhesion in thermoplastic composites
[AD-A263646] 11 p3299 N93-29984

WATER JETS
U HYDRAULIC JETS

WATER LANDING
NT DITCHING (LANDING)
Reusable Reentry Satellite (RRS): Recovery tradeoff study
[NASA-CR-186396] 04 p0825 N93-15658

Design, building, and testing of the postlanding systems for the assured crew return vehicle
11 p3229 N93-29726

WATER LOSS
Venusian hydrology: Steady state reconsidered
04 p1028 N93-14318
Systemic and pulmonary hypertension after resuscitation with cell-free hemoglobin
[AD-A258185] 06 p1595 N93-17900

WATER MANAGEMENT
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
The use of thermal infrared remote sensing for water management: Report of the operational research
[BCRS-91-34] 07 p1969 N93-20954
Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038
Variable-Volume Flushing (V-VF) device for water conservation in toilets 08 p2429 N93-22167
Remote sensing in hydrology and water management
09 p2744 N93-24816
Applications of remote sensing for tidal waters, coastal areas and inland waters 09 p2745 N93-24819
Determination of regional evapotranspiration from measurements of the atmospheric boundary layer
[PB93-172971] 10 p3072 N93-27422
Technologies for ECLSS evolution
10 p2965 N93-27720
Alternative processes for water reclamation and solid waste processing in a physical/chemical bioregenerative life support system 10 p2965 N93-27721
Modelling the dynamics of a large sea area
[DE93-778330] 11 p3488 N93-30040
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344

WATER POLLUTION
NT OIL POLLUTION
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Hydrological aspects of accidental pollution of water bodies
[WMO-754] 06 p1572 N93-18095
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Perspectives on the marine environment. Proceedings from a symposium on the marine environment of Southern California
[PB93-120053] 07 p2019 N93-21536
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
Evaluation of the extent and magnitude of biological effects associated with chemical contaminants in San Francisco Bay, California
[PB93-118495] 07 p1994 N93-21805
The Mavale project: Evaluation of potential pollution sources to superficial and subterranean water resources in the Paraiba do Sul Valley, Brazil
[INPE-5318-PRE/1715] 08 p2365 N93-23105
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Use of coastal zone color scanner imagery to identify nearshore ocean areas affected by land-based pollutants
[PB93-136604] 08 p2343 N93-23278
Susceptibility of East Coast estuaries to nutrient discharges: Passamaquoddy Bay to Chesapeake Bay
[PB93-136927] 08 p2387 N93-23438
Arctic Contaminants Research Program: Research Plan
[PB93-135630] 08 p2387 N93-23439
Environmental quality
[PB93-139814] 08 p2387 N93-23440
Proceedings of the 12th Annual Gulf of Mexico Information Transfer Meeting
[PB93-152031] 08 p2416 N93-24605
NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824
Non-local description of pollution transport in random medium 09 p2763 N93-25329
Space life support technology applications to terrestrial environmental problems 09 p2803 N93-25617
Inorganic nitrogen and phosphorus dynamics in the water column of the Patuxent River
[PB93-172955] 09 p2767 N93-26511
Model for transport of floating debris in the ocean
[PB93-172997] 09 p2768 N93-26559
Development document for effluent limitations guidelines and new source performance standards for the offshore subcategory of the oil and gas extraction point source category
[PB93-167310] 10 p3067 N93-26608
Methods for the determination of diesel, mineral, and crude oils in offshore oil and gas industry discharges
[PB93-166932] 10 p3067 N93-26621
Cost-effectiveness analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-169118] 10 p3067 N93-26623
Regulatory impact analysis of final effluent limitations guidelines and standards for the offshore oil and gas industry
[PB93-174613] 10 p3069 N93-27406
Organic phosphorus compounds in the hydrosphere: Characteristics, identity, and dynamics
[PB93-173011] 10 p3069 N93-27423
Economic impact analysis of final effluent limitations guidelines and standards of performance for the offshore oil and gas industry
[PB93-173979] 10 p3069 N93-27512
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Annual report on monitoring of the unsaturated zone and recharge areas at INEL to the state of Idaho INLEL oversight committee
[DE93-012947] 11 p3473 N93-30187
Development of novel models for describing multiple toxicity effects
[AD-A264439] 11 p3496 N93-30422
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky
[PB93-182244] 11 p3474 N93-30825
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834
IOC-UNEP review meeting on oceanographic processes of transport and distribution of pollutants in the sea
[DE93-605070] 11 p3490 N93-31019
Three-dimensional modeling of pollutant transport in surface waters
[PB93-190627] 12 p3751 N93-31203
Effects of low-level radioactive-waste disposal on water chemistry in the unsaturated zone at a site near Sheffield, Illinois, 1982-1984
[PB93-183051] 12 p3752 N93-31829
Statistical and numerical methods in control and identification
[AD-A264676] 12 p3811 N93-32016
Benthic study of the continental slope off Cape Hatteras, North Carolina. Volume 3: Appendices
[PB93-186088] 12 p3771 N93-32308

WATER PRESSURE
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375
Basal hydraulic conditions of Ice Stream B
12 p3762 N93-31898

WATER PURIFICATION
U WATER TREATMENT

WATER QUALITY
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Fiber optic sensors for environmental applications: A brief review
[DE92-040170] 03 p0710 N93-13576
Technology development for lunar base water recycling 03 p0680 N93-13999
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
Water quality modeling using geographic information system (GIS) data 06 p1575 N93-19396
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
Investigation of the applicability of remote sensing techniques for ecological water quality evaluation
[BCRS-91-37] 08 p2342 N93-23106
Publications Office of Science and Technology: Catalog
[PB93-152577] 08 p2529 N93-24560
Development of membrane film fiber optic based sensors for the remote monitoring of the quality of surface and groundwater
[PB93-150001] 08 p2375 N93-24638
Oil pollution and water quality mapping of Augusta Bay, Italy using remote sensing techniques
09 p2746 N93-24823
NORSMAP 1989: Norwegian remote sensing spectrometry for mapping and monitoring of algal blooms and pollution 09 p2746 N93-24824
Multi-date algorithms for predicting surface water quality parameters in estuarine and coastal waters using Landsat TM data
[ED-659-CP] 09 p2746 N93-24829
Loss of temporal coherence of laser light propagated through simulated coastal waters
[AD-A261303] 09 p2715 N93-26296
Modelling the dynamics of a large sea area
[DE93-778330] 11 p3488 N93-30040
Remote sensing for water quality monitoring in the Tennessee Valley: Field tests of two systems
[DE93-008997] 11 p3462 N93-30637
Contamination of soil, soil gas, and ground water by hydrocarbon compounds near Greear, Morgan County, Kentucky
[PB93-182244] 11 p3474 N93-30825
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834

WATER RECLAMATION
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Microbiological methods for the water recovery systems test, revision 1.1
[NASA-CR-184390] 03 p0678 N93-12966
Management and minimization of photographic wastes at Pantex Plant
[MHSMP-92-01] 04 p0910 N93-14739
Space life support engineering program
[NASA-CR-192188] 06 p1607 N93-19039
Trends in nitrogen in the Chesapeake Bay, 1984-1990
[PB93-122174] 07 p1990 N93-21217
Zero-G life support for Space Station Freedom
08 p2189 N93-22640
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
Low cost dewatering of waste slurries
09 p2769 N93-25573
Alternative processes for water reclamation and solid waste processing in a physical/chemical bioregenerative life support system 10 p2965 N93-27721
Marshall Space Flight Center ECLSS technology activities 10 p2966 N93-27724
JSC ECLSS R/T program overview
10 p2966 N93-27725
Environmental control and life support systems
10 p2972 N93-27858
Microbiological test results of the environmental control and life support systems vapors compression distillation subsystem recycle tank components following various pretreatment protocols
[NASA-CR-192570] 12 p3772 N93-32354
Microbiological and corrosion analysis of three urine pretreatment regimes with titanium 6A1-4V
[NASA-CR-192575] 12 p3783 N93-32356
Optimization of 15 parameters influencing the long-term survival of bacteria in aquatic systems
[NASA-CR-192571] 12 p3772 N93-32365

WATER RECOVERY
U WATER RECLAMATION

WATER RESOURCES
NT AQUIFERS
Climate change and water supply, management and use: A literature review
[DE92-019069] 02 p0353 N93-11655

Venusian hydrology: Steady state reconsidered
04 p1028 N93-14318
The target: H2O on the Moon
05 p1388 N93-17250
Aquatic plant control research program. Biological control of Pistia stratiotes L. (waterlettuce) using Neohydronomus affinis husiache (coleoptera: curculionidae)
[AD-A257463] 06 p1574 N93-18945
Application of remote sensing for the water management in Drenthe (Netherlands)
[BCRS-91-42] 07 p1975 N93-21038
Global Climate Change Response Program: A mid-course evaluation
[PB93-146355] 08 p2387 N93-23427
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
Publications Office of Science and Technology: Catalog
[PB93-152577] 08 p2529 N93-24560
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616
Office of Water Environmental and Program Information Systems Compendium, FY 1992
[PB93-186203] 11 p3462 N93-30833
Guide to Federal Water Quality Programs and Information: A Guide with Computer Software Developed by the Interagency Working Group on Water Quality
[PB93-186245] 11 p3475 N93-30834

WATER RUNOFF
Monthly precipitation and runoff data for validation of climate models 07 p1959 N93-21605
Remote sensing in hydrology and water management
09 p2744 N93-24816

WATER SPLITTING
High temperature reaction kinetics of boron oxides
[AD-A257402] 05 p1118 N93-15861
SPE propulsion electrolyzer for NASA's integrated propulsion test article
[NASA-CR-185669] 05 p1090 N93-16541
The onsite manufacture of propellant oxygen from lunar resources 05 p1381 N93-16888
Lunar resources: Oxygen from rocks and soil
06 p1735 N93-18787
Propellant production and useful materials: Hardware data from components and the systems
10 p3009 N93-27969
On-site manufacture of propellant oxygen from lunar resources 10 p3022 N93-27973
Electrolysis performance improvement and validation experiment 11 p3267 N93-28737

WATER TABLES
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Performance and cost evaluation of bioremediation techniques for fuel spills
[PB93-175545] 11 p3474 N93-30762

WATER TEMPERATURE
NT OCEAN TEMPERATURE
NT SEA SURFACE TEMPERATURE
A study of the thermal bar in Lake Ladoga (Russia) using NOAA-AVHRR data 07 p1964 N93-21635
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Neural networks for atmospheric retrievals
09 p2824 N93-25975
Hydrographic observations in the western tropical and subtropical north Atlantic Ocean: Atlantic Climate Change Program (ACCP) and Western Tropical Atlantic Experiment (WESTRAX) during 1990
[PB93-184760] 11 p3489 N93-30827

WATER TREATMENT
ECLSS medical support activities
[NASA-CR-184429] 02 p0385 N93-12427
Real-time quality assurance testing using photonic techniques: Application to iodine water system
[NASA-CR-184413] 03 p0619 N93-12692
Ultraviolet disinfection technology assessment
[PB92-222868] 03 p0678 N93-12983
Apparatus and process for desalination of seawater
[AD-D015428] 04 p0842 N93-14824
Regenerable biocide delivery unit
[NASA-CASE-MSC-21763-1-SB]
06 p1590 N93-18351
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Study on environment control and life support technology 07 p1789 N93-20413
Treatment of hazardous organic wastes using silent discharge plasmas
[DE93-003789] 09 p2768 N93-26592
In-situ materials processing systems and bioregenerative life support systems interrelationships
10 p2992 N93-26695
Operation of a solar photocatalytic water treatment system at a Superfund Site
[DE93-005354] 10 p3065 N93-28060
DOE fundamentals handbook: Chemistry
[DE93-012222] 11 p3314 N93-30198
Ion exchange polymers and method for making
[NASA-CASE-LEW-15576-1] 12 p3709 N93-31316
Utilization of high energy electron beam in the treatment of drinking and waste water
[DE92-642335] 12 p3783 N93-32406

WATER TUNNEL TESTS
Hydrodynamic investigation of vortical flows for an ATTAC configuration with canards
[AD-A253928] 01 p0004 N93-10753
Experiments on low aspect ratio hydroplanes to measure lift under static and dynamic conditions
[ARE-TM(UHR)-90306] 02 p0197 N93-11365
Lift coefficient of a randomly oscillating hydroplane
[DRA/MAR-TM(MTH)-91320] 02 p0197 N93-11377
Water tunnel studies of inlet/airframe interference phenomena 03 p0580 N93-13216
Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475
Integrating real-time digital signal processing capability into a large research and development facility
[DE93-003085] 07 p2060 N93-21957

WATER TUNNELS
U HYDRAULIC TEST TUNNELS

WATER VAPOR
Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis
01 p0127 N93-10849
Time scales characterizing the processing of water and cloud condensation nuclei by clouds
[CM-80] 02 p0368 N93-11340
Detection of cloud-top height from backscattered radiances within the oxygen A band. Part 1: Theoretical study
[GKSS-91/E/76-PT-1] 02 p0368 N93-11349
Preliminary characterization of a water vaporizer for resistojet applications
[NASA-TM-105877] 02 p0231 N93-11402
NOAA Workshop on Climate Scale Operational Precipitation and Water Vapor Products
[NOAA-TR-NESDIS-62] 03 p0662 N93-13066
The relationship between SST anomalies and clouds, water vapor, and their radiative effects
03 p0665 N93-13744
Tropopause fold investigations: Secondary circulation, water vapor and ozone analyses
03 p0657 N93-13796
Middle atmosphere water vapour
03 p0667 N93-13892
Effects of water vapor and anisotropic scattering on aerosol optical depth retrieval
[AD-A256087] 04 p0904 N93-14262
Improved aerosol optical depth and particle size index from satellite detected radiance
[AD-A256089] 04 p0904 N93-14263
Outgassing history of Venus and the absence of water on Venus 04 p1045 N93-14398
On the role of water growth in atmospheric aerosol
04 p0922 N93-14875
Multispectral analysis of maritime clouds at night in the presence of atmospheric water vapor
[AD-A256699] 05 p1212 N93-16153
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
IUE observations of periodic comets Tempel-2, Kopff, and Tempel-1 06 p1697 N93-19153
Water and dust production rates in comet P/Halley derived from ultraviolet and optical observations
06 p1705 N93-19154
P/Halley: Spatial distribution and scale lengths for C2, CN, NH2, and H2O 06 p1706 N93-19157
A strong 3.4 micron emission feature in comet Austin 1989c1 06 p1706 N93-19162
The correlation between water production rates and visual magnitudes in comets 06 p1709 N93-19181
The effect of tropospheric fluctuations on the accuracy of water vapor radiometry 06 p1511 N93-19416
Is CO2 ice permanent? 06 p1742 N93-19813
A membrane-based subsystem for water-vapor recovery from plant-growth chambers
[NASA-CR-177602] 07 p2025 N93-20065
Global water cycle 07 p2004 N93-20078
WetNet: Using SSM/I data interactively for global distribution of tropical rainfall and precipitable water
07 p2005 N93-20082
Investigation of cloud/water vapor motion winds from geostationary satellite 07 p2008 N93-20094
Remote sensing of water vapor features
07 p2010 N93-20107
A comparison of intense extratropical cyclone life cycles from diverse geographical locations
07 p2011 N93-20278
Accurate procedure for calibrating the CAO optical hygrometer
[AP-30] 07 p1906 N93-20927
Pumping experiment of water on B and LaB6 films with electron beam evaporator
[NIFS-196] 07 p2074 N93-21362
Climatological use of long time series of data from the water vapour channel of Meteosat
07 p1958 N93-21601
Measurement of the critical level of moisture for initiation of water-vapor-induced environmental embrittlement in a Fe3Al-based alloy
[DE93-004104] 08 p2226 N93-22069
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Generation of monodisperse droplets by spontaneous condensation of flow in nozzles
[NASA-CR-192356] 08 p2287 N93-22401
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
Analysis of H2O infrared radiance measured during the ELC-1 rocket experiment
[AD-A259986] 08 p2401 N93-24424
Empirical determination of the effects of clouds on the Earth's Radiation Budget over the Pacific Ocean
[NASA-CR-192696] 08 p2401 N93-24485
Observed annual and interannual variations in tropospheric water
[PB93-123313] 08 p2411 N93-24588
The WINCOF-I code: Detailed description
[NASA-CR-190779] 09 p2573 N93-24760
Observed annual and interannual variations in tropospheric water vapor 09 p2782 N93-25549
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Molecular processes in comets
[NASA-CR-193143] 10 p3204 N93-27537
RADTRAN with spherical-refractive geometry
[AD-A263213] 10 p3075 N93-28385
Measurements of breakaway reaction between beryllium and water vapor for ITER blanket design
[DE93-753270] 11 p3584 N93-28535
Gravity sensitivity of a resistojet water vaporizer
[NASA-TM-106220] 11 p3288 N93-29194
Prognostic cloud water in the Los Alamos general circulation model
[DE93-007381] 11 p3482 N93-29347
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars
12 p3864 N93-31948

WATER VEHICLES
NT AIRCRAFT CARRIERS
NT BOATS
NT LIFEBOATS
NT SHIPS
NT SUBMARINES
NT UNDERWATER VEHICLES
Vehicle guidance and control along circular trajectories
[AD-A257570] 06 p1450 N93-18177

WATER WAVES
NT TIDAL WAVES
LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide)
[AD-A254313] 02 p0374 N93-12094
Ocean wave detection using satellite altimetry
04 p0906 N93-14839
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Surface gravity waves and ambient microseismic noise
[AD-A256498] 04 p0916 N93-15375

Modelling of interfacial and thermocline waves
[AERO-REPT-9210] 06 p1525 N93-18104
Modelling of interfacial and thermocline waves
[AERO-REPT-9211] 06 p1525 N93-18105
Modelling of interfacial and thermocline waves
[AERO-REPT-9213] 06 p1526 N93-18119
Wall strains produced by waves in water filled latex tubes. Part 1: Tethered tubes
[AERO-REPT-9206-PT-1] 06 p1526 N93-18133
Waves from an oscillating disturbance in a thermocline and in a linear shear flow
[AERO-REPT-9207] 06 p1527 N93-18134
Thermocline waves from a moving body and comparison of open-boundary conditions
[AERO-REPT-9208] 06 p1527 N93-18135
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Nonlinear ocean waves
[AD-A259335] 07 p2019 N93-21260
The WAM model and ERS-1
07 p1960 N93-21609
Validation of ERS-1 synthetic aperture radar for imaging ocean waves: First results 07 p1961 N93-21616
Modelling the skin-bulk temperature difference near the sea-atmosphere interface for remote sensing applications 07 p1963 N93-21631
Satellite data assimilation in the wave model 3G-WAM
07 p1965 N93-21638
Global validation of the wave model WAM using Geosat wave height data 07 p1965 N93-21639
ROWS wave spectral data collected in SAXON-FPN, November 1990
[NASA-TM-104582] 08 p2412 N93-22387
On wave force analysis using system identification
[RR-450] 08 p2293 N93-23361
The effects of multipath scatter from wind driven gravity waves on lines of bearing serving as direction finders
08 p2265 N93-23601
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
Alongshore sub-thermocline current variability in the central California current system
[AD-A262150] 10 p3079 N93-27635
A real-time wave data quality control algorithm
[KNMI-TR-139] 10 p3080 N93-27637
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Internal gravity waves at abrupt topography
[AD-A262286] 10 p3080 N93-28244
Wave information studies of US coastlines: Verification of Pacific Ocean deepwater hindcast wave information
[AD-A262714] 10 p3081 N93-28396
Observations of turbulence in the surf zone
[AD-A262718] 10 p3081 N93-28397
Optical measurements of ripples using a scanning laser slope gauge. Part 1: Instrumentation and preliminary results
[AD-A261939] 11 p3486 N93-28996
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
Dynamics of small-scale oceanic motions
[AD-A263582] 11 p3488 N93-29914
The IUTAM Symposium on Breaking Waves
[AD-A264196] 11 p3489 N93-30143
A continuation method for computing non-linear 3-D free surface flows
[DE93-008704] 12 p3727 N93-32175
A study of capillary and capillary-gravity wind waves: Their structures, distributions, and energy balances
12 p3771 N93-32215

WATERPROOFING
Inflatable device for excluding sea water from a rocket motor
[AD-D015365] 02 p0232 N93-11424

WATERSHEDS
Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
The use of remotely sensed data in delineation of hydrologic response units and estimation of their rainfall-runoff model parameters
03 p0635 N93-13840
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
A diffusion approximation for a network of reservoirs with power law release rule
[AD-A263753] 11 p3550 N93-29872

WATERWAVE ENERGY CONVERSION
Ocean Energy Program overview, fiscal years 1990-1991
[DE91-002176] 03 p0636 N93-12837

WATERWAYS
Aids to Navigation Service Force Mix 2000 Project. Volume 2: Development and application of an Aids to Navigation Service Force Mix Decision Support System. Aid assignments and vessel summary reports
[PB93-142362] 08 p2122 N93-23652

WATTMETERS
Journal of research of the National Institute of Standards and Technology, Nov. - Dec. 1992, volume 97, no. 6
[PB93-143923] 08 p2571 N93-24570

WAVE AMPLIFICATION
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Gain in a confined aluminum plasma
02 p0320 N93-12043
Mechanism of the mode selection in bifurcations
05 p1162 N93-16825
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046

WAVE ATTENUATION
NT ACOUSTIC ATTENUATION
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site
[AD-A246889] 02 p0362 N93-11740
Physical characterization of magmatic liquids
[DE92-015931] 02 p0363 N93-11848
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
Lateral variations of shear velocity and anelasticity in the upper mantle of the western US from Rayleigh wave observations 03 p0653 N93-13492
Nondestructive evaluation of grain size distributions using multifractal analysis of backscattered ultrasonic signals
[AD-A259035] 06 p1553 N93-18956
Elastic moduli and seismic wave attenuation in dry and saturated rock. Volume 2: Modulus dispersion and attenuation
[AD-A258711] 07 p1998 N93-20381
Spectroscopic investigations of bending and microbending effects in single mode optical fibre: A feasibility study
[NPL-QU-90] 07 p1946 N93-20930
Attenuation and source studies in Northern Eurasia
[AD-A259323] 07 p2000 N93-21700
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas
[PB93-111466] 07 p1886 N93-21788
Rain rate and modeled fade distributions at 20 GHz and 30 GHz derived from five years of network rain gauge measurements 09 p2683 N93-26468
On the estimation of risk associated with an attenuation prediction 09 p2683 N93-26469
Satellite communications application to Pacific countries above Ku band 09 p2683 N93-26471
Brightness temperature and attenuation diversity statistics at 20.6 and 31.65 GHz for the Colorado Research Network 09 p2684 N93-26473
ESA's planning and coordination of the OLYMPUS propagation experiment 09 p2684 N93-26477
Effect-specific analysis of propagation parameters
09 p2684 N93-26478
The Virginia Tech OLYMPUS propagation experiment
09 p2685 N93-26479
Status of the Olympus experiment at CRC
09 p2685 N93-26480
Rain compensation algorithm using adaptive linear prediction 09 p2685 N93-26485
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Utilization of polymer viscoelastic properties to enhance acoustic wave sensor performance
[DE93-008345] 10 p3130 N93-28153

WAVE DEGRADATION
A new non-Gausssian approximation technique for random vibration of general hysteresis
01 p0050 N93-10496
Impact of finite frequency deviation on the performance of dual-filter heterodyne FSK lightwave systems
[AD-A247611] 02 p0448 N93-11892
Study of the dynamic degradation under the action of a shock wave induced by pulsed laser
02 p0319 N93-12037

WAVE DIFFRACTION
Elastic wave scattering by an interfacial crack in a plate 01 p0048 N93-10485
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
Computer-aided design-based high-frequency electromagnetic wave scattering from complex bodies
03 p0567 N93-14042
A modal analysis of lamellar diffraction gratings in conical mountings 04 p0986 N93-15519
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
FESDIF: Finite Element Scalar Diffraction theory code
[DE93-007222] 08 p2475 N93-24447

WAVE DISPERSION
Nonlinear stability of flows over rigid and flexible boundaries 02 p0198 N93-11874
Fast ion-driven Bernstein instabilities
[DE92-019393] 03 p0705 N93-12713
Elastic wave propagation in laminated composites
[ITN-93-85186] 04 p0835 N93-15144
Development of a 500 GHz optoelectronic modulator using superconducting transmission lines
[AD-A257062] 04 p0871 N93-15456
Dispersive regularization of shocks
[AD-A257256] 05 p1314 N93-15836
Theoretical development for depth profiling of stratified layers using variable angle ATR
[AD-A255571] 05 p1284 N93-16038
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
Numerical simulation of free shear flows: Towards a predictive computational aeroacoustics capability
[NASA-CR-191015] 10 p2929 N93-27097
An analysis of the saturation of a high gain FEL
[DE93-007276] 10 p3048 N93-28314
Borel sum rules for octet baryons in nuclear medium
[DE93-753245] 11 p3604 N93-29242

WAVE DRAG
Wave drag in the atmospheric boundary layer
04 p0915 N93-14873
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
Comparison of performances of different circular intakes 05 p1067 N93-17616
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 08 p2108 N93-22487

WAVE EQUATIONS
NT DIRAC EQUATION
NT EIKONAL EQUATION
NT KLEIN-GORDON EQUATION
NT KORTEWEG-DEVRIES EQUATION
NT SCHROEDINGER EQUATION
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
Phase conjugation using CO2 lasers
03 p0607 N93-13812
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Relativistic two body equations and nuclear interactions
[NOTA-INTERNA-985] 06 p1653 N93-17876
A two-body covariant equation for interacting nucleons
[NOTA-INTERNA-986] 06 p1653 N93-17877
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom
[NOTA-INTERNA-993] 06 p1653 N93-17944
A harmonic half-space fundamental solution
[SER-R-271] 06 p1644 N93-17946
A relativistic study of nuclear interactions
[NOTA-INTERNA-981] 06 p1653 N93-17955
Develop, apply and evaluate wavelet technology
[AD-A258484] 06 p1645 N93-18315
Solution of the Helmholtz-Poincare Wave Equation using the coupled boundary integral equations and optimal surface eigenfunctions
[DE93-005300] 08 p2470 N93-24038
Low altitude acoustic propagation analysis by use of a three-dimensional parabolic wave equation
[ONERA-P-1992-1] 08 p2477 N93-24190
Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752
Elastic modeling and migration in Earth models
09 p2771 N93-25433
On the accurate long-time solution of the wave equation in exterior domains: Asymptotic expansions and corrected boundary conditions
[NASA-TM-106117] 10 p3111 N93-27068
WAVEPACK: Basic concepts of linear wave propagation
[MEMO-1068] 10 p3041 N93-28077
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191

Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Resonance and near-resonance for a nonlinear wave equation
[REPT-92-92] 12 p3814 N93-31633

WAVE EXCITATION
NT ACOUSTIC EXCITATION
NT HARMONIC EXCITATION

WAVE FRONT DEFORMATION
DSD Technology: A detonation reactive Huygens code
[LA-12235-MS] 09 p2706 N93-25987

WAVE FRONT RECONSTRUCTION
Wavefront reconstruction using a least squares approach
[ISVR-TR-203] 02 p0435 N93-12324
Interferometric reconstruction of three-dimensional high-speed aerodynamic flows 05 p1057 N93-16765
Exploring the limits of adaptive wavefront compensation for ground based astronomical interferometers
12 p3849 N93-31782
Wavefront reconstruction from three dimensional intensity measurements
[DE93-609881] 12 p3832 N93-31909

WAVE FRONTS
NT SHOCK FRONTS
Colliding plane gravitational waves with colinear polarization
[MATHS-REPT-A-160] 02 p0357 N93-11120
High frame-rate, large field wavefront sensor
[DE92-019547] 02 p0310 N93-11542
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids
02 p0340 N93-12199
Theory for a high power free electron laser and tactical applications
[AD-A255161] 02 p0323 N93-12405
Stochastic models of wavefront propagation in random granular media
[AD-A255127] 02 p0286 N93-12422
Novel techniques of wavefront sensing for adaptive optics with array telescopes using an artificial neural network 03 p0743 N93-13343
Modeling and measurement of a micro-optic beam deflector 04 p0985 N93-15514
Effects of higher order aberrations on beam shape in an optical recording system 04 p0985 N93-15515
Sodium guide star adaptive optics system for astronomical imaging in the visible and near-infrared
[DE92-041081] 05 p1359 N93-17354
TREND field test report
[AD-A258568] 07 p2067 N93-20372
Optical correlators for automated rendezvous and capture 07 p1813 N93-21416
Prototyping of two-beam laser interferometer for measurement of optical turbulence along extended paths
[AD-A260229] 08 p2310 N93-24320
High resolution imaging from the ground using a satellite-borne laser guide star 12 p3849 N93-31781

WAVE FUNCTIONS
NT MOLECULAR ORBITALS
NT PAULI EXCLUSION PRINCIPLE
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Two-photon couplings of quarkonia with arbitrary J(sup PC)
[DE92-016525] 01 p0153 N93-10332
Data synthesis and display programs for wave distribution function analysis
[NASA-TM-108009] 01 p0070 N93-10800
Description of the structural responses in the medium-frequency range by an energetic formulation
[ECL-92-16] 02 p0336 N93-11582
On the evaluation of derivatives of Gaussian integrals
02 p0439 N93-11853
Fermi molecular dynamics
[DE92-015351] 03 p0703 N93-13187
Homogeneous quantum electrodynamic turbulence
[NASA-TM-107686] 04 p0979 N93-15482
The electronic structure of core states under extreme compressions
[DE92-017451] 05 p1112 N93-16334
Symmetry of wavefunctions in quantum algebras and supersymmetry
[DE92-041129] 05 p1265 N93-16551
The local structure of high-temperature superconductors
[DE93-000653] 05 p1324 N93-17177
The use of the wavelet cluster analysis for asteroid family determination 06 p1701 N93-19126
Electron correlations in semiconductors: Bulk cohesive properties and magnetic-field-induced Wigner crystal at heterojunctions
[DE93-002626] 06 p1675 N93-19488
Towards a time-dependent description of electron-atom/ion collisions: Two electron systems
[DE93-004531] 07 p2064 N93-21742
EXCPACK: A package of codes for electron impact excitation of ions by a distorted wave method
[DE93-006095] 08 p2479 N93-22525
A detailed study of nonperturbative solutions of two-body Dirac equations
[DE93-004794] 08 p2468 N93-22965
Performance results of a 300-degree linear phase modulator for spaceborne communications applications
09 p2672 N93-24670
Correlated wavefunction quantum Monte Carlo approach to solids
[DE93-007730] 09 p2863 N93-25367
Wave packet motion in harmonic potential and computer visualization 10 p3141 N93-27315
Point form relativistic quantum mechanics and relativistic SU(6) 10 p3144 N93-27332
Quantum wormholes and harmonic oscillators
10 p3144 N93-27338
Quantized discrete space oscillators
10 p3146 N93-27349
Covariant harmonic oscillators: 1973 revisited
10 p3147 N93-27358
Calculation of the nucleon structure function from the nucleon wave function 10 p3147 N93-27359
Wavelet transform techniques and signal analysis
[DE93-007919] 11 p3382 N93-29244
The global potential energy surfaces of the lowest two 1A-prime states of the ozone molecule: Theoretical determination and analysis
[DE93-007537] 11 p3313 N93-29837
Quantum-kinetic Green function and macroscopic wave function
[DE93-606040] 11 p3606 N93-30796
A possibility to investigate the superconducting gap with the help of neutrons
[DE93-606392] 11 p3601 N93-30799
The ground state wavefunctions of a conformally invariant scalar field in different spacetime background
[DE93-606063] 11 p3606 N93-30808
Algorithm for the solution of the Faddeev equation for a system of three identical spinless particles
[DE92-644678] 11 p3535 N93-30914
Algorithm of numerical calculations of differential Yakubovsky equations for the (1 + 3) scattering problem
[DE92-644679] 11 p3535 N93-30915
Schroedinger equations of higher (greater than 2) order
[DE92-644677] 11 p3552 N93-30984
Calculations of wavefunctions and energies of electron system in Coulomb potential by variational method without a basis set
[DE93-608161] 12 p3819 N93-31286
Excitation of atomic hydrogen
[DE93-604639] 12 p3820 N93-31822
Scalar symmetry of the massless Dirac equation
[DE93-609921] 12 p3832 N93-31914
Helicity amplitudes for matter-coupled gravity
[DE93-609932] 12 p3832 N93-32025

WAVE GENERATION
Some theoretical and experimental aspects of the generation of guided elastic waves using finite sources
04 p0897 N93-14219
Thermocline waves near to a free surface
[AERO-REPT-9214] 05 p1159 N93-16578
Theoretical and experimental investigation of electron beam acceleration and sub-millimeter wave generation
[AD-A261117] 09 p2609 N93-25770
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Progress on single barrier varactors for submillimeter wave power generation 10 p3012 N93-27736
A 200 GHz tripler using single barrier varactor
10 p3013 N93-27740

WAVE INTERACTION
NT SHOCK WAVE INTERACTION
NT WAVE-PARTICLE INTERACTIONS
Front tracking and the interaction of nonlinear waves
[AD-A253544] 02 p0297 N93-11148
Asymptotic analysis of reacting materials with saturated explosion. 2: High-frequency waves
[AD-A254473] 02 p0275 N93-12236
Nonlinear dynamics of optical systems
04 p0979 N93-14124
A Cloudy Quark Bag Model of S, P, and D wave interactions for the coupled channel antikaon-nucleon system
[DE92-040149] 04 p0977 N93-15062
Mechanism of the mode selection in bifurcations
05 p1162 N93-16825
A relativistic coupled-channel wave-equation with N and Delta degrees of freedom
[NOTA-INTERNA-993] 06 p1653 N93-17944
Modelling of interfacial and thermocline waves
[AERO-REPT-9209] 06 p1525 N93-18103
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
Nonlinear interactions associated with TID's in the quiet polar F-region from EISCAT observations
06 p1584 N93-19568
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
Low frequency RF current drive
[DE93-005130] 08 p2260 N93-22421
The collision of gravitational waves in a stiff perfect fluid
[MATHS-REPT-A-179] 08 p2398 N93-24080
On the physical boundary conditions in the ocean/bottom acoustic interaction model
[FFI-92/7023] 08 p2416 N93-24091
Interactions of acoustic waves and combustion of homogeneous solid propellants in rocket motors
09 p2630 N93-26039
On the initial stages of vortex wave interactions in highly curved boundary layer flows
[NASA-CR-191423] 10 p3038 N93-27098
On the interactions between detonation waves and shock waves in the external propulsion method for acceleration of projectiles 10 p2927 N93-27219
Berry's phase for non-conservative systems
[SSCL-PREPRINT-767] 10 p3117 N93-27582
Laboratory studies of gravity wave/mean flow interactions
[AD-A264226] 11 p3478 N93-30174
An adaptive Lagrangian method for computing 1-D reacting flows and the theory of Riemann invariant manifolds for the compressible Euler equations
11 p3428 N93-30902
Nonlinear radiation of waves at combination frequencies due to radiation-surface wave interaction in plasmas
[DE93-608570] 12 p3825 N93-31667
Nonlinear interaction of Alfven waves in solar atmosphere 12 p3860 N93-31724

WAVE MOTION
U WAVES

WAVE OSCILLATORS
U OSCILLATORS

WAVE PACKETS
Publication of papers presented at URSI 23rd General Assembly as a special section of radio science
[AD-A253561] 02 p0283 N93-11811
Low pressure gas multiphotoionization for wave packet experiments 02 p0319 N93-12034
Baroclinic wave packets in models and observations
03 p0663 N93-13361
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
AFIT/AFOSR Workshop on the Role of Wavelets in Signal Processing Applications
[AD-A256172] 04 p0859 N93-14649
Stability of elliptical vortices
[ITN-93-85181] 05 p1159 N93-16733
Quantum chaos without classical counterpart
[PREPRINT-830] 05 p1331 N93-17215
High resolution photoelectron spectroscopy and femtosecond intramolecular dynamics using supersonic molecular beams
[DE93-002555] 06 p1658 N93-19746
Numerical simulations of the control of wave packet disturbances in the boundary layer on a flat plate
[AD-A259923] 08 p2289 N93-22734
Review of quantum computation
[DE93-003735] 08 p2474 N93-22919
On the generation and dispersion of Yanai waves with a spectral Chebyshev-collocation reduced-gravity ocean model 09 p2788 N93-25276
Bimolecular reaction dynamics from photoelectron spectroscopy of negative ions
[DE93-007669] 09 p2647 N93-26599
Analysis of magnetometer data/wave signals in the Earth's magnetosphere
[NASA-CR-193169] 10 p3072 N93-27154
Wave packet motion in harmonic potential and computer visualization 10 p3141 N93-27315
Alternative descriptions of wave and particle aspects of the harmonic oscillator 10 p3142 N93-27317

Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340
Quantum dynamics of X2BC van der Waals clusters [DE93-006416] 11 p3565 N93-28892

WAVE PROPAGATION
NT ACOUSTIC PROPAGATION
NT GROUND WAVE PROPAGATION
NT HALOS
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT LIGHT SCATTERING
NT SCATTER PROPAGATION
NT SHOCK WAVE PROPAGATION

Software for prediction and analysis of ground wave propagation loss [AD-A253474] 01 p0067 N93-10199
Calculation of elastic-plastic wave propagation on the connection machine [AD-A252429] 01 p0095 N93-10427
Modeling of HF propagation and heating in the ionosphere [AD-A253941] 01 p0125 N93-10714
Pulse propagation in random media [AD-A254294] 01 p0152 N93-10769
Atomic short range order and spin density wave propagation in CuMn [DE92-016903] 01 p0034 N93-10789
Progress in multi-dimensional upwind differencing [NASA-CR-189708] 01 p0083 N93-10808
Coronal and solar wind Alfven wave propagation 01 p0180 N93-10909
Propagation of regional phases: Observations and theory [AD-A246891] 02 p0359 N93-11228
Methods of analysis for thick-section composite structures 02 p0237 N93-11262
Modeling regional seismic waves [AD-A246894] 02 p0361 N93-11421
Propagation of relativistic high current electron beams across the geomagnetic field [DE92-018276] 02 p0362 N93-11564
Computational aspects of Gaussian beam migration [DE92-018641] 02 p0431 N93-11567
Computation of small scale velocity turbulence and its effect on optical scintillations and stimulated thermal Rayleigh scattering [DE92-018934] 02 p0448 N93-11627
Prediction of electromagnetic pulse generation by picosecond avalanches in high-pressure air [DE92-019382] 02 p0282 N93-11675
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site [AD-A246889] 02 p0362 N93-11740
Application of the theory of wave propagation through random media to phase and amplitude fluctuations of seismic P-waves [AD-A253274] 02 p0363 N93-11788
Dynamics of planetary waves in the atmosphere 02 p0363 N93-11898
Observation of pulses propagating at supraluminous speed in an optical fiber 02 p0320 N93-12040
Final Technical Report [AD-A253529] 02 p0284 N93-12083
The Wave Information Studies (WIS) wave model, version 2.0 (user's guide) [AD-A254313] 02 p0374 N93-12094
Seismic wave propagation in thinly-layered media with steep reflectors [DE92-015619] 02 p0364 N93-12142
The generalized Goursat-Riemann problem for plane waves in isotropic elastic solids 02 p0340 N93-12199
Study of seismic coda generation in crust with non-uniform scattering and anelastic properties [AD-A254350] 02 p0366 N93-12270
Migration by the Kirchhoff, slant stack, and Gaussian beam methods [DE92-018640] 02 p0366 N93-12318
Stochastic models of wavefront propagation in random granular media [AD-A255127] 02 p0286 N93-12422
Angle of arrival fluctuations for millimeter waves propagating in a turbulent atmosphere near the Earth [AD-A254478] 03 p0560 N93-12574
A new matrix formulation of classical electrodynamics. Part 2: Wave propagation in optical materials of infinite extent [AD-A255032] 03 p0560 N93-12585
Wave propagation and scattering in dense geophysical media [AD-A254573] 03 p0561 N93-12646
Fiber optic sensors for static fracture studies and dynamic wave propagation problems 03 p0709 N93-12984
Variance of phase fluctuations of waves propagating through a random medium 03 p0569 N93-13087
Power excitation by the use of a RF wiggler [DE92-016097] 03 p0707 N93-13192
Diagnostic of shock wave processes [DE92-018059] 03 p0565 N93-13357
Transverse wave motion in constrained mechanical systems 03 p0628 N93-13634
Theoretical and numerical studies of wave propagation and scattering in inhomogeneous media 03 p0568 N93-14044
In situ material characterization for pavement evaluation by the Spectral-Analysis-of-Surface-Waves (SASW) method [AD-A255660] 04 p0804 N93-14128
Non-linear analysis of wave progagation using transform methods and plates and shells using integral equations 04 p0896 N93-14186
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object 04 p0857 N93-14189
AFIT/AFOSR Workshop on the Role of Wavelets in Signal Processing Applications [AD-A256172] 04 p0859 N93-14649
Theory and applications of the 3-dimensional finite-difference time-domain method [AD-A256559] 04 p0968 N93-14804
Preview of Blackbeard interferometry [DE92-040329] 04 p0818 N93-14904
Development of a TDS measurement system. Application to acoustic propagation measurement in a non anechoic environment [ONERA-RT-18/3641-PY] 04 p0975 N93-15130
Elastic wave propagation in laminated composites [ITN-93-85186] 04 p0835 N93-15144
Deterministic transfer function for transionospheric propagation [DE92-040327] 04 p0862 N93-15427
A study of high frequency vibrations due to pyrotechnic shocks in coupled systems 05 p1079 N93-15736
Mathematical modelling of pyrotechnic shock in the Ariane 5 VEB structure 05 p1085 N93-15781
NDE for thick section composites [AD-A257292] 05 p1181 N93-15837
Propagation of dissolution/precipitation waves in porous media [DE92-017348] 05 p1154 N93-15851
Scattering and radiation by shells and nonlinear acoustics of particle suspensions [AD-A257257] 05 p1281 N93-15890
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation [AD-A255712] 05 p1281 N93-15936
A comparison of acoustic impedance measurement techniques [AD-A255566] 05 p1282 N93-16061
Scattering of elastic waves by a spherical inclusion [AD-A256676] 05 p1206 N93-16093
Are large quasar redshifts due to light propagation in an inhomogeneous and anisotropic medium? [SSCL-PREPRINT-776] 05 p1365 N93-16386
A correlative investigation of the propagation of ULF wave power through the dayside magnetosphere [NASA-CR-191809] 05 p1140 N93-16679
Powerful algorithm for inversion of geophysical reflection profiles [ITN-93-85179] 05 p1267 N93-16743
Two-scale solution for the mutual coherence function in the presence of turbulence [ITN-93-85178] 05 p1162 N93-16837
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation [AD-A257634] 05 p1141 N93-17721
Microcomputer simulation of a fourier approach to optical wave propagation [AD-A257598] 05 p1305 N93-17796
Flexural wave propagation in anisotropic laminates and inversion algorithms to recover elastic constants using phase velocity measurements [AD-A257548] 06 p1476 N93-17964
Identification of nonlinear wave forces. Part 2: Frequency-domain analysis [RR-442-PT-2] 06 p1528 N93-18440
Aeronomy of auroral and airglow emissions 06 p1584 N93-18496
Identification of nonlinear wave forces. Part 1: Time domain-analysis [RR-441-PT-1] 06 p1528 N93-18510
Understanding curved detonation waves [DE93-000799] 06 p1528 N93-18529
A neutron scattering study of the quasi-one-dimensional, dilute Ising-like antiferromagnet CsCo(0.83)Mg(0.17)Br3 [DE93-001718] 06 p1674 N93-18618
Coupling between plate vibration and acoustic radiation [NASA-CR-189741] 06 p1651 N93-18770
Perturbation problems in fluid dynamics [AD-A258934] 06 p1535 N93-19450
PACE and EISCAT radar observations of short-lived flow bursts on the nightside 06 p1726 N93-19549
Overall results from the European sector of the worldwide atmospheric gravity-wave study: 1985-1990 06 p1733 N93-19589
Distributed nonlinear devices for millimeter-wave and picosecond pulse generation [AD-A259372] 06 p1522 N93-19853
Observation of ionospheric modification using high power oblique HF transmissions [AD-A258706] 07 p1998 N93-20378
An iterative approach to curved ray photoelastic analysis 07 p1928 N93-20635
Radio stimulation and diagnostics of space plasmas [NASA-CR-192366] 07 p2072 N93-20760
Wideband propagation measurements at 30.3 GHz through a pecan orchard in Texas [PB93-111466] 07 p1886 N93-21788
Contact-impact simulations on massively parallel SIMD supercomputers [DE93-004188] 08 p2445 N93-22060
A high-power 95 GHz gyro-TWT amplifier [DE93-002332] 08 p2277 N93-22425
Propagation of elastic waves through inhomogeneous, anisotropic materials [DE93-006247] 08 p2288 N93-22509
Photon acceleration via laser-produced ionization fronts [DE93-005205] 08 p2480 N93-22719
Interaction of externally-driven acoustic waves with compressible convection [DE93-003800] 08 p2476 N93-22775
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas [DE93-005833] 08 p2493 N93-22779
Chinese research on underwater acoustics [PB93-134468] 08 p2476 N93-23229
Plasma theory 08 p2496 N93-23262
Source mechanisms and radio effects of ionospheric plasma [AD-A259743] 08 p2395 N93-23480
Spherical wave reflection and transmission 08 p2487 N93-23499
Asymptotic analysis of: 1: Wave propagation in dispersive optical media with quadratic nonlinearity. 2: A hypersonic wing with three-dimensional self-similarity 08 p2112 N93-23594
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
On the propagation of a gravitational wave in a stiff perfect fluid [MATHS-REPT-A-178] 08 p2398 N93-24079
On the physical boundary conditions in the ocean/bottom acoustic interaction model [FFI-92/7023] 08 p2416 N93-24091
The acoustical impedance at the junction of non-coaxial cylindrical ducts [MATHS-REPT-A-157] 08 p2477 N93-24123
An analytical study of some problems in partial differential equations with applications to fluid dynamics and wave propagation [AD-A260351] 08 p2470 N93-24169
Develop an x-windows tool to compute Gaussian beam synthetic seismograms [AD-A260034] 08 p2400 N93-24253
Atom wave interferometer [AD-A260082] 08 p2484 N93-24410
A semi-empirical analysis of strong-motion peaks in terms of seismic source, propagation path, and local site conditions [PB93-150266] 08 p2402 N93-24629
Tracking sharp interface of two fluids by the CIP (Cubic-Interpolated Propagation) scheme [NIFS-206] 09 p2698 N93-25277
Propagation at microwave frequencies in the presence of tropospheric stratified layers 09 p2674 N93-25340
A dynamical theory for hurricane spiral bands 09 p2782 N93-25352
Determination of the elastic constants of composite materials from ultrasonic group velocity measurements 09 p2635 N93-25544
Proceedings of the 5th International Symposium on Long Range Sound Propagation [AD-A260666] 09 p2845 N93-25643
Generation of acoustic waves by focused infrared neodymium-laser radiation 09 p2714 N93-25761
DSD Technology: A detonation reactive Huygens code [LA-12235-MS] 09 p2706 N93-25987
Propagation of finite amplitude sound in a waveguide with a parabolic sound velocity profile [ARL-TR-92-11] 09 p2846 N93-26179
Laser propagation through turbulence [AD-A260712] 09 p2714 N93-26217

High Frequency (HF) radiowave propagation
[AD-A261726] 09 p2681 N93-26280
Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459
Proceedings of the 16th NASA Propagation Experimenters Meeting (NAPEX 16) and the Advanced Communications Technology Satellite (ACTS) Propagation Studies Miniworkshop
[NASA-CR-192800] 09 p2682 N93-26463
Opening remarks 09 p2682 N93-26464
The ACTS propagation program 09 p2683 N93-26465
L- and K-band LMSS propagation measurements using MARECS-B, OLYMPUS, and ACTS 09 p2683 N93-26467
A database for propagation models 09 p2684 N93-26472
Brightness temperature and attenuation diversity statistics at 20.6 and 31.65 GHz for the Colorado Research Network 09 p2684 N93-26473
WARC 92 and some thoughts as to its impact on the NASA propagation program 09 p2684 N93-26475
ESA's planning and coordination of the OLYMPUS propagation experiment 09 p2684 N93-26477
Effect-specific analysis of propagation parameters 09 p2684 N93-26478
Status of the Olympus experiment at CRC 09 p2685 N93-26480
Observations on the NASA Propagation Program 09 p2685 N93-26482
ACTS propagation terminal update 09 p2685 N93-26484
Rain compensation algorithm using adaptive linear prediction 09 p2685 N93-26485
A numerical study of wave propagation in a confined mixing layer by eigenfunction expansions
[NASA-CR-191433] 10 p3037 N93-26998
On wave propagation in saturated and partially saturated porous media
[ETN-93-93152] 10 p3039 N93-27373
Migration of seismic data in the double Radon transformed domain
[ETN-93-93596] 10 p3073 N93-28094
Wave propagation, localisation and dispersion in softening solids
[ISBN-90-9005139-2] 10 p3042 N93-28110
A three-dimensional coupled normal mode model for sound propagation in shallow water with irregular bottom bathymetry
[AD-A262101] 10 p3130 N93-28179
Microcomputer simulation of a Fourier approach to ultrasonic wave propagation
[AD-A262090] 10 p3131 N93-28191
Observation of a beam energy shift caused by a plasma wakefield
[DE93-753243] 11 p3583 N93-28533
Three-dimensional numerical simulation of gradual opening in a wave rotor passage
[NASA-CR-191157] 11 p3252 N93-29072
Ocean waves in SAMSON/SWADE
[AD-A263681] 11 p3487 N93-29295
Mitigation of shock waves in a cylindrical tunnel by foam
[AD-A262491] 11 p3423 N93-29419
Optimization of HPM device parameters for maximum air transmission
[DE93-007332] 11 p3386 N93-29765
Determination of the space charge distribution within an e-irradiated polymer using the pressure wave propagation method
[ONERA-P-1990-4] 11 p3335 N93-30024
Applications of mesoscopic physics
[DE93-012104] 11 p3597 N93-30141
Propagation channel modeling for angle-diversity combining simulation 11 p3360 N93-30252
ELF/VLF/LF Radio Propagation and Systems Aspects
[AGARD-CP-529] 11 p3394 N93-30727
ELF propagation highlights 11 p3395 N93-30730
VLF/LF propagation measurements 11 p3395 N93-30732
VLF propagation measurements in the Canadian Arctic 11 p3396 N93-30733
Investigations of equatorial ionosphere nighttime mode conversion at VLF 11 p3396 N93-30735
Lightning-induced effects on VLF/LF radio propagation 11 p3396 N93-30737
Comparative study of undersea fields produced by various dipoles 11 p3397 N93-30740
A methodology and tool for the prediction of depth of reception in the sea for a VLF/LF communications system 11 p3397 N93-30741
Numerical wave propagation and steady-state solutions 11 p3428 N93-30999
Heliospheric current sheet effects on the propagation of solar-generated shock waves 12 p3854 N93-31685
Diagnostics of magnetic substorms using satellite observations of magnetic pulsations
[AD-A264300] 12 p3764 N93-32084

WAVE RADIATION
U ELECTROMAGNETIC RADIATION

WAVE REFLECTION
NT MACH REFLECTION
Experimental measurement and theoretical modeling of microwave scattering and the structure of the sea surface influencing radar observations from space
[NASA-CR-190998] 02 p0343 N93-12006
Cancellation of air-borne acoustic plane waves obliquely incident upon a planar phased-array of active surface elements 03 p0700 N93-13635
EHF fiber optic transmitter module
[AD-A257586] 06 p1661 N93-18183
Reflecting model: P-S arrival
[REPT-92-029] 06 p1576 N93-18188
Joint services electronics program
[AD-A259179] 07 p1890 N93-20562
Spherical wave reflection and transmission 08 p2487 N93-23499
High resolution shear wave reflection surveying for hydrogeological investigations
[DE93-004732] 08 p2398 N93-24006
On the effective reflection properties of the randomly segmented elastic bar 09 p2724 N93-25328
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155

WAVE SCATTERING
NT ACOUSTIC SCATTERING
NT ATMOSPHERIC SCATTERING
NT ELECTROMAGNETIC SCATTERING
NT HALOS
NT IONOSPHERIC F-SCATTER PROPAGATION
NT LIGHT SCATTERING
NT MICROWAVE SCATTERING
NT MIE SCATTERING
NT RAMAN SPECTRA
NT RAYLEIGH SCATTERING
NT REVERBERATION
NT THOMSON SCATTERING
NT TROPOSPHERIC SCATTERING
NT X RAY SCATTERING
Application of the boundary element method to elastic wave scattering problems in ultrasonic nondestructive evaluation 02 p0332 N93-11209
Wave propagation and scattering in dense geophysical media
[AD-A254573] 03 p0561 N93-12646
Regional seismograms: Attenuation and scattering
[AD-A254348] 03 p0650 N93-12943
Guidance and scattering of electromagnetic waves by nonlinear layers 03 p0566 N93-13813
Electromagnetic scattering simulations using equivalent boundary condition models 03 p0569 N93-14052
Investigation of the on-surface boundary operators for electromagnetic scattering by conducting object 04 p0857 N93-14189
Elastic wave scattering by partially debonded or partially coated fibers 04 p0829 N93-14224
Scattering and radiation by shells and nonlinear acoustics of particle suspensions
[AD-A257257] 05 p1281 N93-15890
Application of ray-born scattering and boundary perturbation methods to acoustic reverberation
[AD-A255712] 05 p1281 N93-15936
Scattering of elastic waves by a spherical inclusion
[AD-A256676] 05 p1206 N93-16093
Two-scale solution for the mutual coherence function in the presence of turbulence
[ITN-93-85178] 05 p1162 N93-16837
Topological approach for the study of electromagnetic coupling
[ONERA-P-1992-2] 07 p1881 N93-20230
Nondestructive evaluation of surface-breaking cracks in composite plates 07 p1936 N93-20680
Solution of the Helmholtz-Poincare Wave Equation using the coupled boundary integral equations and optimal surface eigenfunctions
[DE93-005300] 08 p2470 N93-24038
Enhanced backscattering from rough surfaces
[AD-A261000] 09 p2676 N93-25855
Radar imaging of the sea surface using different polarizations: Comparison between theory and experiment
[PB93-161768] 10 p3062 N93-27054
On the accurate long-time solution of the wave equation in exterior domains: Asymptotic expansions and corrected boundary conditions
[NASA-TM-106117] 10 p3111 N93-27068
Crustal and upper mantle velocity gradients in the vicinity of the East Kazakh test site: Ray synthesis of Lg in three-dimensional crustal models
[AD-A263209] 10 p3075 N93-28384
The wave, the cylinder, and the plate
[DE93-009458] 11 p3450 N93-28596
Sound wave scattering from an elastic spherical shell
[AD-A264039] 11 p3562 N93-30029
Sound wave scattering from a rigid sphere
[AD-A264182] 11 p3562 N93-30157
Errors when shock waves interact due to numerical shock width
[DE93-010699] 11 p3426 N93-30484
An efficient model for coupling structural vibrations with acoustic radiation
[NASA-CR-191452] 12 p3816 N93-31868

WAVE-PARTICLE INTERACTIONS
Transverse ion acceleration by localized lower hybrid waves in the topside auroral ionosphere 08 p2394 N93-23388
Time dependent simulation of cosmic-ray shocks including Alfven transport
[NASA-CR-192931] 09 p2899 N93-24752
Alfven wave transport effects in the time evolution of parallel cosmic-ray modified shocks
[NASA-CR-192932] 09 p2899 N93-25161
Very low frequency signals and whistler-mode amplification in the magnetosphere and limit-cycle behavior in the CECAF infrared free electronic laser
[AD-A261776] 09 p2716 N93-26601

WAVEFORMS
NT PULSE AMPLITUDE
NT PULSE DURATION
NT SAWTOOTH WAVEFORMS
NT SQUARE WAVES
Arbitrary waveform generator
[AD-D015346] 02 p0280 N93-11354
Modeling regional seismic waves
[AD-A246894] 02 p0361 N93-11421
Chinese Journal of Lasers (selected articles)
[AD-A254100] 02 p0317 N93-11786
Josephson Junction digital waveform generation for very wideband radars
[AD-A253668] 02 p0467 N93-12169
GaAs heterojunction device based A/D converter development
[AD-A252644] 02 p0468 N93-12183
Design for reliability: Current density
[AD-A254770] 03 p0570 N93-12866
ESPVI 4.0 electrostatic precipitator V-I and performance model: User's model
[PB92-169614] 03 p0643 N93-12938
Analysis-by-synthesis speech coding based on relaxed waveform-matching constraints
[ETN-92-92529] 05 p1140 N93-17585
Evaluation of regional seismic discriminants using the intelligent seismic event identification system
[AD-A258936] 06 p1583 N93-19071
Reducing bunch disruption in transition crossing by modification of the RF waveform
[DE93-002509] 06 p1515 N93-19625
Variable phase sine wave generator for active phased arrays
[AD-D015558] 07 p1888 N93-20028
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
A comparison of deconvolution techniques
[DE93-007407] 08 p2391 N93-22530
Unsteady blade pressures on a propfan: Predicted and measured compressibility effects
[NASA-CR-191087] 08 p2111 N93-23431
Monaural and binaural processing of complex waveforms
[AD-A261659] 09 p2846 N93-26358
Modeling earthquakes with local and regional broadband data 11 p3478 N93-30005
The use of DFT windows in signal-to-noise ratio and harmonic distortion computations
[DE93-009800] 11 p3433 N93-30655
Modeling regional seismic waves
[AD-A264002] 11 p3479 N93-30756
On waveform multigrid method
[NASA-CR-191455] 12 p3808 N93-31843
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988
A study of capillary and capillary-gravity wind waves: Their structures, distributions, and energy balances 12 p3771 N93-32215

WAVEGUIDE ANTENNAS
NT HORN ANTENNAS

Analysis and applications of a general boresight algorithm for the DSS-13 beam waveguide antenna
06 p1505 N93-18902
Atmospheric refraction correction for Ka-band blind pointing on the DSS-13 beam waveguide antenna
06 p1505 N93-18903
Fault detection using a two-model test for changes in the parameters of an autoregressive time series
06 p1505 N93-18907
DSS-13 beam waveguide antenna frequency stability
06 p1513 N93-19424
SETI low-frequency feed design study for DSS 24
06 p1514 N93-19433
Antenna pattern control using impedence surfaces
[NASA-CR-192182] 06 p1516 N93-19934
Performance of a 12-GHz fiber-optic system for beam-waveguide antenna stability testing
09 p2677 N93-26113
Optimizing the G/T ratio of the DSS-13 34-meter beam-waveguide antenna 09 p2678 N93-26118
Loaded Cavity-Backed Slot (LCBS) antennas for reentry vehicles
[DE93-008363] 10 p3025 N93-26670
The Third International Symposium on Space Terahertz Technology: Symposium proceedings
[NASA-CR-193013] 10 p3011 N93-27726
Analysis of a novel non-contacting waveguide backshort 10 p3015 N93-27753
Silicon micromachined waveguides for millimeter and submillimeter wavelengths 10 p3015 N93-27754

WAVEGUIDE LASERS
Ultraviolet waveguide lasers for phased array lidar
[AD-A261657] 09 p2715 N93-26363

WAVEGUIDES
NT BEAM WAVEGUIDES
NT CIRCULAR WAVEGUIDES
NT EARTH-IONOSPHERE WAVEGUIDE
NT OPTICAL FIBERS
NT OPTICAL WAVEGUIDES
NT RECTANGULAR WAVEGUIDES
NT SCINTILLATING FIBERS
High-power microwave breakdown of dielectric interfaces
[AD-A254200] 01 p0124 N93-10262
Pulse propagation in random media
[AD-A254294] 01 p0152 N93-10769
Extended-interaction klystron for the AN/TPS-43-E radar system
[AD-A253166] 01 p0076 N93-10882
Thermal analysis and design of polarizer mirrors for waveguides in the D3-D tokamak
[DE92-018884] 02 p0451 N93-11382
Final Technical Report
[AD-A253529] 02 p0284 N93-12083
Transmission/reflection and short-circuit line methods for measuring permittivity and permeability
[PB92-205376] 02 p0293 N93-12084
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3
[NASA-TM-105890] 02 p0469 N93-12325
Terahertz horn antennas on thin membranes
[AD-A254772] 03 p0562 N93-12867
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192
Analysis and experimental results for an extraction cavity for the split-cavity oscillator
[DE92-040262] 03 p0566 N93-13512
Recursive algorithms for computational electromagnetics 03 p0567 N93-14043
Some theoretical and experimental aspects of the generation of guided elastic waves using finite sources
04 p0897 N93-14219
A preliminary design of the Ti:LiNbO3 optical channel waveguide
[AD-A255443] 04 p0982 N93-14784
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
Analysis of constant phase contours of evaporation duct mode functions for waveguide mode propagation
[AD-A257634] 05 p1141 N93-17721
Method for non-destructive estimation of waveguide directional coupler dimensions
[NASA-CASE-NPO-18454-1-CU]
06 p1519 N93-18285
Experimental study of the selective properties of coaxial resonators
[INPE-5375-PRE/1748] 06 p1522 N93-19740
High-bandwidth, high-dynamic-range, analog optical guided-wave systems for physics instrumentation
[DE93-001619] 07 p2066 N93-20022
An investigation of the channel crosstalk in optical heterodyne controlled phased array radars
[AD-A259168] 07 p1884 N93-20597
Reduction of bend losses for titanium diffused waveguides in lithium niobate
[ETN-93-92558] 07 p1884 N93-20750
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Lateral deviation of VLF radio waves due to diffraction and scattering from coast-lines, mountain ranges, and polar ice caps 08 p2265 N93-23599
Characteristics of linearly tapered slot antenna with CPW feed on high resistivity silicon
[NASA-TM-106057] 08 p2283 N93-23743
Millimeter-wave applications of semiconductor dielectric waveguides with plasma layers (surface or buried) generated from semiconductor lasers
[AD-A260484] 08 p2510 N93-24134
The evaluation of hollow dielectric waveguides for thermometry and spectroscopy
08 p2285 N93-24295
Time resolved studies of in-well and cross-well carrier transport in MQW semiconductor structures
[AD-A261170] 09 p2714 N93-25774
Propagation of finite amplitude sound in a waveguide with a parabolic sound velocity profile
[ARL-TR-92-11] 09 p2846 N93-26179
Analysis of longitudinal impact on semi-infinite circular bars and tubes. Appendix no. 2
[AD-A261556] 09 p2731 N93-26459
A submillimeter tripler using a quasi-waveguide structure 10 p3013 N93-27741
Modelling and performance of Nb SIS mixers in the 1.3 mm and 0.8 mm bands 10 p3014 N93-27748
Comparison of measured and predicted performance of a SIS waveguide mixer at 345 GHz
10 p3014 N93-27749
A low-noise 492 GHz SIS waveguide receiver
10 p3015 N93-27750
A dual polarized broadband multifrequency Earth station feed 11 p3371 N93-30319
Numerical modeling of the propagation medium at VLF/LF 11 p3395 N93-30729
Modification of the S-band phase shifter model 331A-3 of Electromagnetic Sciences Inc.
[DIGEL-1992-5] 11 p3399 N93-30836

WAVELENGTH DIVISION MULTIPLEXING
Advanced optical fiber communication systems
[AD-A255424] 04 p0982 N93-14507
Polarization independent narrow channel wavelength division multiplexing fiber coupler and method for producing same
[AD-D015473] 05 p1303 N93-16480
Investigation of the bandwidth of multimode optical fibers used with 1550-nm LED and laser sources
06 p1664 N93-19409
Intelligent, integrated fiber optic networks
[AD-A260282] 08 p2490 N93-24260
Wavelength-division multiplexed optical integrated circuit with vertical diffraction grating
[NASA-CASE-NPO-18357-1-CU]
11 p3579 N93-29848

WAVELENGTHS
NT DE BROGLIE WAVELENGTHS
Instabilities and patterns in Taylor-Couette flow
03 p0593 N93-13965
Microstructured diode lasers and pumped solid state lasers
[MBB-Z-0369-91-PUB] 07 p1910 N93-20804
Massive low surface brightness galaxies
10 p3178 N93-26746
Observation of a coronal streamer at meter and decimeter wavelengths 12 p3872 N93-31373

WAVERIDERS
A study of viscous interaction effects on hypersonic waveriders 04 p0778 N93-14160
Computational analysis of hypersonic flows past elliptic-cone waveriders
[NASA-CR-191304] 04 p0781 N93-14767
Hypersonic reconnaissance aircraft
[NASA-CR-192049] 05 p1064 N93-17804
The effects of viscosity on a conically derived waverider
[AD-A259019] 06 p1534 N93-19101
Computational analysis of hypersonic flows past generalized cone-derived waveriders
07 p1761 N93-20288
HSCT mission analysis of waverider designs
[NASA-CR-192193] 07 p1783 N93-21646
Optimized scramjet engine integration on a waverider airframe 09 p2593 N93-25480
Aerodynamic analysis of hypersonic waverider aircraft
[NASA-CR-192981] 10 p2929 N93-27093
The HSCT mission analysis of waverider designs
[NASA-CR-193467] 11 p3243 N93-31037

WAVES
Effects of layer waviness on compression-loaded thermoplastic composite laminates
03 p0532 N93-13724

WEAK ENERGY INTERACTIONS
NT WEAK INTERACTIONS (FIELD THEORY)
Weak-electromagnetic interference in polarized eD scattering
[DE93-001763] 04 p0978 N93-15486

WEAK INTERACTIONS (FIELD THEORY)
Survey of composite particle models of electroweak interaction
[DE92-017110] 02 p0441 N93-12111
Test of QED using a laser at the SLAC final focus test beam
[DE92-019647] 03 p0707 N93-12993
The Cabibbo-Kobayashi-Maskawa mixing matrix
[DE93-001255] 05 p1283 N93-15976
Theoretical particle physics
[DE93-000649] 05 p1329 N93-16357
Theory of the electroweak interactions
[SSCL-PREPRINT-775] 05 p1286 N93-16385
Weak matrix elements
[PREPRINT-854] 05 p1279 N93-16976
Theoretical aspects of electroweak and other interactions in medium energy physics
[DE93-003714] 06 p1657 N93-19507
Study of electroweak interactions
[DE93-004367] 07 p2061 N93-20385
Aspects of the electroweak phase transition
[DE93-004629] 07 p2063 N93-21723
Color sextet quarks and new high-energy interactions
[DE93-004187] 08 p2478 N93-22059
High sensitivity tests of the standard model for electroweak interactions
[DE93-006186] 08 p2483 N93-23684
Study of electroweak interactions
[DE93-007261] 08 p2484 N93-24510
Semiweak production of a top quark accompanied by a bottom quark and 2 jets at hadron colliders
[NIKHEF-H/91-27] 10 p3132 N93-27508
Neutrino properties
[SSCL-PREPRINT-722] 10 p3204 N93-28095
Measurement of W-Z interference from neutrino-electron scattering
[DE93-010724] 11 p3566 N93-29313
Neutrino mass
[DE93-010735] 11 p3566 N93-29315
Unitary approximation of Bhabha diffusion by high energies and its implementation in Monte Carlo event generators
[ETN-93-93622] 11 p3571 N93-30670
Parton's picture of the electroweak processes in high energy e(+)e(-)-collisions
[DE93-606107] 11 p3571 N93-30788
Massive Majorana neutrinos in pre-bounce supernovae
[DE92-642597] 11 p3572 N93-30931
Radiative electroweak breaking and sparticle spectroscopy with tan(beta) is approximately equal to (m(sub t)) divided by (m(sub b))
[DE93-608399] 12 p3832 N93-31663
Lepton-quark families, cosmic strings and democratic mass matrix
[DE93-608263] 12 p3832 N93-31809

WEAPON SYSTEMS
NT GROUND OPERATIONAL SUPPORT SYSTEM
NT LASER WEAPONS
NT MISSILE SYSTEMS
NT SUCCESS PROJECT
Maintaining future military aircraft design capability
[AD-A253963] 01 p0008 N93-10420
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
Development of an integrated package of physics models for scene simulation studies to support smart weapons design studies
[LTR92-004] 04 p0945 N93-14696
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
AQUIS: A PC-based air quality and permit information system
[DE92-040092] 06 p1573 N93-18587
A visual of the helmet for the piloting and the day/night navigation of the combat aircraft: Requirements and technical approaches 06 p1434 N93-19768
Program manager: Journal of the Defense Systems Management College, volume 21, number 6, November-December 1992
[AD-A258766] 06 p1553 N93-19870
Test and evaluation challenges in the nineties
06 p1442 N93-19902
NASA pyrotechnically actuated systems program
07 p1863 N93-20133
Precision linear shaped charge severance of graphite-epoxy materials
[SAND-92-0610C] 07 p1865 N93-20151

Performance testing of explosives and weapons detection systems 07 p1769 N93-21889
Advances in Guidance and Control of Precision Guided Weapons
[AGARD-CP-524] 08 p2254 N93-22018
Linear payout systems for dispensing fiber-optic data links from precision-guided munitions or high-performance aircraft/missles 08 p2255 N93-22026
Versatile attack weapon 08 p2256 N93-22027
System concept for an advanced stand-off weapon 08 p2256 N93-22029
Opportunities and challenges in avionics integration, INS/GPS: A case study 08 p2119 N93-22782
Trial maneuver generation and selection in the Paladin tactical decision generation system
[NASA-TM-107722] 08 p2131 N93-23088
Vulnerability assessment of aircraft: A review of the Department of Defense Live Fire Test and Evaluation Program
[PB93-149946] 08 p2127 N93-23678
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
The systems engineering overview and process (from the Systems Engineering Management Guide, 1990) 09 p2665 N93-24679
Fidelity and validity in distributed interactive simulation: Questions and answers
[AD-A260971] 09 p2810 N93-25711
CALS-HSC data element dictionary
[AD-A261560] 09 p2813 N93-26461
Technical operating report on the Data Integration and Collection Environment (DICE) instrumentation system design
[AD-A261105] 09 p2591 N93-26572
Data management standards in Computer-Aided acquisition and Logistic Support (CALS) 10 p2964 N93-27714
NPB cesium space experiment 11 p3267 N93-28733
Combat Automation for Airborne Weapon Systems: Man/Machine Interface Trends and Technologies
[AGARD-CP-520] 11 p3501 N93-28850
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853
Virtual interface applications for airborne weapons systems 11 p3502 N93-28858
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
Automated Assembly Center (AAC) 12 p3686 N93-32123

WEAPONS
NT ARTILLERY
NT GUNS (ORDNANCE)
NT LASER WEAPONS
NT NUCLEAR WEAPONS
NT PRECISION GUIDED PROJECTILES
NT SPACE WEAPONS
NT WARHEADS

WEAPONS DELIVERY
AGARD flight test techniques series. Volume 10: Weapon delivery analysis and ballistic flight testing
[AGARD-AG-300-VOL-10] 02 p0430 N93-11711
MIL-STD-1760 application guidelines
[AD-A255714] 04 p0790 N93-14432
Review of techniques for in-flight transfer alignment: Guided weapons technical memorandum no. 012
[AD-A256316] 05 p1059 N93-16402
YF-22A prototype advanced tactical fighter demonstration/validation flight test program overview 10 p2920 N93-27173
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853

WEAPONS DEVELOPMENT
Data analysis for bark and leaf reflectance measurements
[AD-A258598] 07 p1966 N93-19983

WEAR
Workshop on Surface Science and Technology
[AD-A253566] 02 p0264 N93-11149
Friction of self-lubricating surfaces by ion beam techniques
[DE92-016069] 02 p0328 N93-12122
The degradation of parachutes: Age and mechanical wear
[AD-A252243] 02 p0200 N93-12179
Friction, wear and Raman spectroscopic characteristics of carbon lubricated surfaces 03 p0618 N93-13949
Tribology of magnetic storage systems 04 p1002 N93-14772
Method and devices for the in situ repair of damaged threads
[AD-D015416] 04 p0891 N93-14881
Exceptionally high-strength (approximately 3 GPa) aluminum alloys demonstrated by oxygen ion implantation
[DE92-040980] 04 p0847 N93-15383
Generation of aerosolized particulate contamination by the wear of stainless steels
[DE93-000742] 05 p1115 N93-17047
Spectroscopic wear detector
[NASA-CASE-LEW-15200-1] 06 p1474 N93-18856
Friction and wear of plasma-deposited diamond films
[NASA-TM-105926] 06 p1495 N93-19035
100-kW class applied-field MPD thruster component wear
[NASA-TM-106023] 08 p2203 N93-22482
Friction microprobe investigation of particle layer effects on sliding friction
[DE92-018868] 08 p2313 N93-22925
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Crystal chemistry of ceramic/mineral systems
[AD-A260440] 08 p2241 N93-24193
Elastomer compound developed for high wear applications 09 p2659 N93-25607
Advanced bristle seals for gas turbine engines
[AD-A261296] 09 p2720 N93-26564
Synergistic effects of silver films and synthetic lubricants on boundary-lubrication behavior of ceramics
[DE93-007895] 10 p3003 N93-27523
Three-grid accelerator system for an ion propulsion engine
[NASA-CASE-NPO-18391-1-CU] 10 p2987 N93-28424
Preliminary experimental results for a cryogenic brush seal configuration
[NASA-TM-106236] 11 p3416 N93-28627
Fundamental studies of friction, lubrication, and wear by atomic force microscopy
[AD-A264647] 11 p3446 N93-30524
Tribology: Friction, lubrication, and wear technology 11 p3292 N93-30965
Zirconia ceramics and mechanical surface interactions
[ETN-93-94049] 12 p3709 N93-31541
Recording and wear characteristics of 4 and 8 mm helical scan tapes 12 p3730 N93-31969
Tribological characteristics of perfluoropolyether liquid lubricants under sliding conditions in high vacuum
[NASA-TM-106257] 12 p3711 N93-32352

WEAR INHIBITORS
Experimental and theoretical studies of the structure of metal dichalcogenides 06 p1490 N93-18488

WEAR RESISTANCE
NT ABRASION RESISTANCE
Developmental research on ultra abrasion-resistant materials
[DE92-531066] 01 p0036 N93-10287
Heat-affected zone cracking of nitronic 60 stainless steel
[DE92-018286] 02 p0254 N93-10984
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Wastage-resistant FBC evaporator tubing through microalloying
[DE92-001256] 03 p0541 N93-12790
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
The effect of processing and compositional changes on the tribology of PM212 in air
[NASA-TM-105945] 04 p0828 N93-15576
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
Integrated fundamental research on current collection
[AD-A256893] 05 p1144 N93-15981
Ion beam application for improved polymer surface properties
[DE93-001375] 05 p1127 N93-17498
Tribological and microstructural investigation of the PM200 series of self-lubricating composites
[NASA-CR-190772] 05 p1096 N93-17776
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
Asphalt mixtures modified with tall oil pitches and cellulose fibres
[VTT-PUBS-99] 06 p1494 N93-18699
Coatings on composites: New developments and applications in the aerospace industry
[MBB-Z-0443-92-PUB] 07 p1840 N93-21404
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Sputter ion plating on Ti6AlV4 and Ti(cp): Preparation and properties of oxidation and wear resistant coatings
[MBB-Z-0444-92-PUB] 08 p2239 N93-23365
Macromolecules for inhibition of corrosion and wear
[AD-A261041] 09 p2655 N93-25816
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Effect of metallic-coating properties on the tribology of coated and oil-lubricated ceramics
[DE93-010663] 11 p3330 N93-28666
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Surface modification of tribological components in transportation
[DE93-008647] 11 p3442 N93-28903

WEAR TESTS
Relative sliding durability of candidate high temperature fiber seal materials
[NASA-TM-105806] 02 p0236 N93-10978
Extended-testing of xenon ion thruster hollow cathodes
[NASA-CR-189227] 02 p0234 N93-12409
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Development of wear-resistant ceramic coatings for diesel engine components
[DE92-041382] 04 p0853 N93-15439
Brush seal bristle flexure and hard-rub characteristics
[NASA-TM-105864] 06 p1547 N93-18321
Integrity testing of brush seal in shroud ring of T-700 engine
[NASA-TM-105863] 06 p1548 N93-18380
Evaluation of high-temperature lubricants for low-heat rejection diesel engines
[AD-A257893] 06 p1494 N93-18418
Evaluation and silicon nitride internal combustion engine components
[DE93-003628] 06 p1548 N93-18536
A new journal bearing tester: The VTT water tribotester
[VTT-TIED-1345] 06 p1548 N93-18632
Dynamics in condition monitoring, a case study 06 p1558 N93-18758
Test requirements for coal-tar mixtures on airport pavements
[DOT/FAA/RD-92/27] 08 p2134 N93-23137
Friction and wear performance of ion-beam deposited diamondlike carbon films on steel substrates
[DE93-007896] 10 p3002 N93-27050
Brush seal low surface speed hard-rub characteristics
[NASA-TM-106169] 10 p3039 N93-27132
Investigation of multiply alkylated cyclopentane synthetic oil and lead naphthenate additive under boundary contact interactions
[ATR-93(8361)-1] 10 p2995 N93-27602
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011525] 10 p3005 N93-28218
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011120] 10 p3006 N93-28364
Ion-beam-assisted deposition of wear-resistant coatings
[DE93-011529] 11 p3330 N93-28687
Recording and wear characteristics of 4 and 8 mm helical scan tapes 12 p3730 N93-31969
Fast Fourier Transform analysis of computer-acquired friction data
[DE93-010337] 12 p3736 N93-32179

WEATHER
NT COLD WEATHER
Weather Message Switching Center Replacement (WMSCR) Operational Test and Evaluation (OT/E)/integration test plan
[DOT/FAA/CT-TN90/59] 01 p0007 N93-10833
Mariners Weather Log, volume 36, number 1, Winter 1992
[PB92-161025] 02 p0368 N93-11256
Proceedings of the National Weather Service Aviation Workshop: Postprint volume
[PB92-176148] 02 p0369 N93-11803
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
Mariners Weather Log, volume 36, number 2, Spring 1992
[PB92-204213] 02 p0371 N93-12293
Transhorizon microwave propagation and its relationship with meteorological conditions 03 p0666 N93-13791
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692

A comparison of data from SOLMET/ERSATZ and the National Solar Radiation Data Base
[DE93-000018] 05 p1399 N93-17174
On implementation (World Weather Watch)
[WMO-753] 05 p1217 N93-17597
Flight director information and pilot performance in instrument approaches
[AD-A258186] 06 p1601 N93-17857
Terrain background signature research
[AD-A257917] 06 p1565 N93-18213
Adverse weather test site selection study
[AD-A259012] 06 p1440 N93-18895
Determination and representation of electric charge distributions associated with adverse weather conditions 06 p1588 N93-19403
Surface observation climatic summaries
[AD-A258589] 07 p2001 N93-19964
Manual on climate of the USSR. Issue 16: Armenian SSR. Part 5: Cloud cover and atmospheric phenomena-translation
[AD-A259288] 07 p2012 N93-20609
SSG 5.98: Atmospheric excitation of the Earth's rotation 07 p1974 N93-20991
Climate of Salt Lake City, Utah
[PB92-228402] 07 p2013 N93-21200
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Proceedings of the International COADS workshop
[PB93-123552] 07 p1993 N93-21800
Air traffic operational evaluation plan of the automated surface observing system (ASOS) displays
[DOT/FAA/CT-TN92/36] 08 p2121 N93-22801
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
Water temperature characteristics of lakes subjected to climate change
[PB93-135648] 08 p2385 N93-23265
Mariners weather log, volume 36, number 3, summer 1992
[PB93-132033] 08 p2405 N93-23282
Mariners weather log, volume 36, number 4, fall 1992
[PB93-132041] 08 p2405 N93-23283
The influence of variations of vegetation and soil moisture on surface weather and atmospheric circulation 08 p2407 N93-23495
A comprehensive glossary of weather terms for storm spotters
[PB93-128940] 08 p2407 N93-23649
Climatological probability of cloud-free line-of-sight
[AD-A260139] 08 p2407 N93-23706
Equatorial atmospheric weather regimes: Their structure and role 08 p2411 N93-24580
A comparison of the WIND System atmospheric models and MATS data
[DE93-002687] 09 p2760 N93-24673
Applications of triggered lightning to space vehicle operations 09 p2619 N93-24878
Mariners weather log, volume 37, number 1, winter 1993
[PB93-174308] 10 p3077 N93-27516
Handbook on the climate of the USSR. Issue 14: Georgian SSR, Part 5: Cloud conditions and atmospheric phenomena
[AD-A262676] 10 p3078 N93-28116
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875
Contributions to the American Meteorological Society's 26th International Conference on Radar Meteorology
[AD-A263385] 11 p3481 N93-29257
Cloudiest year study: An analysis of the 3DNEPH and RTNEPH databases
[AD-A263409] 11 p3483 N93-29967
Air weather service master station catalog USAFETAC climatic database users handbook no. 6
[AD-A264761] 11 p3484 N93-30608
U.S. National weather experiment STORM-FEST 1992: Wave and turbulence in frontal zones
[AD-A264294] 12 p3766 N93-31182
Recent changes of weather patterns in North America
[DE93-013982] 12 p3769 N93-32289

WEATHER CHARTS
U METEOROLOGICAL CHARTS

WEATHER CONDITIONS
U WEATHER

WEATHER CONTROL
U WEATHER MODIFICATION

WEATHER FORECASTING
NT LONG RANGE WEATHER FORECASTING
NT NOWCASTING
NT NUMERICAL WEATHER FORECASTING
NT STATISTICAL WEATHER FORECASTING

Satellite derived integrated water vapor and rain intensity patterns: Indicators of rapid cyclogenesis 01 p0127 N93-10849
Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Weather impacts on space operations
[AD-A253720] 02 p0371 N93-12170
A real time sharpening of NOGAPS predictions of mid-latitude Central Pacific cyclones
[AD-A255157] 02 p0372 N93-12424
The role of latent heat release in explosive cyclogenesis
[AD-A254436] 03 p0660 N93-12596
SAC contrail formation study
[AD-A254410] 03 p0499 N93-12605
Extended range forecast of Atlantic seasonal hurricane activity for 1993 03 p0661 N93-12928
Terminal Doppler Weather Radar (TDWR) Operational Test and Evaluation (OT/E) integration test plan
[DOT/FAA/CT-TN92/6] 03 p0499 N93-13377
Technology reconciliation in the remote sensing era of US civilian weather forcasting: 1957 - 1987 04 p0918 N93-14114
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Proceedings of the data assimilation in coupled air-sea nowcast/forecast systems workshop
[AD-A255409] 04 p0925 N93-14503
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A256063] 04 p0921 N93-14680
An observational and theoretical study of squall line evolution 04 p0921 N93-14682
A single-station forecasting model
[AD-A256403] 04 p0924 N93-15331
Cloud fraction, layer, and direction of movement results from sky cameras during the FIRE IFO, Coffeyville, Kansas, experiment for the period Nov. 12 through Dec. 9, 1991
[NASA-TM-107647] 04 p0924 N93-15501
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center
[NASA-CR-4474] 04 p0924 N93-15581
ExperCAT case studies
[AD-A256177] 05 p1211 N93-15871
Mathematical model and computer algorithm for tracking coastal storm cells for short term tactical forecasts
[AD-A257110] 05 p1212 N93-16117
Proceedings of the First NMC/NESDIS/DOD Conference on DMSP Retrieval Products
[AD-A256707] 05 p1212 N93-16167
Pilot weather advisor
[NASA-CR-189723] 05 p1059 N93-16692
A plan for accurate estimation of daily area-mean rainfall during the CaPE experiment 05 p1219 N93-17292
Incorporation of a radiation parameterization scheme into the Naval Research Laboratory limited area dynamical weather prediction model
[AD-A257739] 05 p1218 N93-17668
Cloud model database comparison study
[AD-A258065] 05 p1218 N93-17678
Predicting the movement of Carolina coastal fronts
[AD-A258280] 06 p1585 N93-18012
The Terminal Doppler Weather Radar (TDWR) Moving Target Simulator (MTS) at Orlando, Florida
[AD-A258885] 06 p1509 N93-19080
Analysis of relational concepts for the implementation of systems for three-dimensional visualization of meteorological data
[INPE-5435-TAE/016] 06 p1588 N93-19638
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
A horizontal refractivity depiction product: An evaluation
[AD-A258738] 07 p1966 N93-20401
Joint Typhoon Warning Center (JTWC92) model
[AD-A258646] 07 p2011 N93-20586
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
Nocturnal temperature forecasting
[MISC-SER-A-126] 07 p2012 N93-20888
Hydrostatically consistent North American radiosonde data base at the Forecast Systems Laboratory, 1946-present
[PB93-112225] 07 p2013 N93-21229
Predicting our weather: A strategic plan for the US Weather Research Program
[PB93-101277] 07 p2013 N93-21293
Diagnostic Report of the National Hurricane Center. October and November 1991, volume 4, number 3
[PB93-126464] 07 p2014 N93-21478
Global analyses from ECMWF and Atlas of 1000 to 10 mb circulation statistics
[NASA-CR-192720] 07 p2014 N93-21492
Use of AVHRR-derived cloudiness and precipitation in operational weather forecasting and in model studies 07 p1959 N93-21608
Utilization of remote sensing data at the Deutscher Wetterdienst 07 p1962 N93-21621
Qualitative and quantitative diagnosis of cloud images for use in weather forecast 07 p1962 N93-21623
Intelligent and localized weather prediction
[PB93-117992] 07 p2015 N93-21787
Data sets for weather information services 08 p2337 N93-22140
A convective drag theory for surface fluxes
[DE93-004037] 08 p2403 N93-22722
Mariners weather log, volume 36, number 3, summer 1992
[PB93-132033] 08 p2405 N93-23282
Impact of a Newtonian assimilation and physical initialization on the initialization and prediction in a tropical mesoscale model 08 p2394 N93-23353
Meteosat operational programme current missions and services 08 p2357 N93-23752
Intraseasonal relationships between tropical heating and extratropical jets
[AD-A260212] 08 p2408 N93-24004
An investigation of the ERICA IOP-5A cyclone
[AD-A260214] 08 p2408 N93-24097
The use of the Air Force cloud cover data to evaluate and improve cloud forecast and parameterization in mesoscale meteorology models
[AD-A260357] 08 p2409 N93-24171
Meteorological data assimilation by adaptive Bayesian optimization 08 p2409 N93-24272
Weather forecasting expert system study
[NASA-CR-192929] 09 p2777 N93-24747
The need for spaceborne observations for meteorology and climatology 09 p2744 N93-24813
A single-point warning system for thunderstorms and electric fields 09 p2711 N93-24900
Application of optical remote sensing to the study of surface fluxes related to cloud formation
[DE93-003783] 09 p2781 N93-25125
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
A systematic satellite approach for estimating central pressures of mid-lattitude oceanic storms
[NOAA-TR-NESDIS-63] 09 p2781 N93-25220
Rossby-gravity waves in tropical total ozone data
[NASA-CR-192983] 09 p2764 N93-25432
Numerical simulation of the seasonal and interannual variability of the tropical Atlantic Ocean circulation during the 1980's 09 p2789 N93-25445
Interactive forecasting with the National Weather Service River Forecast System 09 p2788 N93-25616
Computation of moisture flux from ocean to atmosphere using a synergy of SSM/I-derived precipitable water and ECMWF analyses 09 p2774 N93-25757
National Weather Service Winter Weather Workshop
[PB93-146785] 09 p2785 N93-25775
Typhoon prediction (recurvature - 1990 experiment)
[AD-A260673] 09 p2786 N93-25892
Development and testing of improved techniques for modeling the hydrologic cycle in a mesoscale weather prediction system
[AD-A261454] 09 p2787 N93-26351
Investigation of outflow strength variability in Florida downburst producing storms
[DOT/FAA/NR-93/5] 10 p3076 N93-27095
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Rapid marine cyclogenesis forecast sensitivity to high resolution sea surface temperatures during ERICA IOP-5
[AD-A262117] 10 p3079 N93-28183
Monthly mean sea ice data from the Polar Ice Prediction System (PIPS), the Regional Polar Ice Prediction System: Barents Sea (RPIPS-B), the Regional Polar Ice Prediction System: Greenland Sea (RPIPS-G), and the Polar Ice Prediction System 2.0 (PIPS 2.0)
[AD-A262794] 10 p3081 N93-28377
High performance dispersion model PHYSIC
[DE93-753303] 11 p3467 N93-28536
Leadex data report. Part 1: Weather analysis and satellite images
[AD-A263217] 11 p3481 N93-28876
Proceedings of the Thunder and Lighting Seminar and the 3D Lightning Warning Workshop
[AD-A262766] 11 p3482 N93-29304

Leadex data report. Part 2: Rawinsonde and ice station data
[AD-A263218] 11 p3483 N93-29491
The 17th Annual Climate Diagnostics Workshop
[PB93-183895] 11 p3483 N93-29664
Systems description of MIVOS (mist forecast system), part 1
[KNMI-TR-141-PT-1] 11 p3483 N93-30013
Daily sum of the global radiation: Calculation method and verification of forecast
[KNMI-TR-138] 11 p3478 N93-30113
Stand alone lightning detection equipment used at Canadian Forces air bases 11 p3367 N93-30295
STRATUS: A prototype expert advisory system for terminal weather forecasting 11 p3367 N93-30296
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty 11 p3246 N93-31005
Shuttle landing facility cloud cover study: Climatological analysis and two tenths cloud cover rule evaluation
[NASA-CR-193016] 11 p3272 N93-31033
Advances in dynamical predictions and modelling of tropical cyclone motion
[AD-A264500] 12 p3767 N93-31195
The 3rd national heavy precipitation workshop
[PB93-186625] 12 p3767 N93-31329
Navy tactical applications guide, part 2, volume 8: Arctic-East Siberian/Chukchi/Beaufort Seas. Weather analysis and forecast applications
[AD-A265585] 12 p3768 N93-31922
Tropical cyclone forecasters reference guide, No. 3: Tropical cyclone formation
[AD-A265216] 12 p3768 N93-32005

WEATHER FRONTS
U FRONTS (METEOROLOGY)

WEATHER MAPS
U METEOROLOGICAL CHARTS

WEATHER MODIFICATION
NT CLOUD SEEDING
NT LIGHTNING SUPPRESSION
Investigation of winter mountain storms in Utah during the 1989 Utah/NOAA field program
[PB93-153021] 09 p2785 N93-25849

WEATHER RADAR
U METEOROLOGICAL RADAR

WEATHER RECONNAISSANCE AIRCRAFT
Operations plan for the Tropical Cyclone Motion (TCM-92) mini-field experiment
[AD-A254723] 02 p0372 N93-12339

WEATHER STATIONS
NT AUTOMATIC WEATHER STATIONS
Eleven years of ionospheric scintillation fading data from twenty Greenlandic stations
[AD-A253271] 01 p0069 N93-10695
A single-station forecasting model
[AD-A256403] 04 p0924 N93-15331
On implementation (World Weather Watch)
[WMO-753] 05 p1717 N93-17597
US Navy regional climatic study of the Persian Gulf and the Northern Arabian Sea
[AD-A260363] 08 p2409 N93-24239
An automated observing system for passive evaluation of cloud cover and visibility
[AD-A263207] 11 p3481 N93-28875

WEATHERING
Dynamic mechanical properties of plastic composites measured by DMTA technique 07 p1835 N93-21140
Workshop on chemical weathering on Mars, part 2
[NASA-CR-192261] 08 p2554 N93-23192
Surface degradation of polymeric materials
[NPL-DMM(A)-75] 12 p3709 N93-31323
MSATT Workshop on Chemical Weathering on Mars
[NASA-CR-193209] 12 p3861 N93-31933
The mineralogy and formation processes of Mars soil 12 p3861 N93-31934
Effects of the chemical environment on the spectroscopic properties of clays: Applications for Mars 12 p3862 N93-31936
Dehydroxylated clay silicates on Mars: Riddles about the Martian regolith solved with ferrian saponites 12 p3862 N93-31937
The fate of iron on Mars: Mechanism of oxidation of basaltic minerals to ferric-bearing assemblages 12 p3862 N93-31938
Implications for volcanogenic volatile release on the weathering of Mars 12 p3862 N93-31939
On the weathering of Martian igneous rocks 12 p3862 N93-31941
Preliminary results of an experimental study of the interactions of basalt glass and a water vapor atmosphere: Implications for weathering on Mars 12 p3864 N93-31948
Composition of weakly altered Martian crust: Clues from imaging spectroscopy 12 p3865 N93-31952
Weathering processes implied from analysis of small Martian avalanche chutes 12 p3866 N93-31960
Geochemistry and setting of Martian weathering: The Lafayette meteorite 12 p3866 N93-31961

WEAVING
Integral fill yarn insertion and beatup method using inflatable membrane
[NASA-CASE-LAR-14046-1] 06 p1500 N93-18857
Method and apparatus for three dimensional braiding
[NASA-CASE-LAR-14047-1] 06 p1500 N93-19038
What's a Parabeam 3D? 07 p1835 N93-21137
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials 07 p1836 N93-21141
New types of textile fabrics for fibre composites 07 p1836 N93-21142
Predesign of the tubular braiding process using a mathematical process description 07 p1836 N93-21143
Relationships between layer linkage and mechanical properties of 3D woven textile structures 07 p1836 N93-21144
Method and apparatus for weaving a woven angle ply fabric
[NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
Powder towpreg process development 11 p3303 N93-30844
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Advanced fiber/matrix material systems 11 p3305 N93-30854
Mechanical and analytical screening of braided composites for transport fuselage applications 11 p3305 N93-30855

WEBBING
Structural response of bead-stiffened thermoplastic shear webs 11 p3308 N93-30873
Web crippling of cold-formed steel members
[ISBN-9-03-860122-0] 12 p3705 N93-31540

WEBER-FECHNER LAW
Detecting residue on a printed circuit board: An application of the Boundary Contour/Feature Contour System
[DE93-006283] 11 p3412 N93-30370

WEBS (MEMBRANES)
U MEMBRANES

WEDGES
An open or closed crack terminating at a bi-material interface: Power-logarithmic singularities 01 p0047 N93-10483
Vibration frequencies of a constrained cantilever wedge 01 p0057 N93-10534
Shock wave diffractions over semi-circular and half-diamond cylinders 01 p0060 N93-10546
Translating wedge heat sink
[AD-D015357] 02 p0293 N93-12133
Method and apparatus for gripping test specimens
[NASA-CASE-LEW-15345-1] 02 p0329 N93-12327
Numerical investigations into the base drag of various wedges using the base flow model developed by Mauri Tanner
[REPT-B-36] 02 p0202 N93-12414
Application of a vectorized particle simulation to the study of plates and wedges in high-speed rarefied flow 03 p0495 N93-13746
Combined LAURA-UPS hypersonic solution procedure
[NASA-TM-107682] 09 p2696 N93-25176
An apparatus for gripping test specimens
[NASA-CASE-LEW-15345-2] 10 p3052 N93-28127

WEIBEL INSTABILITY
Weibel instabilities in relativistic electron-positron plasmas
[DE93-003468] 07 p2077 N93-21990

WEIBULL DENSITY FUNCTIONS
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
A normal distribution or a Weibull distribution for fatigue lives
[LR-689] 05 p1275 N93-16216
A revised lower confidence limit procedure for the reliability of complex quasi-coherent systems
[AD-A257599] 05 p1277 N93-17764
Load experience variability of fighter aircraft
[NLR-TP-89172-U] 07 p1781 N93-20742
Fatigue criterion to system design, life and reliability: A primer
[NASA-TM-106022] 08 p2328 N93-23406
Aircraft engine reliability analysis using lower confidence limit estimate procedures
[AD-A260386] 08 p2131 N93-24271
Estimating characteristic life and reliability of an aircraft engine component improvement in the early stages of the implementation process
[AD-A262118] 10 p2945 N93-28184
Detection performance of digital polarity sampled phase reversal code pulse compressors
[AD-A262930] 10 p3028 N93-28289
Modified goodness-of-fit tests for the Weibull distribution
[AD-A262552] 11 p3553 N93-28574
A new goodness-of-fit test for the Weibull distribution based on spacings
[AD-A262615] 11 p3553 N93-28587

WEIGHT (MASS)
NT ATOMIC WEIGHTS
NT BIOMASS
NT BODY WEIGHT
NT STRUCTURAL WEIGHT
A prospective evaluation of stress fractures/overuse injuries in a population of West Point cadets
[AD-A252427] 01 p0132 N93-10709
The 77th National Conference on Weights and Measures
[PB93-130466] 08 p2258 N93-23270
What is the relationship between altitude and weight in a model rocket? 09 p2603 N93-24715
Surveillance schemes with applications to mass calibration
[PB93-181881] 12 p3810 N93-31430

WEIGHT ANALYSIS
Weight optimum arch structures
[AD-A256080] 04 p0897 N93-14236

WEIGHT FACTORS
U WEIGHT (MASS)

WEIGHT INDICATORS
NT MICROBALANCES
NT STRAIN GAGE BALANCES
Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895

WEIGHT MEASUREMENT
Specifications, tolerances, and other technical requirements for weighing and measuring devices as adopted by the 77th National Conference on Weights and Measures, 1992
[PB93-130474] 08 p2257 N93-22895

WEIGHT REDUCTION
Selected results for metals from LDEF experiment A0171 01 p0034 N93-10579
Weight optimization of an aerobrake structural concept for a lunar transfer vehicle
[NASA-TP-3262] 03 p0519 N93-13379
An investigation of dynamic stress reduction of multi-body aircraft using active gust control 03 p0505 N93-13916
Research on heat-resistance technology for HOPE 07 p1791 N93-20426
Evolution of materials used in liquid propellant rocket engines
[DS-2025] 07 p1830 N93-21460
Vehicle systems 08 p2174 N93-22095
A low-mass faraday cup experiment for the solar wind
[NASA-CR-193210] 10 p3217 N93-27078
Sikorsky Aircraft Advanced Rotorcraft Transmission (ART) program
[NASA-CR-191079] 10 p3050 N93-27268
Advanced composite structural concepts and material technologies for primary aircraft structures 11 p3300 N93-30430
Composites technology for transport primary structure 11 p3300 N93-30431
Advanced technology commercial fuselage structure 11 p3300 N93-30432
Cost studies for commercial fuselage crown designs 11 p3302 N93-30440
Aircraft structures in 2000: A technological challenge?
[MBB-LME-202-S-PUB-0485] 12 p3679 N93-31058

WEIGHTING FUNCTIONS
Unifying the landmark developments in optimal bounding ellipsoid identification
[AD-A253502] 01 p0143 N93-10200
Acoustic fill factors for a 120 inch diameter fairing
[NASA-CR-189284] 02 p0434 N93-11634
Limit theorems for Fisher-score change processes
[AD-A257278] 02 p0427 N93-12328
Low sensitivity interpolation using feed-forward neural networks with one hidden layer
[AD-A257306] 05 p1258 N93-16006
Binary weight distributions of some Reed-Solomon codes 06 p1514 N93-19430
Guide to microwave weighting function calculations
[NASA-CR-192719] 07 p1885 N93-21201
A comparison of force reconstruction methods for a lumped mass beam
[DE93-002461] 07 p1951 N93-21484
Computation and learning in neural networks with binary weights
[AD-A261182] 09 p2821 N93-25821

Orbit-orbit branching rules 10 p3146 N93-27350
Parameter identification of time-varying systems using neural networks 11 p3356 N93-30226

WEIGHTLESSNESS
An overview of gravitational physiology [NASA-TM-102849] 02 p0391 N93-12319
Zero-gravity quantity gaging system [NASA-CR-185602] 03 p0556 N93-12699
Establishing laboratory standards for biological flight experiments [NASA-CR-184402] 03 p0671 N93-12901
SLS-1 flight experiments preliminary significant results [NASA-TM-10R033] 03 p0520 N93-13613
Bone loss and human adaptation to lunar gravity 03 p0676 N93-14002
An active Z gravity compensation system [AD-A255258] 04 p0889 N93-14529
Passive zero-gravity leg restraint [NASA-CASE-ARC-11862-1-CU] 04 p0939 N93-14713
Adiabatic demagnetization refrigerator for use in zero gravity [NASA-CR-190864] 05 p1130 N93-15689
Exercise during long term exposure to space: Value of exercise during space exploration 05 p1222 N93-16807
Response of a rotating anchored finite annular liquid layer to axial excitation [LRT-WE-9-FB-6-1991] 05 p1133 N93-17548
Response of an annular cylindrical liquid layer with anchored edges in zero-gravity [LRT-WE-9-FB-8-1991] 05 p1134 N93-17551
Marangoni-convection in a rotating liquid container [LRT-WE-9-FB-14-1991] 05 p1164 N93-17552
Hydroelastic vibrations in a rectangular container under zero-gravity [LRT-WE-9-FB-28-1991] 05 p1134 N93-17602
A helium-3/helium-4 dilution cryocooler for operation in zero gravity [NASA-CR-183632] 06 p1499 N93-18397
Effect of aerobic capacity on Lower Body Negative Pressure (LBNP) tolerance in females [NASA-TP-3298] 07 p2022 N93-20318
Biomedical Monitoring and Countermeasures Facility 08 p2186 N93-22624
Zero-G life support for Space Station Freedom 08 p2189 N93-22640
Task Analysis of Shuttle Entry and Landing Activities [NASA-TM-104761] 08 p2178 N93-22702
Heat and mass transport in a hypercompressible fluid under zero gravity 08 p2250 N93-22852
Two techniques for measuring locomotion impact forces during zero G [NASA-TP-3305] 08 p2421 N93-23410
The joint Austro-Soviet space project Austromir-91 08 p2157 N93-24353
Physiological experiments within the project AustroMir 08 p2157 N93-24354
Eye-head-arm coordination and spinal reflexes in weightlessness 08 p2159 N93-24362
Development and implementation of the MotoMir experiment on the Mir Space Station 08 p2159 N93-24363
Japanese treefrog experiment onboard the Space Station Mir 08 p2166 N93-24402
JPRS report: Science and technology. Central Eurasia: Life sciences [JPRS-ULS-92-022] 09 p2795 N93-25407
Numerical study of cavity natural convection flow with augmenting and counteracting effects by projection finite element method 09 p2701 N93-25540
MAC to VAX connectivity: Heartrate spectral analysis system 09 p2796 N93-25594
Conceptual design for the Space Station Freedom fluid physics/dynamics facility [NASA-TM-103663] 09 p2618 N93-26209
Remarks about massive and massless particles in supersymmetry 10 p3138 N93-27335
The Middeck 0-gravity Dynamics Experiment (MODE) 10 p3010 N93-27893
MODE: Structural Test Article (STA) 10 p3059 N93-27894
Middeck 0-gravity dynamics experiment: Fluid slosh experiments 10 p3010 N93-27895
The 3rd Annual Controlled Structures Technology Symposium [NASA-CR-192993] 10 p3060 N93-28167
Pharmacokinetics and Pharmacodynamics in Space [NASA-CP-10048] 11 p3494 N93-29502
The middeck 0-gravity dynamics experiment [NASA-CR-4500] 11 p3281 N93-30376
Effects of buoyancy on gas jet diffusion flames [NASA-CR-191109] 11 p3352 N93-31031

WEIGHTLESSNESS SIMULATION
NT NEUTRAL BUOYANCY SIMULATION
Implementation of educational broadcasting in space, phase 1 [CTN-93-60623] 05 p1332 N93-16735
UDP sponsored opportunities for microgravity environment 07 p1803 N93-21076
Isopycnic systems as models for the behavior of liquids in a microgravity environment 07 p1805 N93-21089
Microgravity combustion of dust clouds 07 p1806 N93-21094
Advanced underwater lift device [NASA-CR-185709] 08 p2169 N93-22877

WELD STRENGTH
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation [DE92-017059] 02 p0259 N93-12107
The effects of aluminum oxide on inertial welding of aluminum in space applications [AD-A255100] 02 p0329 N93-12274
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments [AD-A257853] 06 p1555 N93-18343
Fatigue life prediction for 6261-T6 aluminium alloy I-beams with welded cover plates 07 p1949 N93-21326
Prediction of the quality of resistance welds by computer based color image analysis [DE93-002402] 08 p2312 N93-22818

WELD TESTS
Ultrasonic sensing of GMAW: Laser/EMAT defect detection system [DE92-017916] 02 p0333 N93-12055
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography [DE92-018608] 03 p0609 N93-12565
Resistance upset welding for vessel fabrication [DE93-000389] 05 p1178 N93-17010
On the differentiation of diffusion bond strength using the total acoustic energy reflected from the bond [DE93-008073] 10 p3055 N93-26668

WELDABILITY
Heat-affected zone cracking of nitronic 60 stainless steel [DE92-018286] 02 p0254 N93-10984
Development of weldable high-strength iron aluminides [DE92-016018] 03 p0542 N93-13190
Characterization of solidification and weldability of Fe-29Ni-17Co alloys [DE93-000739] 05 p1115 N93-17059
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form [AD-A257582] 06 p1486 N93-18182
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments [AD-A257853] 06 p1555 N93-18343
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment [MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479

WELDED JOINTS
NT SPOT WELDS
The effects of chemistry on weld profiles in partial and full penetration welds [DE92-016865] 02 p0327 N93-11679
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation [DE92-017059] 02 p0259 N93-12107
Reactor materials program: Mechanical properties of irradiated types 304 and 304L stainless steel weldment components [DE92-018105] 02 p0260 N93-12158
Some consistency requirements on hardening-recovery evolution equations for welding, part 1 [DE92-015992] 02 p0329 N93-12220
The effect of temperature dependent thermal properties on parametric weld size predictions [DE92-018816] 02 p0260 N93-12232
The effects of aluminum oxide on inertial welding of aluminum in space applications [AD-A255100] 02 p0329 N93-12274
Study of residual stresses and microcracks in high strength steel weldments: An investigation of microcrack formation and stressed growth using laser microscopy [AD-A255059] 02 p0342 N93-12467
Improved corrosion resistance of Hastelloy G-30 in nitric/hydrofluoric acid solutions by welding with Inconel 72 weld wire [DE92-017233] 02 p0262 N93-12487
Ultrasonic flaw classification and sizing 02 p0333 N93-12533
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography [DE92-018608] 03 p0609 N93-12565
Design of a welded joint for robotic, on-orbit assembly of space trusses [NASA-TM-108380] 03 p0609 N93-12682
VPPA weld model evaluation [NASA-CR-184460] 03 p0611 N93-12919
Diagnostic of material defects found in pipelines made of 13 HMF steel on the basis of acoustic emission 03 p0623 N93-12989
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Fatigue strength of cruciform and other fillet welded joints in aluminum alloys [ESDU-92017] 04 p0900 N93-14553
Mechanisms of forming intergranular microcracks and microscopic surface discontinuities in welds [AD-A255371] 04 p0845 N93-14740
The Meta-Lax method of stress reduction in welds [DE92-018477] 04 p0845 N93-14900
Grain competition in bicrystal welds [DE92-040707] 05 p1110 N93-15950
Novel concepts in weld science: Role of gradients and composite structure [DE92-040893] 05 p1176 N93-16086
A correlation of welding solidification parameters to weld macrostructure [AD-A256702] 05 p1176 N93-16154
The pyro-metallurgical, physical, and mechanical behavior of weldments [AD-A256998] 05 p1112 N93-16234
The variable polarity plasma arc welding process: Mathematical model of welding system [NASA-CR-192435] 05 p1177 N93-16452
WELDSMART: A vision-based expert system for quality control [NASA-CR-192415] 05 p1182 N93-16724
Heat flow in variable polarity plasma arc welds 05 p1181 N93-17280
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space 05 p1181 N93-17284
Design of a welded joint for robotic, on-orbit assembly of space trusses 05 p1181 N93-17326
Instruction manual for UTEP weld gas hydrogen detector [NASA-CR-184477] 06 p1537 N93-18034
Sensing the gas metal arc welding process [DE93-001957] 06 p1548 N93-18658
Principles of weld solidification and microstructures [DE93-003012] 06 p1490 N93-19629
Aspects of good design practice for fatigue-loaded welded components 07 p1925 N93-20356
A review of probabilistic fatigue life analyses for welded plate and tubular joints 07 p1944 N93-20728
Laser welding of plastics under low and high gravity conditions 07 p1811 N93-21125
Modelling of fatigue crack growth in flat plate weldments and tubular welded joints 07 p1948 N93-21326
A local approach for fatigue strength evaluation on ship structures 07 p1948 N93-21327
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
Evaluation of HAZ liquation cracking susceptibility and HAZ softening behavior in modified 800H [DE93-004064] 07 p1876 N93-21999
GTAW penetration based on electrode tip location versus weld joint center line [DE93-004910] 08 p2311 N93-22494
Investigation of azimuthal stresses due to welding and cooldown [DE93-005530] 08 p2324 N93-22708
Prediction of the quality of resistance welds by computer based color image analysis [DE93-002402] 08 p2312 N93-22818
Investigation of gas metal arc welding characteristics of alloy 6013 08 p2211 N93-23937
A new approach for helium backfilling and leak testing seal-welded capsules in a hot cell [DE93-004519] 08 p2317 N93-24049
Fatigue resistance of orthotropic plates with trapezoidal stiffeners [TRL-TRANS-T3908] 09 p2726 N93-25419
Laser welding of selected aerospace alloys 09 p2718 N93-25435
Robotic Variable Polarity Plasma Arc (VPPA) welding 09 p2720 N93-25605
External stress-corrosion cracking of a 1.22-m-diameter type 316 stainless steel air valve [NASA-TP-3190] 09 p2652 N93-26201

Orientation dependency of mechanical properties of 1950's vintage Type 304 stainless steel weldment components before and after low temperature neutron irradiation
[DE93-005168] 10 p2998 N93-26940
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253
Preliminary test of liquid metal induced embrittlement in liquid LiPb and stainless-steel systems
[DE93-753130] 11 p3320 N93-28529
Development of an updated pinch-welding capability
[DE93-009823] 11 p3442 N93-28552
A review of hot cracking in austenitic stainless steel weldments
[DE93-605280] 11 p3328 N93-31021
Deformation analysis of welded joints
[ETN-93-94199] 12 p3739 N93-31057
Understanding heat and fluid flow in linear GTA welds
[DE93-012958] 12 p3727 N93-32303

WELDED STRUCTURES
NT STEEL STRUCTURES
Effects of residual stress, weld toe notch and weld defects on fatigue of welded steel structures 03 p0631 N93-13947
Resistance upset welding for vessel fabrication
[DE93-000389] 05 p1178 N93-17010
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space 05 p1181 N93-17284
Fracture-mechanical analysis of the residual service life of the welded main girders of the highway bridges of Ruedersdorf 07 p1949 N93-21329
For a better fatigue strength of welded steel structures 07 p1949 N93-21333
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973

WELDING
NT ARC WELDING
NT BRAZING
NT DIFFUSION WELDING
NT ELECTRIC WELDING
NT ELECTRON BEAM WELDING
NT FRICTION WELDING
NT FUSION WELDING
NT GAS TUNGSTEN ARC WELDING
NT GAS WELDING
NT LASER WELDING
NT PLASMA ARC WELDING
NT ULTRASONIC WELDING
Stress modified welding process for irradiated materials
[DE92-017131] 01 p0092 N93-10634
A seam tracking modulated infrared optical sensor for use in welding
[AD-A254103] 01 p0159 N93-10812
A path to in-space welding and to other in-space metal processing technologies using Space Shuttle small payloads 03 p0509 N93-13165
Robot welding process control
[NASA-CR-184428] 03 p0614 N93-13436
Theoretical and experimental analysis of residual stress formation after implant resistance welding of polycarbonate 04 p0898 N93-14279
Residual stresses in welds and effect on crack growth prediction 05 p1082 N93-15758
Integrating neural network and expert reasoning: An example
[AD-A257215] 05 p1257 N93-15815
A correlation of welding solidification parameters to weld macrostructure
[AD-A256702] 05 p1176 N93-16154
Shuttle flight experiment preliminary proposal: Demonstration of welding applications in space 05 p1181 N93-17284
Robot welding process control development task
[NASA-CR-192434] 06 p1549 N93-18851
Cyclic material properties at high strain ranges beyond the standard design codes 07 p1925 N93-20357
Investigation of azimuthal stresses due to welding and cooldown
[DE93-005530] 08 p2324 N93-22708
Imaging technique for welding studies
[DE93-006449] 08 p2316 N93-23694
Vision-aided monitoring and control of thermal spray, spray forming, and welding processes 09 p2670 N93-25604
Thermocapillary flow near a cold wall
[AD-A261050] 09 p2706 N93-25779
Welding process modelling and control
[NASA-CR-192549] 10 p3051 N93-27593
Development of an updated pinch-welding capability
[DE93-009823] 11 p3442 N93-28552
JPRS report: Science and technology. Central Eurasia: Materials science
[JPRS-UMS-92-015] 11 p3322 N93-29020
Visualizing weld metal solidification using organic analogs 11 p3293 N93-30973
Welding and metallurgy
[DE93-010926] 12 p3735 N93-31790

WELDING MACHINES
Development of an intelligent system for cooling rate and fill control in GMAW
[DE92-017849] 02 p0326 N93-11548
Gas arc constriction for plasma arc welding
[NASA-CASE-MFS-28844-1] 12 p3734 N93-31292

WELLS
Geothermal research and development program
[DE93-008400] 10 p3071 N93-26671
Improving reservoir conformance using gelled polymer systems
[DE93-010078] 10 p3002 N93-26942
Tank issues: Design and placement of floating liquid monitoring wells
[PB93-161149] 11 p3469 N93-29033
Tank issues: Site characterization for external leak monitoring
[PB93-161156] 11 p3469 N93-29034
Hydrogeology and ground-water-quality conditions at the Reno County Landfill, South-Central Kansas, 1990-1991
[PB93-183085] 11 p3474 N93-30826
Japan's Sunshine Project
[DE93-768249] 12 p3749 N93-32053
Japan's Sunshine Project
[DE93-768268] 12 p3749 N93-32054

WENTZEL-KRAMER-BRILLOUIN METHOD
Semiclassical quantization of interacting anyons in a strong magnetic field
[DE92-634889] 01 p0169 N93-10229
Semiclassical quantization of integrable systems of few interacting anyons in a strong magnetic field
[DE92-634892] 01 p0170 N93-10295
Quantum inflationary minisuperspace cosmological models 03 p0728 N93-13751
Non-linear WKB analysis of the string equation
[PREPRINT-862] 05 p1330 N93-16963
An approximate solution for the linearized spinup dynamics of a dual-spin spacecraft
[AD-A258903] 06 p1470 N93-19350
Quantum mechanics of electrons in crystals with graded composition
[AD-A260294] 08 p2512 N93-24262

WEST GERMANY
The Transall campaign. A contribution to the German ozone research program
[REPT-37/91] 02 p0349 N93-11082
Automatized cartography, using the Mitteldeutschen Kartographie and Druck GmbH system 07 p1967 N93-20529
ATKIS: The introduction phase at IfAG 07 p1967 N93-20533

WESTAR SATELLITES
Manned maneuvering unit applications for automated rendezvous and capture 08 p2137 N93-22233

WESTERN HEMISPHERE
Annular Solar Eclipse of 10 May 1994
[NASA-RP-1301] 10 p3169 N93-27057

WET CELLS
COMSAT's destructive physical analysis of aerospace nickel-cadmium cells for NASA/Goddard Space Flight Center 07 p1983 N93-20495

WET SPINNING
Fiber development in Japan 07 p1834 N93-21130

WETLANDS
Office of Wetlands, Oceans, and Watersheds publications
[PB92-224310] 02 p0480 N93-12528
Using digital scanned aerial photography for wetlands delineation
[AD-A255392] 04 p0905 N93-14676
Comparison of the prevalence index and average wetland values for identification of wetland vegetation
[DE92-016701] 04 p0910 N93-15209
Monitoring wetland hydrology by remote sensing: A case study of the Sudd using infra-red imagery and radar altimetry 07 p1955 N93-21584
Synoptic approach to cumulative impact assessment: A proposed methodology
[PB93-100147] 07 p1992 N93-21654
Protecting the nation's wetlands, oceans, and watersheds: An overview of programs and activities
[PB93-105609] 07 p1992 N93-21655
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Bibliography of remote sensing techniques used in wetland research
[AD-A261704] 09 p2757 N93-26440
Florida's estuaries: A citizen's guide to coastal living and conservation
[PB93-189330] 12 p3751 N93-31113
Remote sensing: A powerful aid for the analysis of problems in the north Holland Vechtstreek
[ETN-93-93468] 12 p3747 N93-32344

WETNESS
U MOISTURE CONTENT

WETTABILITY
Infiltration kinetics and interfacial bond strength of metal matrix composites
[AD-A254002] 02 p0240 N93-11795
Wetting hysteresis of tin on silica solid surfaces of controlled periodic roughness 08 p2251 N93-22861
Study of the influence of the wettability of a wall on a thin film 08 p2252 N93-22864
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155

WETTING
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
Wetting hysteresis of tin on silica solid surfaces of controlled periodic roughness 08 p2251 N93-22861
Wetting oxidized Fe, Ni, Co alloy with copper
[DE93-009604] 10 p2999 N93-27624
Pulse mitigation and heat transfer enhancement techniques. Volume 2: Effect of surface wettability and roughness in evaporative spray cooling
[AD-A264174] 11 p3425 N93-30155
Wetting and dispersion in ceramic/polymer melt injection molding systems
[DE93-013240] 11 p3338 N93-30601

WHEAT
Field spectroradiometry and sail model application to irrigated wheat (Triticum aestivum, L) canopies spectral reflectance
[INPE-5426-TDI/483] 03 p0634 N93-13258
Crop growth and associated life support for a lunar farm 03 p0680 N93-13994
Investigation of wheat coleoptile response to phototropic stimulations
[NASA-CR-192157] 06 p1593 N93-18608
Analysis and synthesis of models for effects of climate change on agricultural systems
[DE93-007949] 08 p2389 N93-24521
Growing wheat to maturity in reduced gas pressures
[NASA-CR-193245] 11 p3491 N93-29216

WHEATSTONE BRIDGES
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-104260] 03 p0596 N93-12681
The constant current loop: A new paradigm for resistance signal conditioning
[NASA-TM-108744] 09 p2673 N93-25181
Feasibility of piezoresistive pressure sensors with polycrystalline silicon gauges
[LAAS-92324] 12 p3728 N93-31127

WHEELCHAIRS
Wheels for wheelchairs and the like
[NASA-CASE-MFS-28632-1] 05 p1228 N93-17042
Platform stair lift
[NASA-CASE-MFS-28772-1] 11 p3507 N93-29845

WHEELS
NT FLYWHEELS
NT NOSE WHEELS
NT REACTION WHEELS
NT TURBINE WHEELS
NT VEHICLE WHEELS
Stability of open-graded bases under wheel loads using a model testing approach
[AD-A253209] 01 p0066 N93-10710
Reanalysis of multiple-wheel landing gear traffic tests
[AD-A256593] 04 p0804 N93-14238
Wheels for wheelchairs and the like
[NASA-CASE-MFS-28632-1] 05 p1228 N93-17042
Design of a compliant wheel for a miniature rover to be used on Mars
[NASA-CR-192012] 06 p1546 N93-18114
Contribution of the analysis of ocular activity (complementary to the electroencephalographic analysis) to the detection of low vigilance in instances of piloting a vehicle 06 p1431 N93-19708
Life cycle testing of desiccant core samples
[PB93-127058] 08 p2220 N93-23098
Position and force control of a vehicle with two or more steerable drive wheels
[DE92-041301] 09 p2717 N93-25100

WHIRL
U ROTATION

WHIRL INSTABILITY
U ROTARY STABILITY

WHIRLING
U ROTATION

WHIRLING TESTS
U SPIN TESTS

WHISKER COMPOSITES
High temperature fatigue crack growth in ceramics and ceramic composites
[DE92-016835] 01 p0040 N93-10632
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-101] 02 p0239 N93-11586
Improving the temperature resistance of aluminum-matrix composites by using an acid phosphate binder 03 p0536 N93-14056
Development of ceramic matrix composites for application in ceramic technology for advanced heat engines project, phase 2
[DE92-041379] 04 p0836 N93-15387
Microstructure/mechanical-property relationships and R-curve behavior in Si3N4/Si3N4(w) composites
[DE92-041096] 05 p1098 N93-17004
High temperature chemistry of fibers and composites
[AD-A258788] 06 p1479 N93-18978
Dynamic stress-strain behavior in shear of SiCwhisker reinforced aluminum alloy composites 07 p1930 N93-20643
Toughness of Si3N4-SiC whisker composites
[REPT-921-430-118] 07 p1839 N93-21295
Erosion of composite ceramics
[DE93-004254] 07 p1862 N93-21853
Thermally induced micromechanical stresses in ceramic/ceramic composites
[DE93-004860] 08 p2239 N93-23974
Effects of processing parameters on the microstructure of a 30 w/o SiCw-2080 aluminum composite
[NRC-IAR-CR-20] 08 p2216 N93-24651
Mullite whiskers and mullite-whisker felt 09 p2642 N93-25586
Fundamental alloy design of oxide ceramics and their composites
[DE93-010249] 10 p2989 N93-26944
Interactive reliability model for whisker-toughened ceramics
[NASA-CR-191048] 10 p3002 N93-27006
Improved silicon nitride for advanced heat engines
[NASA-CR-182193] 11 p3298 N93-29451
Whisker toughening of ceramic materials: A review
[DE93-011565] 11 p3336 N93-30129
The development of SiC whisker fabrication technology for nuclear applications
[DE93-605320] 12 p3710 N93-31828
WHISKERS (CRYSTALS)
Reinforcements for high temperature ceramics
[DE92-014815] 01 p0035 N93-10082
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
The design and properties of ceramics reinforced by whiskers and similar microstructural features
[DE93-001372] 05 p1126 N93-17065
Elucidation of the role of gravity and gravity driven convection in the formation of silicon carbide/silicon nitride whiskers 07 p1808 N93-21107
Whisker growth studies under conditions which resemble those available on an orbiting space station
[NASA-CR-192701] 09 p2664 N93-25218
WHISPERING GALLERY MODES
R and D of transmission lines for ECH system
[NIFS-210] 09 p2687 N93-24951
Microwave frequency discriminator with a cryogenic sapphire resonator for ultra-low phase noise 09 p2693 N93-24982
WHISTLERS
Temporal monitoring of VHF and LF atmospherics and their relation to lightning
[AD-A252617] 02 p0371 N93-12180
Evidence for lightning on Venus 04 p1043 N93-14386
Thunderstorm coupling to the magnetosphere and associated ionospheric effects
[NASA-CR-191383] 04 p0922 N93-14910
A theory for whistler wave amplification and wave particle interactions in the magnetosphere
[AD-A257782] 06 p1576 N93-18212
A DE-1/whistler study of the thermal plasma structure and dynamics in the dusk bulge sector of the magnetosphere
[NASA-CR-192088] 06 p1579 N93-18850
Report of activities in the Gas and Plasma Physics Laboratory (LPGP) of the Paris-South University, April - May 1991
[INPE-5349-PRP/162] 06 p1668 N93-19793
WHITE DWARF STARS
Detection of a white dwarf in a visual binary system
[NASA-CR-190856] 02 p0481 N93-11075
Nucleosynthesis in nova explosions
[DE92-040349] 03 p0753 N93-13523
Stability of differentially rotating stars 04 p1018 N93-14584
Model atmospheres for low temperature, helium-rich white dwarfs: Problems with the equation of state 08 p2546 N93-23065
Ages, chemistry, and type 1A supernovae: Clues to the formation of the galactic stellar halo 10 p3187 N93-26803
The heating and cooling of WZ Sge
[DE93-008720] 11 p3634 N93-28908
WHITE NOISE
NT THERMAL NOISE
Probability density functions for random nonlinear oscillation 01 p0055 N93-10522
Low-frequency noise reduction in SQUID measurements using laser switching
[AD-A253821] 01 p0090 N93-10827
Development of ultra-low noise, high sensitivity planar metal grating coupled AlGaAs/GaAs multiquantum well IR detectors for focal plane array staring IR sensor systems
[AD-A254697] 02 p0468 N93-12228
Application of the total least squares technique to frequency estimation
[AD-A257562] 06 p1644 N93-17936
Classification of complex sounds
[AD-A258405] 06 p1596 N93-18223
An analytical and experimental investigation of FM-by-noise jamming
[AD-A259124] 07 p1883 N93-20592
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Performance analysis of the downlink DBPSK EHF-SATCOM system, part 1
[DREO-CR-041LM] 08 p2271 N93-23729
Suppression of power line harmonic interference in HF surface-wave radar
[AD-A259917] 08 p2273 N93-24563
Frequency generation and synthesis in the DRSS 09 p2693 N93-25054
Figure of merit for direct-detection optical channels 09 p2678 N93-26117
New results in signal design for the AWGN channel
[AD-A261424] 09 p2682 N93-26451
A representation result for nonlinear filter maps on a white noise framework
[MEMO-1062] 10 p3129 N93-28013
The HYDICE instrument design and its application to planetary instruments 11 p3434 N93-28766
WICKS
Heat pipe fatigue test specimen: Metallurgical evaluation
[NASA-CR-189120] 08 p2381 N93-23360
Heat pipe performance experiment 11 p3265 N93-28722
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
Pulse mitigation and heat transfer enhancement techniques. Volume 5: Transient liquid movement in heat pipe wicks
[AD-A264513] 11 p3426 N93-30403
WIDE ANGLE LENSES
Miniature Optical Wide-Angle-Lens Startracker (Mini-OWLS) 09 p2606 N93-24728
High resolution stereo imaging and data compression 09 p2753 N93-24867
Evaluation of lens distortion errors in video-based motion analysis
[NASA-TP-3266] 09 p2797 N93-25736
WIDEBAND
U BROADBAND
WIDEBAND COMMUNICATION
Variable wide band fiber optic delay line
[AD-D015539] 06 p1662 N93-18318
WIENER FILTERING
Examinations of perturbation reduction by automatic speech dependent recognition of separately spoken single words
[ETN-93-94180] 11 p3394 N93-30672
WIGGLER MAGNETS
A synopsis of resistive wall effects in very short wavelength free electron lasers
[DE92-018065] 02 p0315 N93-11155
Scaling of gain with energy spread and energy in the PEP FEL
[DE92-019248] 02 p0316 N93-11500
Dynamic vacuum analysis for APS high heat flux beamline front ends using optical ray-tracing simulation methods
[DE92-019032] 02 p0445 N93-11831
Emittance, brilliance, and bandpass issues related to an inclined crystal monochromator
[DE92-019671] 03 p0721 N93-12881
Power excitation by the use of a RF wiggler
[DE92-016097] 03 p0707 N93-13192
Compact free electron laser for medical applications
[AD-A256236] 04 p0885 N93-14599
Inverse free electron laser beat-wave accelerator research
[DE93-002770] 05 p1174 N93-16923
Use of the CEBAF accelerator for IR and UV free electron lasers
[CEBAF-PR-92-023] 06 p1660 N93-18768
Physically transparent formulation of a free-electron laser in the linear gain regime
[DE93-002577] 06 p1542 N93-19626
The multi-cavity free-electron laser
[DE93-002569] 06 p1543 N93-19747
A high-power 95 GHz gyro-TWT amplifier
[DE93-002332] 08 p2277 N93-22425
Chaotic dynamics in accelerator physics
[DE93-004600] 08 p2515 N93-22766
Calculation of 3-D free electron laser gain: Comparison with simulation and generalization to elliptical cross section
[DE93-004768] 08 p2308 N93-22920
Undulator Spectromicroscopy Facility at the Advanced Light Source
[DE93-007964] 11 p3261 N93-28490
Magnetic field measurements of the CEBAF (NIST) wiggler using the pulsed wire method
[AD-A263997] 11 p3439 N93-29867
WIGHTMAN THEORY
U FIELD THEORY (PHYSICS)
U QUANTUM THEORY
U RELATIVISTIC THEORY
WIGNER COEFFICIENT
An energy analysis of the pseudo Wigner-Ville distribution in support of machinery monitoring and diagnostics
[AD-A256202] 04 p0889 N93-14499
WILDERNESS
Correlation and prediction of snow water equivalent from snow sensors
[PB93-127413] 08 p2374 N93-23870
WILDLIFE
Chesapeake Bay Program: Wetlands workgroup
[PB93-136893] 08 p2385 N93-23266
Incorporating biodiversity considerations into environmental impact analysis under the National Environmental Policy Act
[PB93-139806] 09 p2766 N93-25878
WIND (METEOROLOGY)
NT GEOSTROPHIC WIND
NT GROUND WIND
NT GUSTS
NT JET STREAMS (METEOROLOGY)
NT MONSOONS
NT SEA BREEZE
NT SQUALLS
NT WINDS ALOFT
List of publications, 1969-1991. Panel on wind and seismic effects
[PB92-201102] 01 p0125 N93-10089
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
LAM and NEDWAM statistics over the period October 1990 - April 1991
[KNMI-TR-137] 02 p0368 N93-11329
Structure of the nocturnal boundary layer over a complex terrain
[DE92-018141] 02 p0362 N93-11669
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
The design, development, and test of balloonborne and groundbased lidar systems. Volume 3: Groundbased lidar systems
[AD-A247552] 02 p0317 N93-11805
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Production of SSM/I data sets
[NASA-CR-184492] 03 p0632 N93-12800
Comparison of two stochastic models of scalar diffusion in turbulent flow
[DE92-019381] 03 p0576 N93-12912
Tributary and gap nighttime air flow comparisons
[DE92-018875] 03 p0662 N93-13075
Impact-generated winds on Venus: Causes and effects 04 p1041 N93-14372
Convective scale 4-D data assimilation using simulated single-Doppler radar observations 04 p0921 N93-14683
Sea level response to wind forcing in the tropical Atlantic 04 p0928 N93-14977
A comparison of the WIND system atmospheric models and RASCAL
[DE92-040207] 05 p1211 N93-15661

Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Description and validation of ERAD: An atmospheric dispersion model for high explosive detonations
[DE93-002515] 05 p1201 N93-16363
Modeling and observational study of the daytime evolution east of the crest of the Colorado Rockies 05 p1214 N93-16507
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
The coupling of synoptic and valley winds in the Tennessee Valley
[DE93-001559] 05 p1217 N93-17180
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
Annual, orbital, and enigmatic variations in tropical oceanography recorded by the Equatorial Atlantic amplifier 06 p1581 N93-18970
EISCAT-MICADO coordinated measurements of meridional neutral winds and temperatures in the F region 06 p1584 N93-19563
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
The role of conditional symmetric instability in the development of moderate to heavy frozen precipitation bands
[AD-A258575] 07 p2002 N93-20031
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
CO2 lidar backscatter experiment 07 p2009 N93-20103
Satellite data assimilation in the wave model 3G-WAM 07 p1965 N93-21638
Investigation of cloud/water vapor motion winds from geostationary satellite
[NASA-CR-192274] 08 p2403 N93-22653
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
A climatology of polar low occurrences in the Nordic Seas and an examination of katabatic winds as a triggering mechanism
[AD-A261719] 09 p2786 N93-26245
The Martian lower atmosphere 09 p2897 N93-26394
Meteorological Satellite Center Technical Note, no. 25, 1992
[MSC-TN-25] 10 p3075 N93-26991
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations
[NASA-CR-193045] 10 p3072 N93-27284
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Orographically forced internal-wave instability
[ISBN-0-315-73891-X] 12 p3757 N93-31106
Eddy vortices produced by nonlinear reflection of a gravity wave at a critical level 12 p3757 N93-31155

WIND CIRCULATION
U ATMOSPHERIC CIRCULATION

WIND DIRECTION
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy 03 p0660 N93-14064
Evaluation of methods for estimating wind wave growth on narrow irregular fetches
[AD-A256002] 04 p0932 N93-15113
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion 06 p1743 N93-19819
Hybrid single-particle Lagrangian integrated trajectories (HY-SPLIT): Version 3.0: User's guide and model description
[PB92-218114] 07 p2056 N93-21341
Theory and performance of the WPL Crosswind Profiler Model 2
[PB93-116606] 07 p2014 N93-21452
ERS-1 scatterometer calibration and validation activities at ECMWF. B: From radar backscatter characteristics to wind vector solutions 08 p2359 N93-23764
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

WIND EFFECTS
Physical effects of vegetation on wind-blown sand in the coastal environments of Florida
[PB92-188424] 02 p0354 N93-11702
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
A model for the formation of the extended paraboloidal halos around some impact craters on Venus 04 p1037 N93-14352
Sensitivity of the Yoshida jet to the parameterization of vertical mixing: Do easterly winds imply equatorial upwelling? 04 p0922 N93-14864
Scientific development of a massively parallel ocean climate model
[DE92-040517] 05 p1214 N93-16584
Investigation of rainfall data with regard to low-level wind flow regime for east central Florida 05 p1219 N93-17285
Thermodynamic air/ocean feedback mechanisms in the Equatorial Pacific
[AD-A257476] 05 p1220 N93-17662
Tropical cyclone motion and recurvature in TCM-90
[AD-A258258] 06 p1585 N93-18010
Response of structures to atmospheric turbulence: Computer programs A9236 and B9236
[ESDU-92036] 06 p1554 N93-18045
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
Parameter and configuration study of the DSS-13 antenna drives 06 p1514 N93-19432
Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911
Seasonal SST and upwelling indices along the northwest African coast 07 p1964 N93-21633
Wind and seismic effects. Proceedings of the 24th Joint Meeting of the US-Japan Cooperative Program in Natural Resources Panel on Wind and Seismic Effects
[PB93-120152] 07 p2001 N93-21801
The influence of wind-driven ocean circulation on Earth rotation 08 p2412 N93-22668
Direct numerical simulations and hydrodynamic stability problems in the upper oceanic mixed layer 08 p2414 N93-23490
Studies of mixing and internal waves in the upper ocean 08 p2415 N93-23962
Mapping of windfall damage in the Hunsrueck plateau with Landsat TM-data 09 p2749 N93-24843
An observational study of the local and remote response of the equatorial Pacific to westerly wind events during the 1991-92 El Nino
[AD-A261777] 09 p2787 N93-26286
Wind-driven coastal generation of annual mesoscale eddy activity in the California current
[AD-A261355] 09 p2790 N93-26331
Model for transport of floating debris in the ocean
[PB93-172997] 09 p2768 N93-26559
Guide for conducting convective windstorm surveys
[PB93-148427] 09 p2787 N93-26570
Digital image processing of descanned terrestrial ground photographs 11 p3459 N93-28928
A numerical study of seasonal wind forcing effects on the California current system
[AD-A264951] 12 p3770 N93-32075

WIND ENERGY
U WINDPOWER UTILIZATION

WIND EROSION
Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation
[NASA-CR-191886] 05 p1190 N93-16382
Wind transport near the poles of Mars: Timescales of changes in deposition and erosion 06 p1743 N93-19819

WIND MEASUREMENT
NT WIND VELOCITY MEASUREMENT
CO2 laser modeling
[NASA-CR-184455] 03 p0604 N93-12656
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Radar interferometer investigations of the horizontal winds, vertical velocities, vorticity, and divergence around frontal zones and in mesoscale waves
[AD-A257969] 06 p1586 N93-18194
RAWS 1992 progress report
[NASA-CR-191382] 06 p1587 N93-18849
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives 06 p1418 N93-19591
Flight test operations 06 p1418 N93-19592
NASA wind shear flight test in situ results 06 p1418 N93-19593
Flight test of an infrared wind shear detector 06 p1419 N93-19596
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
A satellite-borne radar wind sensor (RAWS) 07 p2008 N93-20096
Multi-center Airborne Coherent Atmospheric Wind Sensor (MACAWS) 07 p1913 N93-20101
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Theory and performance of the WPL Crosswind Profiler Model 2
[PB93-116606] 07 p2014 N93-21452
The WAM model and ERS-1 07 p1960 N93-21609
Representativity of wind measurement from space 07 p1961 N93-21617
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
Application of spatially averaging optical techniques to the study of short-term flux changes associated with clouds
[DE93-000690] 08 p2405 N93-23305
A satellite-based Radar Wind Sounder (RAWS) 08 p2406 N93-23384

Relationship of height gradients of passive atmospheric properties to their variances: Applications to the ground-based sensing of profiles
[PB93-136497] 08 p2396 N93-23650
An advanced scatterometer for the European polar platform 08 p2363 N93-23787
Preliminary results from the analysis of wind component error, July data
[AD-A259654] 08 p2408 N93-24022
Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095
Wind measurement accuracy of a loran radiosonde
[AD-A263572] 11 p3483 N93-29832
Atmospheric studies with SODAR at Kalpakkam
[DE93-605544] 11 p3480 N93-30992
The distribution of the annual and semiannual cycles in the tropics
[DE92-642213] 11 p3485 N93-31006
Measurement uncertainties of the NCAR air motion systems
[PB93-184208] 12 p3764 N93-32068

WIND PRESSURE

Wind load design methods for ground-based heliostats and parabolic dish collectors
[DE93-002737] 05 p1193 N93-15839
Proxy and in-situ studies of dayside magnetopause reconnection
[DE93-003740] 07 p2000 N93-21782
Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106
Energetic particles (greater than 34 KeV - 3.2 MeV) in the deep Martian magnetotail (X = 15.5 R(sub M)), modeling of the Martian bow shock and the influence of low solar wind pressure on Mars as an obstacle
12 p3855 N93-31691

WIND PROFILES

An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
A smoke producing rocket motor for atmospheric wind profiling
[DE92-018264] 03 p0555 N93-12563
Optical model analysis of gravity wave-critical layer interaction 03 p0658 N93-13888
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center
[NASA-CR-4474] 04 p0924 N93-15581
Some simple improvements to an emergency response model for use in complex coastal terrain
[DE92-040648] 05 p1211 N93-15947
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder), volume 2, phase 2
[NASA-CR-184485] 05 p1214 N93-16623
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 1: Executive summary
[NASA-CR-192428] 05 p1215 N93-16700
Design definition of the Laser Atmospheric Wind Sounder (LAWS), phase 2. Volume 2: Final report
[NASA-CR-192429] 05 p1215 N93-16702
Definition and preliminary design of the LAWS (Laser Atmospheric Wind Sounder). Volume 1, phase 2: Executive summary
[NASA-CR-184484] 05 p1215 N93-16751
Status of instrumentation for the Southern Great Plains Clouds and Radiation Testbed
[DE93-000512] 05 p1216 N93-17074
Temporal variability of the trade wind inversion: Measured with a boundary layer vertical profiler
[AD-A258189] 06 p1584 N93-17858
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Gust forecasting
[MISC-SER-A-125] 07 p2012 N93-20887
Coherent interference tests for wind profilers
[PB92-227248] 07 p2013 N93-21202
Theory and performance of the WPL Crosswind Profiler Model 2
[PB93-116606] 07 p2014 N93-21452
Mixed convective/dynamic roll vortices and their effects on initial wind and temperature profiles
[NASA-CR-192349] 08 p2110 N93-23108
Empirical wind model for the middle and lower atmosphere. Part 1: Local time average
[NASA-TM-104581] 09 p2770 N93-25160
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051

WIND SHEAR

Summary of findings from the PIREP-based analyses conducted during the 1988 to 1990 evaluations of TDWR-based and TDWR/LLWAS-based alert services provided to landing/departing pilots
[AD-A253859] 02 p0367 N93-11144
Numerical and observational investigations of long-lived, MCS-induced, severe surface wind events: The derecho
02 p0367 N93-11159
A problem formulation for glideslope tracking in wind shear using advanced robust control techniques
[NASA-TM-104164] 02 p0214 N93-11176
Lidar studies of gravity waves in the mesopause region 02 p0358 N93-11222
Storm tracking for TDWR: A correlation algorithm design and evaluation
[AD-A254701] 03 p0660 N93-12622
A parameterized quasi-five-cylinder convective cloud model and its application to remote sensing of rainfall
03 p0663 N93-13489
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy
03 p0660 N93-14064
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Terminal Doppler weather radar/low-level wind shear alert system integration algorithm specification, version 1.1
[AD-A255319] 04 p0920 N93-14547
Airborne Wind Shear Detection and Warning Systems. Fourth Combined Manufacturers' and Technologists' Conference, part 2
[NASA-CP-10105-PT-2] 04 p0783 N93-14844
NASA/LMSC coherent LIDAR airborne shear sensor: System capabilities and flight test plans
04 p0784 N93-14847
Solid-state coherent laser radar wind shear measuring systems 04 p0784 N93-14848
Development of the Advance Warning Airborne System(AWAS) 04 p0784 N93-14849
A millimeter-wave radiometer for detecting microbursts
04 p0784 N93-14850
The Orlando TDWR testbed and airborne wind shear date comparison results 04 p0784 N93-14851
TDWR 1991 Program Review
04 p0785 N93-14852
Wind shear related research at Princeton University
04 p0785 N93-14854
Results of in-service evaluation of wind shear systems
04 p0785 N93-14856
In-service evaluation of wind shear systems
04 p0785 N93-14857
Advanced technology wind shear prediction system evaluation 04 p0785 N93-14858
Development and application of a time-space conversion technique for analysis of weather systems passing over the Kennedy Space Center
[NASA-CR-4474] 04 p0924 N93-15581
The 1991 LLWAS anemometer test program
[AD-A258844] 06 p1538 N93-19365
Airborne Wind Shear Detection and Warning Systems: Fourth Combined Manufacturers' and Technologists' Conference, part 1
[NASA-CP-10105-PT-1] 06 p1418 N93-19590
Program overview: 1991 flight test objectives
06 p1418 N93-19591
Flight test operations 06 p1418 N93-19592
NASA wind shear flight test in situ results
06 p1418 N93-19593
Air/ground wind shear information integration: Flight test results 06 p1418 N93-19594
Doppler radar results 06 p1419 N93-19595
Flight test of an infrared wind shear detector
06 p1419 N93-19596
Wind shear hazard determination
06 p1419 N93-19597
Three-dimensional numerical simulation of the 20 June 1991, Orlando microburst 06 p1419 N93-19598
A numerical field experiment approach for determining probabilities of microburst intensity
06 p1419 N93-19599
An approach to evaluating reactive airborne wind shear systems 06 p1419 N93-19600
RDR-4B doppler weather radar with forward looking wind shear detection capability 06 p1420 N93-19601
Airborne doppler radar research at Rockwell International 06 p1420 N93-19602
Acquisition and use of Orlando, Florida and Continental Airbus radar flight test data 06 p1420 N93-19603
Vertical wind estimation from horizontal wind measurements 06 p1420 N93-19604
Microburst characteristics determined from 1988-1991 TDWR testbed measurements 06 p1420 N93-19605
NASA experimental airborne doppler radar and real time processor for wind shear detection
06 p1420 N93-19607
Ground clutter measurements using the NASA airborne doppler radar: Description of clutter at the Denver and Philadelphia airports 06 p1421 N93-19608
Spectrum characteristics of Denver and Philadelphia ground clutter and the problem of distinguishing wind shear targets from moving clutter 06 p1421 N93-19609
Comparison of simulated and actual wind shear radar data products 06 p1421 N93-19610
NASA airborne radar wind shear detection algorithm and the detection of wet microbursts in the vicinity of Orlando, Florida 06 p1421 N93-19611
Signal processing for airborne doppler radar detection of hazardous wind shear as applied to NASA 1991 radar flight experiment data 06 p1421 N93-19612
Hazard evaluation and operational cockpit display of ground-measured windshear data
[AIAA PAPER 90-0566] 08 p2105 N93-22564
Optimal recovery from microburst wind shear
08 p2107 N93-22574
Air traffic operational evaluation plan for the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/45] 08 p2404 N93-23064
Annual and longitudinal variations of the Pacific North Equatorial Countercurrent
[NASA-CR-192805] 08 p2414 N93-23138
Optimization of flight trajectories in a 3D model of windshear flow field 08 p2110 N93-23203
Modeling the tropical ocean response to westerly wind forcing
[AD-A260230] 08 p2416 N93-24099
The ATC evaluation of the prototype Airport Surveillance Radar Wind Shear Processor (ASR-WSP) at Orlando International Airport
[DOT/FAA/CT-TN92/48] 09 p2673 N93-25210
Setting values for TDWR/LLWAS 3 integration parameters
[AD-A260740] 09 p2783 N93-25645
A statistical characterization of Denver-area microbursts
[AD-A262127] 10 p3078 N93-27675
Aircraft guidance for wind shear avoidance: Decision-making under uncertainty
11 p3246 N93-31005
Numerical modelling of mesoscale atmospheric dispersion, volumes 1 and 2 12 p3765 N93-32217
Airborne derivation of microburst alerts from ground-based Terminal Doppler Weather Radar information: A flight evaluation
[NASA-TM-108990] 12 p3680 N93-32223

WIND TUNNEL APPARATUS

NT WIND TUNNEL NOZZLES

Hypersonic flow diagnostic development
[AD-A255045] 02 p0202 N93-12466
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
A fundamental study of suction for Laminar Flow Control (LFC)
[NASA-CR-191276] 03 p0583 N93-13277
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
Application of a neural network as a potential aid in predicting NTF pump failure
[NASA-TM-107667] 06 p1620 N93-18332
Study of optical techniques for the Ames unitary wind tunnel, part 7
[NASA-CR-192165] 06 p1452 N93-18520
Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406
Icing research tunnel rotating bar calibration measurement system
[NASA-TM-106010] 08 p2303 N93-22598

Fiber-optic interferometric sensors for measurements of pressure fluctuations: Experimental evaluation
[NASA-TM-104002] 08 p2128 N93-23175

NASA Lewis 8- by 6-foot supersonic wind tunnel user manual
[NASA-TM-105771] 09 p2597 N93-25080

Nozzle diffuser for use with an open test section of a wind tunnel
[NASA-CASE-LAR-14424-1-SB] 09 p2598 N93-25996

WIND TUNNEL BALANCES
U WEIGHT INDICATORS
U WIND TUNNEL APPARATUS

WIND TUNNEL CALIBRATION

Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110

Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338

Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189

A break-down of sting interference effects
[NLR-TP-91220-U] 12 p3684 N93-31042

WIND TUNNEL MODELS
NT POWERED MODELS

Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070

Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858

Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022

Study of optical techniques for the Ames unitary wind tunnels. Part 4: Model deformation
[NASA-CR-190980] 02 p0219 N93-12349

Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369

Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552

Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208

Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214

A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215

Multiple-function multi-input/multi-output digital control and on-line analysis
[NASA-TM-107697] 03 p0500 N93-13565

Structural dynamic testing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105272] 06 p1558 N93-18875

Rarefied gas numerical wind tunnel. Part 7: OREX 06 p1410 N93-19280

Numerical Wind Tunnel: Requirements and the outline 06 p1411 N93-19288

Numerical Wind Tunnel hardware 06 p1411 N93-19289

The operating system for Numerical Wind Tunnel 06 p1411 N93-19290

The language processor system for the Numerical Wind Tunnel 06 p1411 N93-19291

Numerical simulation of hypersonic flow around H-2 Orbiting Plane (HOPE), part 3 06 p1412 N93-19297

Role of wind tunnel tests and CFD analysis for the development of aero-engines in IHI 06 p1417 N93-19326

Improved ceramic slip casting technique --- application to aircraft model fabrication
[NASA-CASE-LAR-14471-1] 07 p1858 N93-20041

Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405

Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406

Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766

Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813

Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540

Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202

Optically smart surfaces survivability testing at Mach 3
[AD-A261785] 09 p2857 N93-26566

Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410

Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733

WIND TUNNEL NOZZLES

Mach 5 electroformed nickel nozzle refurbishment FNAS investigation of ultra-smooth surfaces
[NASA-CR-192421] 04 p0826 N93-14681

Design of a nozzle for a hypersonic wind tunnel
[AERO-REPT-9113] 05 p1072 N93-16468

WIND TUNNEL STABILITY TESTS

Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395

Review of initial experiments using the Hawk model, dynamic rig facility, and the CED 1401 digital data acquisition equipment
[CRANFIELD-AERO-9017] 07 p1788 N93-21406

WIND TUNNEL TESTS

Design, test, and evaluation of three active flutter suppression controllers
[NASA-TM-4338] 01 p0010 N93-10070

Pitot survey of exhaust flow field of a 2-D scramjet nozzle at Mach 6 with air or freon and argon used for exhaust simulation
[NASA-TM-4361] 01 p0002 N93-10071

Effect of passive flow-control devices on turbulent low-speed base flow 01 p0079 N93-10304

A method of testing two-dimensional airfoils
[AD-A253210] 01 p0004 N93-10375

Experimental investigation of flows behind different Large-Eddy Breakup (LEBU) devices in thick boundary layers 01 p0006 N93-10550

Wind tunnel spin data reduction to obtain aerodynamic spin damping coefficients by using nonlinear equation of motion
[AD-A253880] 01 p0004 N93-10811

Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824

Shock enhancement and control of hypersonic combustion
[AD-A254295] 01 p0031 N93-10843

Arguments concerning wind tunnel test studies of the trim characteristics of objects with small asymmetries'
[AD-A254111] 01 p0005 N93-10858

Application of laminar flow to aero engine nacelles
[PNR-90916] 02 p0195 N93-11020

An experimental evaluation of prediction methods for contrafans
[PNR-90924] 02 p0209 N93-11023

Method of remotely characterizing thermal properties of a sample
[NASA-CASE-LAR-13508-3-CU] 02 p0216 N93-11057

The effects of plate spacing and downstream plate length on the acoustic resonance excited by flow past two plates in tandem in a duct
[PNR-90958] 02 p0433 N93-11321

The measurement of the velocity field induced by a gust generator in a closed-circuit subsonic wind-tunnel
[RAE-TM-MAT/STR-1102] 02 p0217 N93-11435

The convection speed of the dynamic stall vortex
[AD-A247258] 02 p0197 N93-11464

Experimental investigation of the effects of aft blowing with various nozzle exit geometries on a 3.0 caliber tangent ogive at high angles of attack: Forebody pressure distributions
[NASA-CR-190935] 02 p0197 N93-11605

Further buffeting tests in a cryogenic wind tunnel
[NASA-TM-107621] 02 p0198 N93-11610

Low-speed longitudinal and lateral-directional aerodynamic characteristics of the X-31 configuration
[NASA-TM-4351] 02 p0198 N93-11622

Introduction of electronic pressure scanning at the Royal Aerospace Establishment
[RAE-TM-AERO-2222] 02 p0199 N93-11882

The 13 ft by 9 ft low speed wind tunnel facility at DRA (Aerospace Division) Bedford (England)
[RAE-TM-AERO-2228] 02 p0199 N93-11883

Strain-gauge balance performance and internal temperature gradients measured in a cryogenic environment
[RAE-TM-AERO-2232] 02 p0218 N93-11906

A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910

An investigation of the effects of aft blowing on a 3.0 caliber tangent ogive body at high angles of attack
[NASA-CR-190934] 02 p0200 N93-12004

Computer aided design and manufacturing of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105269] 02 p0413 N93-12022

A preliminary study associated with the experimental measurement of the aero-optic characteristics of hypersonic configurations
[AD-A253792] 02 p0200 N93-12063

An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206

Solution of nonlinear flow equations for complex aerodynamic shapes
[NASA-CR-190979] 02 p0307 N93-12329

Study of optical techniques for the Ames unitary wind tunnels. Part 4: Model deformation
[NASA-CR-190980] 02 p0219 N93-12349

Simulation analysis of a cable-mount system used for dynamic wind tunnel tests
[NAL-TR-1127] 02 p0219 N93-12359

A wind tunnel investigation to determine buffet countermeasures for STOL aircraft alpha-sweep flight testing
[NAL-TR-1129] 02 p0216 N93-12362

Mach 4 testing of scramjet inlet models
[NAL-TR-1137] 02 p0202 N93-12369

Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503

Icing prevention by ultrasonic nucleation of supercooled water droplets in front of subsonic aircraft
[AD-A258212] 03 p0497 N93-12816

Test techniques for engine/airframe integration 03 p0577 N93-13200

Tests of models equipped with TPS in low speed ONERA F1 pressurized wind tunnel 03 p0577 N93-13201

Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203

Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reverser simulation 03 p0502 N93-13207

Aerodynamic integration of thrust reversers on the Fokker 100 03 p0502 N93-13208

Flight analysis of air intake/engine compatibility 03 p0502 N93-13212

ASTOVL model engine simulators for wind tunnel research 03 p0507 N93-13213

Mass flow effects on the low speed characteristics of an advanced combat aircraft 03 p0497 N93-13214

A novel-high-performance system for recording and analysing instantaneous total pressure distortion in air intakes 03 p0580 N93-13215

Comparative performance tests of a pitot-inlet in several European wind-tunnels at subsonic and supersonic speeds 03 p0497 N93-13221

Effects of forebody strakes and Mach number on overall aerodynamic characteristics of configuration with 55 deg cropped delta wing
[NASA-TP-3253] 03 p0493 N93-13353

Time dependent heat transfer rates in high Reynolds number hypersonic flowfields 03 p0595 N93-13664

High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729

The unsteady aerodynamics of a delta wing undergoing large-amplitude pitching motions 03 p0496 N93-13929

Experiments on the statistical nature of stably stratified turbulence 03 p0594 N93-14069

Control of low-speed turbulent separated flow over a backward-facing ramp 04 p0874 N93-14475

Facilities and capabilities catalog for landing and escape systems
[NASA-RP-1282] 04 p0814 N93-14495

Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 1: Tests with open circuits
[NASA-CR-191671] 04 p0780 N93-14737

Investigations of detail design issues for the high speed acoustic wind tunnel using a 60th scale model tunnel. Part 2: Tests with the closed circuit
[NASA-CR-191672] 04 p0780 N93-14738

Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877

Results of low power deicer tests on a swept inlet component in the NASA Lewis icing research tunnel
[NASA-TM-105968] 04 p0781 N93-14911

Performing wind-tunnel modeling for better management of near-field risks
[DE92-040205] 04 p0910 N93-15063

Wake similarity and vortex formation for two-dimensional bluff bodies 04 p0781 N93-15101

An overview of shed ice impact in the NASA Lewis Icing Research Tunnel
[NASA-TM-105969] 04 p0782 N93-15404

Space Shuttle Orbiter Crew Hatch Jettison Test using a 0.0405-scale model (16-0) in the Texas A/M low speed wind tunnel (OA362). Space Shuttle aerothermodynamic data report
[NASA-CR-167698] 04 p0815 N93-15474

Results of a FRSI material test under Space Shuttle ascent conditions in the Ames Research Center 9x7 foot supersonic wind tunnel (OS13). Space Shuttle aerothermodynamic data report
[NASA-CR-167699] 04 p0816 N93-15475

User manual for NASA Lewis 10 by 10 foot supersonic wind tunnel
[NASA-TM-105626] 04 p0804 N93-15498

Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637

Development of microchannel plates in advanced wind-tunnel instrumentation
[NASA-CR-181947] 05 p1166 N93-15716

Transition induced normal forces and their effects on the aerodynamic characteristics of slender sharp cones
[AD-A256802] 05 p1053 N93-15889

Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157

Experimental and numerical investigation of vortex flow over a 76/60-deg double-delta wing
[LR-680] 05 p1054 N93-16210

Wind erosion in semiarid landscapes: Predictive models and remote sensing methods for the influence of vegetation
[NASA-CR-191886] 05 p1190 N93-16382

On flutter behavior of a 2-D compressor cascade in incompressible flow
[DLR-FB-91-26] 05 p1158 N93-16543

Takeoff/approach noise for a model counterrotation propeller with a forward-swept upstream rotor
[NASA-TM-105979] 05 p1066 N93-16715

Wind tunnel seeding particles for laser velocimeter 05 p1057 N93-16770

Three dimensional boundary-layer transition on a swept wing 05 p1161 N93-16818

Experiments on swept-wing boundary-layer transition 05 p1162 N93-16829

A multi-faceted engineering study of aerodynamic errors of the Service Aircraft Instrumentation Package (SAIP)
[AD-A258059] 05 p1057 N93-17677

A computational and experimental investigation of the propulsive and lifting characteristics of oscillating airfoils and airfoil combinations in incompressible flow
[AD-A258019] 06 p1404 N93-17819

Aerodynamic aspects of offshore structures
[NLR-TP-91188-U] 06 p1405 N93-17928

The aerodynamic characteristics of the Gottingen 797 and Wortmann FX63-137 aerofoil sections at very low Reynolds numbers
[ETN-93-92999] 06 p1406 N93-18128

An experimental investigation of the separating/reattaching flow over a backstep
[NASA-CR-192105] 06 p1408 N93-18781

An experimental investigation of a finite circulation control wing
[AD-A259044] 06 p1440 N93-18896

A wind tunnel study of magnus effects on a differentially rotating missile
[AD-A258812] 06 p1408 N93-18989

Propelling force and resistance 06 p1403 N93-19003

Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110

Aerodynamic heating analysis for axisymmetric bodies in supersonic flow 06 p1414 N93-19312

Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321

On the roles of wind tunnel testing and computational fluid dynamics in the aircraft development 06 p1416 N93-19322

Wind tunnel tests and CFD in Fuji Heavy Industries 06 p1416 N93-19323

Wind tunnel test and CFD in Kawasaki Heavy Industries, Gifu 06 p1416 N93-19324

Wind tunnel testing and CFD simulation in Mitsubishi Heavy Industries 06 p1416 N93-19325

Experimental investigation of the aerodynamics of independently rotating cylindrical shells
[AD-A258917] 06 p1417 N93-19340

AM-X high angle of attack flight test experience (single and two seat versions) 06 p1443 N93-19910

System identification for X-31A project support: Lessons learned so far 06 p1444 N93-19914

Natural laminar flow test in-flight visualization 06 p1417 N93-19921

Development and flight testing of a surface pressure measurement installation on the EAP demonstrator aircraft 06 p1446 N93-19927

Application of a flush airdata sensing system to a wing leading edge (LE-FADS)
[NASA-TM-104267] 07 p1784 N93-20163

Improved empirical model for base drag prediction on missile configurations based on new wind tunnel data
[AD-A258753] 07 p1761 N93-20405

Research on continuous and instantaneous heavy gas clouds: Summary of a joint European project
[FOA-C-40296-4.5] 07 p1901 N93-20858

Wind-tunnel experiments on wind effects at tunnel portals
[NLR-TP-91191-U] 07 p1761 N93-20911

Contribution to the study of the atmospheric surface layer in stable conditions, simulated in a wind tunnel
[ECL-91-15] 07 p2012 N93-21010

Experimental results in aerodynamic stability and control of a TSTO configuration
[MBB-FE-211-S-PUB-0482-A] 07 p1787 N93-21057

The influence of the rotor test facilities ROTEST and ROTOS on the rotor inflow
[DLR-MITT-91-16] 07 p1785 N93-21173

An assessment of laser velocimetry in hypersonic flow
[NASA-CR-190895] 07 p1762 N93-21556

Program of research in flight dynamics in the JIAFS at NASA-Langley Research Center
[NASA-CR-191885] 07 p1762 N93-21562

Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766

Crossflow stability and transition experiments in a swept-wing flow
[NASA-TM-108650] 07 p1904 N93-21819

Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338

Subsonic aerodynamic characteristics of a proposed advanced manned launch system orbiter configuration
[NASA-TM-4439] 08 p2108 N93-22558

Feasibility study on conducting overflight measurements of shaped sonic boom signatures using the Firebee BQM-34E RPV
[NASA-CR-189715] 08 p2476 N93-22813

Shock tunnel studies of scramjet phenomena, supplement 6
[NASA-CR-191428] 08 p2289 N93-22817

Structural analysis of high-rpm composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105267] 08 p2325 N93-23015

Dynamic response characteristics of two transport models tested in the National Transonic Facility
[NASA-CR-191420] 08 p2125 N93-23047

Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420

Wake-induced unsteady stagnation region heat transfer measurements 08 p2295 N93-23591

Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714

Experimental and numerical investigation of hydrogen combustion in a supersonic flow 08 p2223 N93-24212

Investigation of aerothermodynamics and optical radiation in the AFE hypersonic flow field
[NASA-CR-192844] 08 p2114 N93-24475

Aerodynamic characteristics of a proposed Personnel Launch System (PLS) lifting-body configuration at Mach numbers from 0.05 to 20.3
[NASA-TM-101641] 08 p2180 N93-24522

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 8: Rectangular planform blades at an advance ratio of 0.23, 0.50 chord above the tip path plane
[NASA-TM-102642] 08 p2115 N93-24524

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 9: Rectangular planform blades at an advance ratio of 0.23, 0.75 chord above the tip path plane
[NASA-TM-102643] 08 p2115 N93-24525

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 11: Rectangular planform blades at an advance ratio of 0.30, 0.75 chord above the tip path plane
[NASA-TM-102645] 08 p2115 N93-24527

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 10: Rectangular planform blades at an advance ratio of 0.30, 0.50 chord above the tip path plane
[NASA-TM-102644] 08 p2116 N93-24528

An experimental investigation of a supercritical airfoil at transonic speeds
[NASA-TM-103933] 08 p2300 N93-24534

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 7: Rectangular planform blades at an advance ratio of 0.40
[NASA-TM-101599] 08 p2116 N93-24538

Inflow measurements made with a laser velocimeter on a helicopter model in forward flight. Volume 6: Rectangular planform blades at an advance ratio of 0.35
[NASA-TM-101598] 08 p2116 N93-24540

Measurements of density, temperature, and their fluctuations in turbulent supersonic flow using UV laser spectroscopy
[NASA-TM-103943] 09 p2708 N93-25076

A simple, approximate model of parachute inflation
[DE93-002465] 09 p2576 N93-25121

Experimental study of the effect of helical grooves on an infinite cylinder
[AD-A260890] 09 p2676 N93-25912

Fabrication of composite propfan blades for a cruise missile wind tunnel model
[NASA-TM-105270] 09 p2730 N93-26202

Supersonic aeroelastic instability results for a NASP-like wing model
[NASA-TM-107739] 09 p2591 N93-26553

Assessment of a flow-through balance for hypersonic wind tunnel models with scramjet exhaust flow simulation
[NASA-TM-4441] 10 p2928 N93-27005

Transition aerodynamics for 20-percent-scale VTOL unmanned aerial vehicle
[NASA-TM-4419] 10 p2928 N93-27032

A shadowgraph study of two proposed Shuttle-C launch vehicle configurations
[NASA-RP-1303] 10 p2930 N93-27123

Aerodynamics of a finite wing with simulated ice 10 p2932 N93-27437

Comparison of reacting and non-reacting shear layers at a high subsonic Mach number
[NASA-TM-106198] 10 p2945 N93-27610

Strain actuated aeroelastic control 10 p3059 N93-27899

Studies of origin of three-dimensionality in laminar wakes
[AD-A262281] 10 p3042 N93-28242

International aviation (Selected articles)
[AD-A262566] 11 p3227 N93-28576

Wind loads on canopy roofs
[RR-CE132] 11 p3451 N93-29106

Modal survey of a full-scale F-18 wind tunnel model
[AD-A262482] 11 p3240 N93-29410

High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449

Aerodynamic characteristics of a rotorcraft airfoil designed for the tip region of a main rotor blade
[NASA-TM-4264] 11 p3240 N93-29450

The Ultra Light Aircraft Testing
[NASA-CR-193043] 11 p3249 N93-29774

Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model 11 p3243 N93-29778

On the development of a film cooling layer 11 p3258 N93-29959

Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 1: Data analysis
[AD-A264151] 11 p3241 N93-30171

Vortex shedding by Blunt/Bluff bodies at high reynolds numbers. Volume 2: Cylinders, octagon, hexagon
[AD-A264152] 11 p3241 N93-30172

Vortex shedding by blunt/bluff bodies at high reynolds numbers. Volume 3. Cubes
[AD-A264153] 11 p3242 N93-30173
Experiments in the control of wing rock at high angle of attack using tangential leading edge blowing
12 p3683 N93-31068
Low-speed wind tunnel study of the direct side-force characteristics of a joined-wing airplane with an upper fin
[DE93-767966] 12 p3672 N93-31189
Definition of an airfoil family for the EUROFAR rotor
[DLR-FB-92-04] 12 p3679 N93-31197
Parametric studies of shock wave/boundary layer interactions over 2D compression corners at Mach 6
[VKI-TN-181] 12 p3672 N93-31538
Supersonic aerodynamic characteristics of an advanced F-16 derivative aircraft configuration
[NASA-TP-3355] 12 p3673 N93-31733
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848
Effect of sound on boundary layer stability
[NASA-CR-193367] 12 p3816 N93-32238
Active control of flow induced resonance in continuous corrugated tubes
[AD-A265782] 12 p3727 N93-32310
Analytical and experimental investigations of the oblique detonation wave engine concept
[NASA-TM-102839] 12 p3683 N93-32374

WIND TUNNEL WALLS
Dynamical effects of suction/heating on turbulent boundary layers
[AD-A248459] 02 p0299 N93-11416
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
Modifications to Langley 0.3-m TCT adaptive wall software for heavy gas test medium, phase 1 studies
[NASA-CR-189736] 05 p1056 N93-16710
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Wind tunnel wall interference correction at subsonic speeds 06 p1416 N93-19320
Two problems reducing the data accuracy in Transonic Wind Tunnel testing 06 p1416 N93-19321
Wind tunnel tests and CFD in Fuji Heavy Industries
06 p1416 N93-19323
Unsteady flow past a pitching airfoil at moderately high subsonic free stream Mach numbers
[AD-A260118] 08 p2113 N93-23714
Slotted-wall flow-field measurements in a transonic wind tunnel
[NASA-TM-4280] 08 p2113 N93-24111

WIND TUNNELS
NT BLOWDOWN WIND TUNNELS
NT COMBUSTION WIND TUNNELS
NT CRYOGENIC WIND TUNNELS
NT HYPERSONIC WIND TUNNELS
NT LOW SPEED WIND TUNNELS
NT SHOCK TUNNELS
NT SLOTTED WIND TUNNELS
NT SUBSONIC WIND TUNNELS
NT SUPERSONIC WIND TUNNELS
NT TRANSONIC WIND TUNNELS
Non-propulsive aerodynamic noise
01 p0149 N93-10673
Winds of change: Expanding the frontiers of flight. Langley Research Center's 75 years of accomplishment, 1917-1992
[NASA-NP-130] 02 p0490 N93-11100
An experimental study of flow patterns and endwall heat transfer upstream of a surface-mounted rectangular obstruction in a turbulent boundary layer
02 p0302 N93-11698
A wall interference assessment/correction system
[NASA-CR-190617] 02 p0218 N93-11910
Design philosophy for wind tunnel model positioning systems
[AD-A254958] 03 p0506 N93-12552
Subsonic aerodynamic research laboratory
[AD-A256060] 04 p0780 N93-14661
Close-up analysis of aircraft ice accretion
[NASA-TM-105952] 04 p0787 N93-15360
Upgrade and extension of the data acquisition system for propulsion and gas dynamic laboratories
[AD-A256836] 04 p1009 N93-15637
Transient/structural analysis of a combustor under explosive loads
[NASA-TM-107660] 05 p1188 N93-17779
A wall interference assessment/correction system
[NASA-CR-191889] 06 p1406 N93-18384
Study of optical techniques for the Ames unitary wind tunnel: Digital image processing, part 6
[NASA-CR-192164] 06 p1452 N93-18766
Flight and wind-tunnel calibrations of a flush airdata sensor at high angles of attack and sideslip and at supersonic Mach numbers
[NASA-TM-104265] 06 p1447 N93-19110
Evaluation of candidate working fluid formulations for the electrothermal - chemical wind tunnel
[NASA-CR-192196] 07 p1788 N93-20312
Icing research tunnel rotating bar calibration measurement system
[NASA-TM-106010] 08 p2303 N93-22598
Annual progress report, 1990-1991
[CTN-93-60695] 08 p2570 N93-23115
Performance and test section flow characteristics of the National Full-Scale Aerodynamics Complex 80- by 120-Foot Wind Tunnel
[NASA-TM-103920] 08 p2134 N93-23420
Nozzle diffuser for use with an open test section of a wind tunnel
[NASA-CASE-LAR-14424-1-SB]
09 p2598 N93-25996
Modification and calibration of the Naval Postgraduate School Academic Wind Tunnel
[AD-A262092] 10 p2947 N93-28189
Summer research program (1992). High School Apprenticeship Program (HSAP) reports. Volume 16: Arnold Engineering Development Center Civil Engineering Laboratory
[AD-A262024] 11 p3608 N93-29396

WIND TURBINES
Measured data for the Sandia 34-meter vertical axis wind turbine
[DE92-019807] 02 p0348 N93-12075
User's Guide for the NREL Force and Loads Analysis Program
[DE92-010579] 03 p0627 N93-13524
User's Guide for the NREL Teetering Rotor Analysis Program (STRAP)
[DE92-010580] 03 p0627 N93-13525
Frequency-domain synthesis of the fatigue load spectrum for the NPS 100-kW wind turbine
[DE92-040984] 04 p0908 N93-15384
Aeroelastic stability and response of rotating structures
[NASA-CR-191803] 05 p1068 N93-16560
Elastic dynamics of a complete wind turbine structure: Theoretical development
[DE93-002478] 06 p1555 N93-18524
A discussion of the results of the rainflow counting of a wide range of dynamics associated with the simultaneous operation of adjacent wind turbines
[DE93-000016] 06 p1571 N93-18705
Effects of wind turbines on UHF television reception: Field tests in Denmark, November 1991
[BBC-RD-1992/7] 07 p1885 N93-21365
Combined experiment, phase 1
[DE93-000012] 07 p1763 N93-21766
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Effect of the flap and edgewise bending moment phase relationships on the fatigue loads of a typical HAWT blade
[DE93-003253] 08 p2324 N93-22721
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
Fatigue and reliability analyses for wind turbines
[DE93-004497] 08 p2380 N93-23318
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
The natural excitation technique (NExT) for modal parameter extraction from operating wind turbines
[DE93-010611] 11 p3463 N93-28603
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
High cycle fatigue of glass fibre reinforced epoxy materials for wind turbines
[DLR-FB-92-17] 12 p3700 N93-31461

WIND VARIATIONS
Investigations of the mesoscale flow in the planetary-boundary-layer over Israel: A numerical study
[ITN-93-85177] 05 p1215 N93-16836
The neutral wind in the E-region from CP-1 data
06 p1729 N93-19565
The quasi-biennial oscillation in the middle atmosphere 08 p2397 N93-23965

WIND VELOCITY
NT SOLAR WIND VELOCITY
Acoustic noise generation at the air/ocean boundary
[DREA-CR-90-445] 01 p0147 N93-10642
Comparison of wind speed measurements over the oceans with the Special Sensor Microwave/Imager and the Geosat altimeter 01 p0127 N93-10850
Surface wind speed distributions
[AD-A253268] 02 p0368 N93-11505
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
Visualizing wind velocities by advecting cloud textures
[DE92-014717] 02 p0371 N93-12154
Analysis of air and sea physical properties and surface fluxes using a combination of in situ and SEASAT data
02 p0365 N93-12182
Acoustic tomographic monitoring of the atmospheric boundary layer 03 p0651 N93-13143
The assimilation of marine surface data into the Navy operational global atmospheric prediction system
[AD-A255559] 03 p0667 N93-13877
Spatial characteristics of coherent turbulent structures and exchange processes in the atmospheric surface layer within and above an orchard canopy
03 p0660 N93-14064
Wind stress analysis over the Western Equatorial Pacific and North Atlantic Oceans based on ECMWF operational wind products, 1985-1989
[AD-A256147] 04 p0920 N93-14256
Venus mesospheric winds and the carbon monoxide bulge 04 p1029 N93-14320
Dynamics of the Venus atmosphere
04 p1030 N93-14325
Evaluation of a soil fixative to retard particle entrainment: A laboratory study
[UCRL-LR-109806] 04 p0915 N93-14877
Unified program for the specification of hurricane boundary layer winds over surfaces of specified roughness
[AD-A257462] 05 p1217 N93-17658
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
Computer program for wind speeds and turbulence properties: Flat or hilly sites in terrain with roughness changes
[ESDU-92032] 06 p1585 N93-18043
Aircraft turns into and down wind
[AERO-REPT-9201] 06 p1438 N93-18131
Definition of mean environmental steering flow for TCM-90 tropical cyclones
[AD-A257886] 06 p1586 N93-18338
US Navey regional climatic study of the Greenland-Iceland-United Kingdom gap and associated waters
[AD-A257909] 06 p1586 N93-18342
Remote sensing of turbulence and transverse atmospheric wind profiles using optical reference sources
[AD-A258855] 06 p1587 N93-19370
Four-dimensional data assimilation of gale data using a multivariate analysis scheme and a mesoscale model with diabatic initialization
[AD-A258549] 06 p1587 N93-19481
Algorithms for airborne Doppler radar wind shear detection 06 p1420 N93-19606
The Split Window Microwave Radiometer (SWMR) for hurricane wind speed measurement from space
[NASA-CR-192316] 07 p2002 N93-19987
Simulations of satellite Doppler wind observations
07 p2010 N93-20104
Relationship between ozone concentrations and air transport over western Arizona
[PB93-114007] 07 p1990 N93-21238
Empirical model of winds in south-eastern Europe in connection with solar activity 07 p1961 N93-21619
Assimilation of satellite borne wind scatterometer observations 07 p1962 N93-21620
CONPLT: A program to generate contours from HARPO/HARPA environmental models. Data documentation
[PB92-218544] 07 p1992 N93-21649
Advanced control strategies for wind turbines
[DE93-003252] 07 p1989 N93-21961
Interannual variations of sea surface wind speed, water vapor retrieved from special sensor microwave/imager: El Nino/La Nina comparison 08 p2337 N93-22139
Comparison of anemometers for turbulence characterization
[DE93-004336] 08 p2302 N93-22338
Damping measurements from an operating wind turbine: Preliminary results and procedures
[DE93-005357] 08 p2377 N93-22873

Low-speed wind tunnel study of the direct lift and direct side-force characteristics of a joined-wing airplane
[DE93-767971] 08 p2115 N93-24508
An analysis of mesoscale convective systems observed during the 1992 Tropical Cyclone Motion field experiment
[AD-A260889] 09 p2783 N93-25633
Errors caused by incompatible wind and buoyancy forcing in the ocean general circulation models
[AD-A260894] 09 p2789 N93-25657
Summary by the cloud and aerosol research group for ASTEX
[AD-A261292] 09 p2766 N93-26292
Tornado: An engineering-oriented perspective
[PB93-148435] 09 p2788 N93-26584
Including maximum sustained wind speed in a time series model to forecast hurricane movement
[AD-A262510] 10 p3078 N93-27663
A synoptic comparison of special sensor microwave/imager displays with numerical products
[AD-A261960] 10 p3076 N93-27949
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
Rugged, no-moving-parts windspeed and static pressure probe designs for measurements in planetary atmospheres 11 p3434 N93-28767
Doppler-radar wind-speed measurements in tornadoes: A comparison of real and simulated spectra
[DE93-008734] 11 p3481 N93-29095
Evaluation of atmospheric wind field and dispersion models for fog-oil smoke dispersion in complex terrain: Field measurement and model evaluation program for assessment of the environmental effects of military smokes
[AD-A262051] 11 p3482 N93-29399
Surface shear stress estimates from geostrophic winds for use in sensible and latent heat flux formulations 11 p3483 N93-30044
Vortex shedding by blunt/bluff bodies at high Reynolds numbers. Volume 4: Rectangles
[AD-A264154] 11 p3241 N93-30151
Wind profiling in a cloudy convective atmospheric boundary layer over land
[AD-A265422] 12 p3768 N93-32051
Evolution of area-averaged vertical velocity in the convective region of a midlatitude squall line
[AD-A265333] 12 p3768 N93-32063

WIND VELOCITY MEASUREMENT
Stratospheric turbulence measurements and models for aerospace plane design
[NASA-TM-104262] 03 p0663 N93-13288
NASA/LMSC instrument design and fabrication --- coherent lidar airborne shear sensor 04 p0784 N93-14846
Coherent lidar system for high resolution measurement of atmospheric wind velocity and water vapor fields
[AD-A257725] 05 p1218 N93-17701
The neutral wind in the E-region from CP-1 data 06 p1729 N93-19565
A comparison of GMS low-level cloud motion winds with sea surface winds observed by ships over western part of the North Pacific Ocean 10 p3076 N93-26995
Evaluations of 404 MHz radar wind profiler observations at Okinawa during TCM-90
[AD-A262701] 10 p3079 N93-28392
The enhanced-model lidar wind sensor and its application in planetary wind velocity measurements 11 p3649 N93-28815
Theory and application of a Radio-Acoustic Sounding System (RASS)
[PB93-191252] 12 p3769 N93-31815

WINDING
NT FILAMENT WINDING
NT HELICAL WINDINGS
Cable-line shortening device
[AD-D015427] 04 p0891 N93-14822
Thermoplastic tape winding parameters 07 p1835 N93-21135

WINDOWS
Synthesis and evaluation of polymeric materials
[AD-A255563] 05 p1121 N93-16060

WINDOWS (APERTURES)
Cesium iodide alloys
[DE92-019818] 04 p0845 N93-14717
Stress calculations on the window section of an all-composite aircraft fuselage
[LR-688] 05 p1060 N93-16215
High power RF window and waveguide component development and testing above 100 MW at X-band
[DE93-001809] 05 p1138 N93-16220
Power coupler and cold window for seven-cell superconducting cavity vertical tests
[DE93-000791] 05 p1150 N93-17380
High performance sapphire windows 08 p2310 N93-22198
Chemical analyses of provided samples
[NASA-CR-193207] 10 p2993 N93-27000
Ultra-high resolution water window x ray microscope optics design and analysis
[NASA-CR-192590] 11 p3578 N93-29128

WINDOWS (COMPUTER PROGRAMS)
Using the Mach communication primitives in X11
[AD-A264049] 11 p3533 N93-30125

WINDOWS (INTERVALS)
NT LASER WINDOWS
NT LAUNCH WINDOWS

WINDPOWER UTILIZATION
NEDO Solar Technology Subcommittee
[DE92-526256] 02 p0347 N93-11845
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335
Wind power plants in the weather conditions of Northern Finland
[DE93-752927] 08 p2379 N93-22971
Gridded state maps of wind electric potential
[DE93-004556] 08 p2379 N93-22988
An advanced data-acquisition system for wind energy projects
[DE93-000079] 09 p2874 N93-25254
Summary results of an assessment of research projects in the Solar Federal Wind Energy Research Program
[DE93-005743] 10 p3065 N93-28302
Solar world congress: Proceedings of the biennial congress of the international solar energy society, volume 1, part 2
[PB93-174779] 11 p3465 N93-30001
Japan's Sunshine Project
[DE93-768309] 12 p3748 N93-31811

WINDPOWERED GENERATORS
Full vector (3-D) inflow simulation in natural and wind farm environments using an expanded version of the SNLWIND (Veers) turbulence code
[DE93-000041] 08 p2376 N93-22334
An overview of DOE's wind turbine development programs
[DE93-000044] 08 p2376 N93-22335

WINDS ALOFT
NT GEOSTROPHIC WIND
NT JET STREAMS (METEOROLOGY)
An inversion technique to recover lower thermospheric winds from space-borne remote measurements of (OI) 5577 A 02 p0369 N93-11839
Radar sensitivity and antenna scan pattern study for a satellite-based Radar Wind Sounder (RAWS)
[NASA-CR-191387] 05 p1216 N93-16953
Analysis and comparisons of inverted meridional winds from space-borne measurements of (OI) 5577A
[AD-A258299] 06 p1576 N93-18126
RAWS 1992 progress report
[NASA-CR-191382] 06 p1587 N93-18849
Polarizing Michelson interferometer for measuring thermospheric winds
[ISBN-0-315-70442-X] 09 p2784 N93-25731
Forecast of Atlantic seasonal hurricane activity for 1993 10 p3077 N93-27534

WINDSCREENS
U WINDSHIELDS

WINDSHIELDS
T-38 forward windshield development and performance demonstration report
[AD-A259240] 07 p1781 N93-20579

WING CAMBER
Flight test results from a supercritical mission adaptive wing with smooth variable camber
[NASA-TM-4415] 02 p0207 N93-11863
Tailored composite wings with elastically produced chordwise camber 11 p3308 N93-30876

WING FLAPS
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT TRAILING EDGE FLAPS
Icing effects on aircraft stability and control determined from flight data: Preliminary results
[NASA-TM-105977] 04 p0803 N93-14831

WING ICING
U AIRCRAFT ICING

WING LOADING
An experimental study of the relationship between forces and moments and vortex breakdown on a pitching delta wing 02 p0208 N93-12206
Towards an analytical treatment of the aerolastic problem of a circular wing 10 p2926 N93-27214
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence 10 p2927 N93-27220
High-Reynolds-number test of a 5-percent-thick low-aspect-ratio semispan wing in the Langley 0.3-meter transonic cryogenic tunnel: Wing pressure distributions
[NASA-TM-4227] 11 p3240 N93-29449

WING NACELLE CONFIGURATIONS
Detailed analysis of wing-nacelle interaction for commercial transport aircraft 03 p0578 N93-13203
Aerodynamic analysis of slipstream/wing/nacelle interference for preliminary design of aircraft configurations 03 p0497 N93-13205
Euler analysis of turbofan/superfan integration for a transport aircraft 03 p0578 N93-13206
Recent developments in low-speed TPS-testing for engine integration drag and installed thrust reversr simulation 03 p0502 N93-13207
Application of subsonic first-order panel methods for prediction of inlet and nozzle aerodynamic interactions with airframe 03 p0497 N93-13223
High-speed aerodynamics of upper surface blowing aircraft configurations 03 p0494 N93-13729
Improving military transport aircraft through highly integrated engine-wing design
[DS-1607] 06 p1434 N93-17850
WBNFLOW: Multi-grid/multi-block potential solver for compressible flow. User's guide
[FFA-TN-1992-43] 12 p3723 N93-31146

WING OSCILLATIONS
Airfoil-vortex interaction and the wake of an oscillating airfoil 03 p0495 N93-13803
An experimental and computational investigation of slender wings undergoing wing rock 03 p0505 N93-13915
An examination of wing rock for the F-15
[AD-A256613] 04 p0802 N93-14252
Wing rock prediction method for a high performance fighter aircraft
[AD-A256438] 04 p0792 N93-15314
Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336
Wing flutter boundary prediction using an unsteady Euler aerodynamic method
[NASA-TM-107732] 08 p2108 N93-22457
Unsteady Euler and Navier-Stokes computations around oscillating delta wing including dynamics 08 p2113 N93-24136
Airfoil stability in turbulent flow 10 p2926 N93-27212
Effect of vortex behavior on loads acting on a 65 deg delta wing oscillating in roll at high incidence 10 p2927 N93-27220

WING PANELS
Reliability of stiffened structural panels: Two examples
[NASA-TM-107687] 04 p0900 N93-14483
Design, analysis, and fabrication of the technology integration box beam 11 p3300 N93-30433
Development of stitching reinforcement for transport wing panels 11 p3304 N93-30852

WING PLANFORMS
NT DELTA WINGS
NT INFINITE SPAN WINGS
NT SWEPT FORWARD WINGS
NT SWEPTBACK WINGS
Effect of planform and body on supersonic aerodynamics of multibody configurations
[NASA-TP-3212] 01 p0004 N93-10824
Review of aerodynamic design in the Netherlands
[NLR-TP-91260-U] 12 p3679 N93-31840

WING PROFILES
NT WING SPAN
Wind tunnel investigation of a twin-engine jet transport semi-span model with upper surface blown jet flap
[NAL-TR-1134] 02 p0203 N93-12503
Parallel computing strategies for block multigrid implicit solution of the Euler equation 10 p2922 N93-27190

WING SLATS
U LEADING EDGE SLATS

WING SPAN
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238

WING TANKS
Aircraft wing compartment liner concept to reduce fuel spillage
[DOT/FAA/CT-TN92/34] 05 p1062 N93-17219

WING TIP VORTICES
Contribution to the study of vortex flow in an incompressible fluid
[ONERA-NT-1992-4] 06 p1527 N93-18191
An experimental investigation of interacting wing-tip vortex pairs
[AD-A258471] 06 p1406 N93-18272
Tip-vortex/airframe interactions 08 p2111 N93-23489

WING TIPS
Wind-tunnel free-flight investigation of a supersonic persistence fighter
[NASA-TP-3258] 06 p1407 N93-18395

WINGS
NT AEROELASTIC RESEARCH WINGS
NT BEARINGLESS ROTORS
NT DELTA WINGS
NT FIXED WINGS
NT FLEXIBLE WINGS
NT GAW-1 AIRFOIL
NT INFINITE SPAN WINGS
NT JOINED WINGS
NT LIFTING ROTORS
NT LOW ASPECT RATIO WINGS
NT MISSION ADAPTIVE WINGS
NT OBLIQUE WINGS
NT RECTANGULAR WINGS
NT RIGID ROTORS
NT RIGID WINGS
NT RING WINGS
NT ROTARY WINGS
NT SLENDER WINGS
NT SUPERCRITICAL WINGS
NT SWEPT FORWARD WINGS
NT SWEPT WINGS
NT SWEPTBACK WINGS
NT THIN WINGS
NT TILTING ROTORS
NT UNSWEPT WINGS

Control of lift and drag in unsteady flows
[AD-A253146] 01 p0003 N93-10340
Nonlinear aeroelasticity of composite structures
[AD-A254285] 01 p0008 N93-10842
Unsteady propeller/wing aerodynamic interactions
02 p0201 N93-12190
The future of carrier aviation
[AD-A254043] 02 p0430 N93-12260
Nonlinear stall flutter of wings with bending-torsion coupling
[AD-A254323] 03 p0503 N93-12959
Analysis and design of planar and non-planar wings for induced drag minimization
[NASA-CR-191274] 03 p0493 N93-13463
Transonic aeroelastic analysis of systems with structural nonlinearities 03 p0629 N93-13769
Navier-Stokes flowfield computation of wing/rotor interaction for a tilt rotor aircraft in hover
03 p0497 N93-14035
Proceedings of the USAF Structural Integrity Program
[AD-A255379] 04 p0777 N93-14549
Application of an aeroelastic analysis method for aerodynamic improvement of fighter wings at maneuver flight conditions 04 p0791 N93-14832
Analysis of in-flight structural failures of P-3C wing leading edge segments
[AD-A256212] 04 p0792 N93-15238
F-14 wing lug coating investigation
[AD-A257384] 05 p1060 N93-15858
Real-time detection of fatigue cracks at multiple holes in 7075 aluminum using acoustic emission
[AD-A257102] 05 p1111 N93-16114
Quantitative-force measurements of pneumatic control on a wing/strake model
[AD-A257343] 05 p1054 N93-16157
Lanchester: The man
[AERO-REPT-9111] 05 p1402 N93-16464
Maximum lift of wings with leading-edge devices and trailing-edge flaps deployed
[ESDU-92031] 05 p1055 N93-16522
Pitching moment of low aspect ratio wing-body combinations up to high angles of attack at supersonic speeds
[ESDU-92043] 06 p1435 N93-17958
Add-on damping treatment for the F-15 upper-outer wing skin
[AD-A258470] 06 p1438 N93-18248
Lift enhancement using a close-coupled oscillating canard
[AD-A257877] 06 p1406 N93-18336
Analysis of a 2-D airfoil motion flying in-proximity-to a wavy-wall surface: Finite difference method
06 p1410 N93-19282
Calculations of aerodynamic forces on a wing with thrust using BEM 06 p1410 N93-19286
Shock-dependent, optimum thrust wings in supersonic flow 07 p1760 N93-20169
Application of artificial neural networks to the design optimization of aerospace structural components
[NASA-TM-4389] 07 p1952 N93-21831
Automatic computation of wing-fuselage intersection lines and fillet inserts with fixed-area constraint
[NASA-TM-4406] 08 p2108 N93-22487
Aerodynamic sensitivity analysis in the transonic regime 08 p2109 N93-22667
A two-dimensional spoiler of arbitrary chordwise position in a low speed flow 08 p2127 N93-24211
General aviation aircraft: Normal acceleration data analysis and collection project
[DOT/FAA/CT-91/20] 09 p2586 N93-24739
Analysis of wing wake roll-up using a vortex-in-cell method 09 p2579 N93-25706
Adjoint methods for aerodynamic wing design
[NASA-CR-193086] 10 p2942 N93-27089
Probabilistic assessment of composite structures
[NASA-TM-106024] 10 p2990 N93-27092
Effect of underwing frost on transport aircraft takeoff performance
[DOT/FAA/CT-TN93/9] 10 p2940 N93-27252
Aerodynamics of a finite wing with simulated ice
10 p2932 N93-27437
Reynolds and Mach number effects on multielement airfoils 10 p2934 N93-27446
Analysis of the static and dynamic response of a T-38 wing and comparison with experimental data
[AD-A262363] 10 p2942 N93-27692
Computational method in optimal bending-twisting comprehensive design of wings of subsonic and supersonic aircraft
[AD-A262374] 10 p2943 N93-27694
Effect of pylon cross-sectional geometries on propulsion integration for a low-wing transport
[NASA-TP-3333] 10 p2938 N93-28070
A demonstration of simple airfoils: Structural design and materials choices
[DE93-007882] 11 p3238 N93-28662
Articulated fin/wing control system
[AD-D015712] 11 p3259 N93-29278
Construction, wind tunnel testing and data analysis for a 1/5 scale ultra-light wing model
11 p3243 N93-29778
Topology and grid adaption for high-speed flow computations
[NASA-CR-4216] 11 p3426 N93-30375
First NASA Advanced Composites Technology Conference, part 2
[NASA-CP-3104-PT-2] 11 p3303 N93-30841
Optimization of composite sandwich cover panels subjected to compressive loadings
11 p3306 N93-30862
A comparison of classical mechanics models and finite element simulation of elastically tailored wing boxes
11 p3306 N93-30863
Construction and testing of simple airfoils to demonstrate structural design, materials choice, and composite concepts 11 p3243 N93-30979
Effects of an aft facing step on the surface of a laminar flow glider wing
[NASA-CR-193302] 12 p3673 N93-31855

WINTER
Atlas of Southern Hemisphere 500 mb teleconnection patterns derived from National Meteorological Center analyses
[PB92-203892] 01 p0126 N93-10337
Morning-evening differences in global and regional oceanic precipitation as observed by the SSM/I
01 p0127 N93-10851
Key wintertime meteorological features of the Grand Canyon and the Colorado Plateaus Basin
[DE92-019134] 02 p0369 N93-11657
A composite study of the Madden-Julian oscillation
[AD-A254269] 02 p0369 N93-11819
Sustaining health and performance in the cold: Environmental medicine guidance for cold-weather operation
[AD-A254328] 02 p0385 N93-12145
On the relationship between the intensity of extratropical frontal cyclone systems and water levels in the Gulf of Mexico 03 p0666 N93-13816
An investigation of the effects of topography on Colorado front range winter storms 03 p0668 N93-14063
Sierra Nevada winter storms: A study using microwave radiometry, ice crystal, and isotopic analysis technique
04 p0923 N93-15088
Wintertime meteorology of the Grand Canyon region
[DE93-001557] 05 p1216 N93-17179
Basin meteorology, with examples from the American Southwest (Grand Canyon region) in winter
[DE93-001558] 05 p1217 N93-17390
Radar based case study of a Northeast Colorado winter storm
[AD-A258256] 06 p1585 N93-17901
Climate model calculations of the effects of volcanoes on global climate
[NASA-CR-191999] 06 p1573 N93-18600
Nocturnal high latitude E-region in winter during extremely quiet conditions 06 p1723 N93-19527
Wildfire and MAMS data from STORMFEST
[NASA-TM-108393] 06 p1588 N93-19898
Electrification in winter storms and the analysis of thunderstorm overflight data 07 p2006 N93-20087
A comparison of intense extratropical cyclone life cycles from diverse geographical locations
07 p2011 N93-20278
Meteorological conditions over the South Atlantic Ocean during July and August of 1991
[PB92-235738] 07 p2015 N93-21503
Pinatubo eruption winter climate effects: Model versus observations
[NASA-CR-191955] 07 p1994 N93-21946
Real-time forcasts for WISP-91 using the Penn State/NCAR mesoscale model
[PB93-118586] 08 p2405 N93-23333
Investigation of winter mountain storms in Utah during the 1989 Utah/NOAA field program
[PB93-153021] 09 p2785 N93-25849
Atmospheric dispersion of air pollutants in Umea (Sweden)
[FOA-C-40300-4.5] 12 p3756 N93-32424

WIRE
NT ELECTRIC WIRE
NT EXPLODING WIRES
NT GUY WIRES

Lightweight deployable antenna system
[AD-D015291] 01 p0067 N93-10096
Theory of small metal clusters, films, and wires
[AD-A253120] 02 p0256 N93-11240
The theoretical background to BS7167: 1990 - specification for Bordeaux connections
[NPL-DMM(A)-50] 02 p0325 N93-11324
Frequency response in short thermocouple wires
[NASA-CR-190943] 02 p0310 N93-11612
Synthesis and properties of novel cluster phases
[DE92-017388] 03 p0545 N93-12697
Large-deflection analysis of cord composite plates
03 p0530 N93-13008
Sensitivity of quantum electron conductance to elastic scatterers and to spin-orbit scattering in gallium arsenide heterostructures 04 p0990 N93-14184
Modeling and control of a trailing wire antenna towed by an orbiting aircraft
[AD-A256450] 04 p0859 N93-14610
Development of an expendable particle sensor
[AD-A255702] 04 p0881 N93-14653
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
AC loss and dynamic resistance of a high T(sub c) strand carrying a direct current in a transverse AC magnetic field
[DE92-040581] 05 p1142 N93-15826
Progress toward application of bulk high-T(sub c) superconductors
[DE92-040735] 05 p1315 N93-15924
Phase chemistry and microstructure evolution in silver-clad (Bi(2-x)Pb(x)) Sr2Ca2Cu3O(y) filaments
[DE92-040716] 05 p1318 N93-16267
Armored fiber optic cables statement of government interest
[AD-D015459] 05 p1302 N93-16437
Development and calibration of two and four wire water surface wave height measurement systems
[AD-A257900] 06 p1589 N93-18394
Widebanding techniques for VHF antennas, 1
[AD-A259301] 08 p2260 N93-22399
Auger electron spectroscopy study of oxidation of a PdCr alloy used for high-temperature sensors
[NASA-TM-106212] 08 p2231 N93-23418
PROAV Cable Warning System (CWS) - U.S. Army aircraft integration assessment and CONUS field evaluation
[AD-A261233] 09 p2583 N93-26263
The 80 kV electrostatic wire septum for AmPS
10 p3139 N93-28340
Magnetic properties and irreversibility behavior in Ag-sheathed Bi-based superconducting wires fabricated using a controlled melt procedure
[DE93-005554] 10 p3032 N93-28344
ORNL superconducting technology program for electric energy systems
[DE93-009588] 11 p3404 N93-28523
Welding wire pressure sensor assembly
[NASA-CASE-MFS-26216-1] 11 p3442 N93-28951
Electromagnetic diffusion and wire coupling
[AD-A263183] 11 p3381 N93-29011
A miniature fatigue test machine
11 p3291 N93-30956
Low aperture magnetic elements measurements
[DE93-605897] 12 p3814 N93-31088
Electromagnetic response of a superconducting wire of finite length in a perpendicular applied AC magnetic field
[MEMO-1087] 12 p3716 N93-31516
Progress in speckle-shift strain measurement
12 p3693 N93-31558

WIRE BRIDGE CIRCUITS
NT WHEATSTONE BRIDGES

WIRE CLOTH
Reduction in size and unsteadiness of a VTOL ground vortex by ground fences
[NASA-CR-192997] 09 p2580 N93-26049
WIRE MESH
U WIRE CLOTH
WIRELESS COMMUNICATION
The locator system for wandering individuals
[NASA-TM-104754] 02 p0388 N93-11649
Short range propagation measurements at 2.4, 4.5, and 11.5 GHz in indoor and outdoor environments
[AD-A256563] 04 p0860 N93-14806
Wireless infrared communications for space and terrestrial applications 08 p2275 N93-22177
The 1992 United Nations Workshop on Space Communication for Development: Proceedings 10 p3022 N93-26640
Iridium: Covering the globe with personal communication 10 p3022 N93-26644
Wideband propagation measurements for wireless indoor communication
[PB93-175123] 11 p3382 N93-29202
Canadian Conference on Electrical and Computer Engineering, volumes 1 and 2
[ISBN-0-9694170-1-2] 11 p3354 N93-30215
Radiation-hardened microwave communications system
[DE93-007915] 11 p3394 N93-30631
WIRING
Design and implementation of a fiber optic link for a token ring local area network
[AD-A257868] 06 p1662 N93-18335
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
NASA requirements and applications environments for electrical power wiring
[NASA-CR-191064] 06 p1475 N93-19652
Vacuum multilayer lamination of printed wiring boards
[DE93-004912] 07 p1894 N93-21727
Printed wiring assembly cleanliness
[DE93-006040] 08 p2277 N93-22524
Evaluation of Kapton pyrolysis, arc tracking, and flashover on SiO(x)-coated polyimide insulated samples of flat flexible current carriers for Space Station Freedom
[NASA-CR-191106] 08 p2258 N93-23430
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259706] 08 p2282 N93-23665
Applicability of superconducting interconnection technology for high speed IC's and systems
[AD-A259520] 08 p2285 N93-24302
Potential human health effects associated with power frequency electric and magnetic fields
[PB93-132678] 08 p2423 N93-24590
Report of the Seasat Failure Review Board 09 p2619 N93-24693
Efficient wiring of reconfigurable parallel processors
[DE93-009847] 11 p3538 N93-29186
WIRING SYSTEMS
U WIRING
WISCONSIN
Wisconsin Inventors' Network Database
[DE92-018394] 04 p1007 N93-15137
Geology and geochemistry of early proterozoic rocks in the Dunbar area, Northeastern Wisconsin
[PB93-115640] 07 p2000 N93-21692
Small business profiles, 1992. Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
[PB93-110963] 08 p2520 N93-24158
WKB APPROXIMATION
U WENTZEL-KRAMER-BRILLOUIN METHOD
WOLF-RAYET STARS
Wolf-Rayet stars in the Milky Way, the Large Magellanic Cloud, and emission-line galaxies 04 p1020 N93-14869
WOLFRAM
U TUNGSTEN
WOMEN
U FEMALES
WOOD
Design of gasifiers to optimize fuel cell systems
[DE93-000219] 08 p2379 N93-23049
Forest classification and dead wood mapping in the Bavarian Forest National Park (Germany) using LANDSAT TM and digital additional data
[DLR-FB-92-10] 08 p2374 N93-24140
Surface roughness measuring systems
[VTT-TIED-1392] 12 p3748 N93-32420
WOOL
Wetting of fibers measured by LPR-90 equipment 07 p1835 N93-21139
WORD PROCESSING
Dynamic object oriented interaction and its implementation in the framework in an interface management system
[ETN-93-93795] 11 p3523 N93-28526
WORDS (LANGUAGE)
Semantics-based reference resolution in technical text processing: An exploration of using the Word Net database in the computerized comprehensibility system
[AD-A255068] 03 p0736 N93-13117
Cognition and the brain
[AD-A255483] 04 p0937 N93-14788
The intelligibility of words, sentences, and continuous discourse using the articulation index
[AD-A256781] 04 p0863 N93-15624
The semantics of plural noun phrases
[LP-91-07] 06 p1614 N93-17827
Methods and means used in programming intelligent searches of technical documents 08 p2530 N93-22155
Knowledge From Pictures (KFP) 08 p2465 N93-22187
Facilitation and interference in identification of pictures and words
[AD-A261484] 09 p2798 N93-26356
Perception and the temporal properties of speech
[AD-A261439] 09 p2686 N93-26490
Comparison of crisp and fuzzy character networks in handwritten word recognition 11 p3514 N93-29545
WORK
NT PHYSICAL WORK
WORK FUNCTIONS
Effects of anode material on arcjet performance 01 p0023 N93-10044
Effects of anode material on arcjet performance
[NASA-TM-105799] 01 p0025 N93-10197
Current density limitations in a fast-pulsed high-voltage diode
[AD-A257866] 06 p1520 N93-18328
Measurement of work function of a plasma grid in a cesium seeded negative ion source
[DE93-764153] 11 p3589 N93-30190
Energy spectra and photoelectron work function from YBa2Cu3O7 high-T(sub c) superconductor
[DE93-606329] 11 p3600 N93-30766
WORK HARDENING
NT STRAIN HARDENING
On the structure of nonlinear constitutive equations for fiber reinforced composites
[NASA-CR-191024] 04 p0830 N93-14484
Selection criteria for metallic high temperature structural materials in hypersonic flying equipment
[MBB-LME-221-HYPAC-PUB-2-A] 07 p1783 N93-21479
The behavior of intermetallic compounds at large plastic strains
[DE93-003820] 07 p1857 N93-21772
Postirradiation deformation behavior in ferritic Fe-Cr alloys
[DE93-004833] 08 p2229 N93-22881
Analysis of shaped charge jet penetration experiments with Pen
[UCRL-LR-110773] 09 p2730 N93-26177
Use and analysis of finite element methods for problems of solid mechanics and fracture
[AD-A261574] 09 p2731 N93-26522
Modeling the behavior of materials
[DE93-010483] 10 p3060 N93-28161
WORK-REST CYCLE
Bright light delivery system
[NASA-CASE-MFS-28723-1] 05 p1225 N93-17058
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
Simulated sustained flight operations and performance. Part 1: Effects of fatigue
[AD-A261012] 09 p2801 N93-25859
Engineman stress and fatigue: Pilot tests
[PB93-175008] 11 p3507 N93-29675
WORKING FLUIDS
The application of liquid crystal polymers to turbomachinery 01 p0023 N93-10040
Heat transfer additives for absorption cooling system fluids
[PB92-190354] 01 p0169 N93-10249
System and method for cancelling expansion waves in a wave rotor
[NASA-CASE-LEW-15218-1] 02 p0297 N93-11172
An experimental study of a small high-speed LH2 pump for rockets: Fluid dynamic performance
[NAL-TR-1131] 03 p0610 N93-12727
Diffusion-absorption heat pump
[PB92-217538] 03 p0576 N93-12975
Current status of liquid sheet radiator research
[NASA-TM-105764] 04 p0872 N93-14150
Closed Brayton Cycle power system with a high temperature pellet bed reactor heat source for NEP applications
[NASA-TM-105933] 04 p0826 N93-14482
Study and development of an air conditioning system operating on a magnetic heat pump cycle (design and testing of flow directors) 06 p1536 N93-19407
Evaluation of candidate working fluid formulations for the electrothermal - chemical wind tunnel
[NASA-CR-192196] 07 p1788 N93-20312
Malone refrigeration
[DE93-005439] 09 p2668 N93-25447
Pulse mitigation and heat transfer enhancement techniques. Volume 3: Liquid sodium heat transfer facility and transient response of sodium heat pipe to pulse forward and reverse heat load
[AD-A263496] 11 p3422 N93-29338
Evaluation of candidate working fluid formulations for the electrothermal-chemical wind tunnel
[NASA-CR-193366] 12 p3684 N93-31848
WORKLOADS (PSYCHOPHYSIOLOGY)
Operator workload predictions for the revised AH-64A workload prediction model, volume 1
[AD-A254198] 01 p0133 N93-10261
Handbook for operating the OWLKNEST technology
[AD-A253412] 01 p0137 N93-10409
Mental workload assessment in the cockpit: Feasibility of using electrophysiological measurements, phase 1
[AD-A254138] 01 p0133 N93-10662
KC-135 crew reduction feasibility demonstration simulation study. Volume 3: Test and evaluation
[AD-A253931] 01 p0134 N93-10713
NASA Space Human Factors Program
[NASA-TM-108005] 01 p0134 N93-10890
From pilot's associate to satellite controller's associate 02 p0390 N93-11922
Human performance in complex task environments: A basis for the application of adaptive automation
[AD-A255067] 02 p0390 N93-12486
Operator workload predictions for the revised AH-64A workload prediction model. Volume 2: Appendixes A through H
[AD-A254939] 03 p0676 N93-12545
Adaptive automation and human performance: Multi-task performance characteristics
[AD-A254596] 03 p0503 N93-12578
Theory and design of adaptive automation in aviation systems
[AD-A254595] 03 p0499 N93-12613
Cognitive and affective components of mental workload: Understanding the effects of each on human decision making behavior 05 p1226 N93-16783
Design of a microprocessor-based control system control system for the Monterey Institute for Research in Astronomy 36 in. telescope
[AD-A257554] 06 p1695 N93-17978
Automatic information processing and high performance skills
[AD-A258473] 06 p1602 N93-18273
The effect of combat on the work/rest schedules and fatigue of A-6 and F-14 aviators during Operation Desert Shield/Storm
[AD-A258146] 06 p1597 N93-18292
Concepts for pilot interaction with an automated NOE obstacle-avoidance system
[NASA-TM-103960] 06 p1451 N93-19105
Use of microprocessor-based simulator technology and MEG/EEG measurement techniques in pilot emergency-manoeuver training 06 p1430 N93-19706
Modeling the dynamics of mental workload and human performance in complex systems
[AD-A258553] 06 p1603 N93-19956
Operator interface assessment for the sensor fusion flight demonstration program
[AD-A260235] 08 p2129 N93-24416
Physiological indices of mental workload
[AD-A261692] 09 p2798 N93-26391
Pilot decision aiding for weapon delivery: A novel approach to fire control cueing using parallel computing 11 p3501 N93-28853
A new class of mission support for combat air-crew 11 p3501 N93-28854
Human capabilities and limitations in situation awareness 11 p3503 N93-28863
Engineman stress and fatigue: Pilot tests
[PB93-175008] 11 p3507 N93-29675
Application and validation of workload assessment techniques
[AD-A264575] 12 p3777 N93-32012
WORKSTATIONS
TIGER5: Extraction of geographic information from the TIGER system
[DE92-014935] 01 p0171 N93-10382

Geographic information system to support state-wide hydrologic modeling with the SCS-TR-20
[PB92-185768] 02 p0476 N93-11700
A methodology to emulate and evaluate a productive virtual workstation 02 p0395 N93-11938
Advanced satellite workstation: An integrated workstation environment for operational support of satellite system planning and analysis 02 p0391 N93-11941
Framework Programmable Platform for the Advanced Software Development Workstation (FPP/ASDW). Demonstration framework document. Volume 2: Framework process description
[NASA-CR-190275] 03 p0685 N93-13004
Enterprise storage report for the 1990's 03 p0736 N93-13132
Terrain visualization for the portable all-source analysis work station
[AD-A255708] 04 p0905 N93-14430
Passive zero-gravity leg restraint
[NASA-CASE-ARC-11882-1-CU] 04 p0939 N93-14713
Workstation tools for feature extraction and classification for nonstationary and transient signals
[AD-A255389] 04 p0947 N93-15228
Development of an analog MIMO Quantitative Feedback Theory (QFT) CAD package
[AD-A256435] 04 p0950 N93-15313
Distributed finite element analysis using a transputer network
[NASA-CR-190888] 05 p1232 N93-15693
Wide-bandwidth high-resolution search for extraterrestrial intelligence
[NASA-CR-191618] 05 p1230 N93-15825
Space Station Freedom technology payload user operations facility concept
[NASA-TM-107701] 05 p1350 N93-16373
Data manipulation package using PV-WAVE. Precision visual's workstation analysis and visualization environment
[AD-A256513] 05 p1238 N93-16511
Human computer interface style guide, version 1.0
[AD-A253475] 05 p1232 N93-17752
Scheduling revisited workstations in integrated-circuit fabrication 06 p1637 N93-18681
Software for parallel processing applications
[DE93-002510] 06 p1627 N93-19744
Improvement and further development of SSM/I overland parameter algorithms using the WetNet workstation 07 p2005 N93-20083
Real image visual display system
[AD-A259125] 07 p2033 N93-20593
Advanced software development workstation. Knowledge base design: Design of knowledge base for flight planning application
[NASA-CR-192818] 08 p2434 N93-22040
Advanced software development workstation. OOPSLA 1992 Conference. Trip report
[NASA-CR-192811] 08 p2432 N93-22041
Advanced software development workstation. Comparison of two object-oriented development methodologies
[NASA-CR-192819] 08 p2434 N93-22042
Video conferencing made easy 08 p2275 N93-22173
Treatment of human-computer interface in a decision support system
[DE93-002281] 08 p2428 N93-24502
A trace-driven analysis of name and attribute caching in a distributed system
[NASA-CR-192899] 09 p2815 N93-25251
Interfacing a high performance disk array file server to a Gigabit LAN
[NASA-CR-192898] 09 p2816 N93-25458
Splash 2 09 p2814 N93-25575
Using today's technology to improve mobile C4I for the operational commander
[AD-A263613] 11 p3245 N93-29285
The Canadian Automated Air Traffic System 11 p3246 N93-30323
Case study of the operational usefulness of the sharp workstation in forecasting a mesocyclone-induced cold sector tornado event in California
[PB93-178697] 11 p3485 N93-30889
Software conception and structure of automated workstation for an experimental data processing
[DE93-609815] 11 p3623 N93-30994
Numerical methods for inverse problems in three-dimensional geophysical modeling, phase 2
[PB93-181584] 12 p3758 N93-31872
Measurements over distributed high performance computing and storage systems 12 p3841 N93-31977
Data communication network at the ASRM facility
[NASA-CR-193625] 12 p3686 N93-32236

WORLD
U EARTH (PLANET)

WORLD DATA CENTERS
A report on geomagnetic observatory operations, 1990
[PB92-224781] 03 p0649 N93-12804
World data center A for solar-terrestrial physics. Catalog of coronal holes, 1970-1991
[PB93-138469] 08 p2556 N93-23334

WORLD METEOROLOGICAL ORGANIZATION
CCL working group on climate data
[WCDMP-18] 02 p0370 N93-11897
Programmes and strategy for the World Meteorological Organization with respect to Earth observation from space 08 p2372 N93-23842
World Meteorological Organization
[WMO-774] 08 p2408 N93-24061

WOUND HEALING
Wound healing and connective tissue metabolism: The role of hyperbaric oxygen therapy
[AD-A262483] 11 p3493 N93-28759

WOVEN COMPOSITES
Aerospatiale processes for three dimensional preforms
[REPT-921-430-147] 02 p0239 N93-11590
Physical interpretation and development of ultrasonic nondestructive evaluation techniques applied to the quantitative characterization of textile composite materials
[NASA-CR-190962] 03 p0620 N93-13435
A probabilistic method to establish the reliability of carbon-carbon rocket motor nozzles. Volume 1: Experimental determination of mechanical properties for a carbon-carbon composite
[AD-A257459] 05 p1090 N93-16010
Characterization of thick glass reinforced composites
[AD-A256881] 05 p1097 N93-16047
What's a Parabeam 3D? 07 p1835 N93-21137
Manufacture and application of biaxial and multiaxial knits as textile reinforcements in composite materials 07 p1836 N93-21141
Acousto-Ultrasonic analysis of failure in ceramic matrix composite tensile specimens
[NASA-TM-106219] 11 p3449 N93-29073
Method and apparatus for weaving a woven angle ply fabric
[NASA-CASE-LAR-14048-1] 11 p3354 N93-29611
Micromechanics of fatigue in woven and stitched composites 11 p3304 N93-30850
Characterization of multiaxial warp knit composites 11 p3304 N93-30851
Mechanical and analytical screening of braided composites for transport fuselage applications 11 p3305 N93-30855
Damage of multi-directionally reinforced ceramic-matrix composites 11 p3308 N93-30937

WRAPAROUND CONTACT SOLAR CELLS
U SOLAR CELLS

WRENCHES
Wrench for installing an electrical connector
[AD-D015625] 08 p2318 N93-24220

WRINKLING
Description of wrinkles in membranes using nonlinear finite plate elements
[ETN-93-92565] 07 p1945 N93-20879

WRIST
Importance of numerosity and distribution of articulations within the digits, wrists, and arms of telemanipulators confronted with dextrous assembly tasks 02 p0330 N93-11967
Prevention of cumulative trauma disorders
[PB93-188332] 12 p3773 N93-31138

WROUGHT ALLOYS
In-phase and out-of-phase axial-torsional fatigue behavior of Haynes 188 at 760 C
[NASA-TM-105765] 03 p0625 N93-13153
Fatigue studies in Al-Mg-Si alloys 03 p0543 N93-13690
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189221] 06 p1448 N93-18578
Creep fatigue life prediction for engine hot section materials (isotropic)
[NASA-CR-189220] 07 p1784 N93-20252

WU-2 AIRCRAFT
U U-2 AIRCRAFT

WURTZITE
Crystalline growth of wurtzite GaN on (111) GaAs
[DE92-041165] 05 p1321 N93-16525
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974

WYOMING
Reserves in western basins
[DE92-014429] 01 p0102 N93-10625
Small business profile, 1992. Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
[PB93-110997] 08 p2521 N93-24557

W2F AIRCRAFT
U E-2 AIRCRAFT

X

X BAND
U SUPERHIGH FREQUENCIES

X RAY ABSORPTION
Epitaxial growth and dopant incorporation in diamond
[AD-A253636] 01 p0165 N93-10206
X pulse radiation around the critical surface 02 p0318 N93-12027
Research at and operation of the material science x ray absorption beamline (X-11) at the National Synchrotron Light source
[DE92-018598] 02 p0251 N93-12172
Accurate methods for calculating atomic processes in high temperature plasmas
[DE92-040215] 04 p0988 N93-15418
Magnetic circular dichroism in x ray absorption and core-level photoemission of Fe/Cu(001)
[DE93-001305] 05 p1327 N93-17651
Electron yield XAFS study of evaporated Co/Pd multilayers with various thickness ratios of Co to Pd sublayers: Simulations of the Co K-edge XAFS and Fourier transforms
[DE93-003142] 06 p1675 N93-19490
X ray absorption spectroscopy of dense, shock compressed, laser plasma 08 p2496 N93-23497
The detection of large amounts of cool, x ray absorbing gas in distant clusters of galaxies. What does this mean? 10 p3194 N93-26841
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331

X RAY ANALYSIS
NT LAUE METHOD
NT X RAY SPECTROSCOPY
X ray diagnostic techniques in ICF
[DE92-018069] 02 p0449 N93-10975
Characterizing laser fusion welded aluminum using synchrotron x ray microtomography
[DE92-018608] 03 p0609 N93-12565
X ray attenuation measurements for high-temperature materials characterization and in situ monitoring of damage accumulation 03 p0631 N93-14022
A study of the relationship between macroscopic measures and physical processes occurring during crack closure
[AD-A256587] 04 p0898 N93-14272
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
ROSAT all-sky survey on the Einstein EMSS sample
[NASA-CR-191627] 04 p1013 N93-15340
Study of dynamic behavior and hazards of VHBR, LOVA, and PSS propellants under rapid ignition and combustion conditions by real-time x ray radiography
[AD-A256775] 05 p1129 N93-16051
TEM structure investigations of low-temperature MBE grown InAlAs layers on InP group of zone axes (001) substrate
[DE92-041199] 05 p1323 N93-17006
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
The Prospector mission
[DE93-000656] 05 p1385 N93-17194
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Pretransformation strain modulations in proper ferroelastics
[DE93-005468] 08 p2226 N93-22340
Localized damage development in notched composite plates subjected to compressive loading
[CTN-93-60663] 08 p2209 N93-23113
Plasma focus 08 p2496 N93-23264
X-ray computed tomography for advanced materials and processes
[AD-A259828] 08 p2213 N93-23953
Crystal growth of berlinite: Methods for growing longer crystals and improving the quality 09 p2838 N93-25025

Crystal growth and physical characterizations of GaPO4 09 p2840 N93-25044
VETA-I x ray test analysis
[NASA-CR-192321] 09 p2854 N93-26183
X-ray computed tomography for casting development
[AD-A261786] 09 p2722 N93-26526
X ray computed tomography for failure analysis
[AD-A261884] 09 p2722 N93-26527
Non-traditional ion beam analyses
[DE93-007590] 10 p3134 N93-28008
Scanning electron microscope/energy dispersive x ray analysis of impact residues in LDEF tray clamps 11 p3283 N93-29369
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
Design of acentric materials: X ray structures of guanidinium p-nitro- and p-hydroxybenzenesulfonate
[AD-A264220] 11 p3597 N93-30146
The x ray microscopy resource center at the advanced light source
[DE93-010443] 11 p3433 N93-30531
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090
Characterization of small noble metal electrodes by voltammetry and energy dispersive x ray analysis
[AD-A265208] 12 p3721 N93-32001

X RAY APPARATUS
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Soft X Ray Projection Lithography Topical Meeting. Volume 8: Technical digest
[AD-A254756] 03 p0709 N93-12850
X-ray monochromator
[NASA-CASE-MFS-28492-1] 04 p0982 N93-14711
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
Ultrafast laser generation of hard x rays 07 p1912 N93-21952
High performance microchannel heat exchanger for cooling high heat load x ray optical elements
[DE93-004245] 08 p2296 N93-23688
Poster session: Fifth Users Meeting for the Advanced Photon Source
[DE93-006019] 09 p2598 N93-26498
Flash x ray system: Techniques and applications
[DE93-011477] 11 p3430 N93-28645
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637

X RAY ASTRONOMY
Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
X ray morphology of clusters of galaxies 02 p0482 N93-11475
Stars in the Rosat all-sky survey 02 p0482 N93-11477
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning
[NASA-CR-184410] 02 p0220 N93-12213
Temporal and spectral variability in luminous x ray binaries 02 p0483 N93-12336
Probing the galactic halo with ROSAT
[NASA-CR-191268] 03 p0743 N93-13272
The interstellar medium of elliptical galaxies 03 p0757 N93-14071
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
The evolution of the quasar continuum
[NASA-CR-191673] 04 p1012 N93-14759
Supervised selection of galaxy candidates from the IRAS PSC: The quality of the selection and the infrared properties of the galaxy candidates
[MPE-PREPRINT-216] 04 p1021 N93-15284
X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095
Observational constraints on AGN models 05 p1360 N93-17097
Recent results on 3C 273 05 p1366 N93-17099
Hard x ray observations of active galactic nuclei with SIGMA 05 p1360 N93-17100
Observing AGN and DXRB with Xspect/Sodart 05 p1360 N93-17103
Correlated hard x ray and UV variability in NGC 5548 05 p1361 N93-17104
The x ray properties of a large, uniform QSO sample: Einstein observations of the LBQS 05 p1361 N93-17106
Extragalactic counterparts to Einstein slew survey sources 05 p1361 N93-17107
Power spectrum modelling of the x ray variability of NGC4051 05 p1367 N93-17108
Multifrequency observations of rapidly variable blazars 05 p1361 N93-17109
ROSAT observations of AGN 05 p1361 N93-17116
Multifrequency observations of ROSAT selected radio sources 05 p1361 N93-17118
ROSAT and multi-wavelength observations of 3C 371 05 p1361 N93-17121
Preliminary results on ROSAT observations of the Blazar PKS 0537-441 05 p1362 N93-17127
The x ray background: Past, present, and future 05 p1372 N93-17140
The evolution of AGN's at x ray wavelengths 05 p1372 N93-17141
The hard x ray luminosity function and evolution of AGN 05 p1373 N93-17142
The Ginga satellite and the large-scale structure of the Universe 05 p1374 N93-17151
The ROSAT autocorrelation function of the x ray background 05 p1374 N93-17152
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
Imaging the Nearby Seyfert 2 Galaxy NGC 1068, and Spectrum and Variability of Geminga
[NASA-CR-191905] 05 p1360 N93-17401
A ROSAT high resolution x ray image of NGC 1068 05 p1360 N93-17402
Soft x ray properties of the Geminga pulsar 05 p1360 N93-17403
EXITE/IPC observations of SN1987A and southern targets
[NASA-CR-192133] 06 p1696 N93-18607
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
IUE-ULDA access guide no. 4B: International Ultraviolet Explorer-Uniform Low Dispersion Archive active galactic nuclei, volume B
[ESA-SP-1153-VOL-B] 07 p2097 N93-21015
Environment Observation and Climate Modelling Through International Space Projects. Space Sciences with Particular Emphasis on High-Energy Astrophysics
[ESA-ISY-3] 08 p2533 N93-23878
The ROSAT all-sky x ray survey 08 p2533 N93-23880
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Active galactic nuclei: The view from space 08 p2534 N93-23886
X ray morphology and the mass of clusters of galaxies 08 p2534 N93-23887
Observation of the extragalactic x ray background 08 p2535 N93-23892
X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898
ROSAT: The German x ray satellite nearly two years in orbit 08 p2538 N93-23916
Design and in orbit performance of the ROSAT PSPC 08 p2539 N93-23923
X raying the interstellar dust 08 p2540 N93-23925
SAX overview 08 p2540 N93-23927
The ROSAT standard analysis software system 08 p2445 N93-23930
EXSAS: The interactive analysis system for ROSAT data 08 p2541 N93-23934
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
ROSAT x ray survey observations of active chromospheric binary systems and other selected sources
[NASA-CR-192933] 09 p2891 N93-26426
Correlation between low level fluctuations in the x ray background and faint galaxies 10 p3179 N93-26752
The detection of large amounts of cool, x ray absorbing gas in distant clusters of galaxies. What does this mean? 10 p3194 N93-26841
Using x ray images to detect substructure in a sample of 40 Abell clusters 10 p3194 N93-26844
A study of the x ray environment of radio galaxies 10 p3194 N93-26845
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604
XRONOS: A timing analysis software package. User's guide, version 3.00
[NASA-TM-109222] 11 p3532 N93-30023
ROSAT detection of stellar x ray sources in the old open cluster M67
[MPE-PREPRINT-230] 11 p3631 N93-30578
Periodic x ray flares of NGC 6814: Gravitational lensing of an accreting neutron star?
[DE92-642586] 12 p3851 N93-31073

X RAY ASTROPHYSICS FACILITY
An investigation of error correcting techniques for OMV and AXAF
[NASA-CR-190950] 02 p0416 N93-12515
An investigation of error correcting techniques for OMV data
[NASA-CR-190942] 03 p0682 N93-12654
A second generation expert system for checking and diagnosing AXAF's electric power system 05 p1152 N93-17287
Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184
VETA-1 x ray detection system 09 p2854 N93-26185
VETA x ray data acquisition and control system 09 p2854 N93-26186
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
AXAF VETA-I mirror encircled energy measurements and data reduction 09 p2855 N93-26188
Precision of the calibration of the AXAF engineering test article (VETA) mirrors 09 p2855 N93-26189
Image analysis of the AXAF VETA-I x ray mirror 09 p2855 N93-26190
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I 09 p2855 N93-26191
The x ray reflectivity of the AXAF VETA-I optics 09 p2855 N93-26192
Software to model AXAF image quality
[NASA-CR-192574] 12 p3789 N93-31637

X RAY BINARIES
Temporal and spectral variability in luminous x ray binaries 02 p0483 N93-12336
A search for point sources of cosmic ray muons using the MACRO detector 03 p0773 N93-13738
Compact objects in the disk and globular clusters 04 p1018 N93-14594
Timing analysis of low-energy gamma ray emission from galactic compact objects using the Gamma Ray Observatory
[NASA-CR-192253] 07 p2102 N93-20747
Endpoints of stellar evolution: The incidence of stellar mass black holes in the galaxy 08 p2533 N93-23882
The x ray transient GS2023+338: The 0(sup d).24 and 6(sup d).5 modulations 08 p2536 N93-23901
Soft x ray emission from supergiant x ray binaries detected on the ROSAT all-sky survey 08 p2537 N93-23907
GX301-2/WRA9777 revisited: Probing the stellar wind through x ray optical data 08 p2537 N93-23911
The optical counterparts of the x ray binaries in NGC 6712 and 47 Tucanae 08 p2538 N93-23914
ROSAT x ray survey observations of active chromospheric binary systems and other selected sources
[NASA-CR-192933] 09 p2891 N93-26426
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202
ROSAT detection of stellar x ray sources in the old open cluster M67
[MPE-PREPRINT-230] 11 p3631 N93-30578

X RAY DENSITY MEASUREMENT
Measurement of absorbed dose to water for medium energy x rays
[NPL-RSA(EXT)-33] 02 p0436 N93-11412

X RAY DETECTORS
A five-channel, diamond photoconducting x ray detector array for z-pinch experiments
[DE92-017345] 01 p0164 N93-10839
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
A payload to evaluate photodiodes for the detection of soft and hard x rays in a space environment using a Get Away Special 03 p0509 N93-13166

High speed imaging for flash radiography using PIN diodes
[DE92-040959] 04 p0882 N93-15381
A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance 04 p1014 N93-15591
Superconducting tunnel junction x-ray detectors with niobium absorbers and aluminum quasiparticle traps
[DE93-002885] 06 p1677 N93-19826
A transportable luggage examination system based on neutron interrogation 07 p1765 N93-21863
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878
VETA-1 x ray detection system 09 p2854 N93-26185
Solid state x ray detector calibration techniques and linac beam intensity measurements
[AD-A262097] 10 p3153 N93-28177
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178

X RAY DIFFRACTION

Thermal, structural, and diffraction analyses of a gallium-cooled x ray monochromator
[DE92-017063] 01 p0157 N93-10837
The synthesis and crystal structure of LaHSe2O6, a layered, anhydrous selenite
[AD-A251050] 02 p0458 N93-10996
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
The domain structure features of epitaxial PbTiO3 thin films prepared by MOCVD
[DE92-010907] 02 p0459 N93-11190
Structure and property of heteroepitaxial TiO2/VO2 multilayers
[DE92-018181] 02 p0460 N93-11563
Studies of the 3 to 5 compounds in the megabar regime
[DE92-019517] 02 p0461 N93-11646
Synthesis and characterization of novel organogallium-phosphorus compounds: X ray crystal structures of Ph2GaP (SiMe3)2Ga (Ph2Cl, Ph2 (Cl)Ga.P (SiMe3)3, and Ph3Ga.P (SiMe3)3
[AD-A253841] 02 p0462 N93-11724
Nature of the beta-phase of nickel-aluminum system
[AD-A254101] 02 p0261 N93-12269
An investigation of the interatomic bonding characteristics of a Ti - 51 atomic percent Al alloy by x ray diffraction
[AD-A245362] 03 p0544 N93-13945
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Application of grazing incidence x ray diffraction to polymer blends
[DE93-000709] 05 p1122 N93-16226
Orientational phase transitions in alloys
[DE93-001702] 05 p1114 N93-16971
A solid state approach to the production of kilogram quantities of Si-20 at. percent Ge thermoelectric alloys
[DE92-018803] 05 p1114 N93-16989
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover 05 p1386 N93-17236
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
Fundamental studies of stress distributions and stress relaxation in oxide scales on high temperature alloys
[DE93-003654] 05 p1117 N93-17560
Solid State Division progress report, period ending 31 March 1992
[DE93-003665] 05 p1327 N93-17561
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Microstructural control of complex alloys 06 p1490 N93-18485
X ray diffraction study of shock-modified tetragonal phases of SnO2 and MnO2
[DE93-002488] 06 p1535 N93-19479
X ray examination of Type 310S stainless steel during its oxidation in air at 900 C
[DE93-003031] 06 p1490 N93-19631
X ray characterization of Au/Ni multilayer thin films
[NIAR-92-7] 06 p1678 N93-19881
Diffraction peaks in x ray spectroscopy: Friend or foe?
[DE93-002482] 07 p2081 N93-21486
Diffraction measurements of residual stress in titanium matrix composites
[DE93-003855] 07 p1844 N93-21838
Diffraction studies of the thermal properties of nanocrystalline Pd and Cr
[DE93-002911] 07 p2082 N93-21978
Experimental demonstration of high resolution three-dimensional x ray holography
[DE93-004178] 08 p2302 N93-22072
Influence of addition elements in copper or implanted in aluminum on the adhesion to the solid state of the copper/aluminum (Cu/Al2O3) system
[ECL-91-34] 08 p2228 N93-22698
Pressure-induced amorphizations of silica analogues: A probe of the relationship between order and disorder
[DE93-007966] 08 p2237 N93-22730
A structural study of charge-density-wave perturbations in mixed-halide MX solids
[DE93-005449] 08 p2503 N93-22747
Modeling of x-ray diffraction line broadening with the Voigt function: Applications to high-T(c) superconductors
[PB93-152072] 08 p2514 N93-24647
Synchrotron radiation X ray topography study of lateral field resonators 09 p2833 N93-24994
Measurement results of the crystallographic orientation of the SC cut round plates 09 p2840 N93-25040
Probe molecule studies: Active species in alcohol synthesis
[DE93-008097] 09 p2659 N93-25119
Development of germanium-silicon growth technology
[AD-A262891] 10 p3154 N93-28304
Powder x ray diffraction patterns of energetic materials for use as reference standards
[DE93-009903] 11 p3592 N93-28568
An integrated XRF/XRD instrument for Mars exobiology and geology experiments 11 p3645 N93-28792
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568
Coordination compounds of aluminum as precursors to aluminum nitride
[AD-A264700] 11 p3327 N93-30574
The characterization of materials using x ray diffraction 11 p3293 N93-30968
Measurement of the spatial coherence of a soft x ray laser
[DE93-609404] 12 p3731 N93-31227
Pressure induced topological phase transitions in membranes
[AD-A265212] 12 p3829 N93-32002

X RAY FLUORESCENCE

Study of the concentration and deposition of tropospheric aerosols using x ray emission techniques 03 p0667 N93-13894
Hard x ray microimaging techniques based on phase zone plates
[DE93-000615] 05 p1304 N93-17176
The Prospector mission
[DE93-000656] 05 p1385 N93-17194
X-ray studies of microstructures in semiconductors and superconducting materials
[DE93-001953] 05 p1324 N93-17198
TOPLEX: Teleoperated Lunar Explorer. Instruments and operational concepts for an unmanned lunar rover 05 p1386 N93-17236
High-resolution elemental mapping of the lunar surface 05 p1387 N93-17244
Mapping the Moon in soft x rays: Promises and challenges 05 p1388 N93-17252
A combined XRD/XRF instrument for lunar resource assessment 05 p1391 N93-17269
Synchrotron radiation induced x ray micro analysis: A realistic alternative for electron and ion beam microscopy?
[DE93-001975] 06 p1656 N93-18621
Diffraction peaks in x ray spectroscopy: Friend or foe?
[DE93-002482] 07 p2081 N93-21486
An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements 08 p2485 N93-22184
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
An integrated XRF/XRD instrument for Mars exobiology and geology experiments 11 p3645 N93-28792

X RAY IMAGERY

Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
Obtaining high resolution XUV coronal images 01 p0014 N93-10939
High energy x ray imaging diagnostic on Nova
[DE92-018067] 02 p0451 N93-11495
A ring coded-aperture microscope for high-resolution imaging of high-energy x rays
[DE92-018004] 02 p0454 N93-12059
Controls Astrophysics and Structures Experiment in Space (CASES) advanced studies and planning
[NASA-CR-184410] 02 p0220 N93-12213
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
Data evaluation, analysis, and scientific study
[NASA-CR-184396] 03 p0769 N93-13475
Full surface testing of grazing incidence mirrors
[AD-A255644] 04 p0979 N93-14152
Imaging the sun in hard x-rays using Fourier telescopes 04 p1048 N93-14591
Center for x ray optics, 1991
[DE93-001543] 04 p0984 N93-15350
High-resolution elemental mapping of the lunar surface 05 p1387 N93-17244
Army medical imaging system - ARMIS
[AD-A258685] 07 p2089 N93-20374
Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques 07 p1767 N93-21875
Three dimensional x ray systems and image enhancement techniques 07 p1767 N93-21876
Detection of objects concealed under persons' clothing using the SECURE system 07 p1767 N93-21879
New x ray technology for the detection of explosives 07 p1767 N93-21880
Advanced dual energy x ray for explosives detection 07 p1767 N93-21881
Three-dimensional x ray imaging for the detection of contraband 07 p1768 N93-21882
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Explosive detection for checked luggage by DETEX, a combined x ray and positron-tomograph system 07 p1768 N93-21886
Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Applications of x ray lasers
[DE93-005299] 08 p2308 N93-22953
Obtaining high-resolution images of ceramic from 3-D x-ray microtomography by region-of-interest reconstruction
[DE93-006796] 08 p2243 N93-24461
Digital mammography, cancer screening: Factors important for image compression 08 p2424 N93-24551
High speed x ray gating cameras for ICF imaging applications
[DE93-007500] 09 p2709 N93-25515
VETA-1 x ray detection system 09 p2854 N93-26185
An astrophysics data program investigation of spatial structure of supernova remnants
[NASA-CR-193104] 10 p3205 N93-28409
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Flash x ray system: Techniques and applications
[DE93-011477] 11 p3430 N93-28645
A new multichannel soft x ray framing camera for fusion experiments
[DE93-009302] 11 p3432 N93-29773
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869
Automatic detection of explosives using x ray imaging 11 p3244 N93-30275
The x ray microscopy resource center at the advanced light source
[DE93-010443] 11 p3433 N93-30531
Test measurements for quick analog digital converters for an x ray CCD camera
[ETN-93-94204] 12 p3728 N93-31119
Observational tests of coronal heating models 12 p3877 N93-31403
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

X RAY INSPECTION

Nondestructive evaluation of damage in SiC/Al metal matrix composite using x ray tomographic microscopy 04 p0829 N93-14192
Slit scan radiographic system for intermediate size rocket motors
[NASA-CR-191798] 06 p1471 N93-18058
An explosive detection system for screening luggage with high energy x rays 07 p1767 N93-21877
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878
Three-dimensional x ray imaging for the detection of contraband 07 p1768 N93-21882

Segmentation of x ray images using probabilistic relaxation labeling 07 p1777 N93-21940
Robotic systems for deployment of explosive detection sensors and instruments 07 p1777 N93-21941
Impact on the air carrier of explosive detection systems 07 p1778 N93-21945
X ray computed tomography for whole system evaluation (small engines)
[AD-A259519] 08 p2130 N93-23669
Use of local x ray computerized tomography for high-resolution, region-of-interest inspection of large ceramic components for engines
[DE93-005564] 11 p3449 N93-28943
Automatic detection of explosives using x ray imaging 11 p3244 N93-30275
1,2-Dimethyl-1,2-Disila-Closo-Dodecaborane(12), A silicon analog of an ortho-carborane: Synthesis; x ray crystal structure; NMR, vibrational and photoelectron spectra; bonding
[AD-A264709] 11 p3599 N93-30568

X RAY IRRADIATION
X pulse radiation around the critical surface 02 p0318 N93-12027

X RAY LASERS
Experimental studies of x ray laser spectral profiles: Observation of gain narrowing and saturation behavior
[DE92-019603] 02 p0316 N93-11659
Progress toward x ray lasing between autoionizing transitions
[DE92-017428] 02 p0317 N93-11765
Experimental study of x ray laser in lithumoid aluminum 02 p0321 N93-12045
Modeling for the study of an X laser in a recombination plasma; gain calculations at 105.7 and 154.6 A 02 p0321 N93-12046
X ray laser program, FY 1991
[AD-A255190] 02 p0322 N93-12275
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
Self-consistent one-dimensional modelling of x ray laser plasmas
[DE92-019543] 03 p0712 N93-12571
Small-scale x ray laser systems
[DE92-018442] 03 p0604 N93-12744
Table-top x ray lasing based on optical-field-induced ionization
[DE92-019374] 03 p0604 N93-12925
Demonstration of a neon-like rubidium x ray laser
[DE92-019576] 03 p0606 N93-13653
Physics of x ray multilayer structures: Summaries of papers presented at the physics of x ray multilayer structures topical meeting, technical digest series, 1992, volume 7
[AD-A255383] 04 p0992 N93-14741
Transient x ray laser schemes at 1 millimicron and at 2 millimicron
[DE92-040670] 05 p1171 N93-15948
Diagnosis of plasma states in x ray laser experiments
[AD-A256909] 05 p1307 N93-16029
Geometric optics scaling laws for x-ray laser coherence
[DE92-040402] 05 p1301 N93-16102
Whispering-gallery mirrors for short-wavelength laser cavities: Shapes and tolerances
[DE92-040667] 05 p1172 N93-16104
Polarizing optics for the soft x ray regime: Whispering-gallery mirrors and multilayer beamsplitters
[DE92-040668] 05 p1172 N93-16105
Development of the MIT tabletop soft x ray laser
[DE92-040671] 05 p1172 N93-16106
Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
Line overlap measurements for resonant photo-pumping of x ray lasers
[DE93-001620] 05 p1175 N93-17462
Inexpensive capillary discharge x ray laser driver, phase 1
[AD-A259032] 06 p1542 N93-19372
Molecular design concept for x ray laser research
[DE93-004561] 08 p2306 N93-22046
Application of 10 GeV electron driven x ray laser in gamma ray laser research
[DE93-003775] 08 p2308 N93-22773
Applications of nanosecond, kilojoule lasers to the basic physics of waves in plasmas
[DE93-005833] 08 p2493 N93-22779
Applications of x ray lasers
[DE93-005299] 08 p2308 N93-22953
Inexpensive capillary discharge x ray laser driver
[AD-A260388] 08 p2310 N93-24276
Progress in imaging microscopy with x ray lasers at LLNL
[DE93-007508] 09 p2712 N93-25363
Workshop on scientific applications of short wavelength coherent light sources
[DE93-009617] 10 p3148 N93-28456
Development of coherent x ray lasers
[DE93-009288] 11 p3437 N93-29104
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
Inner-shell photo-ionized x ray laser schemes
[DE93-009285] 11 p3438 N93-29309
Problems in the implementation of x ray optics with x ray lasers
[DE93-009297] 11 p3438 N93-29781
High-repetition rate x ray lasers and applications
[DE93-011882] 11 p3440 N93-30394
Measurement of the spatial coherence of a soft x ray laser
[DE93-609404] 12 p3731 N93-31227
Research studies in electromagnetically induced transparency
[AD-A264303] 12 p3732 N93-31866

X RAY SCATTERING
Atomic structure of mixed ferroelectrics
[AD-A254369] 03 p0702 N93-12947
X ray scattering by cosmic dust grains 03 p0750 N93-13294
Scattering and order in thermotropic liquid crystals 03 p0723 N93-13332
Characterization of cholesteric cyclic siloxane liquid crystalline materials
[AD-A256128] 04 p0994 N93-15190
Morphological analysis of ionomers
[DE92-040162] 04 p0852 N93-15415
Combined small-angle neutron and x ray scattering studies of polymers
[DE93-000440] 05 p1118 N93-15671
Detection of objects concealed under persons' clothing using the SECURE system 07 p1767 N93-21879
Advanced dual energy x ray for explosives detection 07 p1767 N93-21881
Explosive detection using x rays and thermal neutron activation 07 p1768 N93-21884
Fusion of the nuclear and different x ray technologies for explosives detection 07 p1768 N93-21885
X raying the interstellar dust 08 p2540 N93-23925
Enhanced higher order parametric x radiation production
[AD-A262100] 10 p3135 N93-28178
Description and program activities of the Materials Research Laboratory
[DE93-010905] 10 p3226 N93-28334

X RAY SOURCES
NT X RAY BINARIES
NT X RAY STARS
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
X ray scattering by cosmic dust grains 03 p0750 N93-13294
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
Gravitational lensing by galaxy clusters: The giant arcs in Abell 370 and Cl2244-02 03 p0755 N93-13848
Personal computer based computed tomography system
[KCP-613-4806] 04 p0945 N93-14876
A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance 04 p1014 N93-15591
The atmospheric structures of the companion stars of eclipsing binary x ray sources
[NASA-CR-191393] 05 p1365 N93-16752
Extragalactic counterparts to Einstein slew survey sources 05 p1361 N93-17107
Time variability of extragalactic sources in the ecliptic pole regions 05 p1370 N93-17123
Source content of a deep pointed ROSAT observation at very low N(sub H) 05 p1362 N93-17130
Initial results from a ROSAT deep survey in Lynx 05 p1362 N93-17132
ROSAT all sky survey observations of IRAS galaxies 05 p1362 N93-17133
A new look at radio/x ray correlations 05 p1362 N93-17136
The x ray background: Past, present, and future 05 p1372 N93-17140
Where have all the sources gone? 05 p1373 N93-17144
ROSAT deep surveys 05 p1362 N93-17145
Origin of the cosmic x ray background radiation 05 p1373 N93-17146
On the suitability of starburst galaxies as a contributor to the CXRB 05 p1373 N93-17147
Contribution of clusters of galaxies to the XRB 05 p1374 N93-17148
On the origin of the x ray background 05 p1374 N93-17149
Clustering properties of x ray sources from the analysis of the Ginga P(D) distribution 05 p1374 N93-17150
QSO's to B less than 22 and the cosmic x ray background radiation: A fluctuations correlation approach 05 p1374 N93-17153
Identification of ROSAT AGN on objective prism plates 05 p1362 N93-17154
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
AGN and the x ray background: Concluding remarks 05 p1375 N93-17160
Correlated optical observations with BATSE/CGRO on SCO X-1 05 p1344 N93-17313
X Ray System, Lightweight Medical (XRSLM)
[AD-A258159] 06 p1597 N93-18295
The x ray variability of AGN and the anomalous behavior of NGC6814 06 p1562 N93-18713
Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714
Synchrotron radiation sources and condensers for projection x ray lithography
[DE93-002964] 06 p1664 N93-19511
The Einstein All-Sky Slew Survey
[NASA-CR-192323] 07 p2095 N93-20793
Identifications of Einstein Slew Survey sources 07 p2095 N93-20794
Einstein Slew Survey: Data analysis innovations 07 p2095 N93-20795
The nitrogen camera: A new explosive detector 07 p1766 N93-21867
Explosives detection limitations using dual-energy radiography and computed tomography 07 p1767 N93-21878
Nonlinear interaction of magnetohydrodynamic instabilities in radially imploded plasmas
[DE93-003834] 08 p2492 N93-22428
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
Overview of first observations with the French telescope Sigma on board Granat 08 p2533 N93-23881
Observation of the extragalactic x ray background 08 p2535 N93-23892
Extragalactic radio sources in the ROSAT survey 08 p2536 N93-23899
ROSAT observations in star forming regions 08 p2538 N93-23917
The relation between x ray-selected and radio-selected BL Lac objects 08 p2541 N93-23933
Steady-state numerical models of accreting neutron stars: The effect of atmospheric CNO depletion and diffusion 09 p2889 N93-25624
Intensity distribution of the x ray source for the AXAF VETA-I mirror test 09 p2854 N93-26184
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
Surface finish quality of the outer AXAF mirror pair based on x ray measurements of the VETA-I 09 p2855 N93-26191
The x ray reflectivity of the AXAF VETA-I optics 09 p2855 N93-26192
Multicolor photometry of x ray selected Abell clusters 10 p3195 N93-26846
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857
Powering the superwind in NGC 253 10 p3203 N93-26893
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
Computational simulations of a soft x ray projection lithography laser plasma source
[DE93-009625] 11 p3437 N93-29264
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604
X ray microscopy resource center at the Advanced Light Source
[DE93-010449] 11 p3261 N93-29869

X RAY SPECTRA
Sigma phase in nickel based superalloys
[PNR-90950] 02 p0255 N93-11109
Multispectral observations of the Jovian aurora 02 p0487 N93-11167
Temporal and spectral variability in luminous x ray binaries 02 p0483 N93-12336
Experiments on resonantly photo-pumped x ray lasers
[DE92-019542] 03 p0603 N93-12570
The mass and dynamics of cD clusters with cooling flows. 1: ROSAT observations of A 496
[NASA-CR-191240] 03 p0743 N93-13352
A thermal/nonthermal approach to solar flares 03 p0771 N93-13639
Demonstration of a neon-like rubidium x ray laser
[DE92-019576] 03 p0606 N93-13653
Quasar x-ray spectra revisited 04 p1012 N93-14760

Capillary discharge extreme ultraviolet lasers
[DE92-040853] 05 p1173 N93-16446
X Ray Emission from Active Galactic Nuclei and the Cosmic X Ray Background
[MPE-235] 05 p1365 N93-17094
Ginga and ROSAT observations of the x ray spectra of Seyfert 1 galaxies 05 p1360 N93-17095
X ray luminosity and spectral variability of a complete sample of AGN's 05 p1365 N93-17096
Observational constraints on AGN models 05 p1360 N93-17097
X ray spectral structure of Seyfert galaxies 05 p1366 N93-17098
Recent results on 3C 273 05 p1366 N93-17099
First results from the Compton Observatory 05 p1366 N93-17102
Ginga results of type 2 AGN's and their contributions to the cosmic x ray background 05 p1367 N93-17105
The x ray properties of a large, uniform QSO sample: Einstein observations of the LBQS 05 p1361 N93-17106
Power spectrum modelling of the x ray variability of NGC4051 05 p1367 N93-17108
An introduction to the pair-reflection model of X-ray spectra in AGN's 05 p1367 N93-17110
The spectra of accretion discs in active galactic nuclei 05 p1368 N93-17111
UV to x ray AGN accretion disc spectra: Model fitting of IUE and ROSAT All Sky Survey data 05 p1368 N93-17113
X and gamma ray flaring of 3C279 and the baryonic component of nonthermal particle distributions in radiojets 05 p1368 N93-17114
The quasar 1821+643 during the ROSAT survey 05 p1361 N93-17119
Multifrequency observations of Kaz 102 during ROSAT All Sky Survey 05 p1361 N93-17120
ROSAT and multi-wavelength observations of 3C 371 05 p1361 N93-17121
A comparative study of soft x ray QSO spectra 05 p1361 N93-17124
Spectra of radio-loud quasars observed in the ROSAT/XRT all sky survey 05 p1361 N93-17125
X ray spectra of bright BL Lacertae objects observed with ROSAT 05 p1361 N93-17126
Preliminary results on ROSAT observations of the Blazar PKS 0537-441 05 p1362 N93-17127
ROSAT x ray spectra of quasars with a range of continuum properties and redshift 05 p1362 N93-17128
ROSAT deep surveys 05 p1362 N93-17145
The ROSAT autocorrelation function of the x ray background 05 p1374 N93-17152
Goddard Visiting Scientist Program for the Space and Earth Sciences Directorate
[NASA-TM-108588] 06 p1561 N93-18709
The broad-band x ray spectral variability of Mkn 841 06 p1561 N93-18711
Evidence for a massive stellar black hole in x ray Nova Muscae 06 p1562 N93-18714
X ray spectra from Hinotori satellite and suprathermal electrons
[NIFS-197] 07 p2100 N93-20266
Gamma ray pulsars and Geminga
[DE93-005452] 08 p2559 N93-22749
Radiation magnetohydrodynamic modeling of x ray output from perturbed plasma implosions
[DE93-005454] 08 p2494 N93-22907
Active galactic nuclei: The view from space 08 p2534 N93-23886
ROSAT observations of active galactic nuclei 08 p2534 N93-23888
X ray spectral structure of the Seyfert 2 galaxy NGC 5506 08 p2536 N93-23898
Soft x ray emission from supergiant x ray binaries detected on the ROSAT all-sky survey 08 p2537 N93-23907
A2163: An exceptionally hot cluster of galaxies 08 p2538 N93-23913
Starburst Galaxies: Hard X-ray spectra and contribution to the diffuse background
[NASA-CR-192790] 09 p2892 N93-25211
Correcting x ray spectra obtained from the AXAF VETA-I mirror calibration for pileup, continuum, background and deadtime 09 p2854 N93-26187
Large area, low capacitance Si(Li) detectors for high rate x ray applications
[DE93-007661] 09 p2692 N93-26598
The hot interstellar medium in NGC 1399 10 p3179 N93-26753
X ray opacity in cluster cooling flows 10 p3193 N93-26837
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294
Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge
[DE93-006670] 10 p2996 N93-28309
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
Defect density measurements in a shocked single crystal of ammonium perchlorate 11 p3319 N93-30093

X RAY SPECTROGRAPHY
U X RAY SPECTROSCOPY

X RAY SPECTROMETRY
U X RAY SPECTROSCOPY

X RAY SPECTROSCOPY
Reliability of sublattice occupancies determined by ALCHEMI
[DE92-014592] 01 p0168 N93-10623
Signal-to-noise assessment and measurement in spectroscopies with particular reference to Auger and x ray photoelectron spectroscopies
[NPL-DMM(A)-45] 02 p0247 N93-11396
Polyethylene-terephthalate/aluminum adhesion
[ECL-91-33] 02 p0257 N93-11578
X-UV spectroscopy temporal resolution 02 p0318 N93-12028
Hydrodynamic study of multilayer targets by spatial and temporal resolution shadow spectroscopy 02 p0254 N93-12050
Surface contamination on LDEF exposed materials 03 p0547 N93-12776
Soft x ray window encapsulant for HgI2 detectors
[NASA-CR-190850] 03 p0710 N93-13705
Multiwavelength spectroscopy of active galactic nuclei 04 p1011 N93-14611
Center for x ray optics, 1991
[DE93-001543] 04 p0984 N93-15350
Advanced light source
[DE92-041181] 05 p1302 N93-16196
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
Atomic layer epitaxy group 4 materials: Surface processes, thin films, devices and their characterization
[AD-A259244] 06 p1677 N93-19848
Space station protective coating development 07 p1848 N93-20816
An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements 08 p2485 N93-22184
Interfacial chemistry of a perfluoropolyether lubricant studied by XPS and TDS
[NASA-TM-106014] 08 p2236 N93-22560
Studies of cosmic dusts using synchrotron radiation 08 p2549 N93-23390
X ray absorption spectroscopy of dense, shock compressed, laser plasma 08 p2496 N93-23497
The interaction of HCN/DCN with Si(100)-2x1
[AD-A260837] 09 p2645 N93-25920
Interaction of O2 with the Fe(.84)Cr(.16) (001) surface studied by photoelectron spectroscopy
[AD-A261065] 09 p2645 N93-26251
Finding the rarest objects in the universe: A new, efficient method for discovering BL Lacertae objects 10 p3197 N93-26857
An XPS study of space-exposed polyimide film 10 p3007 N93-28267
High resolution near edge x ray spectroscopy
[DE93-003471] 10 p2996 N93-28294
Undulator Spectromicroscopy Facility at the Advanced Light Source
[DE93-007964] 11 p3261 N93-28490
Planetary and satellite x ray spectroscopy: A new window on solid-body composition by remote sensing 11 p3641 N93-28773
A team approach to the development of gamma ray and x ray remote sensing and in situ spectroscopy for planetary exploration missions 11 p3650 N93-28824
Modification of spectral distributions by multilayer structures
[DE93-009308] 11 p3310 N93-29059
In-situ x ray studies of the underpotential deposition of copper on platinum (3)
[AD-A263361] 11 p3595 N93-29331
Objectives of RESIK solar concave soft x ray spectrometer for Coronas-F mission 12 p3879 N93-31418

X RAY STARS
NT X RAY BINARIES
Contributions to the Joint Discussion 3: Results from Rosat and GRO and Other Recent High Energy Astrophysics Missions of the Max-Planck-Institut fuer Extraterrestrische Physik
[MPE-PREPRINT-215] 02 p0482 N93-11473
Stars in the Rosat all-sky survey 02 p0482 N93-11477
An experimental study of the possible association of deep underground muons with astronomical point sources 08 p2549 N93-23596
A comparative examination of LMC X-4 and Her X-1 x ray double star systems
[MPE-232] 10 p3205 N93-28202
The x ray population in globular clusters and three crab-like SNR in the large Magellanic cloud
[NASA-CR-193172] 11 p3630 N93-29604

X RAY TELESCOPES
NT X RAY ASTROPHYSICS FACILITY
Physical implementations of an antimask in URA based coded mask systems
[INPE-5338-PRE/1737] 01 p0153 N93-10312
EUV complementary instrumentation for SIMURIS 01 p0014 N93-10938
X ray morphology of clusters of galaxies 02 p0482 N93-11475
Soft X Ray Telescope (SXT) focus error analysis
[NASA-CR-184443] 03 p0742 N93-12657
G-133: A soft x ray solar telescope 03 p0510 N93-13171
The unique challenge of managing an undergraduate Get-Away-Special experiment 03 p0512 N93-13185
Uniformity results of the multilayer mirrors used in the ALEXIS ultrasoft x ray telescopes
[DE92-018611] 03 p0743 N93-13342
The ALEXIS experiment: Current status and performance
[DE92-018601] 03 p0524 N93-13516
Imaging the sun in hard x rays using Fourier telescopes
[NASA-TM-108390] 04 p1013 N93-15203
Hard x ray observations of active galactic nuclei with SIGMA 05 p1360 N93-17100
Observing AGN and DXRB with Xspect/Sodart 05 p1360 N93-17103
Spectroscopic identification of x ray soft AGN found by ROSAT 05 p1362 N93-17155
BBXRT and Ginga observations of the Seyfert 1 galaxy MRK 335 06 p1561 N93-18710
Inner Magnetosphere Imager (IMI) instrument heritage
[NASA-CR-4498] 08 p2391 N93-22685
The ALEXIS data processing package: An update
[DE93-007374] 09 p2899 N93-25185
The x ray reflectivity of the AXAF VETA-I optics 09 p2855 N93-26192
X ray, far, and extreme ultraviolet coatings for space applications 11 p3340 N93-28829
ROSAT observations of quasar 3C 273
[ETN-93-94202] 12 p3844 N93-31049
Observations of the quiet Sun from the soft x ray telescope on Yohkoh 12 p3874 N93-31388
Development of high resolution imaging detectors for x ray astronomy
[NASA-CR-193653] 12 p3851 N93-32363

X RAYS
NT COSMIC X RAYS
NT SOLAR X-RAYS
Studies impacting the designs of free electron lasers
[AD-A254293] 01 p0090 N93-10768
Tunable, short pulse hard x rays from a compact laser synchrotron source
[AD-A254288] 02 p0315 N93-11195
Measurement of absorbed dose to water for medium energy x rays
[NPL-RSA(EXT)-33] 02 p0436 N93-11412
Progress toward x ray lasing between autoionizing transitions
[DE92-017428] 02 p0317 N93-11765
Calibration techniques for high flux x ray detectors
[DE92-017513] 02 p0312 N93-11768
Reflection masks for soft x ray projection lithography
[DE92-014779] 02 p0293 N93-12121
ESIS: An introduction to the European space information system. A modern tool for space scientists
[ESA-INT-2] 02 p0479 N93-12404
Thermal imaging of synchrotron beams on silicon crystals
[DE92-018182] 03 p0719 N93-12562
Comprehensive mappings of electron precipitation and its effects on the comprehensive mappings of electron precipitation and its effects on the atmosphere
[AD-A254665] 03 p0648 N93-12621
Organization of the Optical Society of America Photonic Science Topical Meeting Series. Volume 8: Integrated photonics research. Iifornia on 9-11 april 1991
[AD-A254682] 03 p0709 N93-12666
Soft X Ray Projection Lithography Topical Meeting. Volume 8: Technical digest
[AD-A254756] 03 p0709 N93-12850
The Orbiter Stability Experiment on STS-40 03 p0508 N93-13159
A differential equation design method for finite-conjugate, multi-mirror imaging systems 04 p0979 N93-14165

Extracting x rays, gamma rays, and electron-positron pairs from supermassive Kerr black holes using the Penrose mechanism 04 p1049 N93-14176

Nonthermal radio, x ray and gamma ray emissions from chaotic winds of early-type, massive stars 04 p1050 N93-14242

Experimental considerations of higher order parametric x rays from silicon crystals of varying thicknesses [AD-A256082] 04 p0990 N93-14260

Improvement and analysis of the radiation response of RADFET dosimeters [AD-A254115] 04 p0869 N93-15133

Imaging the sun in hard x rays using Fourier telescopes [NASA-TM-108390] 04 p1013 N93-15203

Center for x ray optics, 1991 [DE93-001543] 04 p0984 N93-15350

Development of the MIT tabletop soft x ray laser [DE92-040671] 05 p1172 N93-16106

An alpha-p-x analytical instrument for lunar resource investigations 05 p1387 N93-17243

The x ray variability of NGC6814: Power spectra 06 p1562 N93-18712

X ray examination of Type 310S stainless steel during its oxidation in air at 900 C [DE93-003031] 06 p1490 N93-19631

X ray crystal structure of InCl3(dot)2THF, a neural five-coordinate BIS-Adduct of an In3 trihalide [AD-A258551] 06 p1678 N93-19954

Design and analysis of a fast, two-mirror soft-x-ray microscope [NASA-CR-193035] 07 p2067 N93-20316

Can the cosmic x ray and gamma ray background be due to reflection of a steep power law spectrum and Compton scattering by relativistic electrons? [NASA-CR-192255] 07 p2102 N93-20601

Electron optical defect inspection in x ray lithography masks [ETN-93-92570] 07 p1919 N93-20884

Photons in - photons out: Non-destructive inspection of containers using x ray and gamma ray techniques 07 p1767 N93-21875

Use of volume x ray tomography for characterizing density variations in as-cast ceramic bodies [DE93-002906] 07 p1919 N93-21956

Diffraction studies of the thermal properties of nanocrystalline Pd and Cr [DE93-002911] 07 p2082 N93-21978

An x ray scatter approach for non-destructive chemical analysis of low atomic numbered elements 08 p2485 N93-22184

X ray computed tomography for whole system evaluation (small engines) [AD-A259519] 08 p2130 N93-23669

Low-damage multilayer mirror for the soft x ray region [AD-D015621] 08 p2489 N93-24231

Large area, low capacitance Si(Li) detectors for high rate x ray applications [DE93-007661] 09 p2692 N93-26598

Using x ray images to detect substructure in a sample of 40 Abell clusters 10 p3194 N93-26844

X ray reflectivity measurements of vacuum deposited thin films [DE93-007579] 10 p3004 N93-28007

Enhanced higher order parametric x radiation production [AD-A262100] 10 p3135 N93-28178

Photoconductivity measurements of x ray absorption fine structures in liquids in the soft x ray region: Si and Cl K-edge [DE93-006670] 10 p2996 N93-28309

Diamond monochromator for high heat flux synchrotron x ray beams [DE93-006799] 10 p3154 N93-28311

Undulator Spectromicroscopy Facility at the Advanced Light Source [DE93-007964] 11 p3261 N93-28490

Adsorption of sulfate on metal electrodes [AD-A263192] 11 p3309 N93-28540

Flash x ray system: Techniques and applications [DE93-011477] 11 p3430 N93-28645

Analysis of an MCG/fuse/PFS experiment [DE93-007355] 11 p3410 N93-29812

X ray microscopy resource center at the Advanced Light Source [DE93-010449] 11 p3261 N93-29869

Proceedings of the Workshop on Application of Circularly Polarized X Rays in the Region of 1 to 8 keV [DE93-704276] 12 p3823 N93-31165

X-15 AIRCRAFT

The X-15/HL-20 operations support comparison [NASA-TM-4453] 12 p3687 N93-32379

X-29 AIRCRAFT

Flight-determined stability analysis of multiple-input-multiple-output control systems [NASA-TM-4416] 02 p0214 N93-11178

Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack [NASA-TM-4417] 02 p0197 N93-11532

A summary of the forebody high-angle-of-attack aerodynamics research on the F-18 and the X-29A aircraft [NASA-TM-104261] 02 p0202 N93-12353

X-29 linear aerodynamic perturbation model [AD-A254810] 03 p0500 N93-12752

NASA aeronautics: Research and technology program highlights [NASA-NP-159] 03 p0491 N93-13110

In-flight flow visualization results from the X-29A aircraft at high angles of attack [NASA-TM-4430] 03 p0493 N93-13322

Flight control system design factors for applying automated testing techniques [NASA-TM-4242] 11 p3260 N93-30764

X-30 VEHICLE

National Aero-Space Plane: Key issues facing the program. Testimony before the Subcommittee on Technology and Competitiveness, Committee on Science, Space, and Technology, House of Representatives [GAO/T-NSIAD-92-26] 03 p0500 N93-13253

An overview of aeroelasticity studies for the National Aerospace Plane [NASA-TM-107728] 08 p2111 N93-23422

Aerospace-plane flights and stratospheric ozone: Review and preliminary assessment of the National Aerospace Plane (NASP) operations [RAND/N-3464-AF] 09 p2767 N93-26327

XANTHINES

NT CAFFEINE

XENON

NT XENON ISOTOPES
NT XENON 129
NT XENON 133
NT XENON 135

Extended-testing of xenon ion thruster hollow cathodes [NASA-CR-189227] 02 p0234 N93-12409

Development of a High Resolution Liquid Xenon Imaging Telescope for Medium Energy Gamma Ray Astrophysics [NASA-CR-191781] 04 p1013 N93-15589

A Monte Carlo analysis of the liquid xenon TPC as gamma ray telescope 04 p1014 N93-15590

A liquid xenon imaging telescope for gamma ray astrophysics: Design and expected performance 04 p1014 N93-15591

Liquid xenon time projection chamber for gamma rays in the MeV region: Development status 04 p1014 N93-15592

A proposed gas release experiment on the ARGOS satellite [AD-A256182] 05 p1206 N93-16017

Electronic excited states as a probe of surface adsorbate structure and dynamics in liquid xenon [DE93-002550] 06 p1482 N93-18411

Generation of ultra-high magnetic fields by a degenerate, snow-plow pinch [DE93-005831] 08 p2493 N93-22869

Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798

Low-pump-rate multi-millisecond atomic xenon laser [DE93-011484] 11 p3437 N93-29180

What is underneath? Moving atoms and molecules to find out [AD-A263363] 11 p3567 N93-29332

XENON CHLORIDE LASERS

Widely tunable gas laser for remote sensing [NASA-CR-190869] 05 p1189 N93-15691

Method and apparatus for generating Fraunhofer line laser source using stimulated Raman scattering [AD-D015579] 07 p1910 N93-20770

Ultraviolet waveguide lasers for phased array lidar [AD-A261657] 09 p2715 N93-26363

Optical and kinetic processes in excimer lasers [AD-A264210] 12 p3733 N93-32402

XENON FLUORIDE LASERS

Optical and kinetic processes in excimer lasers [AD-A264210] 12 p3733 N93-32402

XENON ISOTOPES

NT XENON 129
NT XENON 133
NT XENON 135

Isotope identification of purified xenon and krypton by low-background gamma spectroscopy [DE93-004585] 08 p2217 N93-22339

Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798

XENON 129

Mass spectrometric measurement of Martian krypton and xenon isotopic abundance 11 p3646 N93-28798

XENON 133

Isotope identification of purified xenon and krypton by low-background gamma spectroscopy [DE93-004585] 08 p2217 N93-22339

XENON 135

Isotope identification of purified xenon and krypton by low-background gamma spectroscopy [DE93-004585] 08 p2217 N93-22339

XV-15 AIRCRAFT

Tilt rotor hover aeroacoustics [NASA-CR-177598] 01 p0147 N93-10458

Tiltrotor aircraft noise: A summary of the presentations and discussions at the 1991 FAA/Georgia Tech Workshop [DOT/FAA/RD-91/23] 04 p0974 N93-14912

An improved CAMRAD model for aeroelastic stability analysis of the XV-15 with advanced technology blades [NASA-TM-4448] 08 p2125 N93-22486

XYLOSE

Xylose fermentation to ethanol [DE93-000067] 08 p2244 N93-22929

Y

Y-BA-CU-O SUPERCONDUCTORS

U YBCO SUPERCONDUCTORS

YAG LASERS

Thermo-optical switching in Si based etalons [AD-A253139] 01 p0088 N93-10412

Laser Journal [AD-A254106] 01 p0090 N93-10855

Post flight operation of a high peak power neodymium YAG laser aboard the G-449 payload flown on Space Shuttle Columbia mission 61-C 03 p0508 N93-13161

A study of techniques for single frequency operation of diode-pumped Nd:YAG lasers 03 p0606 N93-13629

Ultrashort-pulse laser system: Theory of operation and operating procedures [AD-A257023] 04 p0887 N93-15472

Backscatter and transmission of aerosol at UV through middle IR wavelengths [AD-A258162] 06 p1540 N93-18008

Transition dynamics and guest-host interactions in laser materials 06 p1543 N93-18470

Laser beam diagnostics for kilowatt power pulsed YAG laser [DE93-002928] 06 p1542 N93-19515

Laser-induced breakdown spectroscopy for remote elemental analysis of planetary surfaces [DE93-003865] 08 p2553 N93-22949

Injection seeded, diode-pumped, short pulse Nd:YAG ring laser for space-based laser ranging 09 p2713 N93-25389

Every good virtue you ever wanted in a Q-switched solid-state laser and more: Monolithic, diode-pumped, self-Q-switched, highly reproducible, diffraction-limited Nd:YAG laser 11 p3442 N93-28772

ND laser with co-doped ion(s) pumped by visible laser diodes [AD-D015711] 11 p3437 N93-29277

Simulation of transient radiation effects on semiconductor devices using a pulsed Q-switched Nd:YAG laser 11 p3357 N93-30230

Intracavity-pumped 2.1 micrometer Ho(3+): YAG laser [AD-D015728] 11 p3441 N93-30587

Cerenkov type phase-matched second harmonic generation in polymeric channel waveguides [AD-A265787] 12 p3710 N93-31801

Cutting parameters with Lasag lasers [DE93-010403] 12 p3732 N93-32288

YAGI ANTENNAS

Planar microstrip YAGI antenna array [NASA-CASE-NPO-17873-2-CU] 11 p3384 N93-29507

YANG-MILLS FIELDS

On the octonionic Nahm equations and self-dual membranes in 9 dimensions [DE93-007974] 10 p3128 N93-26673

YANG-MILLS THEORY

On the octonionic Nahm equations and self-dual membranes in 9 dimensions [DE93-007974] 10 p3128 N93-26673

Nonlinear modes of the tensor Dirac equation and CPT violation 10 p3145 N93-27340

Extended pure Yang Mills gauge theories with scalar and tensor gauge fields [SSCL-PREPRINT-769] 10 p3156 N93-27583

A modified Faddeev-Popov formula and the Gribov ambiguity [SSCL-PREPRINT-750] 10 p3157 N93-28209

Four dimensional quantum gravity: The covariant path integral and quantization of the conformal factor [DE93-008726] 10 p3158 N93-28462

BRST quantization of 2D-Yang Mills theory with anomalies
[NIKHEF-H/92-13] 12 p3831 N93-31122
A note on the Dirac canonical quantization of massive Yang-Mills theory
[DE93-608199] 12 p3813 N93-31460

YARNS
Integral fill yarn insertion and beatup method using inflatable membrane
[NASA-CASE-LAR-14046-1] 06 p1500 N93-18857
Approximating the stress field within the unit cell of a fabric reinforced composite using replacement elements
[NASA-CR-191422] 08 p2211 N93-23877
Advanced fiber/matrix material systems
11 p3305 N93-30854

YAV-8B AIRCRAFT
U HARRIER AIRCRAFT

YAW
LDEF yaw and pitch angle estimates
03 p0524 N93-12772
Detailed near surface flow about yawed, stranded cables
[AD-A257382] 05 p1155 N93-15857
Application of recess vaned casing treatment to axial flow fans 06 p1531 N93-18728
Helicopter low-speed yaw control
[NASA-CASE-LAR-14219-1] 09 p2597 N93-25998
Vehicle dynamic stability and rollover
[PB93-185437] 11 p3447 N93-30828
Advanced aircraft with thrust vector control
[MBB-FE-1-S-PUB-0504] 12 p3678 N93-31043

YAWING MOMENTS
Correlation of forebody pressures and aircraft yawing moments on the X-29A aircraft at high angles of attack
[NASA-TM-4417] 02 p0197 N93-11532
Program for calculation of aileron rolling moment and yawing moment coefficients at subsonic speeds
[ESDU-88040] 04 p0779 N93-14514
Contribution of ventral fins to sideforce and yawing moment derivatives due to sideslip at low angle of attack
[ESDU-92029] 05 p1056 N93-16638
Flight investigation of the effect of tail boom strakes on helicopter directional control
[NASA-TP-3278] 08 p2108 N93-22654

YAWMETERS
U ATTITUDE INDICATORS
U YAW

YBCO SUPERCONDUCTORS
Statics and kinetics of oxygen ordering in the oxide superconductor YBa2Cu3O(z)
[DE92-017001] 01 p0167 N93-10403
Critical currents in polycrystalline YBa2Cu3O(7-x): Self-field and grain size dependence
[DE92-617540] 02 p0459 N93-11076
High frequency response from YBa2Cu3O(7-x) Josephson devices on SrTiO3 bicrystal substrates
[NPL-DES-118] 02 p0459 N93-11394
Frustrated phase separation and high temperature superconductivity
[DE92-019249] 02 p0459 N93-11501
Magnetic properties of high-T(c) superconductors
[DE92-018809] 02 p0460 N93-11533
Flux pinning in oxygen-depleted YBa2Cu3O(7-y) single crystals
[DE92-019548] 02 p0461 N93-11647
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Bi-Ca-Ca-Cu-O
[DE92-017075] 02 p0466 N93-12125
Flux dynamics and irreversibility in YBa2Cu3O7 with Y2BaCuO5 inclusions and in single crystal YBa2Cu3O7
[DE92-009712] 02 p0467 N93-12178
Influence of oxygen partial pressure and silver additions on microstructure and related properties of YBCO superconductors
[DE92-011145] 02 p0468 N93-12249
Conductor-backed coplanar waveguide resonators of Y-Ba-Cu-O and Tl-Ba-Ca-Cu-O on LaAlO3
[NASA-TM-105890] 02 p0469 N93-12325
Electrodeposition of high temperature superconductors
[AD-A255095] 03 p0720 N93-12758
High-temperature deformation and diffusion in oxides
[DE92-019593] 03 p0720 N93-12854
Oxygen deficiencies at defects in YBa2Cu3O(7-delta) as determined by high resolution parallel electron energy loss
[DE92-016301] 03 p0721 N93-13089
Single liquid source plasma enhanced metalorganic chemical vapor deposition of YBa2Cu3O(7-x) thin films
[AD-A254119] 03 p0722 N93-13100
Ion-channeling observation of correlated atomic displacements below Tc in YBa2Cu3O(7-x) and Pb-doped Bi2Sr2CaCu2O(x)
[DE92-018186] 03 p0722 N93-13104
Defects near the Y2BaCuO5/YBa2Cu3O(7-x) interface and their effect on flux-pinning in melt-processed and quench-melt-growth processed YBa2Cu3O(7-x)
[DE92-014463] 03 p0723 N93-13347
Y1Ba2Cu3O(7-delta) thin film dc SQUIDs (superconducting quantum interference device)
[ITN-92-85167] 03 p0723 N93-13362
The heteroepitaxial growth of YBCO and other metal oxides on silicon and GaAs by pulsed laser deposition
03 p0726 N93-13904
Magnetic properties of high-T(sub c) superconductors
03 p0726 N93-13905
Noise measurements of YBa2Cu3O7 thin film high-temperature superconductors
03 p0726 N93-13933
Processing and characterization of electrophoretically deposited holmium barium copper oxide superconductor films
[AD-A256329] 04 p0869 N93-15194
High performance YBCO films
[AD-A255439] 04 p0994 N93-15297
HTS-based switched filter banks and delay lines
[DE92-041146] 05 p1144 N93-15973
High-temperature superconducting current leads
[DE92-040729] 05 p1145 N93-16028
Low-energy physics of high-temperature superconductors
[DE92-040672] 05 p1317 N93-16194
Simulation of vortex-line pinning by defects in the Y-Ba-Cu-O system
[DE92-041185] 05 p1318 N93-16205
Growth and properties of ultrathin YBa2Cu3O7-delta layers
[DE93-001210] 05 p1318 N93-16218
Current transport across grain boundaries in TlBa2Ca2Cu3O(x) thick polycrystalline films and YBa2Cu3O7 step edges
[DE93-000610] 05 p1320 N93-16393
Flux flow microelectronics
[DE93-000756] 05 p1149 N93-17210
EM properties of high Tc superconductors
[AD-A257724] 05 p1151 N93-17699
Processing and fabrication of high temperature oxide superconductors
[AD-A258281] 06 p1671 N93-18125
High performance YBCO films
[AD-A258481] 06 p1672 N93-18313
Three-terminal superconducting device research
[AD-A257907] 06 p1520 N93-18341
The fabrication and performance of YBa2Cu3O(7-x) SQUID magnetometers
[DE93-002561] 06 p1520 N93-18391
Growth and properties of co-evaporated superconducting YBaCuO thin films
[ETN-92-92798] 06 p1673 N93-18441
High-temperature superconducting electronics
06 p1523 N93-18464
Process for applying a superconductive powder to a wide variety of substrates
[NASA-CASE-LAR-14729-1-CU]
06 p1521 N93-19051
Design of high-T(sub c) superconducting bolometers for a far infrared imaging array
[DE93-002564] 06 p1538 N93-19487
Positron annihilation studies of the electronic structure and fermiology of the high-T(sub c) superconductors
[DE93-002982] 06 p1676 N93-19497
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192159] 07 p1890 N93-20572
Properties of aligned YBa2Cu3O(7-delta) superconductor as a function of oxygen deficiency delta
[DE93-001707] 07 p2082 N93-21750
Magnetization and flux pinning in high-Tc cuprates: Irradiated and oxygen deficient materials
[DE93-004169] 07 p2082 N93-21844
Evolution and dynamics of excimer laser vaporized YBa2Cu3O(7-delta) plumes
[DE93-005474] 08 p2500 N93-22342
An experimental investigation of high temperature superconducting microstrip antennas at K- and Ka-band frequencies
[NASA-CR-191089] 08 p2277 N93-22479
Electronic structure studies of YBa2Cu3O(x)(6.2 less than equal to x less than or equal to 6.9) using angle resolved photoemission
[DE93-004811] 08 p2501 N93-22493
Flux pinning structures in melt-processed YBa2Cu3O(7-x)
[DE93-005151] 08 p2501 N93-22497
De Haas van Alphen effect in superconductors in megagauss fields
[DE93-005465] 08 p2277 N93-22540
Design of high-T(sub c) bolometers on silicon membranes for a far infrared imaging array
[DE93-004784] 08 p2303 N93-22706
A comparison of twin boundary pinning in nearly fully stoichiometric and oxygen deficient YBa2Cu3O(7-delta)
[DE93-004854] 08 p2503 N93-22745
Superconductivity and flux pinning in Nd(1+x)Ba(2-x)Cu(3)O(7+delta)
[DE93-004444] 08 p2505 N93-23052
Novel materials synthesis using an intense pulsed ion beam
[DE93-005470] 08 p2506 N93-23314
Enhanced vortex pinning and critical current density in proton-irradiated YBa2Cu3O(7-delta) thin films
[DE93-005367] 08 p2507 N93-23326
A theoretical analysis of the effect of uniaxial elastic strain on the critical temperature of cuprate superconductors
[DE93-005710] 08 p2507 N93-23329
Magnetic anisotropy in the high transition temperature superconductor YBa2Cu3O(7-delta)
08 p2509 N93-23985
Neutron measurements of the vortex lattice in YBa2Cu3O7
[DE93-005417] 08 p2509 N93-24008
High temperature superconducting compounds
[AD-A259926] 08 p2284 N93-24129
Superconductivity devices: Commercial use of space
[NASA-CR-192841] 08 p2513 N93-24483
Studies of microstructure/critical current density relationships for grain boundaries in YBa2Cu3O(7-delta) bicrystals
[DE93-003000] 08 p2513 N93-24512
Studying the kinetics of magnetization in high Tc superconductors
[NASA-CR-192916] 09 p2862 N93-25108
Rheology of YBa2Cu3O(7-x) precursors
[DE93-007285] 09 p2863 N93-25362
Environmental test program for superconducting materials and devices
[DE93-003646] 09 p2864 N93-25506
Aerospace devices for magnetic replicas
[NASA-CR-192958] 09 p2865 N93-25667
Advanced HTS S-N-S devices
[AD-A261552] 09 p2869 N93-26381
Development of superconducting YBa2Cu3O(x) wires with low resistance electrical contacts
10 p2962 N93-27575
Studies of structural damage in high-T(sub c) superconductors by high-energy heavy-ion irradiation
[DE93-005579] 10 p3136 N93-28301
Radiation induced flux pinning in YBa2Cu3O(7-delta) single crystal
[DE93-008823] 10 p3154 N93-28347
Enhancements of the critical currents of YBaCuO single crystals by neutron (n) and proton (p) irradiation
[DE93-007892] 11 p3592 N93-28661
Processing and property evaluation of silver or aluminum matrix YBa2Cu3O(6+x) superconducting materials
[AD-A263382] 11 p3595 N93-29333
Properties of superconducting YBa2Cu3O(6+4) ceramic materials: Effect of processing parameters
[AD-A263441] 11 p3334 N93-29790
Submillimeter and microwave residual losses in epitaxial films of Y-Ba-Cu-O and Tl-Ca-Ba-Cu-O
[DE93-010430] 11 p3596 N93-29868
Energy spectra and photoelectron work function from YBa2Cu3O7 high-T(sub c) superconductor
[DE93-606329] 11 p3600 N93-30766
Superconducting films of YBaCuO
[DE93-606831] 11 p3600 N93-30772
Superconducting flux coupled fast switching device from YBCO films
[AD-A264301] 11 p3414 N93-30896
High temperature superconductivity: Concept, preparation and testing of high T(sub c) superconductor compounds and applications
[DE93-608696] 12 p3827 N93-31077
High temperature superconducting films and multilayers for electronics
[AD-A264410] 12 p3828 N93-31190
Study of improved critical currents and mechanical properties in YBaCuO superconductor with Ag or 211
[AD-A265749] 12 p3829 N93-31804
A study on the development of high T(sub c) superconducting materials
[DE93-606394] 12 p3720 N93-31825
Temperature dependence of the femtosecond optical response in doped high temperature superconductors
[DE93-009514] 12 p3829 N93-31988

YEAST
Biological production of hydrogen
[DE93-002604] 08 p2219 N93-22736
Xylose fermentation to ethanol
[DE93-000067] 08 p2244 N93-22929
Biotechnical production and use of pyruvic acid with special reference to coenzyme regeneration
[VTT-PUBS-77] 08 p2419 N93-23369

Biological production of ethanol from coal
[DE93-008947] 09 p2660 N93-25496

YF-12 AIRCRAFT
The development of aircraft in the Lockheed Skunk Works from 1954 to 1991 10 p2919 N93-27168

YF-16 AIRCRAFT
Human factors causes and management strategies in US Air Force F-16 mishaps 1984-present 06 p1425 N93-19673

YIELD
Synthesis of side chain liquid crystal polymers by living ring opening metathesis polymerization. Report 2: Influence of molecular weight, polydispersity, and flexible spacer length (n=9-12) on the thermotropic behavior of the resulting plymers
[AD-A248700] 02 p0265 N93-11188

YIELD POINT
HPM damage thresholds of GaAs FETs and HEMTs
[AD-A257897] 06 p1520 N93-18420
Laser damage of HR, AR-coatings, monolayers and bare surfaces at 1064 nm
[NASA-CR-192156] 06 p1541 N93-18772
Laser damage in thin film optical coatings
[AD-A259425] 07 p1909 N93-20005
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029
Effect of impacts on CFRP structures, results of a comprehensive test program for practical use 07 p1844 N93-21534
Experimental verification of the theory of plastic moment capacity of an inclined yield line under axial force
[PB93-118792] 07 p1952 N93-21798
Effect of binders on the damage threshold and refractive index of coatings prepared from colloidal suspensions
[DE93-009068] 10 p3007 N93-28431

YIELD STRENGTH
NT LOAD CARRYING CAPACITY
NT MICROYIELD STRENGTH
Damage due to plastic deformation in elastic-plastic materials: The thermodynamical connection 01 p0051 N93-10502
Strength-toughness requirements for thick-walled high pressure vessels
[AD-A253756] 01 p0095 N93-10750
Mechanical properties of 1950's vintage 304 stainless steel weldment components after low temperature neutron irradiation
[DE92-017059] 02 p0259 N93-12107
Processing and properties of NbTi based alloys
[DE92-016692] 02 p0261 N93-12445
Development of weldable high-strength iron aluminides
[DE92-016018] 03 p0542 N93-13190
Elevated temperature tensile properties of borated 304 stainless steel: Effect of boride dispersion on strength and ductility
[DE92-040096] 03 p0542 N93-13302
The response of dispersion-strengthened copper alloys to high fluence neutron irradiation at 415 C
[DE92-019434] 04 p0846 N93-15138
Inelastic deformation of metal matrix composites: Plasticity and damage mechanisms, part 2
[NASA-CR-189096-PT-2] 04 p0837 N93-15401
Progress toward a tungsten alloy wire/high temperature alloy composite turbine blade
[NASA-TM-105901] 04 p0847 N93-15586
Environmentally-controlled fracture of an overstrained A723 steel thick-walled cylinder
[AD-A257303] 05 p1184 N93-16082
Evaluation of 8090 and Weldalite-049 aluminum-lithium alloys
[AD-A258121] 06 p1485 N93-18007
Microstructure and mechanical properties of high copper HSLA-100 steel in 2-inch plate form
[AD-A257582] 06 p1486 N93-18182
Factors influencing the microstructure and mechanical properties of ultra low carbon bainitic 100 tungsten inert gas multipass weldments
[AD-A257853] 06 p1555 N93-18343
Peak stresses in adhesive step lap joints with voids 07 p1932 N93-20656
Plastic mechanism analysis of T-joints in RHS under concentrated force
[PB92-225374] 07 p1946 N93-21029
Optimal bolt preload for dynamic loading
[DE92-017527] 08 p2313 N93-22923
Application of the cyclic J-integral to fatigue crack propagation 10 p2921 N93-27182
Fuzzy sets predict flexural strength and density of silicon nitride ceramics
[NASA-TM-106049] 10 p2991 N93-27270
Stress corrosion evaluation of HP 9Ni-4Co-0.20C steel
[NASA-TP-3384] 10 p3000 N93-28071
Stress corrosion evaluation of HP 9Ni-4Co-0.30C steel plate welds
[NASA-TP-3376] 10 p3001 N93-28253
Bounds on internal state variables in viscoplasticity
[NASA-TM-106215] 11 p3451 N93-29196
Tensile study of single-crystal ternary L1(2) trialuminide Al66Ti25Mn(sub g)
[AD-A264297] 11 p3601 N93-30819
An investigation of squeeze-cast alloy 718
[NASA-TM-108412] 12 p3706 N93-31646

YIG (GARNET)
U YTTRIUM-IRON GARNET

YOUNG MODULUS
U MODULUS OF ELASTICITY

YOUTH
Gateway to diversity in the scientific and technological workforce
[NSF-92-99] 03 p0730 N93-13278
Ventures in science
[DE93-003044] 05 p1331 N93-16521
Pre-college education 08 p2516 N93-23142
Pipeline issues 08 p2517 N93-23148

YTTERBIUM
NT YTTERBIUM ISOTOPES

YTTERBIUM ISOTOPES
Transition probabilities up to l = 36(+)in Yb-160
[DE92-017191] 03 p0703 N93-13114
Ion trap frequency standard research at PTB 09 p2841 N93-25050

YTTRIUM
Plastic deformation behaviour of oxide dispersion strengthened titanium alloys
[ONERA-NT-1990-6] 11 p3326 N93-30138

YTTRIUM COMPOUNDS
NT YTTRIUM OXIDES
NT YTTRIUM-IRON GARNET
Novel Si-YBCuO reactive patterning technique for manufacture of large area high Tc superconducting electronic devices
[AD-A250740] 01 p0073 N93-10426
First-principles studies of phase stability and the structural and dynamical properties of metal hydrides
[DE92-040855] 05 p1104 N93-16589
Effects of composition on sintering of current interconnects in SOFC
[DE93-004837] 10 p3065 N93-27613
Process optimization of Hexoloy SX-SiC towards improved mechanical properties
[DE93-007913] 11 p3320 N93-28564

YTTRIUM OXIDES
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343
Magnetic properties of high-T(c) superconductors
[DE92-018809] 02 p0460 N93-11533
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Laser spectroscopy of rare earth ions 03 p0608 N93-13846
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Material development in the Si3N4 system using glass encapsulated HIP'ing
[DE92-041381] 04 p0837 N93-15388
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Phase diagram effects in rapid thermal processing of REBa2Cu3O(7-delta)
[DE93-004445] 08 p2503 N93-22726
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
Sputter deposition of yttrium-oxides
[DE93-007499] 09 p2654 N93-25382

YTTRIUM-IRON GARNET
Development of garnet films for magnetostatic wave channelized receivers
[AD-A252812] 01 p0166 N93-10335

YUH-60A HELICOPTER
U UH-60A HELICOPTER

YUKAWA POTENTIAL
Radiative electroweak breaking and sparticle spectroscopy with tan(beta) is approximately equal to (m(sub t)) divided by (m(sub b))
[DE93-608399] 12 p3832 N93-31663
Lepton-quark families, cosmic strings and democratic mass matrix
[DE93-608263] 12 p3832 N93-31809
Complex Kohn variational principle for the solution of Lippmann-Schwinger equations
[DE93-609885] 12 p3814 N93-31910

Z

ZAMBIA
Proceedings of the First Seminar on Geographic Information Systems in Zambia
[PB92-207125] 02 p0477 N93-11789

ZEEMAN EFFECT
Output frequency changes in a commercial rubidium clock resulting from magnetic field and microwave power variations
[AD-A256466] 05 p1279 N93-15844
Low temperature transport through a quantum dot: The Anderson model out of equilibrium
[AD-A260184] 08 p2484 N93-24467
Zeeman spin splitting frequency renormalization in disordered interacting electronic systems
[SSCL-PREPRINT-755] 10 p3157 N93-28315

ZENER DIODES
U AVALANCHE DIODES

ZEOLITES
Electron transfer reactions in microporous solids
[DE92-016222] 01 p0166 N93-10284
The First United States Microgravity Laboratory
[NASA-TM-107980] 03 p0557 N93-12951
Structure sensitive reactions over Co, Fe and mixed metal clusters in zeolites
[DE92-040359] 03 p0542 N93-12998
Spaceflight payload design flight experience G-408 03 p0508 N93-13160
Applications for special-purpose minerals at a lunar base 03 p0760 N93-13975
Decomposition of halogenated organic materials by electrified microheterogeneous catalysis
[AD-A257984] 06 p1482 N93-18290
Chemical interactions in multimetal/zeolite catalysts
[DE93-005133] 06 p1484 N93-19491
High performance nanocomposite desiccation materials
[PB93-127025] 08 p2223 N93-24210
Gas separations using ceramic membranes
[DE93-003204] 08 p2225 N93-24498
Gravity-dependent transport phenomena in zeolite crystal growth 09 p2664 N93-25740
Studies on zeolites: Molecular mechanics, framework stability, and crystal growth
[ETN-93-93613] 10 p3152 N93-27935
Zeolite crystal growth and the structure on an atomic scale
[ETN-93-93615] 10 p3153 N93-27936
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Electron transfer reactions in microporous solids
[DE93-011261] 10 p3154 N93-28216
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units
[AD-A262504] 11 p3594 N93-29138
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407
Interactions between tetraalkylammonium ions and silicates
[ETN-93-94057] 12 p3703 N93-31622

ZERO ANGLE OF ATTACK
Transonic flow calculation around NACA-0012 06 p1413 N93-19301

ZERO CROSSINGS
U ROOTS OF EQUATIONS

ZERO GRAVITY
U WEIGHTLESSNESS

ZETA PINCH
A five-channel, diamond photoconducting x ray detector array for z-pinch experiments
[DE92-017345] 01 p0164 N93-10839

ZINC
VUV and UV sources and spectroscopic applications
[AD-A247293] 02 p0291 N93-11758
Effect of zinc and iron ions on the electrochemistry of nickel oxide electrode: Slow cyclic voltammetry
[AD-A263098] 11 p3311 N93-29133

ZINC ALLOYS
Fatigue crack propagation in the presence of shot-peening residual stresses 01 p0059 N93-10542

ZINC COATINGS
The effects of co-mingling dissimilar fastener coatings on the corrosion behavior of steel bolt assemblies
[AD-A258217] 06 p1486 N93-18299

In situ surface studies of conversion coatings for steel and aluminum
[AD-A261016] 09 p2655 N93-25861
The synthesis and ab initio structure determination of Zn4O(BO3)2: A microporous zincoborate built up from fused 3-ring and 5-ring sub-units
[AD-A262504] 11 p3594 N93-29138

ZINC COMPOUNDS
NT WURTZITE
NT ZINC OXIDES
NT ZINC SELENIDES
NT ZINC SULFIDES
NT ZINC TELLURIDES
Tetrahedral atom zincophosphate structures: Synthesis, crystal structure, and spectroscopic studies of (Zn(PO2(OC2H5)2)2)x, a one-dimensional inorganic polymer
[AD-A251051] 02 p0437 N93-11560
Poly(ethylene oxide)-based Zn(2) halide electrolytes
[AD-A258331] 06 p1492 N93-18157
The effect of low molecular weight additives on the properties of poly (ethylene oxide)-based Zn(2) and Li(1) electrolytes
[AD-A258332] 06 p1492 N93-18158
Cathodoluminescence spectroscopy of zinc germanium phosphide ZnGeP2
[AD-A258996] 06 p1674 N93-18892
Frequency conversion of a CO2 laser with ZnGeP2
[PB92-222785] 07 p1911 N93-21016
Tetrahedral-atom 3-ring groupings in one-dimensional inorganic chains: Be2AsO4OH-4H2O and Na2ZnPO4OH-7H2O
[AD-A262670] 10 p3134 N93-28114
Conjugated polymers from cyclohexadienediol monomers
[AD-A264837] 11 p3340 N93-30900

ZINC NICKEL BATTERIES
U NICKEL ZINC BATTERIES

ZINC OXIDES
Nanostructure, defect chemistry and properties of relaxor ferroelectrics
[AD-A247294] 02 p0431 N93-11468
Research on stable, high-efficiency, amorphous silicon multijunction modules
[DE92-010599] 02 p0464 N93-11818
Low-cost CuInSe2 submodule development
[DE92-016438] 05 p1198 N93-17650
Non-H2Se, ultra-thin CIS devices
[DE93-000078] 09 p2759 N93-25253
The determination of the thickness of the film materials by the PIXE method
[DE93-607555] 12 p3823 N93-31090

ZINC SELENIDES
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
IR materials producibility
[AD-A261099] 09 p2853 N93-25766
Synthesis and characterization of mixed 3-5 and 2-6 semiconductor monomers included in the borate sodalite analogue
[AD-A264523] 11 p3598 N93-30407

ZINC SILVER BATTERIES
U SILVER ZINC BATTERIES

ZINC SILVER OXIDE BATTERIES
U SILVER ZINC BATTERIES

ZINC SULFIDES
NT WURTZITE
Polycrystalline thin film materials and devices
[DE93-000022] 05 p1325 N93-17342
Epitaxial ZnS, ZnSe and ZnS-ZnSe superlattices grown on (001)GaAs by pulsed-laser ablation
[DE93-005420] 08 p2505 N93-22976
Monte Carlo simulation of high-field electron transport in alternating-current thin-film electroluminescent devices
[AD-A260274] 08 p2284 N93-24166
Aspects of single crystal and thin film high field electroluminescence 08 p2512 N93-24292
Precipitation hardening of infrared transmitting ZnS ceramics
[AD-A265184] 12 p3710 N93-31993

ZINC TELLURIDES
Excitons in semiconducting superlattices, quantum wells, and ternary alloys
[DE92-015178] 02 p0464 N93-11894
Electronic and optical properties of perfect and imperfect 2 to 6 superlattices 02 p0465 N93-11996
Thin films and solar cells of cadmium telluride and cadmium zinc telluride 03 p0639 N93-13611
Two to six compound thin films by MOCVD for tandem solar cells 03 p0640 N93-13932
Novel ways of depositing ZnTe films by a solution growth technique
[DE92-010591] 05 p1111 N93-16019
High efficiency cadmium telluride and zinc telluride based thin-film solar cells
[DE92-016403] 05 p1195 N93-16448
Fabrication of stable, large-area, thin-film CdTe photovoltaic modules
[DE92-016445] 05 p1195 N93-16516
IR materials producibility
[AD-A257695] 05 p1305 N93-17691
Growth and optical characterization of ZnMnTe grown by molecular beam epitaxy
[DE93-005350] 08 p2505 N93-22974
Study of surface behavior in function of temperature of the quaternary system (Hg, Cd, Zn)Te
[AD-A260968] 09 p2867 N93-26223

ZINC-BROMIDE BATTERIES
Durability of carbon-plastic electrodes for zinc/bromine storage batteries
[DE93-003224] 05 p1151 N93-17465

ZIRCALOYS (TRADEMARK)
Amorphization kinetics of Zr(Cr,Fe)2 under ion irradiation
[DE93-005560] 08 p2230 N93-22943

ZIRCONATES
Oxygen barrier oxides
[AD-A253683] 01 p0036 N93-10343

ZIRCONIA
U ZIRCONIUM OXIDES

ZIRCONIUM
Pulsed-field-gradient NMR investigations of hydrogen diffusion in ZrH(x)
[DE92-014393] 02 p0459 N93-11238
Microstructure, fracture toughness, and strength of (ultra)fine-grained tetragonal zirconic ceramics
[ISBN-90-9003972-4] 05 p1123 N93-16475
Laser diode ignition characteristics of Zirconium Potassium Perchlorate (ZPP) 07 p1865 N93-20145

ZIRCONIUM ALLOYS
NT ZIRCALOYS (TRADEMARK)
Reactions of Ti and Zr with AlN and Al2O3
[DE92-016234] 01 p0028 N93-10391
The effect of silicon, tin, and chromium on the corrosion and mechanical properties of zirconium - molybdenum - niobium
[AD-A254102] 02 p0258 N93-11787
Optimization of film synthesized rare earth transition metal permanent magnet systems
[DE92-018726] 02 p0432 N93-12116
Generalized melting criterion for amorphization
[DE93-005557] 08 p2226 N93-22345
Molecular dynamics simulation of radiation-induced amorphization of the ordered compound NiZr2
[DE93-005558] 08 p2230 N93-22977
Characterization of SAES St198 zirconium-iron-tin alloy
[DE93-005697] 08 p2230 N93-23036
Study on the improvement of the properties of Zr alloys
[DE93-605265] 12 p3706 N93-31827

ZIRCONIUM CARBIDES
Oxidation protection systems for carbon-carbon composites formed by chemical vapor deposition and plasma assisted chemical vapor deposition techniques
[AD-A253450] 01 p0028 N93-10344
Processing and microstructure of Nb-1 percent Zr-0.1 percent C alloy sheet
[NASA-TM-105921] 04 p0847 N93-15524
Low-temperature deposition of ZrC thin films from a single source precursor
[DE93-007333] 08 p2514 N93-24518
Laser diagnostics for NTP fuel corrosion studies 10 p2979 N93-26936
Material science experience gained from the space nuclear rocket program: Insulators
[DE93-006301] 10 p2992 N93-28303

ZIRCONIUM COMPOUNDS
NT ZIRCONATES
NT ZIRCONIUM CARBIDES
NT ZIRCONIUM NITRIDES
NT ZIRCONIUM OXIDES
Alternate electrode materials for the SP100 reactor
[DE92-019570] 03 p0706 N93-12970
Laser Induced Phonons (LIPs) in MBE grown ZnSe
[RSRE-MEMO-4544] 09 p2864 N93-25454

ZIRCONIUM NITRIDES
Design of interfaces in metal matrix composites
[AD-A262052] 11 p3296 N93-29001

ZIRCONIUM OXIDES
Intermediate temperature electrolytes for SOFC
[DE92-018786] 02 p0345 N93-11571
Development of wear resistant ceramic coatings for diesel engine components
[DE92-019068] 02 p0268 N93-11654
Synthesis of nanocrystalline powders for oxide ceramics by microwave plasma pyrolysis
[DE92-017410] 02 p0268 N93-11861
Superplastic forming of ceramic insulation 02 p0228 N93-12452
Thermal barrier coating life prediction model development, phase 2
[NASA-CR-189111] 03 p0544 N93-12589
Hyperfine experimental investigation of zirconia ceramics
[DE92-040301] 04 p0850 N93-14903
Jet vapor deposition of thin films for solid oxide and other fuel cell applications
[DE92-019980] 04 p0851 N93-15222
Analytical and experimental evaluation of joining ceramic oxides to ceramic oxides and ceramic oxides to metal for advanced heat engine applications
[DE92-041383] 04 p0851 N93-15294
Tribology of improved transformation-toughened ceramics-heat engine test
[DE92-041385] 04 p0851 N93-15295
Compaction of submicron and nanocrystalline Al2O3-ZrO2 ceramics
[DE92-040233] 04 p0852 N93-15320
Processing of sinterable transformation toughened ceramics for application in ceramic technology for advanced heat engines project
[DE92-041372] 04 p0853 N93-15453
Nanograin superplasticity in ceramics
[AD-A256643] 05 p1119 N93-15908
Effect of translucence of engineering ceramics on heat transfer in diesel engines
[DE92-041384] 05 p1120 N93-16058
The tetragonal-monoclinic transformations of zirconia studied by small angle neutron scattering and differential thermal analysis
[DE92-040718] 05 p1319 N93-16390
Nucleation in stress-induced tetragonal-monoclinic transformation of constrained zirconia
[DE92-040720] 05 p1319 N93-16391
X ray diffraction and electron microscope studies of Yttria Stabilized Zirconia (YSZ) ceramic coatings exposed to vanadia
[AD-A258055] 05 p1127 N93-17676
Thermal coating development for impulse drying
[DE93-000710] 06 p1491 N93-17909
Stabilized zirconia/CoCrAlY high temperature coating
[AD-D015573] 07 p1859 N93-20276
Microgravity processing of ceramic composites 07 p1809 N93-21115
Oxide protective coatings on carbon composites for medium and high-temperature thermal cycling: New opportunities for the United Europe 07 p1838 N93-21160
Effect of coating-layer thickness on high temperature fatigue strength in thermal-barrier-coated steel 07 p1950 N93-21335
Boundary film for structural ceramic materials
[DE93-004871] 08 p2240 N93-23975
Mechanics and mechanisms of cyclic fatigue-crack propagation in transformation-toughened zirconia ceramics
[DE93-004716] 08 p2330 N93-24051
Recent progress in zirconia-based fuel cells for power generation
[DE93-003488] 08 p2383 N93-24513
Transformation plasticity and fracture behavior of ceria-TZP/alumina composites 09 p2638 N93-25760
High resolution microstructural and microchemical analysis of zirconia eutectic interfaces
[DE93-010971] 10 p3001 N93-28362
The effect of Bi2 O3 on the electrical properties of Zr O2: 3 percent Mg O ceramic solid electrolytes
[DE93-607029] 11 p3339 N93-30774
Tetragonal zirconia ceramics in Zr O2-Ce O2 system (CP): Preparation, characterization, and mechanical properties
[DE93-606833] 12 p3708 N93-31089
Zirconia ceramics and mechanical surface interactions
[ETN-93-94049] 12 p3709 N93-31541

ZODIACAL DUST
Zodiacal emission 03 p0772 N93-13147
The origin and evolution of the zodiacal dust cloud 06 p1704 N93-19148
Metallic atoms and ions in comets: Comet Halley 1986 3 06 p1707 N93-19170

ZODIACAL LIGHT
New meteoroid model predictions for directional impacts on LDEF 11 p3638 N93-29376

ZONAL CIRCULATION
U ZONAL FLOW (METEOROLOGY)

ZONAL FLOW (METEOROLOGY)
Quasigeostrophic vortices in zonal shear
02 p0358 N93-11226
Relationships between continental-scale circulation and rainfall event attributes in the southeastern US
03 p0664 N93-13631
Meso-beta scale numerical simulation studies of terrain-induced jet streak mass/momentum perturbations [NASA-CR-191365] 03 p0654 N93-13719
Nonlinear hydrostatic conditional symmetric instability: Some theoretical and modeling considerations
03 p0655 N93-13757
Model studies of the middle atmosphere of Venus
03 p0759 N93-13831
Results of a zonally truncated three-dimensional model of the Venus middle atmosphere
04 p1037 N93-14351
A model for the formation of the extended paraboloidal halos around some impact craters on Venus
04 p1037 N93-14352
Axial Flow Compressors, volume 2 [VKI-LS-1992-02-VOL-2] 06 p1531 N93-18731
Determination of the zone of the stall cell by means of the baroclinic wave theory 06 p1531 N93-18733
Rotating stall cell and Von Karman vortex street: A meteorological theory 06 p1531 N93-18734
The quasi-biennial oscillation in the middle atmosphere 08 p2397 N93-23965
Kelvin waves in total column ozone [NASA-CR-192984] 09 p2764 N93-25431
The thermal structure, dust loading, and meridional transport in the Martian atmosphere during late southern summer 11 p3651 N93-29616
ZONE MELTING
Excimer laser surface modification: Process and properties [DE93-003726] 08 p2306 N93-22044
ZONE REFINING
U ZONE MELTING
ZOOM LENSES
Automatic Target Recognition (ATR) using Distributed Associative Memories (DAMS) [AD-A265613] 12 p3800 N93-32169
ZOOPLANKTON
How do zooplankton feed? A critical microgravity experiment 07 p1806 N93-21097
Gravity as a factor in the orientation and vertical migration of marine zooplankton
07 p1806 N93-21098
The environmental biogeochemistry of open ocean and partially enclosed marine systems
08 p2413 N93-23130

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994 — 366-467/10190

VOLUME 31 NUMBERS 1-6

Scientific and Technical Aerospace Reports

Abstracts January – June 1993

TABLE OF CONTENTS

STAR Issue	Page
1	1
2	195
3	491
4	777
5	1053
6	1403

VOLUME 31 NUMBERS 7-12

Scientific and Technical Aerospace Reports

Abstracts July – December 1993

TABLE OF CONTENTS

STAR Issue	Page
7	1759
8	2105
9	2573
10	2919
11	3227
12	3671

FEDERAL REGIONAL DEPOSITORY LIBRARIES

ALABAMA

AUBURN UNIV. AT MONTGOMERY LIBRARY
Documents Dept.
7300 University Dr.
Montgomery, AL 36117-3596
(205) 244-3650 Fax: (205) 244-0678

UNIV. OF ALABAMA
Amelia Gayle Gorgas Library
Govt. Documents
Box 870266
Tuscaloosa, AL 35487-0266
(205) 348-6046 Fax: (205) 348-8833

ARIZONA

DEPT. OF LIBRARY, ARCHIVES, AND PUBLIC RECORDS
Federal Documents
Third Floor State Capitol
1700 West Washington
Phoenix, AZ 85007
(602) 542-4121 Fax: (602) 542-4400, 542-4500

ARKANSAS

ARKANSAS STATE LIBRARY
State Library Services
One Capitol Mall
Little Rock, AR 72201
(501) 682-2869

CALIFORNIA

CALIFORNIA STATE LIBRARY
Govt. Publications Section
914 Capitol Mall - P.O. Box 942837
Sacramento, CA 94237-0001
(916) 322-4572 Fax: (916) 324-8120

COLORADO

UNIV. OF COLORADO - BOULDER
Norlin Library
Govt. Publications
Campus Box 184
Boulder, CO 83309-0184
(303) 492-8834 Fax: (303) 492-2185

DENVER PUBLIC LIBRARY
Govt. Publications Dept. BS/GPD
1357 Broadway
Denver, CO 80203
(303) 571-2135

CONNECTICUT

CONNECTICUT STATE LIBRARY
231 Capitol Avenue
Hartford, CT 06106
(203) 566-4971 Fax: (203) 566-3322

FLORIDA

UNIV. OF FLORIDA LIBRARIES
Documents Dept.
Library West
Gainesville, FL 32611-2048
(904) 392-0366 Fax: (904) 392-7251

GEORGIA

UNIV. OF GEORGIA LIBRARIES
Govt. Documents Dept.
Jackson Street
Athens, GA 30602
(404) 542-8949 Fax: (404) 542-6522

HAWAII

UNIV. OF HAWAII
Hamilton Library
Govt. Documents Collection
2550 The Mall
Honolulu, HI 96822
(808) 948-8230 Fax: (808) 956-5968

IDAHO

UNIV. OF IDAHO LIBRARY
Documents Section
Moscow, ID 83843
(208) 885-6344 Fax: (208) 885-6817

ILLINOIS

ILLINOIS STATE LIBRARY
Reference Dept.
300 South Second
Springfield, IL 62701-1796
(217) 782-7596 Fax: (217) 524-0041

INDIANA

INDIANA STATE LIBRARY
Serials/Documents Section
140 North Senate Avenue
Indianapolis, IN 46204
(317) 232-3678 Fax: (317) 232-3728

IOWA

UNIV. OF IOWA LIBRARIES
Govt. Publications Dept.
Washington & Madison Streets
Iowa City, IA 52242
(319) 335-5926 Fax: (319) 335-5830

KANSAS

UNIV. OF KANSAS
Govt. Documents & Map Library
6001 Malatt Hall
Lawrence, KS 66045-2800
(913) 864-4660 Fax: (913) 864-5380

KENTUCKY

UNIV. OF KENTUCKY LIBRARIES
Govt. Publications/Maps Dept.
Lexington, KY 40506-0039
(606) 257-3139 Fax: (606) 257-1563, 257-8379

LOUISIANA

LOUISIANA STATE UNIV.
Middleton Library
Govt. Documents Dept.
Baton Rouge, LA 70803
(504) 388-2570 Fax: (504) 388-6992

LOUISIANA TECHNICAL UNIV.
Prescott Memorial Library
Govt. Documents Dept.
305 Wisteria Street
Ruston, LA 71270-9985
(318) 257-4962 Fax: (318) 257-2447

MAINE

TRI-STATE DOCUMENTS DEPOS.
Raymond H. Fogler Library
Govt. Documents & Microforms Dept.
Univ. of Maine
Orono, ME 04469
(207) 581-1680

MARYLAND

UNIV. OF MARYLAND
Hornbake Library
Govt. Documents/Maps Unit
College Park, MD 20742
(301) 454-3034 Fax: (301) 454-4985

MASSACHUSETTS

BOSTON PUBLIC LIBRARY
Govt. Documents Dept.
666 Boylston Street
Boston, MA 02117
(617) 536-5400 ext. 226
Fax: (617) 267-8273, 267-8248

MICHIGAN

DETROIT PUBLIC LIBRARY
5201 Woodward Avenue
Detroit, MI 48202-4093
(313) 833-1440, 833-1409
Fax: (313) 833-5039

LIBRARY OF MICHIGAN
Govt. Documents Unit
P.O. Box 30007
Lansing, MI 48909
(517) 373-0640 Fax: (517) 373-3381

MINNESOTA

UNIV. OF MINNESOTA
Wilson Library
Govt. Publications Library
309 19th Avenue South
Minneapolis, MN 55455
(612) 624-5073 Fax: (612) 626-9353

MISSISSIPPI

UNIV. OF MISSISSIPPI
J.D. Williams Library
Federal Documents Dept.
106 Old Gym Bldg.
University, MS 38677
(601) 232-5857 Fax: (601) 232-5453

MISSOURI

UNIV. OF MISSOURI - COLUMBIA
Ellis Library
Govt. Documents
Columbia, MO 65201
(314) 882-6733 Fax: (314) 882-8044

MONTANA

UNIV. OF MONTANA
Maureen & Mike Mansfield Library
Documents Div.
Missoula, MT 59812-1195
(406)243-6700 Fax: (406) 243-2060

NEBRASKA

UNIV. OF NEBRASKA - LINCOLN
D.L. Love Memorial Library
Documents Dept.
Lincoln, NE 68588
(402) 472-2562

NEVADA

UNIV. OF NEVADA
Reno Library
Govt. Publications Dept.
Reno, NV 89557
(702) 784-6579 Fax: (702) 784-1751

NEW JERSEY

NEWARK PUBLIC LIBRARY
U.S. Documents Div.
5 Washington Street - P.O. Box 630
Newark, NJ 07101-0630
(201) 733-7812 Fax: (201) 733-5648

NEW MEXICO

UNIV. OF NEW MEXICO
General Library
Govt. Publications Dept.
Albuquerque, NM 87131-1466
(505) 277-5441 Fax: (505) 277-6019

NEW MEXICO STATE LIBRARY
325 Don Gaspar Avenue
Santa Fe, NM 87503
(505) 827-3826 Fax: (505) 827-3820

NEW YORK

NEW YORK STATE LIBRARY
Documents/Gift & Exchange Section
Federal Depository Program
Cultural Education Center
Albany, NY 12230
(518) 474-5563 Fax: (518) 474-5786

NORTH CAROLINA

UNIV. OF NORTH CAROLINA - CHAPEL HILL
CB#3912, Davis Library
BA/SS Dept. - Documents
Chapel Hill, NC 27599
(919) 962-1151 Fax: (919) 962-0484

NORTH DAKOTA

NORTH DAKOTA STATE UNIV. LIB.
Documents Office
Fargo, ND 58105
(701) 237-8886 Fax: (701) 237-7138
In cooperation with Univ. of North Dakota, Chester Fritz Library
Grand Forks

OHIO

STATE LIBRARY OF OHIO
Documents Dept.
65 South Front Street
Columbus, OH 43266
(614) 644-7051 Fax: (614) 752-9178

OKLAHOMA

OKLAHOMA DEPT. OF LIBRARIES
U.S. Govt. Information Div.
200 NE 18th Street
Oklahoma City, OK 73105-3298
(405) 521-2502, ext. 252, 253
Fax: (405) 525-7804

OKLAHOMA STATE UNIV.
Edmon Low Library
Documents Dept.
Stillwater, OK 74078
(405) 744-6546 Fax: (405) 744-5183

OREGON

PORTLAND STATE UNIV.
Millar Library
934 SW Harrison - P.O. Box 1151
Portland, OR 97207
(503) 725-3673 Fax: (503) 725-4527

PENNSYLVANIA

STATE LIBRARY OF PENN.
Govt. Publications Section
Walnut St. & Commonwealth Ave. - P.O. Box 1601
Harrisburg, PA 17105
(717) 787-3752

SOUTH CAROLINA

CLEMSON UNIV.
Cooper Library
Public Documents Unit
Clemson, SC 29634-3001
(803) 656-5174 Fax: (803) 656-3025
In cooperation with Univ. of South Carolina, Thomas Cooper Library, Columbia

TENNESSEE

MEMPHIS STATE UNIV. LIBRARIES
Govt. Documents
Memphis, TN 38152
(901) 678-2586 Fax: (901) 678-2511

TEXAS

TEXAS STATE LIBRARY
United States Documents
P.O. Box 12927 - 1201 Brazos
Austin, TX 78711
(512) 463-5455 Fax: (512) 463-5436

TEXAS TECH. UNIV. LIBRARY
Documents Dept.
Lubbock, TX 79409
(806) 742-2268 Fax: (806) 742-1920

UTAH

UTAH STATE UNIV.
Merrill Library & Learning Resources Center, UMC-3000
Documents Dept.
Logan, UT 84322-3000
(801) 750-2684 Fax: (801) 750-2677

VIRGINIA

UNIV. OF VIRGINIA
Aldermman Library
Govt. Documents
Charlottesville, VA 22903-2498
(804) 824-3133 Fax: (804) 924-4337

WASHINGTON

WASHINGTON STATE LIBRARY
Document Section
MS AJ-11
Olympia, WA 98504-0111
(206) 753-4027 Fax: (206) 753-3546

WEST VIRGINIA

WEST VIRGINIA UNIV. LIBRARY
Govt. Documents Section
P.O. Box 6069
Morgantown, WV 26506
(304) 293-3640

WISCONSIN

ST. HIST. SOC. OF WISCONSIN LIBRARY
Govt. Publications Section
816 State Street
Madison, WI 53706
(608) 262-2781 Fax: (608) 262-4711
In cooperation with Univ. of Wisconsin - Madison, Memorial Library

MILWAUKEE PUBLIC LIBRARY
Documents Div.
814 West Wisconsin Avenue
Milwaukee, WI 53233
(414) 278-2167 Fax: (414) 278-2137

POSTMASTER
Address Correction Requested
(Sections 137 and 159 Post Manual)

National Aeronautics and
Space Administration
Code JTT
Washington, DC 20546-0001

Official Business
Penalty for Private Use, $300

BULK RATE
POSTAGE & FEES PAID
NASA
PERMIT No. G-27